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THE CONCEPTUAL FRAMEWORK
FOR
FINANCIAL ACCOUNTING AND REPORTING
IN THE DEVELOPING COUNTRIES:
EMPIRICAL STUDY OF THE UNIFIED ACCOUNTING SYSTEM IN EGYPT

by

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THE CITY UNIVERSITY BUSINESS SCHOOL
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TABLE OF CONTENTS

PAGE

List of Tables..... 20
List of Figures..... 53
Acknowledgements..... 55
Abstract..... 56

CHAPTER ONE DESCRIPTION OF THE STUDY..... 58

1.1 Introduction..... 60

1.2 Purpose of the Study..... 67

1.3 Why is this Study necessary?..... 68

1.4 Hypotheses:..... 69
1.4.1 Hypotheses related to environmental factors.... 69
1.4.2 Hypotheses related to the structural characteristics of the unified accounting system as a conceptual framework..... 69
1.4.3 Hypothesis related to the suitable approach for establishing accounting systems in developing countries..... 70

1.5 Methodology:..... 70
1.5.1 Research methods:..... 70
1.5.1.1 Theoretical analysis..... 70
1.5.1.2 Empirical investigation..... 71
1.5.2 Field data gathering..... 71
1.5.3 Data analysis techniques..... 71

1.6 Outline of the Study..... 71

TABLE OF CONTENTS

(Continued)

PAGE

CHAPTER TWO THE MEANING AND CHARACTERISTICS OF THE CONCEPTUAL FRAMEWORK FOR FINANCIAL ACCOUNTING AND REPORTING..... 74

2.1 Introduction..... 76

2.2 Structural characteristics:..... 78
2.2.1 Conceptual components:..... 78
2.2.1.1 Objectives of financial reporting..... 78
2.2.1.2 Qualitative characteristics of accounting information..... 85
2.2.1.3 Elements of financial statements..... 90
2.2.2 Operational components:..... 91
2.2.2.1 Recognition criteria..... 91
2.2.2.2 Measurement criteria..... 92
2.2.2.3 Financial reporting..... 94

2.3 Organisational characteristics..... 95
2.3.1 The structure of the responsible body..... 96
2.3.2 The approach of developing the conceptual framework..... 98

2.4 Continuous contemporary (environmental) characteristics..... 102

2.5 Conclusion and the expected benefits of the conceptual framework..... 105

TABLE OF CONTENTS

(continued)

PAGE

CHAPTER THREE THE CHARACTERISTICS OF THE CONCEPTUAL FRAMEWORK FOR FINANCIAL ACCOUNTING AND REPORTING IN DEVELOPING COUNTRIES..... 112

3.1 Introduction..... 114

3.2 What is a developing country?..... 114

3.3 The characteristics of the conceptual framework for financial accounting and reporting in developing countries..... 119

3.3.1 Structural characteristics..... 119

3.3.1.1 Conceptual components:..... 119

3.3.1.1.1 Objectives of financial reporting..... 119

3.3.1.1.2 Qualitative characteristics of accounting information.... 124

3.3.1.1.3 Elements of financial statements..... 127

3.3.1.2 Operational components:..... 128

3.3.1.2.1 Recognition criteria..... 128

3.3.1.2.2 Measurement criteria..... 128

3.3.1.2.3 Financial reporting..... 128

3.3.2 Organisational characteristics..... 135

3.3.2.1 The organisational structure of the accounting profession..... 136

3.3.2.2 The approach of setting accounting standards and regulating accounting practices..... 138

3.3.3 Continuous Contemporary (environmental) characteristics..... 141

3.4 Conclusion..... 146

TABLE OF CONTENTS

(continued)

PAGE

CHAPTER FOUR SUGGESTED MEDICAL MODEL FOR THE IDENTIFICATION AND MANAGEMENT OF ACCOUNTING PROBLEMS IN DEVELOPING COUNTRIES..... 153

4.1 Introduction..... 156

4.2 Studying the accounting problems in developing countries..... 157

4.2.1 Engelmann's study..... 157

4.2.2 Scott's study..... 158

4.2.3 Needles' study..... 160

4.2.4 Seidler's study..... 165

4.2.5 American Accounting Association's studies..... 166

4.2.5.1 Report of the committee on accounting in developing countries..... 166

4.2.5.2 Report of the committee on international accounting operations and education..... 168

4.2.6 Enthoven's studies..... 172

4.2.6.1 Accountancy and economic development policy..... 172

4.2.6.2 Accountancy systems in third world economies..... 174

4.2.7 Holzer and Chandler's study..... 175

4.2.8 Conclusion..... 176

4.3 Suggested medical model for the indentification and management of accounting problems in developing countries..... 180

4.3.1 General medical model for disease regulation and its applicability to accounting problems... 180

TABLE OF CONTENTS
(continued)

PAGE

CHAPTER FOUR (continued)

4.3.1.1 General medical model for disease regulation..... 180
4.3.1.2 The applicability of the general medical model for disease regulation to accounting problems..... 183
4.3.2 Medical model for regulating schizophrenia and its applicability to accounting problems in developing countries..... 185
4.3.2.1 Medical model for regulating schizophrenia..... 185
4.3.2.2 The applicability of the medical model for regulating schizophrenia to accounting problems in developing countries..... 187
4.3.3 Suggested medical model for the identification and management of accounting problems in developing countries..... 193

4.4 Conclusion..... 199

CHAPTER FIVE THE EGYPTIAN ACCOUNTING ENVIRONMENT AS A CASE HISTORY..... 205

5.1 Introduction..... 208

5.2 The economic factors in the Egyptian environment..... 208

TABLE OF CONTENTS
(continued)

PAGE

CHAPTER FIVE (continued)

5.2.1 The main features of the Egyptian economy before 1956..... 209
5.2.2 The second stage 1956 - 1973..... 212
5.2.3 The third stage 1974 - 1982..... 214
5.2.4 Conclusion.....219

5.3 The foreign influence on the Egyptian economy..... 221
5.3.1 The main features of foreign influence before 1956..... 221
5.3.2 The second stage 1956 - 1973..... 223
5.3.3 The third stage 1974 - 1982..... 224
5.3.4 Conclusion..... 225

5.4 The economic and foreign influence on accounting in Egypt..... 227
5.4.1 The influence on accounting before 1956..... 227
5.4.1.1 Accounting legislation..... 227
5.4.1.2 The status of accounting profession.... 230
5.4.1.3 The economic influence..... 233
5.4.1.4 The foreign influence..... 233
5.4.1.5 Conclusion..... 234
5.4.2 The economic and foreign influence on the Egyptian accounting in the period from 1956 to 1973..... 235
5.4.2.1 Accounting legislation..... 235
5.4.2.2 Accounting profession..... 237
5.4.2.3 The economic influence..... 239
5.4.2.4 The foreign influence..... 239
5.4.2.5 Conclusion..... 239

TABLE OF CONTENTS
(continued)

PAGE

CHAPTER FIVE (continued)

5.4.3 The economic and foreign influence on Egyptian accounting in the period from 1974 to 1982..... 240
5.4.3.1 Accounting legislation..... 240
5.4.3.2 Accounting profession..... 240
5.4.3.3 The economic influence..... 241
5.4.3.4 The foreign influence..... 241
5.4.3.5 Conclusion..... 242

5.5 Conclusion..... 243

CHAPTER SIX PRELIMINARY EXAMINATION OF THE EGYPTIAN UNIFIED ACCOUNTING SYSTEM..... 250

6.1 Introduction..... 252

6.2 The organisational characteristics of the Egyptian unified accounting system..... 252
6.2.1 The adopted approach in the preparation of the system..... 253
6.2.2 The structure of the responsible body..... 256

6.3 The structural characteristics of the Egyptian unified accounting system..... 257
6.3.1 Objectives of the system..... 257
6.3.2 Qualitative characteristics of accounting information..... 261
6.3.3 Elements of financial statements..... 263
6.3.4 Recognition criteria..... 267
6.3.5 Measurement criteria..... 269
6.3.6 Financial reporting..... 271

TABLE OF CONTENTS

continued)

PAGE

CHAPTER SIX (continued)

6.3.6.1 Balance sheet..... 271
6.3.6.2 Statement of sources and applications of funds..... 276
6.3.6.3 Current operations account..... 281
6.3.6.4 The production and trading account..... 287
6.3.6.5 The profit and loss account..... 290
6.3.6.6 Cash flow statement..... 294
6.3.6.7 Planning budget..... 299

6.4 Conclusion..... 303

CHAPTER SEVEN PRIMARY INVESTIGATION OF THE EGYPTIAN UNIFIED ACCOUNTING SYSTEM: METHODS..... 308

7.1 Introduction..... 311

7.2 Details of the National Investment Bank in Egypt..... 311
7.2.1 Nature of the National Investment Bank..... 311
7.2.2 Purpose of the National Investment Bank..... 313
7.2.3 Financial resources of the Bank..... 314
7.2.4 The main sectors in the National Investment Bank..... 315
7.2.4.1 Programmes and Policies Sector..... 315
7.2.4.2 Project Sectors: Industrial Sector Agricultural Sector, and Economic Organisations Sector..... 316
7.2.4.3 Financial Sector..... 317
7.2.5 Conclusion..... 318

TABLE OF CONTENTS
(continued)

PAGE

CHAPTER SEVEN (continued)

7.3 Reasons for the selection of the National Investment Bank as a field site..... 319

7.4 Developing the questionnaire..... 322
A - The methods of data collection..... 325
B - The method of approaching the respondents..... 330
C - The build up of question sequences..... 331
D - The order of questions within each question sequence..... 331
E - The use of structured and unstructured questioning (question structure) and the use of precoded or free response questions (response structure)..... 333

7.5 Procedure..... 339
7.5.1 Initial arrangements before starting the empirical work..... 339
7.5.2 Pilot test..... 348
7.5.3 Interviews..... 349
7.5.4 From paper into a file..... 349

7.6 Conclusion..... 350

APPENDICES..... 355

TABLE OF CONTENTS

(continued)

PAGE

CHAPTER EIGHT PRIMARY INVESTIGATION OF THE EGYPTIAN UNIFIED ACCOUNTING SYSTEM: DESCRIPTIVE EMPIRICAL FINDINGS..... 372

8.1 Introduction..... 376

8.2 Level of measurement and statistics used to analyse data..... 377

8.3 Response rate and the respondents' background factors 385
8.3.1 Response rate..... 385
8.3.2 The respondents' background factors..... 387
8.3.2.1 Qualifications..... 387
8.3.2.2 Studying the Egyptian unified accounting system..... 389
8.3.2.3 Managerial position..... 389
8.3.2.4 Working sectors..... 389
8.3.2.5 Conclusion..... 393

8.4 Satisfaction with the structural characteristics of the Egyptian unified accounting system..... 393
8.4.1 Objectives..... 393
8.4.1.1 Degree to which the system meets its main objectives..... 393
8.4.1.2 Respondents' views of the ranking of importance of the different financial statements for serving the purposes of national investment planning and control..... 397
8.4.1.3 Respondents' views of the degree of influence of the different financial statements on national investment planning and control..... 403

TABLE OF CONTENTS
(continued)

PAGE

CHAPTER EIGHT (continued)

8.4.2 Qualitative characteristics of accounting information..... 408
8.4.2.1 Respondents' views of the qualitative characteristics..... 408
8.4.2.2 Respondents' views of the ranking of relevance and reliability of the different financial statements for serving the purposes of national investment planning and control..... 415
8.4.3 Respondents views of the effectiveness of standardised accounting definitions of the elements of financial statements..... 424
8.4.4 Measurement..... 425
8.4.4.1 Percentage of current value accounting information..... 425
8.4.4.2 Perceived importance of current value accounting information..... 427
8.4.4.3 Perceived monetary value of current value accounting information..... 430
8.4.4.4 Bases used by respondents to estimate the monetary value of current value accounting information..... 432
8.4.5 Financial reporting..... 434
8.4.5.1 Respondents' reading of the annual financial statements..... 434
8.4.5.2 Respondents' reading of the annual budget statements..... 436
8.4.5.3 Respondents' views of the usefulness of the statement of sources and applications of funds..... 438

TABLE OF CONTENTS
(continued)

PAGE

CHAPTER EIGHT (continued)

8.4.5.4 Respondents' views of the usefulness of Form No 6: the quantitative and financial analysis of the capital applications at the investment project level..... 441
8.4.5.5 Respondents' views of the usefulness of Form No 6/A: the time distribution of the costs of capital applications..... 443

8.5 The most important problems that affect the usefulness of the provided information and the suggested solutions..... 446
8.5.1 Structural problems..... 446
8.5.1.1 Objectives..... 446
8.5.1.2 Qualitative characteristics of the provided accounting information..... 447
8.5.1.3 Elements of financial statements..... 448
8.5.1.4 Recognition criteria..... 449
8.5.1.5 Measurement criteria 449
8.5.1.6 Financial reporting..... 449
8.5.2 Organisational problems..... 450
8.5.3 Environmental problems..... 451

8.6 Summary..... 453

SUPPLEMENT TO CHAPTER EIGHT..... 458

TABLE OF CONTENTS
(continued)

PAGE

CHAPTER NINE PRIMARY INVESTIGATION OF THE EGYPTIAN UNIFIED ACCOUNTING SYSTEM: INFERENTIAL EMPIRICAL FINDINGS..... 556

9.1 Introduction..... 559

9.2 The decisions involved in choosing a method of analysis..... 561
9.2.1 The correlation analysis as a method for analysing data..... 561
9.2.2 Parametric or Non-Parametric measures of assocation..... 562
9.2.3 Spearman or Kendall's tau rank correlation coefficient..... 563
9.2.4 Kendall's tau a or b or c..... 564

9.3 Analysis of hypotheses: structural characteristics relationships..... 565
9.3.1 Hypotheses concerning the relationship between objectives and the qualitative characteristics of the provided information..... 565
9.3.1.1 Analysis of hypothesis one..... 565
9.3.1.2 Analysis of hypothesis two..... 568
9.3.1.3 Analysis of hypothesis three..... 576
9.3.2 Hypotheses concerning the relationship between objectives and the elements of the different financial statements..... 584
9.3.2.1 Analysis of hypothesis four..... 584
9.3.3 Hypotheses concerning the relationship between objectives and the financial reporting..... 588
9.3.3.1 Analysis of hypothesis five..... 588
9.3.3.2 Analysis of hypothesis six..... 591
9.3.4 Conclusions and discussion..... 594

TABLE OF CONTENTS
(continued)

PAGE

CHAPTER NINE (continued)

9.4 Analysis of hypotheses: structural characteristics interrelationships..... 596
9.4.1 Hypotheses concerning the interrelationships between objectives..... 596
9.4.1.1 Analysis of hypothesis seven..... 596
9.4.1.2 Analysis of hypothesis eight..... 598
9.4.1.3 Analysis of hypothesis nine..... 602
9.4.1.4 Conclusion..... 605
9.4.2 Hypotheses concerning the interrelationships between the qualitative characteristics..... 606
9.4.2.1 Analysis of hypothesis ten..... 606
9.4.2.2 Analysis of hypothesis eleven..... 610
9.4.2.3 Conclusion..... 614
9.4.3 Hypotheses concerning the interrelationships between measurement criteria..... 615
9.4.3.1 Analysis of hypothesis twelve..... 615
9.4.4 Hypotheses concerning the interrelationships between financial reporting..... 618
9.4.4.1 Analysis of hypothesis thirteen..... 618
9.4.4.2 Analysis of hypothesis fourteen..... 618
9.4.4.3 Conclusion..... 620
9.4.5 Conclusions and discussion..... 622

9.5 Analysis of hypotheses: the effect of the background factors..... 624
9.5.1 Analysis of hypothesis fifteen..... 624
9.5.2 Analysis of hypothesis sixteen..... 628
9.5.3 Analysis of hypothesis seventeen..... 629
9.5.4 Analysis of hypothesis eighteen..... 635
9.5.5 Conclusions and discussion..... 636

TABLE OF CONTENTS
(continued)

PAGE

CHAPTER NINE (continued)

9.6 Analysis of hypotheses: controlling for the effects of some background factors..... 640
9.6.1 Analysis of hypothesis nineteen: controlling for the effect of the respondents' qualifications..... 640
9.6.2 Analysis of hypothesis twenty: controlling for the effect of studying the system..... 645
9.6.3 Conclusions and discussion..... 649

9.7 Conclusion..... 651

SUPPLEMENT TO CHAPTER NINE..... 653

CHAPTER TEN TREATMENT AND MANAGEMENT OF THE EGYPTIAN UNIFIED ACCOUNTING SYSTEM PROBLEMS..... 782

10.1 Introduction..... 785

10.2 Summary of the results of the case history and diagnosis processes:..... 785
10.2.1 Summary of the results of the case history process..... 785
10.2.2 Summary of the results of the diagnosis process..... 787
10.2.2.1 Preliminary examination's results... 787
10.2.2.2 Primary investigation's results..... 787

TABLE OF CONTENTS
(continued)

PAGE

CHAPTER TEN (continued)

10.3 Treatment and management of the Egyptian unified accounting system's problems..... 805
10.3.1 Structural problems: self help..... 805
10.3.1.1 Objectives..... 805
10.3.1.2 Qualitative characteristics of information..... 809
10.3.1.3 Elements of financial statements.... 810
10.3.1.4 Recognition criteria..... 811
10.3.1.5 Measurement criteria..... 812
10.3.1.6 Financial reporting..... 812
10.3.2 Organisational problems..... 816
10.3.2.1 The approach adopted in the operation of the system and the responsible body: self help..... 816
10.3.2.2 The organisational structure of the accounting profession: domestic professional help..... 817
10.3.2.3 Organisational status of accounting education: self help..... 819
10.3.2.4 Contradiction between different organisations which control economic units: self help..... 823
10.3.3 Environmental problems..... 823
10.3.3.1 Changing users' needs: self help.... 823
10.3.3.2 International accounting standards: the strategy of "prevention is better than cure"..... 825

10.4 Conclusion..... 828

TABLE OF CONTENTS
(continued)

PAGE

CHAPTER ELEVEN SUMMARY, CONCLUSIONS, RECOMMEDATIONS OF THE STUDY, AND SUGGESTIONS FOR FURTHER RESEARCH..... 834

11.1 Introduction..... 837

11.2 Justification for the proposed research and its objectives..... 837
11.2.1 In the developing countries..... 837
11.2.2 In the Egyptian environment..... 839

11.3 Summary of the methodology..... 840
11.3.1 Theoretical analysis..... 840
11.3.2 Empirical investigation..... 840
11.3.2.1 Decision concerning the selection of a field site..... 841
11.3.2.2 Decision concerning the method of data collection..... 841
11.3.2.3 Decision concerning the techniques of data analysis..... 842

11.4 Summary of the results of the theoretical analysis.. 842
11.4.1 The building blocks of the suggested model... 842
11.4.1.1 The three dimensions of the characteristics of the conceptual framework for financial accounting and reporting..... 842
11.4.1.2 The applicability of the general medical model for disease regulation to accounting problems..... 844
11.4.1.3 The applicability of the medical model for regulating schizophrenia to accounting problems in developing countries..... 845

TABLE OF CONTENTS
(continued)

PAGE

CHAPTER ELEVEN (continued)

11.4.2 Description of the suggested model..... 845
11.4.3 Why does the author recommend the use of this model?..... 846

11.5 Summary of the results of the empirical investigation..... 848

11.6 Suggestions for further research..... 851
11.6.1 In the developing countries..... 851
11.6.2 In Egypt..... 852

BIBLIOGRAPHY..... 854

LIST OF TABLES

TABLE PAGE

2.1 Accounting objectives..... 81

2.2 Qualitative characteristics of accounting information 86

2.3 Criteria for assessment of standards and of accountability..... 89

2.4 Rank order list of means and standard deviations of weightings given to 20 criteria by ASC members..... 89

2.5 Measurement system..... 93

3.1 Extremely important accounting practice problems and their extremely important contrimbuting problems in developing countries..... 126

3.2 Form of accounts: the first issue; certified copies of financial statements are filed by all companies annually with government bodies..... 130

3.3 Form of accounts: the second issue; certified copies of financial statements are filed at least by certain companies annually with government bodies..... 131

3.4 Form of accounts: the third issue; statutory financial statements are prepared in accordance with an official format..... 132

3.5 Comparison of the three issues in the developed and developing countries..... 133

3.6 General financial and economic information..... 144

LIST OF TABLES
(continued)

TABLE **PAGE**

4.1 Implementation matrix for the transfer of accounting technology..... 163

4.2 Extremely important accounting education problems and their extremely important contributing problems in developing countries..... 167

4.3 Comprehensive summary of accounting problems' studies in developing countries..... 179

5.1 The participation of the Open Door Policy's Projects in the Gross Domestic Product distributed among economic activities..... 217

5.2 The main characteristics of the Egyptian economy from 1805 to 1982..... 220

5.3 The participation of the Egyptians and foreigners in the capital of the accepted projects according to Law No 43 of 1974..... 226

5.4 Summary of the economic and foreign influences on accounting in Egypt..... 244

7.1 The size and distribution of implemented fixed investments (1977 - 1981/82)..... 321

7.2 Investment - Saving Balance in the five year plan.... 323

LIST OF TABLES
(continued)

TABLE PAGE

7.3 Relative importance of Investment-Saving Balance in the five year plan..... 324

7.4 Developing the questionnaire..... 341

8.1 Levels of measurement in the questionnaire and statistics used to analyse data..... 380

8.2 Response rate by sector..... 386

8.3 Distribution of the respondents with other qualifications..... 387

8.4 Qualifications..... 388

8.5 Categories of studying the Egyptian unified accounting system..... 390

8.6 Managerial position..... 391

8.7 Working sector..... 392

8.8 Providing information for planning national investment..... 394

8.9 Providing information for controlling national investment..... 395

8.10 Respondents' views of the ranking of importance of the different financial statements for serving national investment planning..... 398

LIST OF TABLES
(continued)

TABLE PAGE

8.11 Respondents' views of the ranking of importance of the different financial statements for serving national investment control..... 399

8.12 Respondents' views of the ranking of importance of the different financial statements for serving national investment planning and control..... 400

8.13 Respondents' views on the degree of influence of the different financial statements on national investment planning..... 404

8.14 Respondents' views on the degree of influence of the different financial statements on national investment control..... 405

8.15 Respondents' views on the degree of influence of the different financial statements on national investment planning and control..... 406

8.16 Respondents' views of the qualitative characteristics of the provided accounting information for planning national investment..... 410

8.17 Respondents' views of the qualitative characteristics of the provided accounting informtion for controlling national investment..... 411

8.18 Respondents' views of the qualitative characteristics of the provided accounting information for planning and controlling national investment..... 412

LIST OF TABLES
(continued)

TABLE PAGE

8.19 Respondents' views of the ranking of relevance of the different financial statements for serving national investment planning..... 417

8.20 Respondents' views of the ranking of relevance of the different financial statements for serving national investment control..... 418

8.21 Respondents' views of the ranking of relevance of the different financial statements for serving national investment planning and control..... 419

8.22 Responents' views of the ranking of reliability of the different financial statements for serving national investment planning..... 420

8.23 Respondents' views of the ranking of reliability of the different financial statements for serving national investment control..... 421

8.24 Respondents' views of the ranking of reliability of the different financial statement for serving national investment planning and control..... 422

8.25 Standardised definitions increased accounting communication..... 426

8.26 Percentage of current value accounting information.. 428

8.27 Importance of current value accounting information.. 429

LIST OF TABLES
(continued)

TABLE PAGE

8.28 Monetary value of current value accounting information..... 431

8.29 Bases for evaluating current value accounting information..... 433

8.30 Respondents' reading of the annual financial statements..... 435

8.31 Respondents' reading of the annual budget statements..... 437

8.32 Respondents' views of the usefulness of the statement of sources and applications of funds..... 440

8.33 Respondents' views ot the usefulness of Form No 6: the quantitative and financial analysis of capital applications..... 442

8.34 Information to analyse the estimated time..... 444

8.35 Information to analyse the suggested investment cost..... 445

S.8.1 Rank of the balance sheet importance for national investment planning..... 459

S.8.2 Rank of the statement of sources and applications of funds importance for national investment planning..... 460

LIST OF TABLES
(continued)

TABLE PAGE

S.8.3 Rank of the current operations account importance for national investment planning..... 461

S.8.4 Rank of the production and trading account importance for national investment planning..... 462

S.8.5 Rank of the profit and loss account importance for national investment planning..... 463

S.8.6 Rank of the cash flow statement importance for national investment planning..... 464

S.8.7 Rank of the balance sheet importance for national investment control..... 465

S.8.8 Rank of the statement of sources and applications of funds importance for national investment control... 466

S.8.9 Rank of the current operations account importance for national investment control..... 467

S.8.10 Rank of the production and trading account importance for national investment control..... 468

S.8.11 Rank of the profit and loss account importance for national investment control..... 469

S.8.12 Rank of the cash flow statement importance for national investment control..... 470

S.8.13 Degree of the balance sheet influence on national investment planning..... 471

LIST OF TABLES
(continued)

TABLE PAGE

S.8.14 Degree of the statement of sources and applications of funds influence on national investment planning..... 472

S.8.15 Degree of the current operations account influence on national investment planning..... 473

S.8.16 Degree of the production and trading account influence on national investment planning..... 474

S.8.17 Degree of the profit and loss account influence on national investment planning..... 475

S.8.18 Degree of the cash flow statement influence on national investment planning..... 476

S.8.19 Degree of the balance sheet influence on national investment control..... 477

S.8.20 Degree of the statement of sources and applications of funds influence on national investment control..... 478

S.8.21 Degree of the current operations account influence on national investment control..... 479

S.8.22 Degree of the production and trading account influence on national investment control..... 480

S.8.23 Degree of the profit and loss account influence on national investment control..... 481

LIST OF TABLES
(continued)

TABLE PAGE

S.8.24 Degree of the cash flow statement influence on national investment control..... 482

S.8.25 Relevance of information for national investment planning..... 483

S.8.26 Predictive value of information for national investment planning..... 484

S.8.27 Feedback value of information for national investment planning..... 485

S.8.28 Timeliness of information for national investment planning..... 486

S.8.29 Necessity of information for national investment planning..... 487

S.8.30 Simplicity of information for national investment planning..... 488

S.8.31 Reliability of information for national investment planning..... 489

S.8.32 Trustworthiness of information for national investment planning..... 490

S.8.33 Accuracy of information for national investment planning..... 491

S.8.34 Conformity of information for national investment planning..... 492

LIST OF TABLES
(continued)

TABLE PAGE

S.8.35 Completeness of information for national investment planning..... 493

S.8.36 Freedom of bias in information for national investment planning..... 494

S.8.37 Comparability of information for national investment planning..... 495

S.8.38 Consistency of information for national investment planning..... 496

S.8.39 Benefits and costs of information for national investment planning..... 497

S.8.40 Materiality of information for national investment planning..... 498

S.8.41 Relevance of information for national investment control..... 499

S.8.42 Predictive value of information for national investment control..... 500

S.8.43 Feedback value of information for national investment control..... 501

S.8.44 Timeliness of information for national investment control..... 502

S.8.45 Necessity of information for national investment control..... 503

LIST OF TABLES
(continued)

TABLE PAGE

S.8.46 Simplicity of information for national investment control..... 504

S.8.47 Reliability of information for national investment control..... 505

S.8.48 Trustworthiness of information for national investment control..... 506

S.8.49 Accuracy of information for national investment control..... 507

S.8.50 Conformity of information for national investment control..... 508

S.8.51 Completeness of information for national investment control..... 509

S.8.52 Freedom of bias in information for national investment control..... 510

S.8.53 Comparability of information for national investment control..... 511

S.8.54 Consistency of information for national investment control..... 512

S.8.55 Benefits and costs of information for national investment control..... 513

S.8.56 Materiality of information for national investment control..... 514

LIST OF TABLES
(continued)

TABLE PAGE

S.8.57 Rank of the balance sheet relevance for national investment planning..... 515

S.8.58 Rank of the statement of sources and applications of funds relevance for national investment planning..... 516

S.8.59 Rank of the current operations account relevance for national investment planning..... 517

S.8.60 Rank of the production and trading account relevance for national investment planning..... 518

S.8.61 Rank of the profit and loss account relevance for national investment planning..... 519

S.8.62 Rank of the cash flow statement relevance for national investment planning..... 520

S.8.63 Rank of the balance sheet relevance for national investment control..... 521

S.8.64 Rank of the statement of sources and applications of funds relevance for national investment control 522

S.8.65 Rank of the current operations account relevance for national investment control..... 523

S.8.66 Rank of the production and trading account relevance for national investment control..... 524

LIST OF TABLES
(continued)

TABLE PAGE

S.8.67 Rank of the profit and loss account relevance for national investment control..... 525

S.8.68 Rank of the cash flow statement relevance for national investment control..... 526

S.8.69 Rank of the balance sheet reliability for national investment planning..... 527

S.8.70 Rank of the statement of sources and applications of funds reliability for national investment planning..... 528

S.8.71 Rank of the current operations account reliability for national investment planning..... 529

S.8.72 Rank of the production and trading account reliability for national investment planning..... 530

S.8.73 Rank of the profit and loss account reliability for national investment planning..... 531

S.8.74 Rank of the cash flow statement reliability for national investment planning..... 532

S.8.75 Rank of the balance sheet reliability for national investment control..... 533

S.8.76 Rank of the statement of sources and applications of funds reliability for national investment control..... 534

LIST OF TABLES
(continued)

TABLE PAGE

S.8.77 Rank of the current operations account reliability for national investment control..... 535

S.8.78 Rank of the production and trading account reliability for national investment control..... 536

S.8.79 Rank of the profit and loss account reliability for national investment control..... 537

S.8.80 Rank of the cash flow statement reliability for national investment control..... 538

S.8.81 Reading pattern of the balance sheet..... 539

S.8.82 Reading pattern of the statement of sources and applications of funds..... 540

S.8.83 Reading pattern of the current operations account. 541

S.8.84 Reading pattern of the production and trading account..... 542

S.8.85 Reading pattern of the profit and loss account.... 543

S.8.86 Reading pattern of the cash flow statement..... 544

S.8.87 Reading pattern of the quantitative budget..... 545

S.8.88 Reading pattern of the financial budget..... 546

S.8.89 Reading pattern of the cash budget..... 547

LIST OF TABLES
(continued)

TABLE PAGE

S.8.90 Information to analyse capital transfer and capital investment..... 548

S.8.91 Information to analyse projects in progress and gross capital formation..... 549

S.8.92 Information to analyse internal financing and external financing..... 550

S.8.93 Information to analyse local and foreign sources and applications of funds..... 551

S.8.94 Information to analyse liquid resources..... 552

S.8.95 Information to analyse the budgeted cost of investment..... 553

S.8.96 Information to analyse financial resources..... 554

S.8.97 Information to analyse methods of payment..... 555

9.1 Correlation coefficient of the scales measuring the respondents' satisfaction with the objectives (planning and control) and their views of the qualitative characteristics of the provided information according to the system..... 567

9.2 Percentages of agreement among respondents concerning ranking of importance, relevance, and reliability of the different financial statements for serving planning and controlling purposes..... 570

LIST OF TABLES
(continued)

TABLE **PAGE**

9.3 Correlation coefficients of the respondents' views of the ranking of importance of the different financial statements for planning purpose and their views of the ranking of relevance of the statements for the same purpose..... 571

9.4 Correlation coefficients of the respondents' views of the ranking of importance of the financial statements for planning purpose and their views of the ranking of reliability of the statements for the same purpose..... 572

9.5 Correlation coefficients of the respondents' views of the ranking of importance of the different financial statements for control purpose and their views of the ranking of relevance of the statements for the same purpose..... 573

9.6 Correlation coefficients of the respondents' views of the ranking of importance of the different financial statements for control purpose and their views of the ranking of reliability of the statements for same purpose..... 574

9.7 Percentages of agreement among respondents concerning the degree of influence, ranking of relevance, and reliability of the different financial statements for serving planning and control purposes..... 578

LIST OF TABLES
(continued)

TABLE **PAGE**

9.8 Correlation coefficients of the respondents' views of the degree of influence of the different financial statements on national investment planning and their views of the ranking of relevance of the statements for the same purpose..... 579

9.9 Correlation coefficients of the respondents' views of the degree of influence of the different financial statements on national investment planning and their views of the ranking of reliability of the statements for the same purpose..... 580

9.10 Correlation coefficients of the respondents' views of the degree of influence of the different financial statements on national investment control and their view of the ranking of relevance of the statements for the same purpose..... 581

9.11 Correlation coefficients of the respondents' views of the degree of influence of the different financial statements on national investment control and their views of the ranking of reliability of the statements for the same purpose..... 582

9.12 Crosstabulation of Planinfo 'provide information for planning national investment' by Infocomm 'standardised definitions increased accounting communication'..... 585

9.13 Crosstabulation of Continfo 'provide information for controlling national investment' by Infocomm 'standardised definitions increased accounting communications'..... 586

LIST OF TABLES
(continued)

TABLE PAGE

9.14 Percentages of agreement among respondents' concerning the ranking of importance of the different financial statements and their pattern of reading..... 590

9.15 Percentages of agreement among respondents concerning the degree of influence of the different financial statements and their pattern of reading... 592

9.16 Crosstabulation of Planinfo 'provide information for planning national investment' by Continfo 'provide information for controlling national investment'..... 597

9.17 Percentages of agreement among respondents concerning ranking of importance of the different financial statements for serving planning and controlling purposes..... 599

9.18 Correlation coefficients of the respondents' views of the ranking of importance of the different financial statements for serving planning purpose and their views of this ranking for serving control purpose..... 600

9.19 Percentages of agreement among respondents concerning the degree of influence of the different financial statements on national investment planning and control..... 603

LIST OF TABLES
(continued)

TABLE PAGE

9.20 Correlation coefficients of the respondents' views of the degree of influence of the different financial statements on national investment planning and their views of the influence of these statements on national investment control..... 604

9.21 Correlation coefficients of the scales measuring the qualitative characteristics of the provided information useful for planning national investment. 607

9.22 Correlation coefficients of the scales measuring the qualitative characteristics of the provided information useful for controlling national investment..... 608

9.23 Percentages of agreement among respondents concerning ranking of relevance and reliability of the different financial statements for serving planning and controlling purposes..... 611

9.24 Correlation coefficients of the respondents' views of the ranking of relevance of the different financial statements for serving planning purpose and their views of the ranking of reliability of these statements for the same purpose..... 612

9.25 Correlation coefficients of the respondents' views of the ranking of relevance of the different financial statements for serving control purpose and their views of the ranking of reliability of these statements for the same purpose..... 613

LIST OF TABLES
(continued)

TABLE PAGE

9.26 Crosstabulation of Imcvinfo 'importance of current value accounting information' by Macvinfo 'monetary value of current value accounting information'..... 616

9.27 Correlation coefficients of the scales measuring the the respondents' satisfaction with the usefulness of the provided information in Form No 6 and the statement of sources and applications of funds..... 619

9.28 Correlation coefficients of the scales measuring the respondents' satisfaction with the usefulness of the provided information in Form No 6/A and the statement of sources and applications of funds..... 621

9.29 Mann-Whitney U test results of examining the statistical significance of the differences in the pattern of reading of the different financial statements according to the qualifications..... 626

9.30 Mann-Whitney U test results of examining the statistical significance of the differences in the pattern of reading of the different budget statements according to the qualifications..... 627

9.31 Mann-Whitney U test results of examining the statistical significance of the differences in the pattern of reading of the different financial statements according to the management position..... 630

LIST OF TABLES
(continued)

TABLE **PAGE**

9.32 Mann-Whitney U test results of examining the statistical significance of the differences in the pattern of reading of the different budget statements according to the management position..... 631

9.33 Kruskal-Wallis test results of examining the statistical significance of the differences in the pattern of reading of the different financial statements according to categories of studying the system..... 633

9.34 Kruskal-Wallis test results of examining the statistical significance of the differences in the pattern of reading of the different budget statements according to categories of studying the system..... 634

9.35 Kruskal-Wallis test results of examining the statistical significance of the differences in the pattern of reading of the different financial statements according to the working sector in the bank..... 637

9.36 Kruskal-Wallis test results of examining statistical significance of the differences in the pattern of reading of the different budget statements according to the working sector in the bank..... 638

9.37 Correlation coefficients of the relationship between Planinfo and the qualitative characteristics of the provided information before and after controlling for the effect of qualifications..... 642

LIST OF TABLES
(continued)

TABLE PAGE

9.38 Correlation coefficients of the relationship between Continfo and the qualitative characteristics of the provided information before and after controlling for the effect of qualifications..... 643

9.39 Correlation coefficients of the relationship between Planinfo and the qualitative characteristics before and after controlling for categories of studying the system..... 647

9.40 Correlation coefficients of the relationship between Continfo and the qualitative characteristics before and after controlling for categories of studying the system..... 648

S.9.1 Crosstabulation of Planinfo 'provide information for national investment planning' by Prelevan 'relevance of information for national investment planning'..... 654

S.9.2 Crosstabulation of Planinfo 'provide information for planning national investment' by Ppredval 'predictive value of information for national investment planning'..... 655

S.9.3 Crosstabulation of Planinfo 'provide information for planning national investment' by Pfeedbac 'feedback value of information for national investment planning'..... 656

LIST OF TABLES
(continued)

TABLE PAGE

S.9.4 Crosstabulation of Planinfo 'provide information for national investment planning' by Pwelltim 'Timeliness of information for national investment planning'..... 657

S.9.5 Crosstabulation of Planinfo 'provide information for national investment planning by Pnecessa 'necessity of information for national investment planning'..... 658

S.9.6 Crosstabulation of Planinfo 'provide information for national investment planning' by Psimple 'simplicity of information for national investment planning'..... 659

S.9.7 Crosstabultion of Planinfo 'provide information for national investment planning' by Preliabl 'reliability of information for national investment planning'..... 660

S.9.8 Crosstabulation of Planinfo 'provide informtion for national investment planning' by Ptrusty 'trustworthiness of information for national investment planning'..... 661

S.9.9 Crosstabulation of Planinfo 'provide information for national investment planning' by Paccurat 'accuracy of information for national investment planning'..... 662

LIST OF TABLES
(continued)

TABLE PAGE

S.9.10 Crosstabulation of Planinfo 'provide information for national investment planning' by Pconform 'conformity of information for national investment plannng'..... 663

S.9.11 Crosstabulation of Planinfo 'provide information for national investment planning' by Pcomplet 'completeness of information for national investment planning'..... 664

S.9.12 Crosstabulation of Planinfo 'provide information for national investment planning' by Pbiased 'freedom of bias in information for national investment planning'..... 665

S.9.13 Crosstabulation of Planinfo 'provide information for national investment planning' by Pcompare 'comparability of information for national investment planning'..... 666

S.9.14 Crosstabulation of Planinfo 'provide information for national investment planning' by Pconsist 'consistency of information for national investment planning..... 667

S.9.15 Crosstabulation of Planinfo 'provide information for national investment planning' by Pbencost 'benefits and costs of information for national investment planning'..... 668

LIST OF TABLES
(continued)

TABLE PAGE

S.9.16 Crosstabulation of Planinfo 'provide information for national investment planning' by Pmateria 'materiality of information for national investment planning..... 669

S.9.17 Crosstabulation of Continfo 'provide information for national investment control' by Crelevan 'relevance of information for national investment control'..... 670

S.9.18 Crosstabulation of Continfo 'provide information for national investment control' by Cpredval 'predictive value of information for national investment control'..... 671

S.9.19 Crosstabulation of Continfo 'provide information for national investment control' by Cfeedbac 'feedback value of information for national investment control'..... 672

S.9.20 Crosstabulation of Continfo 'provide information for national investment control' by Cwelltim 'Timeliness of information for national investment control'..... 673

S.9.21 Crosstabulation of Continfo 'provide information for national investment control' by Cnecessa 'necessity of information for national investment control'..... 674

LIST OF TABLES
(continued)

TABLE **PAGE**

S.9.22 Crosstabulation of Continfo 'provide information for national investment control' by Csimple 'simplicity of information for national investment control'..... 675

S.9.23 Crosstabulation of Continfo 'provide information for national investment control' by Creliable 'reliability of information for national investment control'..... 676

S.9.24 Crosstabulation of Continfo 'provide information for national investment control' by Ctrusty 'trustworthiness of information for national investment control'..... 677

S.9.25 Crosstabulation of Continfo 'provide information for national investment control' by Caccurat 'accuracy of information for national investment control'..... 678

S.9.26 Crosstabulation of Continfo 'provide information for national investment control' by Cconform 'conformity of information for national investment control'..... 679

S.9.27 Crosstabulation of Continfo 'provide information for national investment control' by Ccomplet 'completeness of information for national investment control'..... 680

LIST OF TABLES
(continued)

TABLE PAGE

S.9.28 Crosstabulation of Continfo 'provide information for national investment control' by Cbiased 'freedom of bias in information for national investment control'..... 681

S.9.29 Crosstabulation of Continfo 'provide information for national investment control' by Ccompare 'comparability of information for national investment control'..... 682

S.9.30 Crosstabulation of Continfo 'provide information for national investment control' by Cconsist 'consistency of information for national investment control'..... 683

S.9.31 Crosstabulation of Continfo 'provide information for national investment control' by Cbencost 'benefits and costs of information for national investment control'..... 684

S.9.32 Crosstabulation of Continfo 'provide information for national investment control' by Cmateria 'materiality of information for national investment control'..... 685

S.9.33 Crosstabulation of RANKBSPL by RELVBSPL..... 686

S.9.34 Crosstabulation of RANKSAPL by RELVSAPL..... 687

S.9.35 Crosstabulation of RANKCOPL by RELVCOPL..... 688

S.9.36 Crosstabulation of RANKPTPL by RELVPTPL..... 689

LIST OF TABLES
(continued)

TABLE PAGE

S.9.37 Crosstabulation of RANKPLPL by RELVPLPL..... 690

S.9.38 Crosstabulation of RANKCSPL by RELVCSPL..... 691

S.9.39 Crosstabulation of RANKBSPL by RELIBSPL..... 692

S.9.40 Crosstabulation of RANKSAPL by RELISAPL..... 693

S.9.41 Crosstabulation of RANKCOPL by RELICOPL..... 694

S.9.42 Crosstabulation of RANKPTPL by RELIPTPL..... 695

S.9.43 Crosstabulation of RANKPLPL by RELIPLPL..... 696

S.9.44 Crosstabulation of RANKSCPL by RELISCPL..... 697

S.9.45 Crosstabulation of RANKBSCO by RELVBSCO..... 698

S.9.46 Crosstabulation of RANKSACO by RELVSACO..... 699

S.9.47 Crosstabulation of RANKCOCO by RELVCOCO..... 700

S.9.48 Crosstabulation of RANKPTCO by RELVPTCO..... 701

S.9.49 Crosstabulation of RANKPLCO by RELVPLCO..... 702

S.9.50 Crosstabulation of RANKCSCO by RELVCSCO..... 703

S.9.51 Crosstabulation of RANKBSCO by RELIBSCO..... 704

S.9.52 Crosstabulation of RANKSACO by RELISACO..... 705

LIST OF TABLES
(continued)

TABLE PAGE

S.9.53 Crosstabulation of RANKCOCO by RELICOCO..... 706

S.9.54 Crosstabulation of RANKPTCO by RELIPTCO..... 707

S.9.55 Crosstabulation of RANKPLCO by RELIPLCO..... 708

S.9.56 Crosstabulation of RANKCSCO by RELICSCO..... 709

S.9.57 Crosstabulation of INFLBSPL by RELVBSPL..... 710

S.9.58 Crosstabulation of INFLSAPL by RELVSAPL..... 711

S.9.59 Crosstabulation of INFLCOPL by RELVCOPL..... 712

S.9.60 Crosstabulation of INFLPTPL by RELVPTPL..... 713

S.9.61 Crosstabulation of INFLPLPL by RELVPLPL..... 714

S.9.62 Crosstabulation of INFLCSPL by RELVCSPL..... 715

S.9.63 Crosstabulation of INFLBSPL by RELIBSPL..... 716

S.9.64 Crosstabulation of INFLSAPL by RELISAPL..... 717

S.9.65 Crosstabulation of INFLCOPL by RELICOPL..... 718

S.9.66 Crosstabulation of INFLPTPL by RELIPTPL..... 719

S.9.67 Crosstabulation of INFLPLPL by RELIPLPL..... 720

S.9.68 Crosstabulation of INFLCSPL by RELICSPL..... 721

LIST OF TABLES
(continued)

TABLE PAGE

S.9.69 Crosstabulation of INFLBSCO by RELVBSCO..... 722

S.9.70 Crosstabulation of INFLSACO by RELVSACO..... 723

S.9.71 Crosstabulation of INFLCOCO by RELVCOCO..... 724

S.9.72 Crosstabulation of INFLPTCO by RELVPTCO..... 725

S.9.73 Crosstabulation of INFLPLCO by RELVPLCO..... 726

S.9.74 Crosstabulation of INFLCSCO by RELVCSCO..... 727

S.9.75 Crosstabulation of INFLBSCO by RELIBSCO..... 728

S.9.76 Crosstabulation of INFLSACO by RELISACO..... 729

S.9.77 Crosstabulation of INFLCOCO by RELICOCO..... 730

S.9.78 Crosstabulation of INFLPTCO by RELIPTCO..... 731

S.9.79 Crosstabulation of INFLPLCO by RELIPLCO..... 732

S.9.80 Crosstabulation of INFLCSCO by RELICSCO..... 733

S.9.81 Crosstabulation of RANKBSPL by READBASH..... 734

S.9.82 Crosstabulation of RANKSAPL by READSSAF..... 735

S.9.83 Crosstabulation of RANKCOPL by READCOST..... 736

S.9.84 Crosstabulation of RANKPTPL by READPRTR..... 737

LIST OF TABLES
(continued)

TABLE PAGE

S.9.85 Crosstabulation of RANKPLPL by READPRLO..... 738

S.9.86 Crosstabulation of RANKCSPL by READCAST..... 739

S.9.87 Crosstabulation of RANKBSCO by READBASH..... 740

S.9.88 Crosstabulation of RANKSACO by READSSAF..... 741

S.9.89 Crosstabulation of RANKCOCO by READCOST..... 742

S.9.90 Crosstabulation of RANKPTCO by READPRTR..... 743

S.9.91 Crosstabulation of RANKPLCO by READPRLO..... 744

S.9.92 Crosstabulation of RANKCSCO by READCAST..... 745

S.9.93 Crosstabulation of INFLBSPL by READBASH..... 746

S.9.94 Crosstabulation of INFLSAPL by READSSAF..... 747

S.9.95 Crosstabulation of INFLCOPL by READCOST..... 748

S.9.96 Crosstabulation of INFLPTPL by READPRTR..... 749

S.9.97 Crosstabulation of INFLPLPL by READPRLO..... 750

S.9.98 Crosstabulation of INFLCSPL by READCAST..... 751

S.9.99 Crosstabulation of INFLBSCO by READBASH..... 752

S.9.100 Crosstabulation of INFLSACO by READSSAF..... 753

LIST OF TABLES
(continued)

TABLE PAGE

S.9.101 Crosstabulation of INFLCOCO by READCOST..... 754

S.9.102 Crosstabulation of INFLPTCO by READPRTR..... 755

S.9.103 Crosstabulation of INFLPLCO by READPRLO..... 756

S.9.104 Crosstabulation of INFLCSCO by READCAST..... 757

S.9.105 Crosstabulation of RANKBSPL by RANKBSCO..... 758

S.9.106 Crosstabulation of RANKSAPL by RANKSACO..... 759

S.9.107 Crosstabulation of RANKCOPL by RANKCOCO..... 760

S.9.108 Crosstabulation of RANKPTPL by RANKPTCO..... 761

S.9.109 Crosstabulation of RANKPLPL by RANKPLCO..... 762

S.9.110 Crosstabulation of RANKCSPL by RANKCSCO..... 763

S.9.111 Crosstabulation of INFLBSPL by INFLBSCO..... 764

S.9.112 Crosstabulation of INFLSAPL by INFLSACO..... 765

S.9.113 Crosstabulation of INFLCOPL by INFLCOCO..... 766

S.9.114 Crosstabulation of INFLPTPL by INFLPTCO..... 767

S.9.115 Crosstabulation of INFLPLPL by INFLPLCO..... 768

S.9.116 Crosstabulation of INFLCSPL by INFLCSCO..... 769

LIST OF TABLES
(continued)

TABLE PAGE

S.9.117 Crosstabulation of RELVBSPL by RELIBSPL..... 770

S.9.118 Crosstabulation of REVLSAPL by RELISAPL..... 771

S.9.119 Crosstabulation of RELVCOPL by RELICOPL..... 772

S.9.120 Crosstabulation of RELVPTPL by RELIPTPL..... 773

S.9.121 Crosstabulation of RELVPLPL by RELIPLPL..... 774

S.9.122 Crosstabulation of RELVCSPL by RELICSPL..... 775

S.9.123 Crosstabulation of RELVBSCO by RELIBSCO..... 776

S.9.124 Crosstabulation of RELVSACO by RELISACO..... 777

S.9.125 Crosstabulation of RELVCOCO by RELICOCO..... 778

S.9.126 Crosstabulation of RELVPTCO by RELIPTCO..... 779

S.9.127 Crosstabulation of RELVPLCO by RELICSCO..... 780

S.9.128 Crosstabulation of RELVCSCO by RELICSCO..... 781

10.1 A summary of the main results of the descriptive and inferential analysis..... 788

10.2 Index of disclosure..... 814

LIST OF FIGURES

FIGURE **PAGE**

2.1 The characteristics of the conceptual framework for financial accounting and reporting..... 79

2.2 Standard setting process's flowchart (ASC)..... 99

2.3 Statement setting process's flowchart (FASB)..... 100

4.1 Framework for the international transfer of accounting technology..... 161

4.2 A morphology for comparative accounting systems..... 170

4.3 A system view of the accounting establishment in developing countries..... 177

4.4 The main processes of the general medical model for disease regulation..... 182

4.5 The applicability of the general medical model for disease regulation to accounting problems..... 184

4.6 The main processes of the medical model for regulating schizophrenia..... 188

4.7 Suggested medical model for the identification and management of accounting problems in developing countries..... 195

6.1 Organisation chart of the unified accounting system preparation process..... 254

LIST OF FIGURES
(continued)

FIGURE PAGE

6.2 Framework of the chart of accounts..... 266

6.3 Balance sheet..... 272

6.4 Statement of sources and applications of funds..... 278

6.5 Current operations account..... 283

6.6 Production and trading account..... 288

6.7 Profit and loss account..... 291

6.8 Distribution account..... 293

6.9 Cash flow statement..... 295

6.10 Form No 6 - Physical and financial analysis of capital uses at the investment project level..... 301

6.11 Form No 6/A - Time distribution of capital uses costs..... 302

7.1 Techniques used in developing the questionnaire..... 340

10.1 Hierarchy of parties with respect to utility under the purposive uniformity model..... 808

10.2 The purposive uniformity model..... 824

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ABSTRACT

In most developing countries there has been an uncritical acceptance of foreign accounting methods without taking into consideration their unique environmental needs. This situation has created chaotic practices and confusion in operations and procedures in these countries (accounting schizophrenia). Recently, some of these countries have rushed to apply international accounting standards, also without considering their individual circumstances. The basic premise on which the research rests is that this situation can not be allowed to presist. There exists a critical need for a model for identifying and managing accounting problems in developing countries.

The building blocks of the suggested model are: (i) the three dimensions of the characteritics of the conceptual framework for financial accounting and reporting (structural, organisational, and environmental), (ii) the applicability of the general medical model for disease regulation to accounting problems, and (iii) the applicability of the medical model for regulating schizophrenia to accounting problems in developing countries, having taken into consideration that accounting practices in these countries suffer from the two main symptoms (thought insertion or substitution, and will taken over and controlled by external forces) of the central syndrome of schizophrenia as a result of adherence to various foreign accounting influences. The proposed model comprised three interconnected processes: (i) case history, (ii) diagnosis which consists of preliminary examination and primary investigation, and (iii) treatment and management. It has the following advantagious characteristics: it is inductive and deductive, democratic and autocratic, comprehensive, systematic, dynamic, and finally descriptive and prescriptive.

It is believed by this writer that the attempt to develop the model should be accompanied by empirical study concerns with testing its applicability. The empirical study will be conducted in one of the developing countries, Egypt, because of the factors which will be discussed later. It has become apparent from the case history review that Egyptian accounting practices in the first studied period (from 1805 to 1956) suffered from accounting schizophrenia. In 1966, there was positive step for development with the issuing of the Egyptian unified accounting system which represents a reliable body of specialised knowlege for both the producers and users of accounting information. But there has been a long debate about the problems of the system because there is no diagnosis of them by empirical methods. Data for diagnosis process were collected through personal interview

by structured questionnaire in the National Investment Bank in Egypt as a user of the information provided by the system. Statistical analysis of the data revealed that the system does work but it suffers from some problems which affect the usefulness of the provided information. These problems have been classified into three categories: structural, organisational, and environmental. Many of them are believed to result from important causes deeply rooted in human elements. The treatment must start from this key problem; human elements. Since 1974, the Open Door Policy has been adopted and there are many new foreign pressure groups. The rush step towards the adoption of international accounting standards may cause the recurrence of accounting schizophrenia. In order to avoid this recurrence the strategy of 'prevention is better than cure' must be followed.

CHAPTER ONE

Chapter One

Description of the Study

1.1 Introduction

1.2 Purpose of the Study

1.3 Why is this Study necessary?

1.4 Hypotheses:

- 1.4.1 Hypotheses related to environmental factors
- 1.4.2 Hypotheses related to the structural characteristics of the unified accounting system as a conceptual framework
- 1.4.3 Hypothesis related to the suitable approach for establishing accounting systems in developing countries

1.5 Methodology:

- 1.5.1 Research methods:
  - 1.5.1.1 Theoretical analysis
  - 1.5.1.2 Empirical investigation
- 1.5.2 Field data gathering
- 1.5.3 Data analysis techniques

1.6 Outline of the Study

Chapter One

Description of the Study

1.1 Introduction

In the early 1970s academicians and practitioners began to focus attention on the development of a conceptual framework for financial accounting and reporting, and this is still seen by both groups as having a high priority.

In the United Kingdom, in Watts Report "Setting Accounting Standards: a consultative document" - which was published by the Accounting Standard Committee in September 1978 - there is recognition that the Accounting Standard Committee (ASC) is frequently criticised for failing to develop an "agreed conceptual framework" on which a logical series of Statements of Standard Accounting Practices (SSAPs) could be based (para. 7.1).

Following the publication of Watts Report, the Institute of Chartered Accountants of Scotland's Accounting Standards Review Committee recommended that:

(a) ASC should devote a considerable part of its resources in the immediate future to the question of a conceptual framework rather than continue to produce standards which have no theoretical underpinning.

(b) Once the conceptual framework exists, standards formulated in accordance with the framework should be concerned with eliminating unacceptable treatments and indicating the recommended method of achieving a true and fair view of profit and state of affairs.

In April 1979 a Memorandum was submitted to the ASC by the Institute of Chartered Accountants in England and Wales in response to Watts Report. In this Memorandum the Institute accepted that such a framework, if it could be made sufficiently comprehensive, would remove the risk of conceptual conflicts arising between one SSAP and another. Indeed, without the framework the development of some SSAPs might be delayed, or prove more contentious than would otherwise be the case. The Institute has also sponsored a preliminary study for the ASC by Professor Richard Macve on the development of a conceptual framework.

In Professor Macve's study prepared at the request of ASC about "The Possibilities for Developing an Agreed Conceptual Framework for Financial Accounting and Reporting", he mentioned that there is controversy concerning the answers to the last two questions which were raised in Watts Report:

- Is it accepted that there is at present no single "model" or "agreed conceptual framework" which can be used as a touchstone for accounting standards?

- Should the ASC encourage research into the possibility of finding an acceptable "model"?

Respondents to the first question were almost unanimous in answering "yes" and, although divided on the second, the majority again said "yes". Macve's study attempts to test the possibilities for developing an acceptable "model".

As the ASC in the United Kingdom has been criticised for failing to develop "an agreed conceptual framework", the Financial Accounting Standard Board's predecessor - the Accounting Principles Board (APB) - in the United States has also been criticised for not reaching an agreement on a set of concepts designed to point a direction for setting

accounting standards. The APB was charged with developing a conceptual framework. In response to this charge, the APB began a project that led, in October 1970, to the publication of the APB Statement No. 4 "Basic Concepts and Accounting Principles Underlying Financial Statements of Business Enterprises". The new FASB met in March and April 1973. All members and staff of FASB have taken into consideration that its predecessor (APB) was criticised for not reaching an agreed conceptual framework. Therefore, one of the main objectives of the FASB is to develop such an agreed framework.

Another attempt to develop a conceptual framework comes from Canada and was written by Professor Edward Stamp, on behalf of the Canadian Institute of Chartered Accountants (CICA, 1980). This attempt tried to deal with the subject of what a conceptual framework is for and how it is intended to assist standard setters. Attention was devoted to the Canadian business and accounting environment.

It is noteworthy that all the above-mentioned attempts to develop a conceptual framework have been made in developed countries. But what about the situation in developing countries? Before discussing this issue, it is important to determine briefly the meaning and characteristics of the conceptual framework.

As Professor Macve's study mentioned, it is often not entirely clear what people mean when they talk about a conceptual framework for accounting, but the general objective is that it is a step towards better accounting and financial reporting. A conceptual framework for financial accounting and reporting has been defined by the FASB as a "constitution, a coherent system of interrelated objectives and fundamentals that can lead to consistent standards, and that prescribes the nature, function and limits of financial accounting and reporting".

From the above it is clear that this definition has concentrated on the components of the conceptual framework: objectives; fundamentals (i.e. concepts concerning the qualitative characteristics of financial information or the determination of the elements of financial statements); consistent standards (i.e. recognition criteria and measurement criteria); and the nature, function and limits of financial reporting. In other words, this definition has revealed the structural characteristics of the conceptual framework.

The professional body which will undertake the responsibility for developing the conceptual framework must have a special structure and work according to a clear approach. The structure of the responsible body and its approach of working will represent the organisational characteristics of the conceptual framework.

Accounting cannot be separated from the environment it serves. The conceptual framework can rationalise the development of accounting in response to current needs which are continually changing. Therefore, environmental characteristics (i.e. economic factors) must be considered.

After determining the three dimensions (structural, organisational and environmental) of the characteristics of the conceptual framework, the question now is: have these characteristics been studied in the developing countries?

In a bibliographical study by Professor Jaggi in The International Journal of Accounting (1973), he categorised the studies of accounting in developing countries into three groups: descriptive (which provide information regarding the present state of the art of accounting); conceptual (in which a model or a framework is developed to examine an existing system); and hypothesis-testing studies (which are concerned with a hypothesis describing what should exist and then testing whether what is postulated is true).

Jaggi found that most of the studies of accounting in developing countries were of a descriptive nature, few studies exist which conceptualise the role of accounting in developing countries, and almost none which attempt research of a hypothesis-testing nature.

A preliminary review of the literature has revealed that this situation has not obviously changed since Jaggi's conclusion in 1973, and there is still a shortage of both conceptual studies and hypothesis-testing studies. Therefore, in our research the author will try to conduct a descriptive, conceptual, and hypothesis-testing study having taken into consideration that there are interrelationships - as we shall see later - between the three kinds of studies. This attempt will be made in one of the developing countries, Egypt, because of the following factors:

1. In December 1980 Egypt considered adopting the international accounting standards. The Syndicate of Commerce Professions held an international accounting conference which led to a recommendation that "...the accounting standards should take into consideration the economic and accounting environment and needs in Egypt and should conform whenever possible with the accounting standards published by the International Federation of Accountants which has admitted Egypt to its membership". In this recommendation it was emphasised that the economic and accounting environment and needs should be taken into consideration in the process of establishing accounting standards or adopting international accounting standards. There are three stages in the standard setting process: political (pressure group), production of the standards and marketing of them. If this recommendation is implemented, will it represent a rational step in the standard setting process having taken into consideration the economic and accounting environment and needs of Egypt?

2. The accounting profession in Egypt has faced many foreign forces (former colonial administrations, foreign investors, trading relationships, etc.). Have these forces influenced accounting practices in Egypt? Have these foreign forces had positive or negative effects on accounting practices?

3. A step towards better accounting and financial reporting was taken in 1966 in the Arab Republic of Egypt by issuing the Unified Accounting System. This system was issued to unify and control the flow of accounting data to its different users. The system introduced new requirements for disclosure of information and specified accounting principles and rules which must be applied in preparing accounts. The system includes the following components:

A Objectives of financial reporting (considering for what purpose and for whom financial reports are prepared, and broadly what type of information they should contain). The main objective of the system is to facilitate the collection and classification of accounting data to serve the process of decision-making at both the economic unit level (micro-level) and national level (macro-level).

B Qualitative characteristics of financial information (which include relevance and reliability etc.).

C Elements of financial statements: one of the most important parts of the system is the chart of accounts. This chart is designed to meet all the requirements of the financial accounting system as a system for providing financial information. It includes an explanation of the elements of financial statements.

D Recognition criteria: the system has specified accounting principles and defined accounting terms and rules which should determine when an item is included as an asset or liability etc.

E Measurement criteria: the basic rule for the determination of the amount to be shown in financial accounts is the historical cost, but the enterprise may use supplementary schedules to show the effect of revaluation of assets.

F Financial reporting: concerns the financial information which should be included in the financial statements or budgets. The system has introduced unified formats for the different financial statements and budgets.

From the above-mentioned items it is clear that the unified accounting system has the basic structural characteristics of the conceptual framework, starting with the objectives and ending with the financial reporting. After more than fifteen years of the application of the system, it would be helpful if research could test some hypotheses concerning the usefulness of the system. For instance, it can be hypothesised that as a result of adopting the system, the relevance and reliability of financial information are expected to be high.

4. Another important issue is that the reporting requirements of the unified accounting system provide a good example of government mandated disclosure. The system has been enforced by legislation and introduced a new requirement for disclosure of information in enterprise accounts. Hypotheses can be formulated. For instance, it can be hypothesised that according to the prevailing environment in developing countries, the financial accounts based on legal requirements are likely to provide an appropriate approach to establishing accounting systems in these countries.

In this introduction the international trend towards developing a conceptual framework for financial accounting has been emphasised. The three dimensions of the characteristics of the conceptual framework have been stated. This framework represents a step towards better and more useful accounting. In fact, most of the developing countries need this step because accounting is still at an embryonic stage. Therefore, studying the characteristics (structural, environmental and organisational) of the conceptual framework for financial accounting and reporting in the developing countries can reveal some of the accounting problems in these countries. Studying the characteristics must be conducted within a systematic model. The Egyptian environment represents a good case study for testing this model, because of the different factors which have been explained.

1.2 Purpose of the Study

1.2.1 Developing a model of general applicability to the identification and management of accounting problems in developing countries, and providing them with suggestions to improve practices. One of the basic tools of this model is using the three dimensions of the characteristics of the conceptual framework in the examination of accounting problems. In the process of constructing the model, the possibilities of applying some models which have been used in physical sciences (models for regulating diseases) will be discussed with the objective of adapting or adopting them in the identification and management of some problems (diseases) in social sciences (accounting in developing countries).

1.2.2 Testing of the suggested model in the Egyptian environment.

1.3 Why is this Study necessary?

Some of the developing countries have rushed to apply international accounting standards without considering their individual circumstances. Therefore, there is an urgent need to rationalise this process by studying the specific environment and accounting needs of these countries before applying the international accounting standards. This problem became apparent in Egypt when it was decided to apply the international accounting standards in December 1980. The suggested model will consider this problem by studying the environmental characteristics.

Some argue that the best way of establishing accounting systems in developing countries is by legislation. This exactly represents the situation in Egypt when the unified accounting system was enforced by legislation. It would be extremely helpful, after more than fifteen years of the application of the system, if research could examine this issue.

In addition, according to the researcher's information, no study has been conducted with the objective of using the characteristics of the conceptual framework for financial accounting as basic tools for the examination of accounting problems in developing countries.

Finally, this study is necessary because it represents an attempt to adopt or adapt some models which have been constructed in physical sciences (models for regulating diseases) to the indentification and management of accounting problems in developing countries.

1.4 Hypotheses

1.4.1 Hypotheses related to environmental factors:

1.4.1.1 Economic factors have influenced accounting practices in Egypt.

1.4.1.2 Foreign countries' accounting methods (former colonial administrations, foreign investors,...) have influenced accounting practices in Egypt.

1.4.2 Hypotheses related to the structural characteristics of the unified accounting system as a conceptual framework:

As mentioned before, the unified accounting system has the structural characteristics of the conceptual framework. Therefore, some hypotheses can be tested concerning:

1.4.2.1 The relationships, if any, which exist between the structural characteristics. For instance, the relationship between the objectives and the qualitative characteristics of the provided information according to the system.

1.4.2.2 The interrelationships, if any, which exist between the components of each of the structural characteristics. For instance, the interrelationships between the qualitative characteristics of the provided information according to the system.

1.4.3 Hypothesis related to the suitable approach for establishing accounting systems in developing countries:

Enforcing accounting systems by legislation seems to represent a suitable approach in the Egyptian envirnment.

1.5 Methodology

1.5.1 Research methods

1.5.1.1 Theoretical analysis:

This phase involves a review of the literature with the purpose of:

- identifying the meaning and characteristics of the conceptual framework for financial accounting and reporting

- using these characteristics to examine the existing accounting systems and practices in developing countries

- testing the possibilities of applying some models which have been used in physical sciences (models for regulating diseases and especially the model for regulating schizophrenia) in the identification and management of some problems (diseases) in social sciences (accounting in developing countries)

- these have provided the researcher with the building blocks from which to progress and develop a new model of general applicability to the identification and management of accounting problems in developing countries.

1.5.1.2 Empirical investigation

Consists of collecting and analysing data related to the usefulness of the Egyptian unified accounting system through the use of direct personal interview by questionnaire with a sample of users of financial disclosures.

1.5.2 Field data gathering

Capital is a critical factor for economic development which developing countries so urgently require. Therefore, investors as providers of capital have a high priority as users of financial disclosures. Accordingly, the questionnaire will be used to collect data from investors who will be represented by the staff in the National Investment Bank in Egypt.

1.5.3 Data analysis techniques

Statistical analysis will be used in the analysis of the collected questionnaire data and in testing the research hypotheses. In addition, the computer analysis of the data will be undertaken by using the Statistical Package for the Social Sciences (SPSS*).

1.6 Outline of the Study

Chapter 1: presents the purpose and need for the study. The international trend of developing a conceptual framework for financial accounting and reporting has been emphasised. The need for using the characteristics of the conceptual framework to examine accounting practices in developing countries has been demonstrated. The relevance of the Egyptian environment to such a study has been explained. Finally, hypotheses have been formulated with the methodology to test them.

Chapter 2: attempts to explore the meaning and characterstics of the conceptual framework. A brief review of the different attempts which have been made to develop a conceptual framework will be included.

Chapter 3: examines the existing accounting systems and practices in the developing countries, using the characteristics of the conceptual framework for financial accounting and reporting.

Chapter 4: is devoted to developing a model of general applicability to the identification and management of accounting problems in developing countries, including consideration of the possibilities of using some models which have been constructed in physical sciences (models for regulating diseases).

Chapter 5: is devoted to shedding some light on the Egyptian environment as a field for testing the suggested model (case history).

Chapter 6: presents a brief review of the Egyptian unified accounting system, its aims and structure. The characteristics of the conceptual framework will be used to analyse the system (diagnose - preliminary examination).

Chapter 7: presents a design of the field study. It introduces the population in this study which will be represented by the staff in the National Investment Bank in Egypt. It presents also the development of the questionnaire (diagnosis - primary investigation).

Chapter 8: is devoted to presenting a discussion of the descriptive empirical findings of the primary investigation of the Egyptian unified accounting system (diagnosis - primary investigation).

Chapter 9: is devoted to presenting a discussion of the inferential empirical findings and the results of testing the different hypotheses (diagnosis - primary investigation).

Chapter 10: presents a prescription for improving the existing accounting practices (treatment and management).

Chapter 11: includes a summary, as well as the implications of the study. Key conclusions and recommendations of the study will be presented with suggestions for further research.

CHAPTER TWO

Chapter Two

The Meaning and Characteristics of the Conceptual Framework for Financial Accounting and Reporting

2.1 Introduction

2.2 Structural characteristics:

2.2.1 Conceptual components:

2.2.1.1 Objectives of financial reporting
2.2.1.2 Qualitative characteristics of accounting information
2.2.1.3 Elements of financial statements

2.2.2 Operational components:

2.2.2.1 Recognition criteria
2.2.2.2 Measurement criteria
2.2.2.3 Financial reporting

2.3 Organisational characteristics:

2.3.1 The structure of the responsible body
2.3.2 The approach of developing the conceptual framework

2.4 Continuous contemporary (environmental) characteristics

2.5 Conclusion and the expected benefits of the conceptual framework

Chapter Two

The Meaning and Characteristics of the Conceptual Framework for Financial Accounting and Reporting

2.1 Introduction

Accounting has been defined by the American Accounting Association as "the process of identifying, measuring, and communicating economic information to permit informed judgements and decisions by users of the information... The development of accounting information is only part of the accounting function. A necessary companion aspect of the function is the development of the communication process so that information can be transmitted and so that those to whom information is provided understand it and its potential usefulnes"(1). It is obviously clear from this definition that the accounting function consists of two parts: the development of accounting information and communicating it to the interested users. In other words, accounting has been defined as an information system with its basic three elements: inputs, processing, and outputs.

In fact, each information system must have a group of concepts and rules of actions which underlie the operation of the system and the relationships between its elements. And also accounting must have a group of concepts and fundamentals to underlie the operation of the system and the relationships between the accounting data, processing and accounting information. In other words, accounting needs a constitution to underlie its operation. This constitution has been known as the conceptual framework for financial accounting and reporting.

The Conceptual framework has been defined by the American Financial Accounting Standards Board (FASB) as a "constitution, a coherent system of interrelated objectives and fundamentals that can lead to consistent standards and that prescribes the nature, function and limits of financial accounting and reporting" (2).

"Objectives and fundamentals will be the basis for development of financial accounting and reporting. The objectives identify the goals and purposes of financial reporting. The fundamentals are the underlying concepts of financial accounting" (3). Objectives and fundamentals will represent the conceptual part of the conceptual framework. "The concepts will guide the selection of transactions, events, and circumstances to be accounted for, their recognition (recognition criteria) and measurement (measurement criteria), and the means of summarising and communicating them to interested parties (reporting forms)" (4). The recognition criteria, the measurement criteria, and the reporting forms will represent the operational part of the conceptual framework (operational components). Both the conceptual components and the operational components reveal the structural characteristics of the conceptual framework.

The development of the conceptual framework is not an easy process. The body which will undertake this responsibility must have a special structure and work according to a clear approach. The structure of the responsible body and its approach to the work will represent the organisational characteristics of the conceptual framework.

Accounting has developed in response to changing needs. The conceptual framework can rationalize the development of accounting in response to continuous contemporary changing needs.

The interrelationships between characteristics are shown in Figure 2.1. Next the author will expand the different characteristics of the conceptual framework.

2.2 Structural Characteristics

2.2.1 Conceptual Components

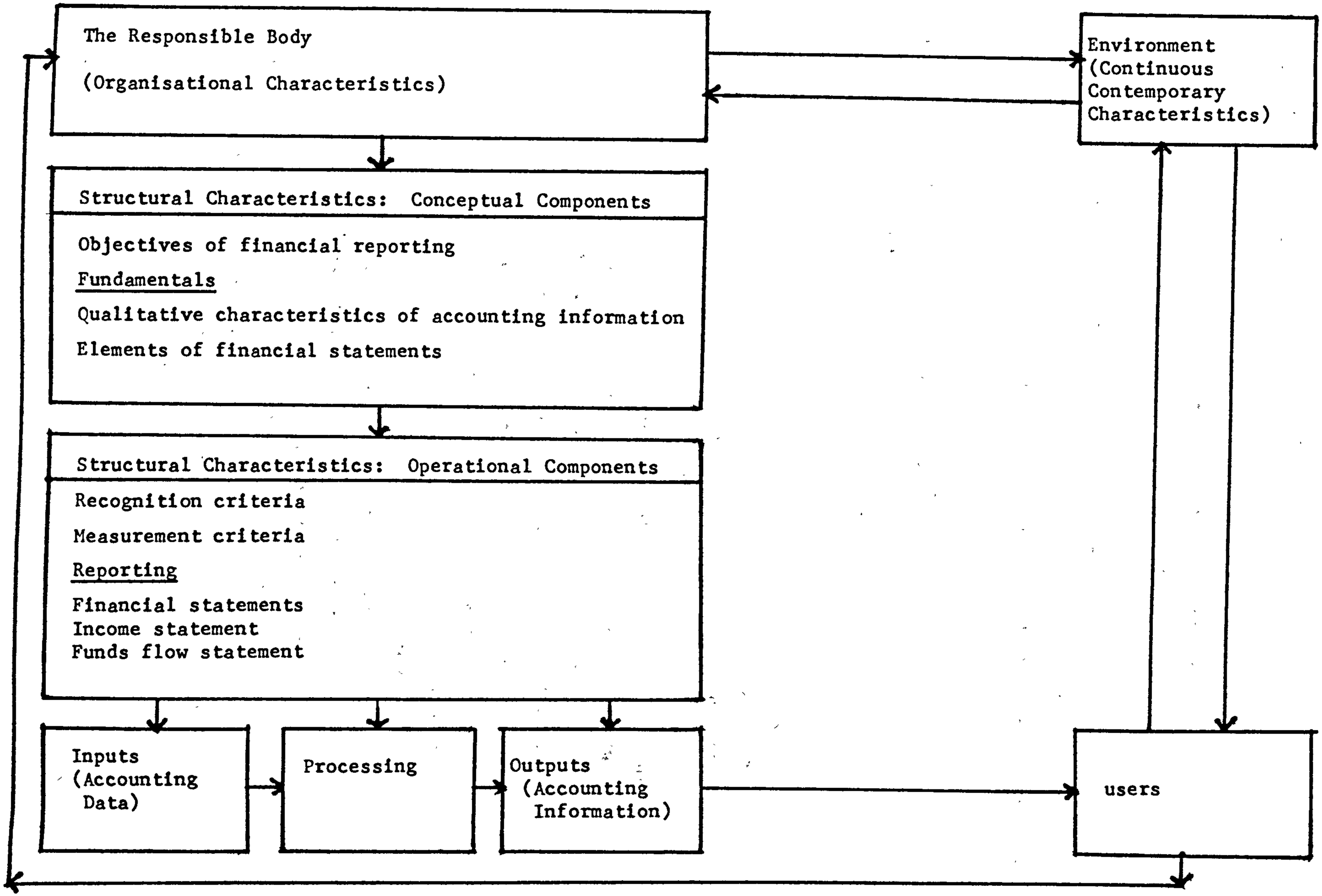
2.2.1.1 Objectives of financial reporting

The term "conceptual framework" consists of two words which have the following meanings from the Oxford Dictionary (5):
Concept: idea underlying a class of things.
Framework: that part of a structure that gives shape and support.
Therefore, the conceptual framework is a group of ideas that gives shape and support to a structure. Giving shape and support to a structure can only be done by helping in achieving the structure's objectives. So, the conceptual framework for financial accounting and reporting is a group of ideas that gives support to accounting (the structure) by helping in achieving accounting objectives as an information system. But what are the accounting objectives? In order to answer this question the following studies will be reviewed:

- "A Statement of Basic Accounting Theory". A study by American Accounting Association in 1966 (6) (hereafter ASOBAT, 1966).

- "Basic Concepts and Accounting Principles Underlying Financial Statements of Business Enterprise". A study by Accounting Principles Board, Statement No 4, in 1970 (7) (hereafter APB, Statement No 4).

FIGURE 2.1: The Characteristics of the Conceptual Framework for Financial Accounting and Reporting



- "A report of the study group on the objectives of financial statements". Objectives of Financial Statements in 1973 (8) (hereafter Trueblood Report).

- "The Corporate Report". A discussion paper published for comment by Accounting Standards Steering Committee, in 1975 (9) (hereafter the Corporate Report).

- "Objectives of Financial Reporting by Business Enterprises". Statement of Financial Accounting Concepts No. 1. A study by FASB in 1978 (10) (hereafter SFAC No. 1).

Some issues which have been tested in the above mentioned studies will be summarised in table No. 2.1 (11).

Table 2.1 reveals that:

1 The basic objectives for accounting have not changed appreciably over the period 1966-1978 evidenced in the five studies considered. The different studies have viewed accounting as an instrument for providing useful information to users of financial statements. Beaver provided a brief Historical perspective on the objectives of financial statements "... A stewardship view of management... in this context, the purpose of financial statements is to provide a report to capital suppliers to facilitate their evaluation of management's stewardship... and the concept of economic income - which defined as the change in the present value of the future cash flow after proper adjustments for deposits - has dominated financial accounting theory until the mid-1960's. In the late 1960's the perspective shifted from economic income measurement to an informational approach" (14). So, the five reviewed studies came exactly in the period of the third approach.

TABLE 2.1: Accounting objectives

Issue \ Studies	ASOBAT, 1966	APB St. No. 4, 1970	Trueblood Study 1973	Corporate Report 1975	SFAC No. 1, 1978
Basic Objective	Identifying, measuring and communicating economic information to permit informed judgements and decisions by users of the information.	Providing quantitative information, primarily financial in nature, about economic entities that is intended to be useful in making economic decisions.	Providing information useful for making economic decisions.	Communicate economic measurements of and information about the resources and performance of the reporting entity useful to those having reasonable right to such information.	Providing information that is useful to present and potential investors and creditors and other users in assessing the amounts, timing and uncertainty of prospective cash receipts.
Users of financial statements	Internal Users: Management External Users: Direct relationship with an enterprise (investors, suppliers, credit grantors and employees). Not directly related with an enterprise (stock exchange and trade associations...).	Users with direct interest: (owners, suppliers, creditors, management, authorities, employees and customers). Users with indirect interest (financial analysts, stock exchanges, regulatory authorities, and trade associations).	Primary users: Investors. Creditors. Secondary users: Government. Employees. Customers. Organisations.	The equity investor group The loan creditor group The employee group The analyst-advisor group The business contact group The government The public including taxpayers, customers.... etcetera.	Suppliers of Capital and their representative or advisors. Suppliers of labour and their representative or advisors. Business Contacts. Government. Others (12).

TABLE 2.1: Accounting objectives (continued/2)

Issue \ Studies	ASOBAT, 1966	APB ST. No 4, 1970	Trueblood Study, 1973	Corporate Report, 1975	SFAC No 1, 1978
User characteristics and sophistication level	External users who have to act under an extreme degree of uncertainty. They are heterogenous groups with widely varying interests.	Knowledge of characteristics and limitations of financial accounting and obtaining clearer understanding of the nature and implications of the accounting objectives.	Those having a limited authority, ability or resources to obtain information and who rely on financial statements as their principal source of information about an enterprise's economic activities.	Those having a reasonable right to information concerning the reporting entity arising from the public accountability of the entity and are not possessing special authority to demand particular information.	Have a reasonable understanding of business and economic activities and are willing to study the information with reasonable diligence.
User needs	For internal management: - Information for Planning and Control For external users: - Earning - Financial position and liquidity - Management effectiveness - Stewardship	- General Purpose reports on enterprise financial position. - Specialised reports Management report Statistical information	- Predicting, comparing and evaluating potential cashflows and enterprise earning power. - Judging management's ability to utilise enterprise resources.	For each of the above mentioned user groups the report has identified its information needs and how the corporate report can contribute to meeting these needs generally (13).	Predict future cashflow by providing information about: - Eterprise's economic resources, obligations on resources and resources changes. - Earning and its components.

TABLE 2.1: Accounting objectives (continued/3)

Studies	ASOBAT, 1966	APB St. No 4, 1970	Trueblood Study, 1973	Corporate Report, 1975	SFAC No 1, 1978
Financial Reporting responses	Internal Management: preparing in varying detail financial reports: (a) for contemplated alternatives. (b) on the performance of cost or profit centres (c) for the operations of the various product groups. External users: (a) report current-cost information as well as historical cost information. (b) Separating of different elements which have significance for predicting or analysing different functions, should be observed in the statements.	(a) Reliable financial information about economic resources and obligations of a business enterprise. (b) Reliable information about changes in net resources that result from profit activities. (c) Information for estimating potential earning. (d) Other needed information about changes in economic resources and obligations. (e) Other information relevant to user's needs.	(a) Statement of financial position should provide information concerning enterprise transactions and other events that affect earning power. (b) Statement of periodic earnings for predicting, comparing and evaluating enterprise earning power. (c) Current values should also be reported when they differ significantly from historical costs.	(a) Income statement for measuring of performance and capital maintenance and income distributability. (b) Position statement for measuring the resources owned by the reporting entity. (c) Funds statements for showing the generation and distribution of funds. (d) Additional statements: - Value added. - Employment report. - Money exchange with government. - Transaction in foreign currency. - Future prospects. - Corporate objectives.	(a) Information about an enterprise's performance provided by measures of earnings and its components. The reported earning may help in: - Evaluate management performance. - Estimate the earning power. - predict future earning. (b) Information about economic resources, obligations and owner's equity and the factors that affect them.

2 The users of financial statements have been classified as to internal users (management) and external users in ASOBAT, 1966. Management has been mentioned as one of the users with direct interest in APB Statement No. 4, 1970. The other three studies have concentrated in the external users and management has been excluded as an internal process. Thus "uncoupling rather than coupling between financial accounting and management accounting may be preferred... Conventionally, financial accounting and management accounting have been regarded as different in purpose, in nature, in measurement and in organisation" (15). Another author argued that "...an accounting conceptual framework could not serve both financial and managerial accounting effectively. The current approach seems to guide the framework to financial accounting purposes, neglecting the managerial elements... The task, then is to try to design a management accounting conceptual framework" (16)

3 An attitude towards constructing a priority model of the users of financial statements can be noticed in the different studies. In ASOBOT, 1966, there are users who have direct relationship with an enterprise and others not directly related. In APB Statement No. 4, 1970, there are users with direct interest and others with indirect interest. A high priority has been given to investors and creditors in the remaining studies.

4 A reasonable understanding of business and economic activities is required of the users. However, "Investors (as users). some perhaps with limited access to and ability to interpret financial information, have the opportunity to avail themselves of the services of information intermediaries, such as analysts, to whom they can defer a portion or all of the information gathering and processing function" (17).

5 Financial reporting responses to user needs have reflected the separation between financial accounting and management accounting. Information about earning for serving the prediction of future cash-flow becomes a dominant factor in financial reporting.

In summary, accounting has been considered as an instrument for providing useful information to the users of financial statements. Those users must have reasonable understanding of business and economic activities. Investors and creditors have been given a high priority as users of financial statements. For the purpose of increasing the effectiveness in serving users, uncoupling rather than coupling between financial accounting and management accounting may be preferred.

2.2.1.2 Qualitative characteristics of accounting information

In the previous section the author has determined that the basic objective of accounting is to provide useful information to satisfy users' needs. The question now is: what is the set of qualitative characteristics that the accounting information must have in order to satisfy users' needs? The answer to this question is summarised in Table No. 2.2. Inspection of this table reveals that:

1 In the first four studies a high priority has been given to relevance as a quality of accounting informtion. In fact, this is an expected result because of the agreement of the different studies in the basic objective of accounting as an instrument for satisfying users' needs. "Although SFAC No. 2 does distinguish between primary and other qualities, it does not assign priorities among qualities (para. 34). However, the

TABLE 2.2: Qualitative characteristics of Accounting Information

Issue \ Studies	ASOBAT, 1966	APB St. No 4, 1970	Trueblood Study, 1973	Corporate Report, 1975	SFAC No 2, 1980
Qualitative Characteristics of Accounting Information	Four basic standards are recommended as providing criteria to be used in evaluating potential accounting information: relevance, verifiability, freedom from bias, and quantifiability. It was stated that adherence to some or all of these standards may be partial. Guidelines for communication are: Appropriateness to expected use. Disclosure of signifcant relationship. Inclusion of environmental information. Uniformity of Practice. Consistency of practice (19).	There are seven Qualitative objectives: relevance, understandability, verifiability, neutrality, timeliness, comparability, and completeness (20).	The qualitative characteristics are described under the following headings: Relevance and materiality. Form and substance. Reliability. Freedom from bias. Comparability. Consistency. Understandability (21).	The Corporate Report must possess the following characteristics: (a) Relevant (b) Understandable (c) Reliable (d) Complete (e) Objective (f) Timely (g) comparable Practical consideration which call for judgement must be exercised include cost and confidentiality. The interests of users in general will not be served if costs are out of proportion to the likely benefits to users (22).	The Primary qualities: Relevance: To be relevant, information must be timely and must have predictive value or feedback value or both. Reliability: To be reliable, information must have representational faithfulness and it must be verifiable and neutral. The Secondary qualities: Comparability, including consistency. All of the qualities subject to: - The benefits of information should exceed its costs. - Materiality (23).

primary qualities are that accounting information shall be relevant and reliable. If either of those qualities is completely missing, the information will not be useful (para. 33)" (18).

2 There are many similarities among the different studies. Many of the qualitative characteristics are interchangeable. For instance, if we compare the ASOBAT, 1966 and APB Statement No. 4, 1970 we can notice that: in order to be neutral (according to Statement No. 4), the information must be free from bias (according to ASOBAT); and also in order to be comparable (according to Statement No. 4), the information must be quantifiable (according to ASOBAT). Therefore, there are some semantic problems concerned with what is meant by these qualitative characteristics.

3 The main objective of determining these qualitative characteristics is to provide criteria for choosing among different accounting alternatives. SFAC No. 2 has identified some of the problems which will face the adoptation of these criteria. For instance, how to make "trade off" among different characteristics, how to make balance amongst the needs of different users taking into consideration the conflict of interest amongst them, and how to quantify the benefits during applying the cost, benefit criteria. But no operational solutions have been suggested.

Professor Edward Stamp argued that "...in none of the studies in which these characteristics are set forth is there any proposal that they should be made operational, or form an integral part of the standard setting process... Therefore, a quite different approach is proposed in which 20 criteria should form the central feature of decision making on accounting standards (24)... The process of meeting the needs of users is treated as one of optimisation, in which trade-offs must be made between various criteria... The operational value of the 20 criteria can only be improved as they are used, and as users gain experience with them. The criteria, and their interrelationships, are shown in table 2.3... A questionnaire has been sent to the members of ASC and they were asked to weight each of the 20 criteria. A rank list of the means and the standard deviations of the weights they all assigned to each of the 20 criteria is given in Table 2.4" (25).

Inspection of this table reveals that relevance to users' needs still has a high priority according to the empirical study.

In summary, the main objective of determining the qualitative characteristics of accounting information is to provide criteria for choosing among different accounting alternatives. Although there are many similarities among the different studies concerning the identification of these characteristics, there are some semantic problems concerning what is meant by these characteristics. The operational value of the qualitative characteristics can only be improved as they are used, and as users gain experience with them, "in much the same way as the principles of jurisprudence are refined by lawyers and judges in the courts" (26).

Table 2.3*

CRITERIA FOR ASSESSMENT OF STANDARDS AND OF ACCOUNTABILITY

Criteria that may be in conflict with those in the other column, or require "trade-offs"		Criteria that are compatible with those in both of the first two columns	Constraints that may apply against any of the criteria in the first three columns
Relevance (to users' needs)	Objectivity (*ie*, not subjective)	Isomorphism	Substance over form
Comparability	Verifiability	Freedom from bias	Materiality
Timeliness	Precision	Rationality	Cost/benefit effectiveness
Clarity	Completeness, or Full Disclosure	Non-arbitrariness	Flexibility
		Uniformity	Data availability
			Consistency
			Conservatism (a very minor constraint)

Table 2.4*

Rank order list of means and standard deviations of weightings given to 20 criteria by ASC members

Means *(Descending order)*	Standard Deviations *(Ascending order)*
Relevance to users' needs	Relevance to users' needs
Clarity	Substance over form
Substance over form	Materiality
Comparability	Conservatism
Timeliness	Uniformity
Materiality	Objectivity
Freedom from bias	Timeliness
Objectivity	Non-arbitrariness
Rationality	Consistency
Consistency	Flexibility
Full disclosure	Rationality
Isomorphism	Verifiability
Verifiability	Precision
Cost/benefit effectiveness	Clarity
Non-arbitrariness	Comparability
Flexibility	Data availability
Uniformity	Cost/benefit effectiveness
Data availability	Freedom from bias
Precision	Full disclosure
Conservatism	Isomorphism

*Source: Edward Stamp, "Accounting Standards and the Conceptual Framework", op.cit., p. 219, 221

2.2.1.3 Elements of Financial Statements

The purpose of accounting is to communicate accounting information (messages) which can satisfy users' needs (receivers). But there is a semantic problem concerning the meaning of messages in accounting statements or other media of communication. "The semantic problem of establishing the meaning of messages can be overcome only by standardisation. Comparability of messages from different services is a quality ranked highly by receivers (users), and can only be achieved by standardisation" (27). A step towards this objective has been taken by FASB by issuing a "Statement of financial accounting concepts No. 6, elements of financial statements".

"Elements of financial statements are considered by FASB as the building blocks with which financial statements are constructed - the classes of items that financial statements comprise... The statement defines 10 elements of financial statements of an entity: assets, liabilities, equity, investments by owners, distributions to owners, comprehensive income, revenues, expenses, gains, and losses... The statement also defines or describes certain other concepts that underlie or are otherwise related to the 10 elements listed... In addition, the statement defines three classes of net assets of not-for-profit organisations and the changes in those classes during a period... The definitions should be especially helpful in understanding the content of financial statements and in analysing and resolving new financial accounting issues as they arise... The essential characteristics that items must have to qualify under the definitions of elements of financial statements have been described in appendix B of SFAC No. 6" (28).

2.2.2 Operational Components

2.2.2.1 Recognition Criteria

"Recognition is the process of formally recording or incorporating an item in the financial statements of an entity" (29). "Thus, an asset, liability, revenue, expense, gain, or loss may be recognized (recorded) or unrecognized (unrecorded). Realization in the most precise sense means the process of converting noncash resources and rights into money and is most precisely used in accounting to refer to sales of assets for cash or claims to cash. Realization and recognition are not used as synonymes, as they sometimes are in accounting and financial literature" (30).

The above mentioned definitions for recognition and realization by FASB do not go far from the approach which was advocated by Horngren in 1965. According to this approach "Recognition is primarily a problem of deciding what constitutes reasonable, verifiable evidence; it hinges on objective measurement. Realization, however, is a multiple test that requires definite verifiable evidence (recognition) as one component. An item may be recognized and unrealized, but it may never be realized and unrecognized. Three conditions must be satisfied before realization exists:

- Recognition - sufficiently definite, verifiable evidence to permit objective measurement of a value increase.

- Market transaction - an event originated by the voluntary interaction between the accounting unit and some other unit.

- Goods or services rendered" (31).

In summary, a set of criteria must be etablished to determine when an asset, liability, income or expense is recognised and realised. These criteria represent one of the components of the conceptual framework.

2.2.2.2 Measurement Criteria

The argument of how to measure the elements of financial statements has pervaded much of accounting debate during the 1970s. Some of the recommendations concerning this have been summarised in Table 2.5. Inspection of this table reveals that:

1. There is complete agreement that historical cost information is not sufficient to satisfy the users' needs and that current cost information must be provided in addition to historical cost information in order to increase the usefulness of accounting information.

2. There is a difference between the American studies (ASOBAT, 1966 and FASB No. 33, 1979) and the British studies (The Corporate Report, 1975, Sandiland Report, 1975, SSAP No. 16, 1980) concerning the priority which must be given to historical cost information or current cost information.

According to ASOBAT current cost information as well as historical cost information should be provided in a multi-valued report, in which the two kinds of information appear in adjacent columns. Therefore, the two systems have the same priority in this study. In FASB No. 33, the current cost information can be provided in supplementary bases and in SFAC No. 5 (1984) the situation is still unchanged (para. 71, 72).

TABLE 2.5: Measurement System

Issue \ Studies	ASOBAT, 1966	The Corporate Report, 1975	The Sandiland Report, 1975	FASB, Standard No 33, 1979	SSAP, No 16, 1980
System of measurement	A principal criticism relates to the deficiencies of historical cost as a basis of predicting future earnings, solvency, or overall managerial effectiveness. Historical cost information is relevant but not adequate for all purposes. Therefore, current-cost information as well as historical-cost information should be reported in a multi-valued report (32).	No one system of measurement is capable of meeting all the user needs. For present, at least, financial statements must be largely based upon historical cost. Historical cost figures alone are inadequate and the thrust development should now be towards the adoption of current value systems. The inflation adjusted financial statements should be reported not as supplementary statements but should be accorded equal status (33).	There is a requirement for information on the historic cost of net assets and on their current value on a number of different bases. The dominant requirement is probably for information on "value to the business" of net assets (para 199). It is recommended that current cost accounts should become the basic accounts, with certain historic cost figures in notes (para 519) (34).	The statement requires no changes in the basic financial statements. The required information about the current value is to be presented in supplementary statements, schedules, or supplementary notes in financial reports. The statement applies only to certain large, publicly held enterprises (35).	The standard requires entities to publish current cost accounts in addition to historical cost accounts or historical cost information. This requirement can be complied with by: - Presenting historical cost accounts as the main accounts with supplementary current cost account which are prominently displayed (great majority will probably do that) or - Presenting current cost accounts as the main accounts with supplementary historical accounts, or - Presenting current cost accounts as the only accounts accompanied by adequate historical cost information (36).

In the Corporate Report, the inflation adjusted financial statements should be reported not as supplementary statements but should be accorded equal status (equal priority). According to the Sandiland Report, a high priority has been given to current cost information as the basic accounts, with certain historic cost figures in notes. In SSAP, No. 16,* different options have been provided, but ASC expected that the great majority of companies will probably prefer to consider the historical cost accounts as the main accounts. However, presenting current cost accounts as the only accounts accompanied by adequate historical cost information is also allowed by ASC.

Therefore, the American studies are reluctant to make any change in the basic financial statements. But the British studies encourage a complete change by presenting current cost accounts as the only accounts accompanied by adequate historical cost information.

2.2.2.3 Financial Reporting

The last set of components of the conceptual framework is concerned with the output of accounting as an information system. All the previous components of the conceptual framework must affect this set of components because it represents the output of the system. For instance, the financial reporting must satisfy the users' needs (basic objective) by providing relevant and reliable information to them (qualitative characteristics). The different items provided in financial reporting must qualify with the basic characteristics of elements of financial statements

*This statement was formally withdrawn in 1987 and The ASC is in the process of exploring different alternatives to the problem of inflation accounting.

(elements of financial statements). Answers must be provided to the following questions: "When particular items that qualify as assets, liabilities, revenues, expenses, and so forth should be formally recognised in the financial statement (recognition criteria): which attributes of these items should be measured: which unit of measure should be used (measurement criteria); and at last how the information included should be classified and otherwise displayed?" (37).

The result of all the previous processes is a set of financial report forms which reveal the informational contents of the financial statements, income statement, and funds flow statement.

In this section, the author has tried to review the conceptual and operational components of the conceptual framework. These components must be issued by an organisation with special characteristics. The author will deal with this issue in the next section.

2.3 Organisational Characteristics

This group of characteristics is concerned with studying the structure of the body which will undertake the responsibility of developing the conceptual framework for financial accounting and reporting and the approach which can be followed in doing this process.

In order to do the above mentioned, the author will study the actual situation. In other words, two examples from real life will be given. One from the United Kingdom, the ASC, and the other from the United States, the FASB. Both the structure and the approach of these two bodies will be studied briefly in the following paragraphs.

2.3.1 The structure of the responsible body

In 1978 "The ASC was criticised for failing to develop an agreed conceptual framework on which a logical series of SSAPs can be based" (38). In 1981 "Most commentators were of the opinion that the ASC should devote resources to the development of a conceptual framework for financial accounting and reporting" (39). So, the development of the conceptual framework is the responsibility of ASC in the United Kingdom and its organisational structure is worth studying.

"The structure of the ASC is as follows:

a) The Accounting Standard Committee. This comprises 20 members, five of whom are 'users' of accounts, who need not be accountants. The remaining 15 are principally members from the profession and 'preparers' of accounts (as opposed to 'users') from industry. Meetings of the ASC are also attended by observers. These observers comprise a representative of the Auditing Practices Committee, the head of the Companies Division of the Department of Trade and one of the two U.K. and Ireland representatives on the International Accounting Standards Committee. A legal advisor has also been appointed.

b) Standing sub-committees, which report to the ASC and which deal with planning, inflation accounting and international affairs.

c) Working parties, which also report to the ASC and are formed as necessary to consider specific topics under review" (40).

The structure of the FASB is as follows:

"The FASB is headed by seven full-time members who are remunerated for their services. Four are members of AICPA drawn from public practice, with the remaining three coming from government, industry and the academic world. All members are appointed for a five-year terms and are each assigned a full-time technical advisor. A director of research and technical activities is also appointed" (41). In addition, the board's own meetings are held in public.

According to the above structure of the ASC and FASB, it is worth mentioning that:

1) The users of the accounting data have been represented in the structure of each body. Five members of the twenty members of the ASC are users of accounts. Three of the seven members of the FASB come from government, industry and the academic world. The dominant role of users of accounts will be confirmed in the next section when we study the approach of both ASC and FASB in developing the conceptual framework.

2) In order to be a member of each body it is not necessary to be an accountant. This attitude will open the door for new ideas from other professions to be introduced, studied and refined.

3) In order to introduce a new idea it is not necessary to be a member. The FASB's meetings are held in public and the meetings of the ASC are also attended by observers.

2.3.2 The approach of developing the Conceptual Framework

Needless to say, the ASC has not developed a conceptual framework. However, researches have been made with the objective of studying the possibilities of developing an agreed conceptual framework (Macve Report). But many statements of standard accounting practices have been issued by ASC. Therefore, the approach of setting accounting standards by the ASC will be studied as an alternative to the approach of developing a conceptual framework (which are not available). Two points are worth noting in this context: firstly, the accounting standards represent a key element (operational) in the structure of the conceptual framework; and secondly, the approach of setting accounting standards gives us some idea of the way in which the ASC's members are thinking.

The flowchart, Figure 2.2, sets out the main stages in the standard setting process by ASC (42). Flowchart, Figure 2.3, sets out the main steps which must be undertaken to produce FASB statement (43). From these two flowcharts, it seems clear that:

1) The democratic approach, not the autocratic approach, has been followed by both bodies in setting accounting standards. The users of accounting data have been represented in most of the process. An author argued against the democratic approach by saying "It seems clear that the democratic approach is a relatively slow way to develop a conceptual framework. In fact, it might be an impossible way, because it hardly seems likely that the groups dealing with first-level generalizations from experience - the FASB - are likely to be able to shift their thinking to the higher levels of generalization need to develop an overall conceptual framework... The financial community must consider what degree of autocracy is needed to implement its own

FIGURE 2.2: Standard Setting Process's flowchart (ASC)

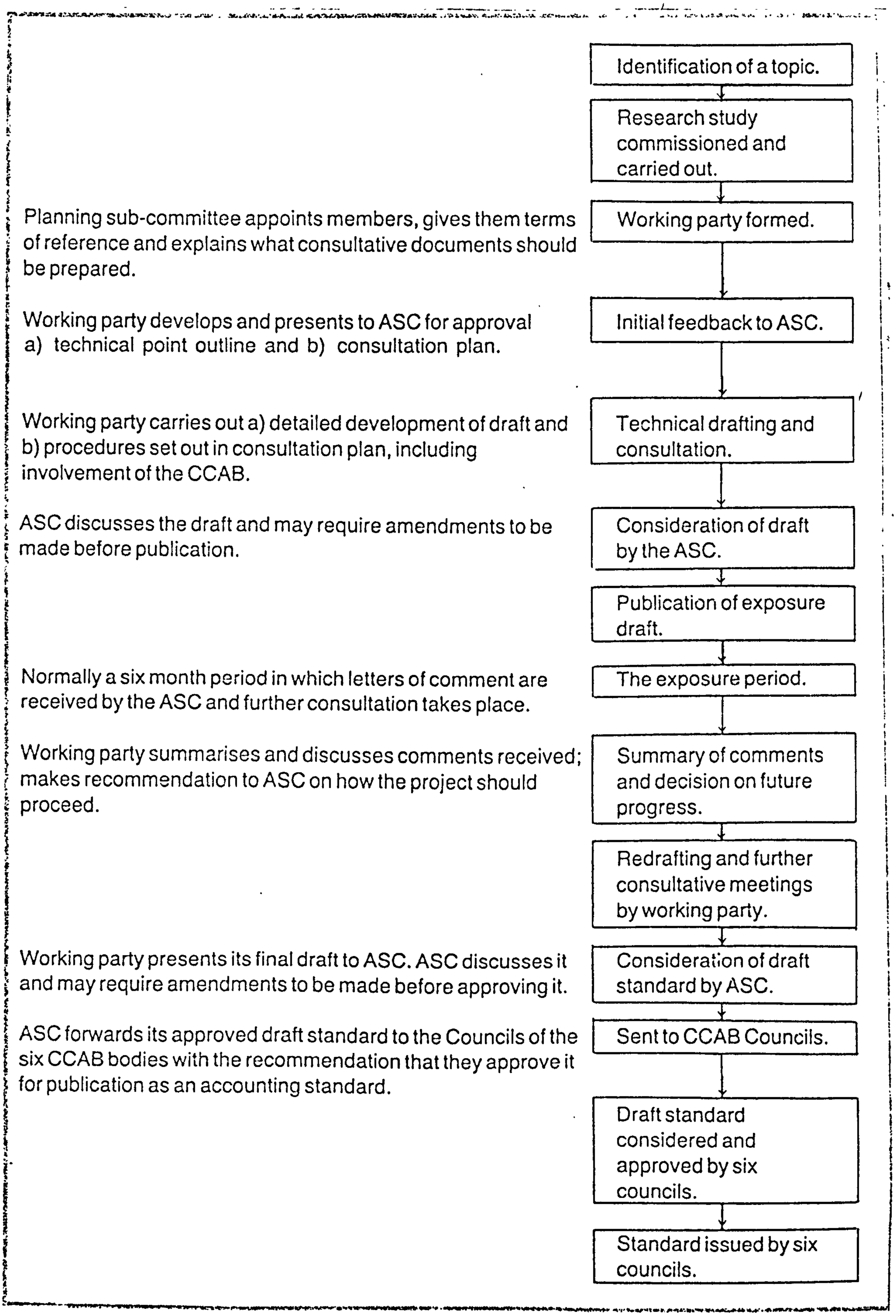
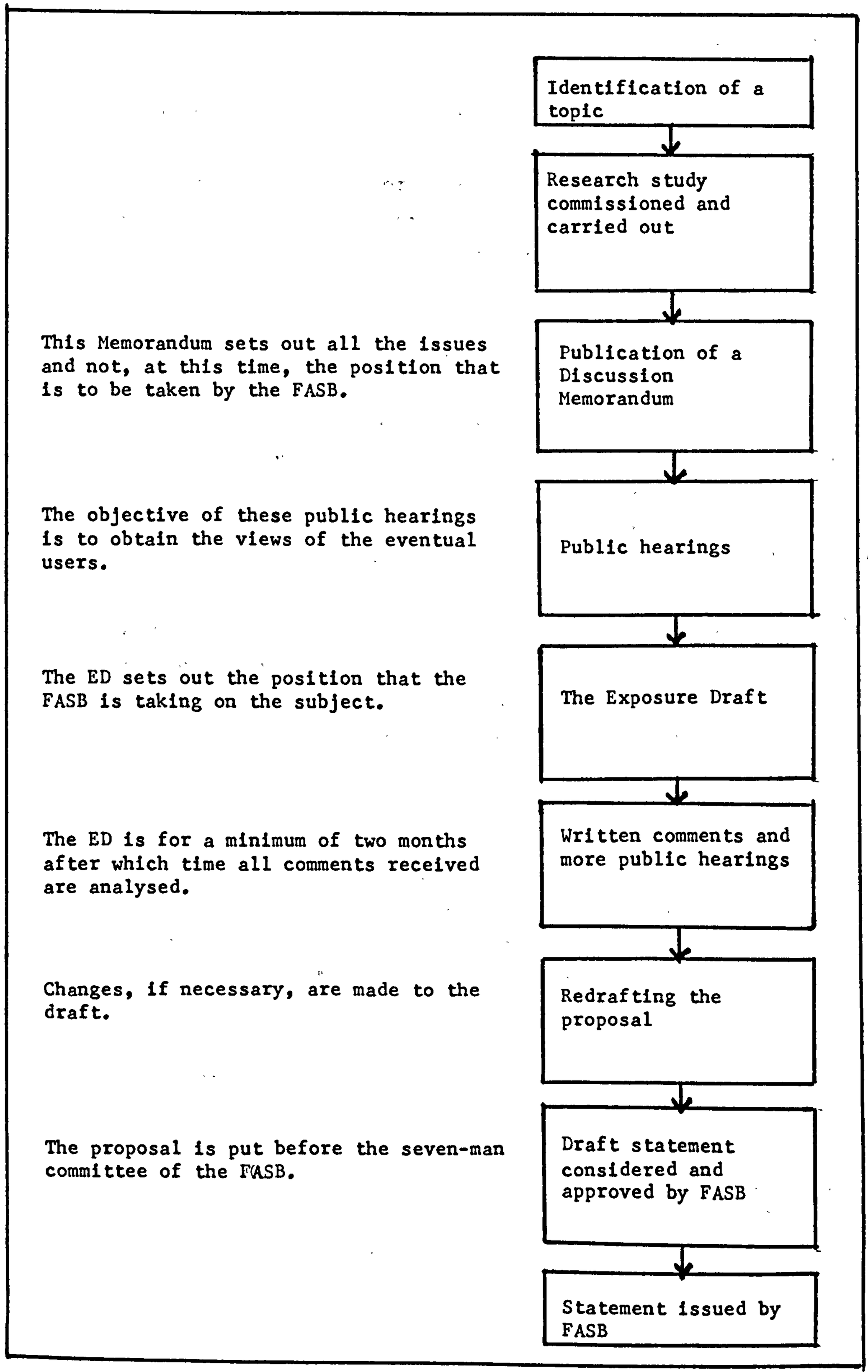


Figure 2.3:

Statement setting process's flowchart (FASB)



financial reporting framework... We do need an overall framework which probably will have to be autocratically imposed, hopefully on a voluntary basis, in order for the framework to become operative" (44). In fact, the nature of accounting as a social science and as a way of serving different users makes the implementation of pure autocratic approach impossible. However, a combination between the two approaches seems to be a suitable solution.

2) The controversy concerning the autocratic and democratic approach represents one side of the coin. The other side is the controversy concerning the deductive and inductive approach. "A deductive approach involves a clear statement of objectives, the identification of a number of assumptions about the environment in which the framework is to function and the development of a number of principles and ultimately rules which have been logically derived from the objectives... An obvious problem with a deductive approach is that it presupposes agreement on the objectives of accounting and entails acceptance of a set of assumptions (it tends to be autocratic)... In contrast, an inductive approach proceeds from the specific to the general making a number of observations and seeking a common characteristic which will enable a general principle applicable in all cases to emerge (it tends to be democratic). The difficulty of course is in deciding what to observe" (45). The deductive approach is often referred to as a model-building approach. "It is normative and prescriptive rather than descriptive of the current state of art - it is concerned with what ought to be done rather than with what is done" (46). The combination between the two approaches can be achieved by making a number of observations (the inductive approach) within the restrictions of model representing what ought to be done (deductive approach).

This methodology has been adopted by FASB in developing the conceptual framework. They have established a model (structural characteristics) and started making observations and issued FASB statements within this model.

As a conclusion of the organisational characteristics it is worth noting that the users of the accounting data must be represented in the structure of the body which will undertake the responsibility of developing the conceptual framework. And also the users must have a dominant role in the process of developing the conceptual framework. A pure autocratic approach cannot be adopted as an approach to developing the framework. A combination between a deductive approach (tends to be autocratic) and an inductive approach (tends to be democratic) seems to be a suitable approach.

By representing the users in the responsible body, we can guarantee that the continuous contemporary changing needs will be discussed. The author will deal with this issue in the next section.

2.4 Continuously contemporary (environmental) characteristics

As it was mentioned before the conceptual framework is a group of ideas that gives support to accounting (as a structure) by helping to achieve accounting objectives. But the problem is that there are increasing pressures on existing accounting structure: social, economic and political changes in the world are, or will be, making new demands for accounting. Tricker has summarised some of the changing features that are affecting the demands on accounting as follows (47):

- The effects of inflation on accounting have been devastating

- Monitoring corporate liquidity has also come into prominence, as firms face rising costs that cannot be readily recouped in increased revenues due to both competition and government price controls. Consequently there has been a greater emphasis on cash management of funds flow.

- Government involvement and intervention in decisions at the enterprise level can be seen to be increasing in most technology and economically advanced nations.

- Of wider implication, social pressures can be detected that are bringing new demands for information.

- The shifts in the balance of managerial decision taking power, that can be detected, carry with them new requirements for accounting. Power has moved from the managers as representatives of the owners, towards central government and the state, whilst also becoming more diffused among other groups - such as employee sets, consumer groups, unions and lobbyists - who have the power and are prepared to take action.

- Larger units, greater geographical diversity, international operations, greater inter-organisational complexity, emphasise the use of accounting data to measure and evaluate performance and to exercise control.

- Technological changes and computer assistance provides opportunities for data handling and the provision of information.

The above mentioned is a brief survey of some of the changing features that are, or will be, affecting the demands on accounting. But what about the past and how accounting has developed? An author has looked back at some of the texts

over the past 100 years or so and he has found that accounting has developed in response to changing needs in the field and that changes stem from the specific needs at that time and he concluded that (48):

- accounting develops in response to external need, and not developments in theory.

- the external environment was changing, and consequently its needs and the demands on accounting were changing.

- accounting is dependent on the mores and ideology of the society it serves.

- accounting must continue to respond to changing needs - but on the basis of systematic theory and better understanding.

The conceptual framework for financial accounting and reporting can rationalize the development of accounting in response to continuous contemporary changing needs by providing a systematic approach which can guide current and future research in accounting. Macve has advocated this attitude and stated that "...the main value of thinking about the conceptual framework for accounting lies in developing understanding of what questions need answering and how they may be approached" (49). In other words, a conceptual framework must be seen as a guideline for future research.

2.5 Conclusion and the expected benefits of the Conceptual Framework

In the previous sections we have introduced and categorized the characteristics of the conceptual framework into three groups:

a) Structural characteristics which consist of:

(i) conceptual components: accounting has been considered as an instrument for providing useful information to the users of financial reporting. Investors and creditors have been given a high priority as users of financial reporting (objectives of financial reporting). The usefulness of information can be achieved by providing relevant and reliable information to the users (qualitative characteristcs of accounting information). The characteristics of each item of financial statement must also be determined (elements of financial statements).

(ii) Operational components: a set of criteria must be established to determine when an item is recognized or unrecognized (recognition criteria). The unit of measurement and the different rules for the determination of the amounts to be shown in financial accounts must be determined (measurement criteria). Standardised forms of the different financial reporting's forms must be provided (financial reporting).

b) Organisational characteristics:

The users of the accounting data must be represented in the body which will undertake the responsibility of developing the conceptual framework. A pure autocratic approach cannot be adopted as an approach for developing the framework. A combination between a deductive

approach (tends to be autocratic) and an inductive approach (tends to be democratic) seems to be a suitable approach.

c) Continuous contemporary characteristics:
the conceptual framework can rationalize the development of accounting in response to continuous contemporary changing needs by providing a systematic approach which can guide current and future resaearch in accounting.

Determination of the conceptual framework's characteristics is not an aim, it is only a method to clarify the benefits of the conceptual framework. But the benefits depend on the possibilities of developing an agreed conceptual framework.

If we can develop an agreed conceptual framework, what will be the benefits? The FASB has suggested that "The following benefits may manifest themselves as a result of achieving agreement on the conceptual framework:

1 Guide the body responsible for establishing standards,

2 Provide a frame of reference for resolving accounting questions in the absence of a specific promulgated standard,

3 Determine bounds for judgement in preparing financial statements,

4 Increase users' understanding of and confidence in financial statments, and

5 Enhance comparability" (50).

If we cannot develop an agreed conceptual framework, what are the benefits? "Various studies which have been reviewed in Macve's report were not able to establish an agreed conceptual framework" (51). However, there are still benefits of developing the conceptual framework. "A conceptual framework for accounting should be regarded rather as a common basis for identifying issues, for asking questions, and for carrying out research..." (52). In other words it can be considered as a guideline for future research in acounting.

So whether we can, or cannot, develop an agreed conceptual framework, there will be benefits from these attempts. The reviewed attempts are related to developed countries. But what about the situation in developing countries? The author will try to answer this question in the next chapter.

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CHAPTER THREE

Chapter Three

The Characteristics of the Conceptual Framework for Financial Accounting and Reporting in Developing Countries

3.1 Introduction

3.2 What is a developing country?

3.3 The characteristics of the conceptual framework for financial accounting and reporting in developing countries

3.3.1 Structural characteristics

3.3.1.1 Conceptual components:

3.3.1.1.1 Objectives of financial reporting

3.3.1.1.2 Qualitative characteristics of accounting information

3.3.1.1.3 Elements of financial statements

3.3.1.2 Operational components:

3.3.1.2.1 Recognition criteria

3.3.1.2.2 Measurement criteria

3.3.1.2.3 Financial reporting

3.3.2 Organisational characteristics

3.3.2.1 The organisational structure of the accounting profession

3.3.2.2 The approach of setting accounting standards and regulating accounting practices

3.3.3 Continuous Contemporary (environmental) characteristics

3.4 Conclusion

Chapter Three

The Characteristics of the Conceptual Framework for Financial Accounting and Reporting in Developing Countries

3.1 Introduction

In the previous chapter the author discussed the meaning and characteristics of the conceptual framework for financial accounting and reporting. The author has categorized these characteristics into three groups: structural, organisational and continuous contemporary or environmental characteristics. All the previous mentioned studies and attempts to develop the conceptual framework have been done in developed countries. But what about the situation in developing countries; have the characteristics of the conceptual framework been studied before in these countries? The purpose of this chapter is to study this issue. But before doing this it is important to determine briefly what is meant by "a developing country"?

3.2 What is a developing country?

Different studies have discussed the issue of developing country. Some studies have determined exactly what is meant by a developing country, others have preferred not to discuss the meaning and considered it as a known fact. The first group of studies have used different criteria to determine the meaning of a developing country which are as follows:

A Uni-dimensional criterion: per capita real income

Developing countries have been defined as "countries in which per capita real income is low when compared with per capita real incomes of the U.S.A., Canada, Australia and Western Europe" (1). This view stands on the ground that "Economic development could be mainly measured in terms of the increase in both real national income and per capita income" (2).

"But in modern thinking, higher per capita income cannot be the only criterion to judge the level of development. Rather development is thought to imply a complex combination of social, cultural and economic facets of well-being" (3). So a multi-dimensional criterion is needed to judge the level of development.

B Multi-dimensional criterion

The above mentioned criterion has been criticized because the per capita real incomes of some countries have been increased, but they are still considered as developing countries. For instance, "Kuwait had in 1973 - 74 double the United States income level per capita" (4). Meanwhile, it is still considered as a developing country.

So the first criterion has concentrated mainly on one dimension of economic development: the economic measures, i.e. the increase in per capita real income. The second criterion has taken into consideration the economic as well as the non-economic measures, i.e. social, cultural, and political features of economic development.

C Geographical criterion

Another author stated that "It is generally considered that the countries of Western Europe, North America and Japan have already attained a certain degree in the standard of living of their societies based on the technological achievements of these societies, which distinguish them from the countries of Asia, Africa and Latin America which have not yet produced similar achievements" (5).

"The composition of developing countries corresponds to that of (Economic Class II) in the foreign trade statistics of United Nations publications. These being all of the Western Hemisphere except the U.S.A. and Canada, all of Africa except Union of South Africa, The Middle East except Isreal, South and Far East except Japan, Oceania except Australia and New Zealand" (6).

According to this criterion, some areas of the world are considered developed and the others developing. In making this classification different economic and non-economic measures have been used. Therefore, this criterion does not go far away from uni-dimensional and multi-dimensional criteria. In fact, it represents the result of adopting these criteria.

D Descriptive criterion

Austen (7) discussed the following ten areas which he considered to be characteristic features of developing countries:

1. Segmented: a medium-sized developing country like Nigeria has not merely three main religious groups but 200 different tribes, each with its own tradition and language.
2. Fast-changing.
3. Badly administrated.

4. Low general purchasing power.
5. High military expenditure.
6. State dominated: almost regardless of political complexion, the state plays a greater role in the economy than in developed nations. Partly this is due to balance of payment problems, partly to ideology, partly to the absence of an existing management and commercial infrastructure.
7. Monopolistic: in most products monopoly is the rule and competition is the exception.
8. Poor infrastructure: both social items such as roads, hospitals, schools, and also private networks in transport are deficient.
9. Vulnerable Exports: in general, developing countries are dependent on few products.
10. Inadequate Documentation: figures are nearly always out of date, generally ineffectively collected and frequently deliberately tailored.

Jagge stated another important feature "Accounting in most developing countries is still in an embryonic stage" (8).

But what is the role that accounting can play in identifying these criteria? This role can be summarised as follows:

Concerning the uni-dimensional criterion: national accounting techniques can be used to measure the national gross product, national gross income, and the per capita real income.

Concerning the multi-dimensional criterion: in addition to the economic measures, accounting can also provide some social measures. "The Social responsibility of businesses has attracted the attention of numerous interest groups. The proponents of social responsibility suggest that business firms exist and function in a society and have a moral obligation to solve social and environmental problems" (9). "The need for accounting to provide information about social

costs and benefits (social value) has received increased attention... Incorporation of these costs and benefits within the accounting framework will obviously represent an improvement in the role of accounting" (10).

Concerning the geographical criterion: as mentioned before this criterion does not go far away from the uni-dimensional and multi-dimensional criteria and it represents the result of adopting them. Therefore, accounting can indirectly help in adopting this criterion.

Concerning the descriptive criterion: the role that accounting can play in dealing with some characteristic features of developing countries is as follows:

- Fast-changing: national accounting techniques can be used to measure the rate of change in national measures like gross national product and gross national income.

- Badly administrated: management accounting can provide different methods to measure the performance of the different levels of administration, to discover the defects, and to suggest solutions.

- State dominated: the state plays a greater role in the economy. Therefore, it needs a reliable control system. The most important imput of this system is the accounting data.

- Poor infrastructure: "At the planning stage goals and objectives are established. Programmes are drawn up by which goals and objectives may be met. The accountant would be able to design an information system for feedback and review on input/output for the continuous monitoring and evaluation of output to ensure that predetermined goals and objectives have met in practice" (11).

- Inadequate documents: a good accounting system can provide reliable information about the different sectors of the economy.

The above mentioned expected contributions depend upon reliable accounting techniques. But as previously mentioned, accounting in most developing countries is still in an embryonic stage. Therefore, there is doubt concerning achieving these benefits in developing countries.

3.3 The characteristics of the conceptual framework for financial accounting and reporting in developing countries

3.3.1 Structural characteristics

3.3.1.1 Conceptual components

3.3.1.1.1 Objectives of financial reporting

In the previous chapter it is evident that the basic objective of accounting is to provide useful information to users for the purpose of making economic decisions. The question now is: is this objective changed in developing countries? In order to answer this question some studies concerning the role of accounting in developing countries will be reviewed.

Cassell highlighted "an urgent need to recognise that accounting is a necessary technique for aiding economic development, particularly in Third World countries which are involved in economic growth and development... This will require the promotion of a new type of accountancy, called 'economic development accountancy'. Accountants are capable of:

(a) investigating development budget variances;
(b) determining whether project objectives have been met;
(c) attesting to what the money has been spent on.

Therefore the accountants do have an immediate role to play at the operational level of economic development, to perform cost benefit analysis (even of alternative programmes) and analyse budgetary and other financial data" (12).

Jaggi also stated that "The developing countries are increasingly becoming conscious of the importance of accounting for economic development, and some are attempting vigorously to utilize accountancy as quickly as possible" (13).

Seidler (14) examined accounting practices in Turkey and emphasized the relationship between accounting and economic development. This relationship has been divided into two levels in his study. First, consideration is given to the relationship of accounting - the skills and techniques which make up its body of knowledge - to certain elements of the development process. The second level of the study is the building of the body of required accounting skills. These skills are represented by a store of techniques which can be discovered and written down and by a body of experienced manpower which may be difficult to transfer and also difficult to produce in the underdeveloped country. Seidler concluded that accounting is one of the tools conditionally available to improve the functioning of the development process.

Another attempt has been made by Enthoven "...to evaluate the relationship which exists between economic development and accountancy in its widest sense, and the impact that the accounting approach can have in accelerating the economic development which the less developed nations so urgently require... Accountnacy has a dual effect on economic development. On one hand, it is the basis for generating

sufficient investor confidence to stimulate the flow of investment capital and restrict unproductive savings practices. On the other hand, effective accounting techniques are a necessary prerequisite to the efficient use of capital. Both aspects are important and will play a role in a nation's economic programming and in the the national accounting on which it is based. Accordingly, financial reporting, internal organisation and accounting principles have a significant influence" (15).

Mueller stated that "Opinion seems fairly well-established that accounting and accounting data play a role of some significance in economic development processes... and that developing countries surely assign economic development goals to their accounting processes. Here, accounting information might have a very close relationship to the compilation of national income statistics and possibly the production of tax and other public revenues" (16).

SyCip (17) has answered the question: How the accounting firm can meet the challenges offered by the economically young country? Greater responsibilities and a wider scope of activities are expected of the accounting firm in a developing economy. Some of the functions of accounting firms are: the attest function, advisory services to management, assistance in establishing credit and development companies, tax services, informing prospective investors, evaluating economic and political developments, introducing prospective investors, securing finances from abroad, developing the accounting profession, and contributing to accounting education. The author concluded that accounting firms can indeed play a vital part in accelerating the economic progress of a developing country.

Mahon stated that "Of much greater importance than the technical differences among the countries is the fundamental approach or philosophy of the accounting profession and the role professional accounting is playing in the development of a country's industry, its capital market, and the economy in general" (18).

Foroughi observed that "Accounting can help the economic and industrial development process of developing countries in two ways: (a) by leading and guiding the investing parties to invest in useful, profitable and productice projects, and (b) by helping the management of the industrial and business enterprises to plan for the efficient utilization of development capital" (19).

According to the above studies, it is worth mentioning that:

1) The basic objective of accounting has not changed in the developing countries. The role of accounting is still to provide useful information to users for the purpose of making economic decisions. But because there is an urgent need for economic development in developing countries, accounting is a necessary technique for aiding economic development by providing useful information. "One might question whether the relationship between accounting and economic development is one which exists solely in the developing countries. The answer, quite obviously, is no. Many of the problems of the developing countries are similar to those of the developed" (20). Both situations call for useful information but the role that an accounting approach can have in accelerating the economic development in developing countries is urgently required.

2) A high priority has been given to investors and creditors as users of accounting information in the developed countries. This priority does not only exist in these countries. Capital is a critical factor for economic development which developing countries urgently require. Therefore, investors and creditors, as providers of capital, still have a high priority in developing countries. But most of the investments here are implemented by the government. Accordingly the government comes at the top of the users' list of accounting information in developing countries (21).

3) A reasonable understanding of business and economic activities is required in the users of accounting information in developed countries. But the situation is different in developing countries. For example, "In Nigeria the various accounting information users are primarily non-technical people, often uninformed and unsophisticated in financial and accounting matters" (22).

4) Jaggi in his assessment of accounting studies of developing countries has categorized these studies into: "...descriptive, conceptual, and hypothesis-testing studies. The ultimate objective of these studies is to provide guidelines for the effective use of accounting in economic development" (23). In fact, there are inter-relationships among these studies. For example, the conceptual studies (in which a model is developed to examine the existing system), the data required for testing these models comes from descriptive studies (which examine the state of the art of accounting). Hypothesis-testing studies (which are concerned with what should exist) also depend upon the data from the conceptual and descriptive studies in formulating the hypothesis. From the previous mentioned studies: the studies of Cassell, Seidler, Enthoven and SyCip

give examples of conceptual studies because they attempted to conceptualize the role of accounting in economic development. Seidler's study also gives an example of the descriptive studies because he examined the state of the art of accounting in Turkey. Examples of hypothesis-testing studies will be stated later.

5) Mueller "...has classified accounting research simply as either applied research or theoretical research" (24). Accordingly, Seidler's study gives an example of applied research. The other mentioned studies give examples of theoretical research.

3.3.1.1.2 Qualitative characteristics of accounting information

The question now is: what is the set of qualitative characteristics that the accounting information (if it is available) has in developing countries? This question has been answered by different studies. Examples of these studies will now be reviewed.

The committee on accounting in developing countries of the AAA used the modified Delphi Technique in their 1973-75 research (25). This study was conceived with the purpose of systematically determining:

a) what the accounting practice and education problems are in developing countries as seen by knowledgeable accountants and other experts in developing countries, in advanced countries, in international financial institutions and in world development organisations;

b) the importance of each of these problems relative to each other.

Two questionnaires were utilized; the second was based on the responses to the first. The participants' opinions revealed twenty-six primary problems consisting of fourteen accounting practice problems and twelve accounting education problems. Table 3.1 indicates the findings of this study with regard to the extremely important accounting practice problems in developing countries.

Inspection of Table 3.1 reveals that two of the six extremely important accounting practice problems in developing countries are concerned with the qualitative characteristics of accounting information. The second problem indicates the lack of faithfulness and timeliness of accounting information. Therefore, it can be considered unreliable and irrelevant for satisfying the users' needs. The third problem indicates the lack of usefulness for internal decision making purposes.

Seidler observed "One of the most pressing problems facing the underdeveloped nation is the creation of information gathering systems... In a number of the less developed countries information systems which provide reliable financial data are few in number..." (26).

Holzer and Chandler have used a systems approach to accounting in developing countries and they have stated that "Typical consequences of the basic accounting problems in developing countries include late closing of accounts (if indeed ever completed), poor internal control, absence of management accounting, incomplete and inaccurate records, and unauditable systems... Many annual statements are often from one to three years late, and, in some cases may not be produced at all" (27).

Ogan in his assessment of Turkish accountancy has concluded that "Turkish accountancy is not adequately established to provide relevant, timely, and reliable information" (28).

TABLE 3.1: Extremely important accounting practice problems and their extremely important contributing problems in developing countries.

Extremely important accounting practice problems	Extremely important contributing problems
1) Shortage of qualified accountants at all levels and in all areas of accounting and practices.	- Inadequate college educational training of accountants.
2) Accounting information is either not available or is not available in the proper form, or is received by users too late to be useful.	- Educational training lacks the emphasis on managerial accounting and on developing accounting systems. - Accounting information systems are poorly organised and under-developed for managerial purposes.
3) The failure to utilise accounting information advantageously for internal management purposes.	- Managers lack general training and education about the role of accounting information for managerial functions. - Accounting reports are not adequate for use by management because they are received by the users too late to be useful.
4) Lack of legislation relating to accounting and auditing standards and procedures.	- The accounting profession has not been united and forceful in developing and enforcing reporting and auditing standards beyond the legal minimum.
5) Lack of strong national associations of accountants.	
6) Lack of adequate accounting in government agencies and government-owned businesses.	- Accountants educational training does not emphasise the role of accounting in planning and control of social goals. - Engineers and economists who are managing state-owned enterprises lack appreciation of management accounting.

Scott stated that "...external reporting in developing nations often provides little information relevant to investment decisions, and investors are uncertain about the reliability of the information given... Most firms suffer from faulty accounting and inadequate financial reporting" (29).

Shuaib has studied the role of accounting information in the development planning process in Kuwait and concluded that "... the information available from business reports does not fulfill the information requirements of the development planning process in Kuwait" (30).

Jagetia and Nwadike (31) in their study of the Nigerian accounting system have noticed that the Nigerian Company Decree insists on fairness in financial reporting and does not in any form or manner emphasize relevance and objectivity in the accounting system and procedures. Financial statements are too long and too complex to be comprehended by the various users. With respect to the accounting information generated from both the external and internal financial reporting needs, accounting systems in Nigerian industries are deficient.

It is evident from the above studies that the accounting information produced in the developing countries lacks most of the qualitative characteristics of accounting information. The account systems are not adequetely established to be able to provide relevant, timely, and reliable information to satisfy the users' needs.

3.3.1.1.3 Elements of financial statements

Ten elements of financial statements have been defined by FASB and they are considered as building blocks with which financial statements are constructed. According to the author's information no study has dealt with this issue in developing countries except those which introduced regulations in these countries like the unified accounting system in Egypt.

3.3.1.2 Operational components

3.3.1.2.1 Recognition criteria

No set of criteria has been established in developing countries to determine when an asset, liability, income or expense is recognized and realized.

3.3.1.2.2 Measurement criteria

"Since developing nations are often plagued with heavy, inflationary strains and rapid technological changes, the determination of what changes in net assets is important" (32). Therefore, historical cost information is not sufficient to satisfy users' needs and an approach to inflation accounting in the context of developing countries is needed.

This approach has been introduced by Talukdar (33). The purpose of his study is to propose an approach to account for inflation that would be most useful and appropriate in the context of developing countries. It has been stressed that accounting is a product of its environment and an inflation accounting system should suit the environment present in developing countries to function properly. The study has reviewed the different inflation accounting systems and recommended an inflation accounting system based on the basic principles and concepts of Current Cost Accounting (CCA). The theoretical and practical aspects of implementing such a system in developing countries have been formulated in a detailed recommendation in Talukdar's study.

3.3.1.2.3 Financial reporting

In 1976 The Institute of Chartered Accountants in England and Wales issued a book called "A Survey in 46 Countries:

Accounting Principles and Reporting Practices" (34). The survey dealt with 264 accounting principles and reporting practices in these countries. The booklet has been compiled from information provided by the various offices of the worldwide Price Waterhouse Organisation. Among the 46 countries, twenty-nine countries are developing and the rest are developed (35). Our area of concentration here will be a comparison of some issues concerning the form of financial statements in developed and developing countries. The comparitive issues are:

The first issue: certified copies of financial statements are filed by all companies annually with government bodies (Table 3.2).

The second issue: certified copies of financial statements are filed at least by certain companies annually with government bodies (Table 3.3).

The third issue: statutory financial statements are prepared in accordance with an official format (Table 3.4).

The result of the comparison has been summarised in Table 3.5 - inspection of this table reveals that:

1) The percentage of the developing countries which require certified copies of financial statements to be filed by all companies annually with government bodies (34%) is higher than its counterpart in the developed countries (24%). This result slightly supports the increasing role of the government bodies in developing countries.

2) The percentage of the developing countries which require certified copies of financial statements to be filed at least by certain companies annually with government bodies (79%) is higher than its counterpart in the developed countries (59%). This result also supports the increasing role of the government bodies in developing countries.

TABLE 3.2: Form of Accounts: The First Issue

Certified copies of financial statements are filed by all companies annually with government bodies.	Required	Majority	About half	Minority	Not found in practice	Not permitted	No application
Argentina	*						
Australia							*
Bahamas							*
Belgium							*
Bermuda							*
Bolivia							*
Brazil							*
Canada							*
Chile							*
Colombia							*
Denmark	*						
Ethiopia							*
Fiji							*
France	*						
Germany							*
Greece							*
India	*						
Iran	*						
Italy							*
Jamaica							*
Japan							*
Kenya	*						
Malaysia	*						
Mexico							*
Netherlands							*
New Zealand							*
Nigeria	*						
Norway							*
Pakistan							*
Panama							*
Paraguay							*
Peru							*
Philippines	*						
Rep. of Ireland							*
Rhodesia							*
Singapore	*						
South Africa	*						
Spain							*
Sweden	*						
Switzerland							*
Trinidad							*
United Kingdom	*						
United States							*
Uruguay							*
Venezuela	*						
Zaire							*

Source: A Survey in 46 Countries, op.cit., principle 262

TABLE 3.3: Form of Accounts: The Second Issue

Certified copies of financial statements are filed at least by certain companies (e.g. regulated or publicly traded, or companies over a certain size, etc.) annually with government bodies.	Required	Majority	About half	Minority	Not found in practice	Not permitted	No application
Argentina	*						
Australia	*						
Bahamas	*						
Belgium							*
Bermuda				*			
Bolivia	*						
Brazil	*						
Canada	*						
Chile				*			
Colombia	*						
Denmark							*
Ethiopia	*						
Fiji	*						
France							*
Germany	*						
Greece	*						
India						*	
Iran							*
Italy	*						
Jamaica	*						
Japan	*						
Kenya	*						
Malaysia	*						
Mexico	*						
Netherlands	*						
New Zealand	*						
Nigeria							*
Norway							*
Pakistan	*						
Panama	*						
Paraguay	*						
Peru	*						
Philippines	*						
Rep. of Ireland	*						
Rhodesia	*						
Singapore	*						
South Africa	*						
Spain	*						
Sweden							*
Switzerland							*
Trinidad	*						
United Kingdom						*	
United States	*						
Uruguay							*
Venezuela	*						
Zaire	*						

Source: Ibid., principle 263

TABLE 3.4: Form of Accounts: The Third Issue

Statutory financial statements are prepared in accordance with an official format.

	Required	Majority	About half	Minority	Not found in practice	Not permitted	No application
Argentina	*						
Australia							*
Bahamas							*
Belgium							*
Bermuda							*
Bolivia							*
Brazil	*						
Canada							*
Chile	*						
Colombia	*						
Denmark							*
Ethiopia							*
Fiji							*
France	*						
Germany	*						
Greece							*
India	*						
Iran				*			
Italy	*						
Jamaica							*
Japan	*						
Kenya							*
Malaysia							*
Mexico							*
Netherlands							*
New Zealand							*
Nigeria							*
Norway	*						
Pakistan	*						
Panama							*
Paraguay							*
Peru	*						
Philippines	*						
Rep. of Ireland							*
Rhodesia							*
Singapore							*
South Africa							*
Spain				*			
Sweden	*						
Switzerland							*
Trinidad							*
United Kingdom							*
United States	*						
Uruguay							*
Venezuela	*						
Zaire							*

Source: Ibid., principle 264

TABLE 3.5: Comparison of the three issues in the developed and developing countries.

Distribution / Forms of Accounts	Required		Majority		About Half		Majority		Not found in practice		Not permitted		No applications	
	D.C.*	U.D.C.*	D.C.	U.D.C.	D.C.	U.D.C.	D.C.	U.D.C.	D.C.	U.D.C.	D.C.	U.D.C.	D.C.	U.D.C.
Certified copies of financial statements are filed by all companies annually with government bodies.	4 24%	10 34%											13 76%	19 66%
Certified copies of financial statements are filed at least by certain companies (e.g. regulated or publicly traded, or companies over a certain size, etc.) annually with government bodies	10 59%	23 79%						2 7%			1	1	6 35%	3 10%
Statutory financial statements are prepared in accordance with an official format.	7 41%	9 31%					1 6%	1 4%					9 53%	19 65%

*Developed C. = D.C. & Developing C. = U.D.C.

3) The percentage of the developing countries which require statutory financial statements to be prepared in accordance with an official format (31%) is less than its counterpart in the developed countries (41%).

This survey dealt generally with reporting practices in these countries. There are other studies which examined financial reporting by testing some hypotheses in developing countries. Singhvi's study attempted to identify some of the characteristics of corporations associated with the quality of disclosure in India. "The study has supported the following hypothesis: The companies which disclose inadequate information in annual reports are likely to be small in size, managed by Indian management, and owned by a small number of stockholders" (36). Jaggi stated that "...this study is important because it introduces hypothesis-testing research to accounting problems in developing countries. Unless accountants undertake such research, the beliefs, concepts, and theories in accounting for developing countries will remain untested" (37).

Jaggi also studied the accounting profession in India and found that "...the information disclosed in the financial statements is not adequate and more reliable disclosure of information in the statements is essential to foster the confidence of interested groups" (38).

Another hypothesis-testing study has been implemented in Iran (39). The purpose of this study is to bring to the attention of interested accounting scholars and practitioners the economic, legislative, and industrial conditions of accounting before and after social changes in a developing country such as Iran. The author hypothesised that private industrial development had been one of the important factors influencing the change and evolution of accounting education and profession in Iran. The second hypothesis of this study was that vehicles introduced to meet, improve, and

consolidate the required and needed changes in Iranian accounting had not been sufficiently effective. The study proved both the first and the second hypotheses. Major reasons for these shortcomings were analysed and recommendations for improving conditions of Iranian accounting and reporting were set forth.

In summary, there are some studies which examined the financial reporting in the developing countries. The main conclusion of these studies is that the information disclosed in the financial reporting is not adequate for satisfying users' needs.

In this section, the author has tested the conceptual and operational components of the conceptual framework having taken into consideration the case of developing countries. In order to complete the picture the organisational and environmental characteristics must also be tested.

3.3.2 Organisational characteristics

When this issue was studied in the previous chapter we considered the structure of the body which will undertake the responsibility of developing the conceptual framework and the approach which can be followed in this context.

According to the researcher's information no attempt has been made in the developing countries to develop a conceptual framework. Therefore, the following issues will be discussed:

- The organisational structure of the accounting profession
- The approach of setting accounting standards.

3.3.2.1 The organisational structure of the accounting profession

"The present role of the profession in the developing countries varies substantially, both in terms of organisation and in the use made of its skills. In the Philippines, for example, the profession is well established and accountants play a leading role in the country's economy. In some countries, such as in French speaking Africa, organisation of the profession is in an embryonic stage" (40).

In India (41), there are two professional accounting institutes, the Institute of Chartered Accountants (established in 1949) and the Institute of Cost and Works Accountants (established in 1959). In 1966 the idea of merging the two institutes was discussed as a result of the trend toward unification of the various accounting professional institutes in the United Kingdom.

In Indonesia, "...the profession is Dutch in its qualification structure, but the training... and philosophy are American. Neither, however , is in the least relevant to the needs of Indonesia, a country with no Companies Act, no capital market, a massive public sector, and an economic and cultural environment totally dissimilar to that of the Netherlands or the United States" (42).

In Kuwait, "The accounting profession is still in its infancy. The first statute to regulate accounting was enacted in 1962. It was a necessary first step for the orderly development of the accounting profession. This law did not, however, treat accounting in a comprehensive manner" (43).

In Thailand, "The various bodies concerned with the accountancy profession are the Ministry of Commerce, the Board of Audit Supervision, The Securities Exchange of Thailand and the Institute of Certified Accountants and Auditors in Thailand. Audit reports are made by Certified Public Accountants, but such persons need not be members of the Thai Institute" (44).

"Cognizant of the need for a formal structure to consolidate harmonization efforts in the ASEAN region, the representatives of the various ASEAN accounting organisations (Ikatan Akuntan Indonesia, the Malaysian Association of Certified Public Accountants, the Philippine Institute of Certified Public Accountants, the Singapore Society of Accountants, and the Institute of Certified Accountants and Auditors in Thailand) held a series of organisational meetings beginning in 1976. The result was the formation of ASEAN Federation of Accountants in 1977... The major objective of the Federation is to provide an organisation for the ASEAN accountants for the further advancement of the status of the profession in the region with the view to establishing an ASEAN philosophy on the accounting profession..." (45).

"Especially in Africa there continues to be many developing countries without any established, representative accounting organisation" (46). In Ethiopia (47), there was no self-governing accounting profession or an admission examination required for certification as a public accountant until 1971. Some other countries have recently established their accounting organisations. In Kenya (48), The Institute of Certified Public Accountants was established in 1978. And in Nigeria (49), The Institute of Chartered Accountants of Nigeria was established in 1965. Most of the members were admitted to membership on the basis of an overseas qualification.

From this brief review of the organisational structure of the accounting profession in some developing countries, it seems obvious that:

1) The accounting profession in most of these countries is in an embryonic stage. Although there are some exceptions, most of the accounting organisations have been recently established.

2) The influence of foreign countries on the accounting profession is an obvious tendency. For example, in India the idea of merging the two accounting institutes was discussed as a result of the British trend toward unification. In Indonesia, the profession is Dutch in its qualification structure, but the training and philosophy are American.

3) According to the universal attitude towards harmonisation in accounting, various ASEAN accounting organisations established the ASEAN Federation of Accountants in 1977. This represents a good attitude in developing countries especially if they will be able to establish an accounting profession which reflects the environmental needs of their countries and not that prevalent in developed countries.

3.3.2.2 The approach of setting accounting standards and regulating accounting practices

In India, "... the principles and concepts used to maintain accounts and to prepare financial statements were derived primarily from statutory requirements as specified in the amended Companies Act of 1956... The Institute of Chartered Accountants of India recognised the need to provide guidance to its members in controversial accounting matters. The Institute considered a proposal to constitute an Accounting Principles Board based on that of the AICPA in the United States" (50).

In Indonesia, "Despite the structural inflexibility of the system, enormous philosophical changes have taken place within it, involving the almost total substitution of American for Dutch accounting principles" (51). "At the same time, the Institute of Accountants adopted a set of accounting and auditing standards virtually identical to those of the American Institute" (52).

In Kuwait, "Legislation provided the legal basis for corporate financial reporting... and the requirement for the commercial books... The Kuwaiti accounting profession is still without a uniform body of generally accepted auditing standards and a statement of generally accepted accounting principles... Kuwaiti accounting practice is derived from American and European practice. So far, nothing has been done to develop accounting principles and auditing standards and procedures specifically applicable to the legal and economic environment of the state of Kuwait" (53).

In Thailand, "... the various bodies have begun a programme of standard setting in relation to both accountancy and audit procedures. The establishment of such standards is being achieved in a similar manner to that adopted by the accounting standards committee in the United Kingdom" (54).

In Ethiopia, "There is no body of accounting principles, accounting theory, or statement of ethical or auditing standards... Underdeveloped countries, such as Ethiopia, cannot wait for an accounting profession to develop voluntarily in a self-regulated manner as was the case in economically advanced countries... Ethiopia must make a deliberate legislative act to establish an accounting profession and to regulate and supervise the development of accounting amd public accounting practice" (55).

"In Libya, there are three main sources of and influences on accounting practice: (1) governmental laws and regulations that control business in Libya; (2) accounting practices and principles from abroad... through publications and the experience of qualified personnel and companies; and (3) impact of the writings of accounting academicians and practitioners in Libya" (56).

In Nigeria (57), the Nigerian accounting system closely parallels and follows the general philosophical approach of British (and to a very limited extent, U.S.A.) accounting and auditing practices. Such an accounting system has been adopted by the Nigerian body of professional accountants without determining modifications or total concern as to whether the practices meet the basic accounting requirement of usefulness in Nigeria's unique accounting environment. The Nigerian Company Decree of 1968, to a very great extent, is a copy of the British Companies Acts.

In Turkey, "The structural inadequacy of the accounting profession stems from the lack of legislation that would provide a power base to accountancy... In several developing countries legislatures have provided accountancy with the legal foundation that it sorely needs in Turkey" (58).

From these examples, it is worth mentioning that:

1) The autocratic approach, not the democratic one, has been followed by most of the developing countries. Some argued that "Underdeveloped countries cannot wait for accounting profession to develop voluntarily in a self-regulated manner as was the case in developed countries... they must make a deliberate legislative act to establish an accounting profession... The profession in these countries will have the advantage of legislation in enforcing requirements and standards... though it may become inflexible and tend to remain permanently in force long beyond its usefulness. This

is the price that must be paid, however, to quicken the pace of development" (59). Therefore, it can by hypothesised that, according to the environment prevalant in developing countries the autocratic approach which enforces accounting standards by legislation seems to represent a suitable approach in these countries.

2) The establishment of accounting systems in developing countries has been achieved in a similar manner to that adopted by developed countries without determining modifications or total concern as to whether the practices meet the basic accounting requirement of usefulness in the developing countries' unique accounting environment. "Therefore, accounting priorities continue to be defined in terms of the developed countries' requirements" (60).

3.3.3 Continuous contemporary (environmental) characteristics

"Accounting principles, standards, and practices are usually a direct product of the circumstances and influences of their environment and are most meaningful if viewed against such factors. Accordingly, accounting methods and applications originating in one country have probably the greatest utility in that country or in one with a similar environment. They could be quite inappropriate or may work undue hardships in countries of dissimilar environments" (61).

Therefore, "Accounting can not be separated from the environment it serves... The economic, social, political, and fiscal environment of a country influences its accounting objectives, principles, and practices" (62).

Mueller answered the question: What separates one business environment from another?, by stating that there are four marks of separation (63):

1. States of economic development. A highly developed economy provides an environment different from an undeveloped economy.
2. Stages of business complexity.
3. Shades of political persuasion.
4. Reliance on some particular system of law.

Using this criterion, Mueller (64) identified ten distinct sets of business environments. They are:

1. United States, Canada and The Netherlands.
2. British Commonwealth (excluding Canada).
3. Germany and Japan.
4. Continental Europe (excluding Germany, The Netherlands and Scandinavia).
5. Scandinavia.
6. Israel and Mexico.
7. South America.
8. The Developing Nations of the Near and Far East. Modern concepts and ethics of business have predominately western origins. These concepts and ethics often clash with the basic oriental cultures.
9. Africa (excluding South Africa). Most of the African continent is still in the early stages of independent cilvilization and thus little or no native business environement presently exists.
10. Communist Nations.

Mueller concluded that:

"1. United States generally-accepted accounting principles should not be enforced arbitrarily in other countries. There is a theoretical incompatibility between the environments prevailing in different countries...

2. Complete international diversity of accounting principles is undesirable and unnecessary. The ten-fold classification is highly subjective; nevertheless, it demonstrates a frame of reference...
3. Accounting is dynamic and operates in an atmosphere of change..." (65).

Jaggi (66) examined the impact of the cultural environment and individual value orientations on information disclosures. Based on this examination, it can be said that "...the reliability of financial statements in developing countries is likely to be low... the experience of economically developed countries in the development of accounting principles can not be effectively transferred to the developing countries. Due to differences in cultural environments..." (67).

An attempt was made by American Accounting Association (68) to construct a methodology for identifying the socio-economic factors and the characteristics of systems of accounting in six developing countries (Tunisia, Thailand, Singapore, Kenya, the Philippines and Kuwait) and for classifying them by "zones of influence" (British, Franco-Spanish-Portugese, Germanic-Dutch, U.S. and communistic). The correlation between all characteristics of an economic, financial and reporting nature has been studied. A comprehensive set of socio-economic factors representing five major categories has been shown in Table 3.6. An attempt was then made to relate the socio-economic factors to the various aspects concerning financial reporting.

"The environmental variables used in Frank's study to account for similarities in accounting concepts include (a) the country's official language(s) as a proxy for cultural ties between countries, (b) a group of variables related to the country's economic structure (consisted of (1) per capita income, (2) private consumption, (3) gross capital formation,

TABLE 3.6: General Financial and Economic Information

General Economic Information	Socio-economic Information	Financial and Accounting Related Criteria	Public Accounting Profession	Auditing
1. Population and growth rate.	1. Constitution.	1. Capital market - stock exchange.	1. Original impetus for accounting development.	1. Role of Auditor.
2. Area.	2. Language of doing business.	2. Influence of tax laws and financial reporting.	2. Age of profession and stages of professional growth.	2. Origin of audit function.
3. G.D.P. growth rate.	3. Legal system the commercial company and accounting laws.	3. Reporting to government.	3. Legal base of profession.	3. Authority for the audit function.
4. G.N.P. per capita.	4. Forms of business organisations.	4. Current developments in financial reporting.	4. Educational training	4. Audit standards
5. Structure of economic development and economic planning pattern.	5. Taxation.	5. Other matters.	5. Professional examinations	5. Independence of auditors
6. Dominant former (if) colonising power.	6. Other matters of concern.		6. Name(s) of professional organisation(s).	6. Other matters.
7. Other relevant information, whenever available, i.e. dispersion of ownership.			7. Membership in professional organisations.	
			8. Qualifications for membership.	
			9. Other matters of interest.	

Source: "Report of the AAA Committee on International Accounting Operation and Education," Accounting Review, Sup. to Vol. 52 (1977), pp. 108 - 112.

(4) balance of trade (exports minus imports), (5) agricultural sector output as a fraction of gross domestic product, (6) the average annual growth rate of real gross national product, (7) average annual change in the country's foreign exchange rate for U.S. dollars, and (8) average annual change in consumer prices), and (c) a set of variables reflecting trade patterns between the countries" (69). The hypothesis that the cultural and economic environment in a country influences its accounting principles and reporting practices is supported by Frank's study" (70).

From the above studies, it is noteworthy that:

1. It is difficult to develop a conclusive list of the environmental variables which affect accounting principles in different countries. For instance, the American Accounting Association's study included thirty three different items representing socio-economic factors characterizing countries. It is necessary to understand that any attempt for classification is subjective, nevertheless, it must be done because the correlation between the cultural and economic environment and accounting principles must be considered in the process of transferring these principles from developed countries to developing countries.

2. It is a hopeful sign that the American Accounting Association has tried to construct a methodology for identifying the socio-economic factors and the characteristics of systems of accounting in developing countries. This attempt was made after long history of transferring of accounting principles from developed countries to developing countries without modifications to suit their unique environment.

3.4 Conclusion

The three dimensions of the characteristics of the conceptual framework have been used as basic tools in the examination of accounting problems in the developing countries. The main implications of this test are:

a) Structural characteristics which consist of:

- Conceptual components: the basic objective of accounting has not changed in developing countries. The role of accounting is still to provide useful information to satisfy the users' requirements for making economic decisions. But because there is an urgent need for economic development in developing countries, accounting must provide useful information for aiding economic development in these countries. Because the government undertakes most of the investment for economic development, it comes at the top of the list of users of accounting information in the developing countries. Generally the various users of accounting information are primarily non-technical people, often uninformed and unsophisticated in financial and accounting matters.

It is evident that the accounting information produced in most of the developing countries lacks most of the qualitative characteristics of accounting information. The accounting systems are not adequately established to be able to provide relevant, timely and reliable information to satisfy users' needs.

- Operational components: since developing countries are often plagued with heavy inflationary pressures, an approach based on the basic principles and concepts of current cost accounting has been reviewed to take into consideration inflation in these countries.

It is generally recognised that the information disclosed in financial reporting is not adequate for the purpose of making economic decisions.

b) Organisational characteristics: the accounting profession in most of the developing countries is at an embryonic stage, and there is an obvious tendency for influence from foreign countries. An autocratic rather than a democratic approach has been followed by most of the developing countries in setting accounting systems and regulating the accounting profession. Therefore, it can be hypothesised that, according to the environment prevalent in developing countries, the autocratic approach which enforces accounting systems by legislation seems to represent a suitable approach in these countries.

c) Environmental characteristics: the correlation between the socio-economic environment and accounting principles has been identified in many studies. It is a hopeful sign that the American Accounting Association has tried to construct a methodology to identify the socio-economic factors and the characteristics of systems of accounting in developing countries. This attempt was made after a long history of the accounting principles of developed countries being enforced in developing countries, without modification to suit their unique environment.

After testing the three dimensions of the characteristics of the conceptual framework in the case of developing countries, a question which may be asked is: is it possible to develop a model of general applicability to the identification and management of accounting problems in these countries? The answer to this question will be in the next chapter

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CHAPTER FOUR

Chapter Four

Suggested Medical Model for the Identification and Management of Accounting Problems in Developing Countries

4.1 Introduction

4.2 Studying the accounting problems in developing countries:
- 4.2.1 Engelmann's study
- 4.2.2 Scott's study
- 4.2.3 Needles' study
- 4.2.4 Seidler's study
- 4.2.5 American Accounting Association's studies:
  - 4.2.5.1 Report of the committee on accounting in developing countries
  - 4.2.5.2 Report of the committee on international accounting operations and education
- 4.2.6 Enthoven's studies
  - 4.2.6.1 Accountancy and economic development policy
  - 4.2.6.2 Accountancy systems in third world economies
- 4.2.7 Holzer and Chandler's study
- 4.2.8 Conclusion

4.3 Suggested medical model for the identification and management of accounting problems in developing countries
- 4.3.1 General medical model for disease regulation and its applicability to accounting problems
  - 4.3.1.1 General medical model for disease regulation
  - 4.3.1.2 The applicability of the general medical model for disease regulation to accounting problems

4.3.2 Medical model for regulating schizophrenia and its applicability to accounting problems in developing countries

4.3.2.1 Medical model for regulating schizophrenia

4.3.2.2 The applicability of the medical model for regulating schizophrenia to accounting problems in developing countries

4.3.3 Suggested medical model for the identification and management of accounting problems in developing countries

4.4 Conclusion

Chapter Four

Suggested Medical Model for the Identification and Management of Accounting Problems in Developing Countries

4.1 Introduction

In the previous chapter the author studied the characteristics of the conceptual framework for financial accounting and reporting having taken into consideration the case of the developing countries. The essential question that this chapter attempts to answer is: is it possible to develop a model of general applicability in the examination of accounting problems in developing countries and providing them with suggestions to improve practices? But before answering this question, some studies which have dealt with accounting problems in developing countries will be breifly appraised in the following section. The criteria that will be used in evaluating each of these studies are:

a) The nature of the study: descriptive (which examines the present state of the art of accounting), conceptual (in which a model is developed to examine the existing system), and hypothesis-testing study.

b) The characteristics of the conceptual framework for financial accounting and reporting in their various dimensions: structural, organisational and environmental.

4.2 Studying the accounting problems in developing countries

4.2.1 Engelmann's study

Engelmann has reviewed the following circumstances which prevail in developing countries (1):

a) Restrictions imposed by government: government influence on accounting is far greater in developing countries. Government agencies are as a rule much more conservative with regard to their fiscal methods than their counterparts in developed countries. They insist on rigidly applying forms. They reflect an attitude of suspicion and mistrust which, to a degree, still dominates the relationship between government and private commerce. The accounting profession consequently feels less free to apply modern methods than in developed countries, because they still fear to arouse suspicion on the part of authorities on whom they are dependent.

b) Influence of foreign methods: the tendency of government and, accordingly, of the accounting profession to develop conservative methods can also be viewed as reaction against foreign influences, which provided considerable difficulties through frequent changes of methods and procedures introduced by different countries.

The author has emphasised the urgent need of systematic accounting education in connection with technical assistance programmes as recommended solutions to accounting problems in developing countries.

From the above study, it is worth mentioning:

1) Nature of the study: this study is considered to be descriptive because it has examined the state of accounting art in developing countries which have been influenced by the restrictions imposed by government and the influences of foreign methods.

2) The characteristics of the conceptual framework: this study has concentrated on studying the environmental characteristics of the conceptual framework. Both restrictions by governments and the influences of foreign methods represent environmental factors which affect accounting practices in developing countries.

4.2.2 Scott's study

Scott has examined the status of accounting in developing countries and noticed that (2) accounting for both external and internal financial reporting purposes is generally at a low level of development. External reporting in developing countries often provides little information relevant to investment decisions, and investors are uncertain about the reliability of the information given. Internal accounting systems can not be considered effective for decision-making purposes. The study is intended to increase the contribution of accounting to the economic development of developing countries by promoting the development of one economic resource-accounting information.

"Developing countries need an orderly and carefully considered approach to accounting development so that their accounting will realize its full potential for contributing to economic development. The first step in this approach should be the explicit recognition of the need for accounting development, with the objective of this development being the maximization of accounting's contribution to economic development. Then the economic, social, and political environment within which accounting will function should be considered. After this, a wide-ranging analysis of the accounting practices and experiences of advanced nations should ensue to ascertain which of the accounting characteristics of each nation might, if adopted or adapted,

blend into a cohesive, well-balanced accounting structure suited to the needs of the developing countries... Thus, on the one hand, the accounting of a developing country should not be developed in isolation since this is a slow process that is full of pitfalls; on the other hand, there should not be an uncritical acceptance of the pattern of accounting of any one advanced nation, or a random amalgamation of accounting characteristics of several nations whose accounting for one reason or another happens to be conveniently available to a developing nation." (3).

From this brief review of Scott's study, it seems obvious that:

1) The study has examined the status of accounting art in developing countries: accordingly, it will come under the category of descriptive studies. In addition, it has conceptualized the role of accounting for economic development. Therefore, it will be considered also as a conceptual study.

2) The study has followed some elements of the structural characteristics of the conceptual framework. The objective of accounting development will be the maximization of accounting's contribution to economic development. The author has also concentrated on following the qualitative characteristics of accounting information. The environmental characteristics have also been considered in this study.

3) This study has warned of the danger of an uncritical acceptance of the patterns of accounting of developed countries. These patterns may not suit the needs of developing countries. Therefore, there must be a rationalization of this process. This issue is considered in the next study.

4.2.3 Needles' study

"This study proposes firstly a conceptual framework by which a country may formulate a strategy for the international transfer of accounting technology as a part of its overall economic plan. Second, a three-phase plan is described for the implementation of this framework" (4).

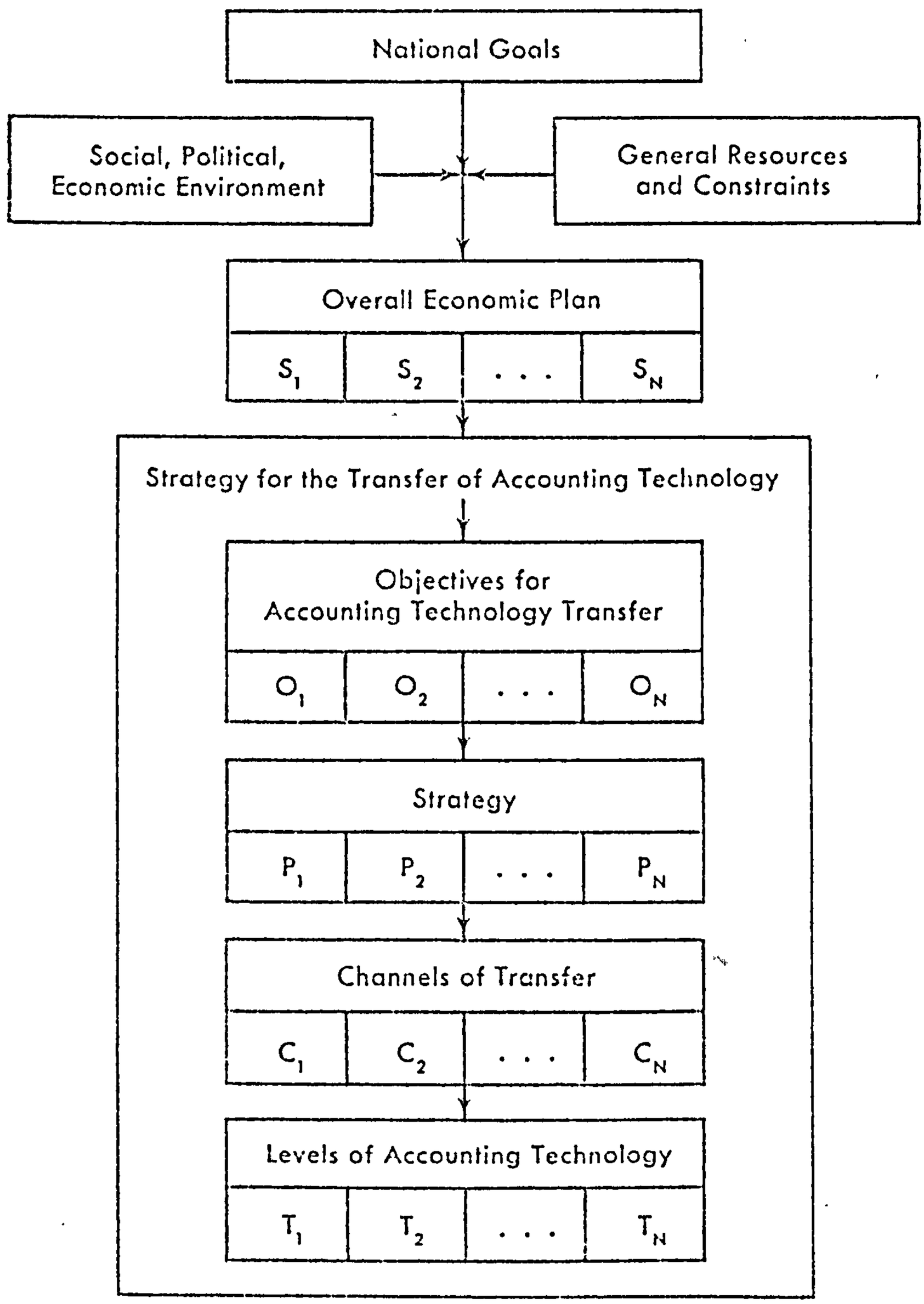
The proposed framework for the international transfer of accounting technology is presented in Figure 4.1 In it, national goals combine with the social, political, economic environment and general resources and constraints influence the overall economic plan. The strategy (which is defined as the combination of all the policies used by a particular country to establish and maintain the level of accounting technology) for the transfer of accounting technology is a specific subplan of the overall economic plan. A strategy consisting of specific policies (a policy is a specific mean for establishing and maintaining the transfer of accounting technology) is developed from the objectives. The policies relate to channels of accounting technology transfer. The channels identified for purposes of this study are as follows:

C1 - education institutions:
  C11 - internal educational institutions;
  C12 - foreign educational institutions;
C2 - international organisations;
C3 - government agencies;
C4 - multinational companies;
C5 - international accounting firms;
C6 - local companies; and
C7 - local accounting firms.

These channels in turn affect the levels of accounting technology in a country. They are defined as follows:

T1 - level of technical accounting knowledge possessed by individuals;
T2 - level of sophistication of accounting techniques used by government and business organisations; and
T3 - level of advancement of an independent accounting profession.

FIGURE 4.1: Framework for the International Transfer of Accounting Technology



Source: Belverd E. Needles, JR., "Implementing a Framework for the International Transfer of Accounting Technology," The International Journal of Accounting, Volume 12, No 1 (Fall 1976), p. 49.

Implementation of this framework requires three separate and distinct phases of implementation in a programme for the transfer of accounting technology to a developing country. These phases are shown in Table 4.1. Each is designed to answer a different question:

Phase I - Diagnosis. Diagnosis is descriptive and theory building in nature. It answers the question: What is? Research in this category has two tasks. One is the assessment of the existing levels of technology, the availability of transferable technologies, and the current state of the channels of transfer. The second and equally important task is to explain and provide a basis for predicting the behaviour of individuals and organisations involved in the technology transfer process in and for developing countries. The social and cultural as well as legal and political environments must be considered in this process.

Phase II - Prescription. Prescription is normative in nature and answers the question: What ought to be? This activity has the task of setting levels and priorities of objectives and selecting appropriate accounting technolgies and channels of transfer.

Phase III - Strategy Formulation. Strategy formulation is action-orientated and answers the question: How? It is the detailed, technical task of devising policies and guidelines for legislation and other decision-making authorities which are compatible with the research findings in Phase I and will achieve the priorities set in Phase II.

From the above study, it is interesting to note that:

1) The first phase of the implementation of the strategy for the transfer of accounting technology is diagnosis. In which, anasssessment of the existing levels of accounting technology must be done.

TABLE 4.1: Implementation Matrix for the Transfer of Accounting Technology

Phase \ Model Components	Objectives $(O_1, O_2, \ldots, O_N)$	Technologies $(T_1, T_2, \ldots, T_N)$	Channels $(C_1, C_2, \ldots, C_N)$
I. Diagnosis	assessment	assessment	assessment
II. Prescription	prioritization	selection	selection
III. Strategy Formulation $(P_1, P_2, \ldots, P_N)$	communication	specification	specification

Source: Ibid: p. 55.

Accordingly, the implementation process in this study mainly depends on the results of the descriptive studies. In addition, this study has conceptualized the process of transferring accounting technology with the objective of increasing the role of accounting technology in achieving the economic development. It appears that this study is descriptive and conceptual in nature.

2) National goals combine with the social, political, economic environment and general resources and constraints influence the overall economic plan. Accordingly, the strategy for the transfer of accounting technology will reflect these environmental factors because it is a subplan of the overall economic plan. Therefore, the environmental characteristics have been considered in this study. Also, the objective of accounting as an element of the structural characteritics has been considered.

3) This study has dealt directly with the problem of transferring accounting technology from developed countries to developing countries. By following this framework, the developing countries can avoid foreign accounting technologies which do not satisfy their environmental needs. In other words, this study has tried to rationalize the unavoidable influence of foreign accounting technologies by taking into consideration the environmental characteristics of the developing countries.

4.2.4 Seidler's study

Seidler (5) has presented the relationship of accounting skills and techniques to certain aspects of economic development. The study has suggested that an increase in the supply of accounting skills in a developing country entails two distinct if not always separate problems: the acquisition of the basic theoretical materials and the development of an initial core of manpower possessing a moderate amount of skills. These needs in a developing country point to the twin problems of transference of accounting knowledge and manpower development.

In the acquisition of accounting knowledge, the developing countries possess the advantage of being latecomers and they can avoid some of the problems which occurred in the developed countries. But they will face the problem of the selection of an accounting model. Accounting principles and practices in the developed countries are far from being identical or equally appropriate to the problems of developing countries. The selection of accounting model is the result of a number of determinants: principally the nature of the legal system, the stage of development of the capital market and the attitude of government, particularly as expressed through the system of taxation.

The accounting manpower development will be implemented by improving accounting education.

An analysis of Seidler's study reveals the following:

1) The study gives an example of the conceptual study because it has conceptualised the role of accounting in economic development. Accounting principles and practices in a developing country must be studied before choosing the appropriate accounting model.

2) The environment factors must be taken into consideration in the process of choosing the appropriate accounting model. The objective of supporting economic development by providing reliable accounting information has been considered in this study.

4.2.5 American Accounting Association's studies

4.2.5.1 Report of the committee on accounting in developing countries

This study has examined the problems of accounting in developing countries on a formal and systematic basis. The study has identified the following problems (6):

1) Extremely important accounting practice problems and their extremely important contributing problems.
2) Extremely important accounting education problems and their extremely important contributing problems.

The first set of problems was discussed in the preceeding chapter. It has been noticed that two of the extremely important accounting practice problems in developing countries are concerned with the lack of qualitative characteristics of accounting information. Further inspection of this set of problems reveals that most of the remaining problems are concerned with the weakness of the accounting profession in developing countries. For instance, the shortage of qualified accountants, the lack of legislation relating to accounting and auditing standards and procedures, and the lack of a strong national association of accountants.

The findings of this study with regard to the extremely important accounting education problems appear in Table 4.2.

TABLE 4.2: Extremely important accounting education problems and their extremely important contributing problems in developing countries

Extremely important accounting education problems	Extremely important contributing problems
(1) Locally - Authored accounting textbooks are inadequate.	- The accountants most qualified to write text are too busy with other concerns.
(2) Inadequate teaching of accounting subjects at the college level.	- Accounting instructions often occupy several other positions for the purpose of supplementing their low teaching salaries.
(3) Lack of qualified accounting instructors at the college level.	- There is a general shortage of qualified accountants and educators. - College teaching careers are not adequately rewarded financially.
(4) Lack of professional development opportunities for accounting educators and practitioners.	
(5) Inadequate accounting education for managers and prospective managers.	- The accounting education of managers is limited to the bookkeeping or they receive no accounting training at all.

Source: "Report of the Committee on Accounting in Developing Countries," op.cit., p. 205.

The study shows that many of the most important accounting practice problems are believed to result from important causes deeply rooted in accounting education. Also, the study provides support for the proposition that international cooperation in development of accounting education in developing countries can directly help alleviate accounting education problems and can derivatively influence accounting practice problems. The major finding of the study is that the key to many of the accounting education problems in developing countries probably lies in establishing a cadre of qualified accounting professors in each country who are committed to full time teaching careers.

From the study findings, it is noteworthy that:

1) The study comes under the category of descriptive studies. It has examined the state of accounting in developing countries by taking into consideration both the accounting practice problems and accounting education problems.

2) The study has considered some elements of the structural characteristics by examining the qualitative characteristics of accounting information in developing countries. The organisational characteristics have also been considered by studying the state of accounting profession. There is no evidence that the environmental characteristics have been considered in this study.

4.2.5.2 Report of the committee on international accounting operations and education

This study has tried to construct a methodology for identifying the socio-economic factors and the characteristics of accounting systems in developing countries and studying the correlation between them. An attempt was

also made to classify the developing countries by zones of foreign influence. This attempt was presented in the preceding chapter.

Another part of this study introduced a morphology for comparative accounting systems, a set of parameters which may be used to uniquely identify any accounting system was described. Such a morphology, presented in Figure 4.2, may be useful in many ways. "One use of such a classification is to evaluate various existing systems relative to identifiable criteria... A developing country may wish to deliberately manage the development of the accounting system for the nation. It will wish to develop the type of system which will best satisfy the goal structure of the nation. This can only be done if the linkage between accounting systems and goals has been established. A second use of such a classification is to trace out the path by which existing accounting systems have developed and changed" (7).

Concerning the accounting problems in the developing countries several general conclusions can be identified. These are (8):

1) Financial accounting and reporting: in many developing countries, accounting systems found in private enterprises are barely sufficient to produce, usually after a long delay, an annual income statement and a balance sheet.

2) Management accounting: in many developing countries management accounting systems are practically non-existent.

3) Government accounting: existing systems are aimed at assuring that money is being spent only for authorized purposes and that budget limits are not exceeded. Such systems do not readily yield information that is useful for managerial planning and control.

FIGURE 4.2: *A Morphology for Comparative Accounting Systems*

Parameters	States of Nature				
	1	2	3	4	5
P_1 - Political System	Traditional Oligarchy	Totalitarian Oligarchy	Modernizing Oligarchy	Tutelary Democracy	Political Democracy
P_2 - Economic System	Traditional	Market	Planned Market	Plan	
P_3 - Stages of Economic Development	Traditional Society	Pre-Take-off	Take-off	Drive to Maturity	Mass Consumption
P_4 - Objectives of Financial Reporting	←---------- Micro ----------→			←-------Macro-------→	
	Investment Decisions	Management Performance	Social Measurement	Sector Planning & Control	National Policy Objectives
P_5 - Source of, or Authority for Standards	Executive Decree	Legislative Action	Government Administrative Unit	Public-Private Consortium	Private
P_6 - Education, Training & Licensing	←-------Public----------→		←---------Private------→		
	Informal	Formal	Informal	Formal	
P_7 - Enforcement of Ethics & Standards	Executive	Government Administrative Unit	Judicial	Private	
P_8 - Client	Government	Public	←---- Enterprises ----→		
			Public	Private	

Source: "Report of the Committee on International Accounting Operations and Education," op.cit., p. 99.

4) Education and research: there is no question that in practically all developing countries there are tremendous deficiencies in the education of accountants.

5) Development of an accounting profession: in many developing countries either no accounting profession exists or the profession is in its infancy and suffers from many shortcomings. But there are some significant exceptions, for example, the case of India. When there is no accounting profession, the country usually looks to its former colonial motherland for a model.

6) Developing legal requirements for accounting and taxation: in most developing countries it is very unlikely that an accounting profession will evolve as it did in Great Britain and the U.S. without strong government involvement. The development of accounting should, therefore, be promoted by appropriate laws and regulations on accounting.

From the above study, it is worth mentioning that:

1) The study is considered as descriptive, conceptual and hypothesis-testing. It has generally examined the state of accounting in developing countries. A morphology for comparative accounting systems which may be used to identify any accounting system has been suggested. Some hypotheses concerning the correlation between the socio-economic factors and the characteristics of accounting systems have been tested.

2) Some elements of the structural characteristics have been considered. The objective of the accounting system and the financial reporting have been examined. Both the environmental characteristics and organisational characteristics have been appreciated in this study.

4.2.6 Enthoven's study

4.2.6.1 Accountancy and economic development policy

The major deficiencies and problems of accounting theory and practices in developing countries has been reviewed by Enthoven. The general observations on accounting are (9);

1) Foreign accounting influence: foreign accounting and auditing influence has been strong in many developing countries, due either to former colonial government domination or to foreign-operated firms. Countries which have been exposed to various foreign accounting systems over the years tend to be reluctant to build their own systems, or to accept ideas and fundamentals that are conducive to such systems. Furthermore, the adherence to various foreign accounting influences has sometimes led to rather chaotic practices.

2) Financial enterprise accounting: in developing countries, accounting is still mainly custodianship and tax oriented.

3) Management accounting - generally identifiable with cost and industrial accounting - tends to be highly underrated, whilst its needs at the micro and macro economic level are not adequately recognised.

4) Accounting in government sector: accounting in the public sector in developing countries frequently shows many of the weaknesses shown at the private enterprise level; for example, accounting procedures in governmental departments often reflect such a complicated system of checks, rechecks and balances as to hamper the efficacy and timeliness of an accounting system.

5) Social accounting: in developing countries it tends to be difficult to construct a set of social accounts. Statistical and accounting data are either lacking or deficient.

6) The accounting profession: in most developing countries, an actual profession either does not exist or has been barely developed. For example, in Egypt it was not until 1958 that the profession was organised with its own guidelines and code of ethics. Accounting methods and principles were previously left to the responsibility of the firm concerned.

7) Lack of qualified personnel: this is due to the low standing and recognition of accounting and the inadequate educational and training facilities for potential accountants.

8) Government influence: the government has great influence over all forms of accounting in developing countries.

Insight into the environmental and structural facets of accounting in developing countries has been implemented in order to achieve the following objectives:

1) Theoretical: to determine the prospective role of accounting and systems, norms and procedures which should be adopted to make it a more useful and effective instrument in the economic and economic development processes.

2) Practical: to outline specific national, international, educational, professional and institutional recommendations for improving accounting for purposes of economic development.

From these observations, it is obvious that:

1) The study is descriptive because it has examined the major deficiencies and problems of accounting in developing countries. It is also conceptual because it has suggested a pattern of accounting for economic development.

2) The organisational characteristics have been considered by studying the state of accounting profession and the government influence. It has also recognised that the economic, social and cultural environment must be studied in the process of developing a pattern of accounting for economic development. The objective of providing information for serving economic development is a dominant factor in this study.

4.2.6.2 Accountancy systems in third world economies

To a very large degree, this study builds upon the preceding study, which dealt with the role of accountancy in the context of economic growth and development. But the goals of this study are as follows (10):

1) To analyse and describe prevailing micro and macro accountancy systems, procedures and practices in developing economies, with specific evaluations conducted in a series of African and Asian countries.

2) To appraise the developments pertaining to accountancy (enterprise, government and national) and in this context assess relevant "infrastructual" accountancy aspects of a training and educational, institutional, professional, legal and socio-economic nature.

3) To delineate ways and means to improve accountancy methodology, concepts, standards and practices and other accountancy facets for purposes of socio-economic development.

4) To outline specific steps of potential use to country, regional and international bodies for pursuing warranted changes.

Concerning the nature of the study and following the characteristics of the conceptual framework, it was noticed that this study does not differ greatly from the preceding one except that there is some concentration in the structural characteristics.

4.2.7 Holzer and Chandler's study

In this study the accounting establishment in developing countries is considered as consisting of four components (sub-systems) (11): the accounting function in indigenous enterprise, the local accounting profession, the accounting function of government agencies, and the teaching of accountancy in educational institutions. The accounting establishment is viewed as a system and its constituent components are interrelated such that the behaviour (including problems) of one component affects the behaviour of the others. The accounting problems which have been identified in each sub-system are:

- Enterprise Component: one of the most often stated problems is the critical shortage of qualified staff. A second problem area for the enterprises in developing countries involves their in-house accounting systems. Many of them are poorly designed, lacking appropriate forms, procedures and records.
- Government Component: the accounting problems are very similar to those of the enterprise component.
- Professional Component: countries that were former colonies have often adopted, in full or in part, many of the professional standards of the foreign country. The most noted problem for the profession, again, is the lack of qualified personnel.
- Educational Component: the first problem is the lack of qualified personnel. The second problem concerns the content of the accounting curriculum. Most of the curriculum which is imported from developed countries is designed for the environment of such countries.

Analysis from the system viewpoint yields two common, underlying problems: lack of qualified personnel and ineffective accounting systems. A system view of the problems described above is presented in Figure 4.3. Each of the four components is shown to have a significant effect on the other three.

A system solution is suggested whereby these underlying problems are attacked, through accounting curricula changes and professional standardisation, in order to facilitate the solution of the more visible problems.

From this system approach to accounting in developing countries it is worth mentioning that:

1) The study is descriptive, because the system approach has been used to examine the state of accounting in developing countries. It is also conceptual, because it has been suggested that the system approach represents an effective model for identifying the crucial, underlying problems and providing solutions for them.

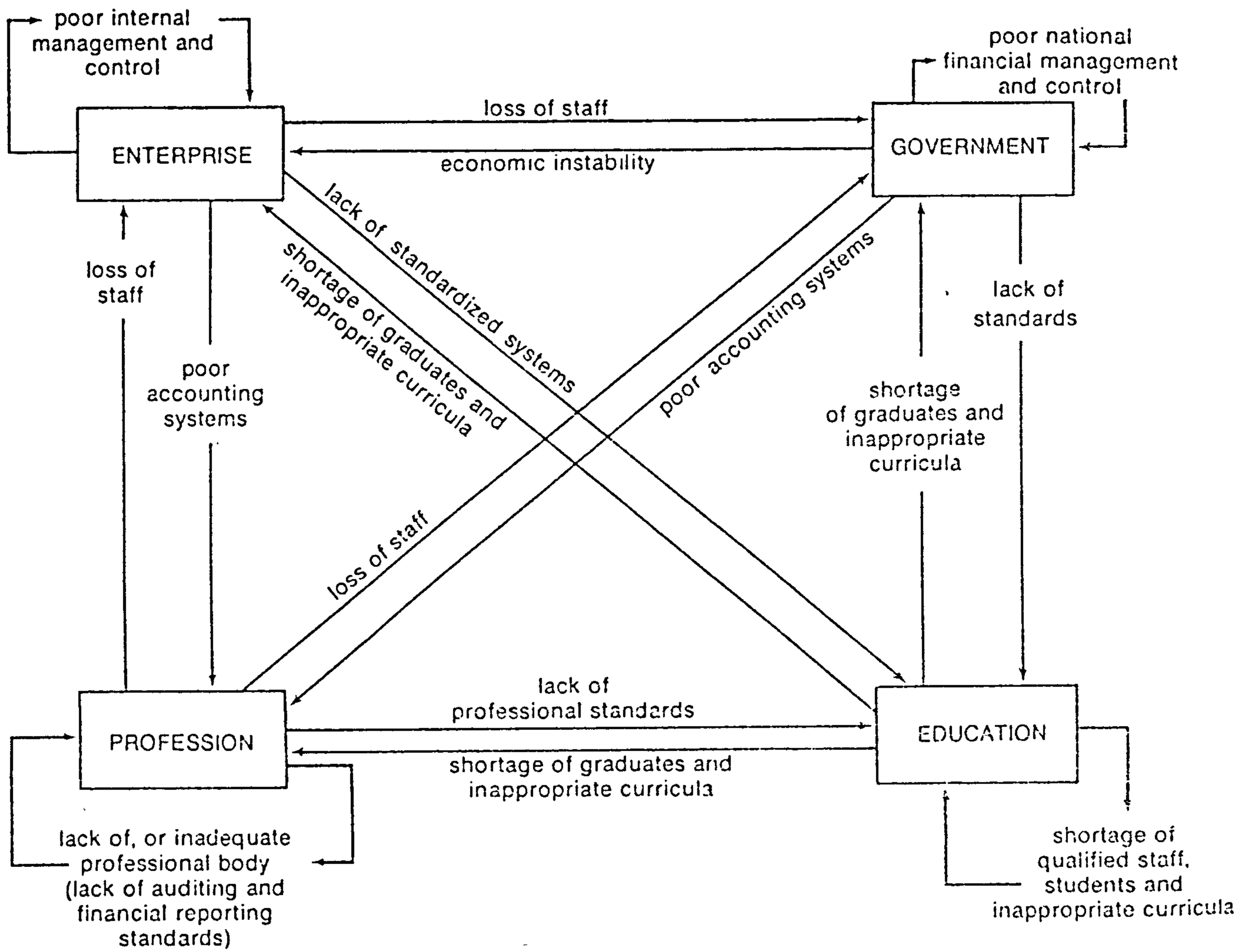
2) The environmental characteristics, economic, social and cultural factors, have not been considered in this study. Although the system approach represents a dominant factor in studying the structural components of the conceptual framework, the study has not dealt with the structural components. However, the organisational characteristics have been considered.

4.2.8 Conclusion

In this section the author has examined some studies which have dealt with accounting problems in developing countries. The criteria which have been used in evaluating these studies are:

Figure 4.3:

A Systems View of the Accounting Establishment in Developing Countries



Key: A $\xrightarrow{B}$ C Component A causes Problem B for Component C

Source: H.P. Holzer, and J.S. Chandler, op.cit., p. 28

a) Nature of the study: descriptive, conceptual and hypothesis-testing study.

b) The characteristics of the conceptual framework: structural, organisational and environmental.

The results of adopting of these criteria appear in Table 4.3. In addition, the consideration of the influence of foreign accounting methods appears at the last column of this table. Inspection of this table reveals that:

1) Nature of the study: all the presented studies are descriptive in nature. Most of them have conceptualised the role of accounting in serving economic development. There is only one study which has tested some hypotheses. But as mentioned before there are interrelationships among the three kinds of studies, hence, our study will be descriptive, conceptual and hypothesis-testing.

2) No study has completely considered the characteristics of the conceptual framework in their three dimensions. The nearest one is the second report of the American Accounting Association. Accordingly, in our study these three dimensions will be considered.

3) All the discussed studies have considered the influence of foreign accounting methods. In most cases, it was found that there has been an uncritical acceptance of foreign accounting methods. The adherence to various foreign accounting influences has sometimes led to rather chaotic practices (negative results) and caused, what we shall call later, accounting schizophrenia.

In the following section the author will investigate the possibility of developing a model of general applicability in the identification of accounting problems in developing countries.

TABLE 4.3: Comprehensive Summary of Accounting Problems' Studies in Developing Countries

Criterion / Studies	Nature of Study			Following the Characteristics of C.F.			Influence of foreign accounting
	Descriptive	Conceptual	H. Testing	Structural	Organisational	Environmental	
Engelmann's study	*	-	-	-	-	*	*
Scott's study	*	**	-	*	-	**	*
Needless' study	*	**	-	*	-	**	**
Seidler's study	*	*	-	*	-	**	*
A.A.A.'s studies							
The First Report	*	-	-	*	*	-	*
The Second Report	*	*	*	*	**	**	**
Enthoven's studies							
The First study	*	*	-	*	*	**	**
The Second study	*	*	-	*	*	**	**
Holzer and Chandler's study	*	*	-	-	**	-	*

(KEY: considered = **, moderately considered = *, and not or less considered = -.)

4.3 Suggested medical model for the identification and management of accounting problems in developing countries

The purpose of this section is to develop a model which identifies and manages the accounting problems in developing countries. Before discussing this model, it is important to discuss two concepts which are of significance in constructing the model:

a) General medical model for disease regulation.
b) Medical model for regulating schizophernia.

4.3.1 General medical model for disease regulation and its applicability to accounting problems

4.3.1.1 General medical model for disease regulation

The general medical model for disease regulation consists of the following main processes:

a) Case history: the accumulation of a data record containing relevant descriptive data about the patient is a necessary condition for the implementation of diagnosis (the second process), treatment and management (the third process). For example, the following set of history and background items has been suggested by Overall (12):
   - Demographic (age, sex...)
   - Parental family background
   - Behavioral - attitudinal
   - Precipitating factors
   - Major problem areas (physical problems, marital problems...)
   - Criminal record
   - Patient psychiatric history
   - Family psychiatric history.

From the descriptive historical data the physician can form some preliminary ideas about the patient and the possible diseases. But he must approve these ideas by diagnosis.

b) Diagnosis: is the determination of the nature of the disease from observation of symptoms. The observation includes:

1) Premliminary examination of patient; the result of this process, may be the identification of the disease. But in most cases the second stage must be implemented.

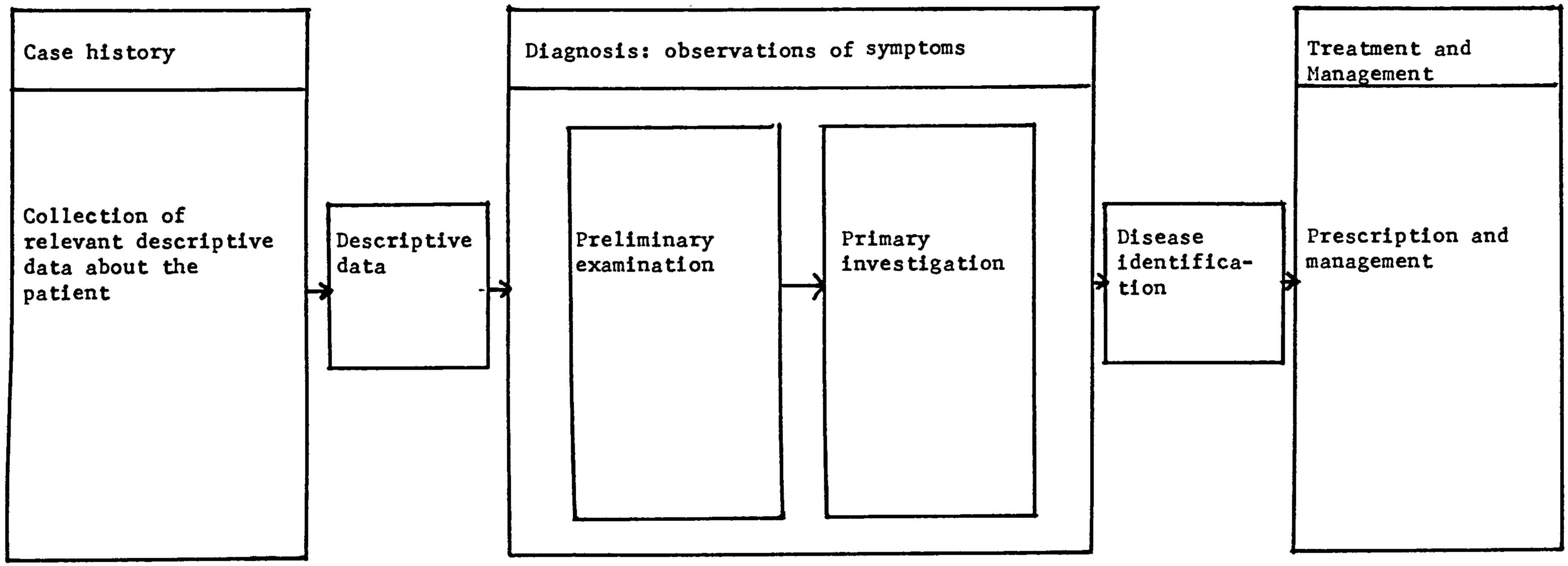
2) Primary investigation: both the descriptive data (case history) and the preliminary examination provide the physician with some unanswered questions (hypotheses) which need more advanced investigation. For instance, by implementing some laboratory tests.

The output of the diagnosis process is the identification of the disease.

c) Treatment and management of the desease: "The treatment activity will involve the application of a specific regulatory techniques to interrupt the natural history of the disease" (13). Instrumented with the results of the previous analysis the physician can write the prescription for treatment. After writing the prescription, the disease can be managed by following the prescribed instructions. The management process is a joint responsibility between the physician, the patient and the professional organisation such as a hospital.

The main processes of the general medical model for disease regulation appear in Figure 4.4.

FIGURE 4.4: The main processes of the general medical model for disease regulation



4.3.1.2 The applicability of the general model for disease regulation to accounting problems

In this part we shall try to answer the question: is it possible to adopt the general medical model for disease regulation to accounting problems? In order to answer this question we shall review the three main processes of the model in the case of accounting problems:

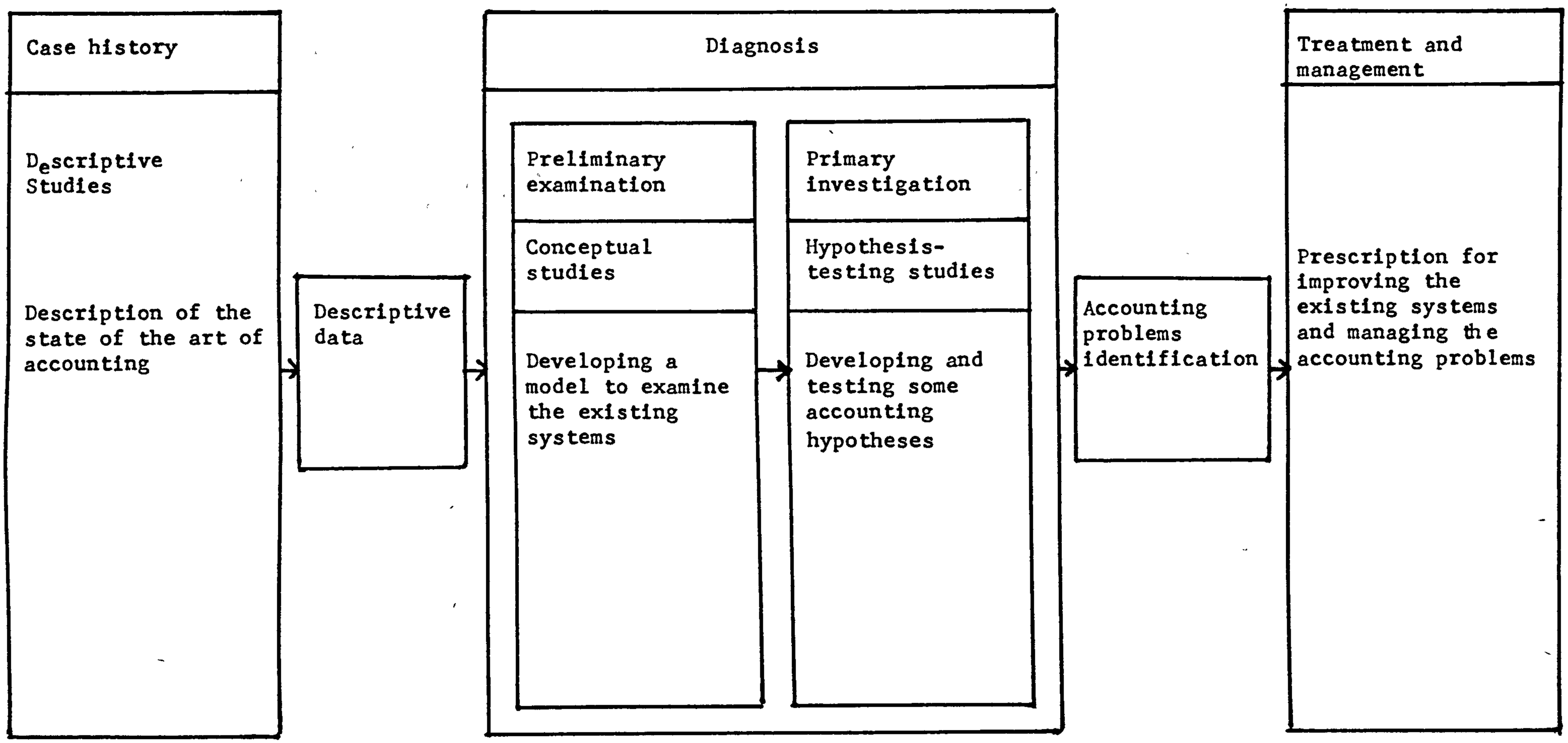
a) Case history: this process can be done in accounting by conducting some descriptive studies which examine the state of the art of accounting.

b) Diagnosis: this process can also be achieved in accounting within two stages.
   1) Preliminary examination: a model can be developed to examine the existing accounting systems by conducting some conceptual studies.
   2) Primary investigation: accounting hypotheses can be developed and tested depending on empirical investigations by conducting hypothesis-testing studies.

c) Treatment and management: based on the results of the descriptive studies, conceptual studies and hypothesis-testing studies, the analyst can provide prescriptions for improving the existing systems. Different techniques can be followed to interrupt and manage the accounting problems.

The implementation of the three main processes of general medical model for disease regulation in the case of accounting problems appears in Figure 4.5.

FIGURE 4.5: The applicability of the general medical model for disease regulation to accounting problems



As can be seen from the previous figure, the three main processes of the general medical model for disease regulation can be applied in the identification of accounting problems by conducting the descriptive, conceptual, and hypothesis-testing studies. This issue will be discussed later having taken into account the case of developing countries.

4.3.2 Medical model for regulating schizophrenia and its applicability to accounting problems in developing countries

4.3.2.1 Medical model for regulating schizophrenia

Perhaps the author should begin this short discussion with the general question: What is schizophrenia? In fact, there is great controversy over the answer to this question (14). Therefore, we shall try to deepen our understanding of the phenomenon of schizopherenia by reviewing some of its central syndrome.

The medical model for regulating schizophrenia consists of the following processes:

a) Case history: the collection of relevant descriptive data about the patient. The set of history and background items which was suggested by Overall for serving the purpose of the diagnosis of schizophrenia has been introduced before (15).

b) Diagnosis: the observation of symptoms includes:
   1) Preliminary examination of patient: the symptoms of the central syndrome of schizophrenia include (16):
      - Thought substitution or insertion: this symptom is based on the patient's experience that thoughts which are not his own are introduced into his mind... typically, thought insertion is

described in terms of some casual idea, such as a radio set implanted in the brain, or rays directed from another planet, or telepathy, which explain how the alien thoughts - differeng in nature or character - have been inserted.

- The feeling that the patient's will or behaviour is taken over and controlled or replaced by external agents or forces.
- Others such as thought echo.

Wing stated that "...the presence of the central syndrome is sufficient for a diagnosis of schizophrenia" (17)

2) Primary investigation: "How much and in what manner schizophrenia is inherited... Genetic factors must be investigated" (18). "Whatever the contribution of genes to the eventual development of schizophrenia, it is clear that environmental factors play a substantial part in aetiology" (19). "Although the genes may be necessary but not sufficient for causing schizophrenia, the environmental contributors may also be necessary but not sufficient, and not yet specifiable other than on a case-by-case basis" (20).

c) Treatment and management: there is pharmacological treament and psycholigical treatment. But here we are more interested in the management problems of schizophrenia from the following points of view (21):

1) Self help: everyone has to learn to live with himself or herself and everyone has handicaps of some sort. People who are severely affected by schizophrenia have more adjustments to make than most and fewer abilities with which to try to cope.

2) The problems of relatives: it is generally accepted that handicapped people are better off living with their relatives than in segregated communities.

3) Professional advisors: their corporate task is to identify, assess, treat, advise and care for people with schizophrenia and to prescribe services.

The main processes of the medical model for regulating schizophernia appear in Figure 4.6.

4.3.2.2 The applicability of the medical model for regulating schizophrenia to accounting problems in developing countries

In this part the author will try to answer the question: is it possible to adopt the medical model for regulating schizophrenia to accounting problems in developing countries? In order to answer this question, the three main processes of this model will be reviewed in the case of accounting problems in developing countries:

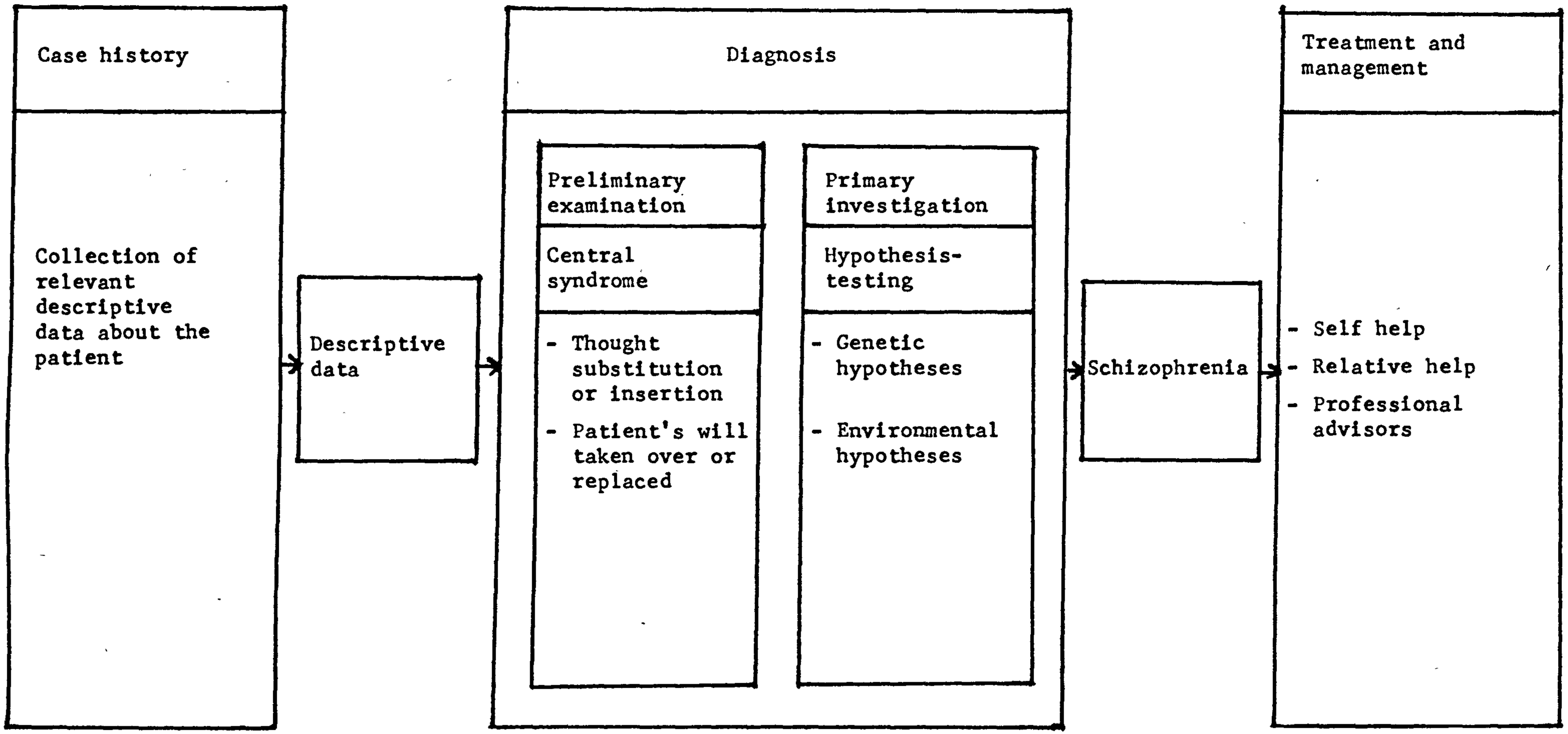
a) Case history: it is becoming apparent from the reviewed descriptive studies in the first section of this chapter and in the previous chapter that the influence of foreign countries on accounting methods in developing countries is an obvious tendency.

b) Diagnosis: the observation of symptoms includes:

1) Preliminary examination: the symptoms of the central syndrome of schizophrenia include:

- Thought insertion or substitution: Wilkinson has answered the question: How accounting principles move (insert) from one country to another? He argued that (22) the accounting principles of one country have never been "sold" to another country on the basis of

FIGURE 4.6: The main processes of the medical model for regulating schizophrenia



convincing arguments in support of those principles. Accounting principles of one country have moved to another country when two conditions have existed:

1) The second country had no organised body of accounting principles in the first place; and
2) Large amounts of capital from the first country were invested in businesses in the second country, with the consequent ability on the part of those investors to impose (insert or substitute) their accounting requirements on the businesses.

Wilkinson continued his argument saying that "To the extent that the U.S. continues to increase its investments abroad, the accounting principles of the U.S. will exert increasing influence on the principles of other countries, but this process will move considerably more slowly when those principles clash with an already accepted local body of principles" (23).

Scott argued that "...it is doubtful that accounting development in relative isolation is possible for most of today's developing nations. Their accounting is likely to be strongly influenced by the accounting of at least one advanced nation, generally that nation with which the developing nation has had a colonial relationship or now has a trading relationship... Alternatively or additionally, the outside influence may result from a developing nation's accountants' intentions to adopt... the accounting practices of a particular advanced nation... Another way of importing the accounting technology of advanced nations to developing nations has been via international auditing firms" (24).

Holzer and Chandler have dealt with the problem from an educational point of view. They argued that "Most of the accounting curriculum is imported from developed countries. The textbooks, procedures, and training are designed for the environment of a developed country accounting. This is

partly due to the fact that many indigenous instructors received their advanced training in academic institutions of developed countries. There, they were taught applications in the accounting environment of a developed country. As a consequence much of the accounting training is oriented towards the wrong environment. Procedures, principles, systems, and level of sophistication are geared towards the developed country's accounting environment" (25).
Elliott has studied the nature and stages of accounting development in Latin America and noticed that "In some cases, students and professors were brought to the U.S.A.; sometimes American professors were sent to the respective countries to work with the existing institutions. American universities have also set up branch schools in some Latin American countries" (26).

Radebaugh has dealt with the problem from a geographical point of view. He stated that "A prime example of international influence is the geographical influence of England and France in the colonial era. Each of these countries took their business and accounting philosophies to their colonies and instituted similar systems" (27).

From the above mentioned examples, it is evident that the symptom of thought insertion or substitution, as a part of the central syndrome of schizophrenia, exists in the developing countries accounting principles and methods. As mentioned before, this influence might have negative results because, in most cases, there has been an uncritical acceptance of these foreign accounting methods.

- <u>Patient's will is taken over and controlled by external forces</u>.

  Enthoven has observed the existence of this sympton in the developing countries by saying that "Countries which have been exposed to various foreign accounting systems over the

years tend to be reluctant to build their own system, or to accept ideas and fundamentals that are conducive to such systems (will is taken over)... Furthermore, the adherence to various foreign accounting influences has sometimes led to rather chaotic practices accounting schizophrenia " (28).

As stated by Wing, the presence of the central syndrome (thought insertion or substitution and will taken over) is sufficient for a diagnosis of schizophrenia and we have seen that the accounting practices in developing countries suffer from these two symptoms. Therefore, it can be concluded that accounting practices in developing countries suffer from accounting schizopherenia (chaotic practices and confusion in operations and procedures).

2) Primary investigation: Costa, Bourgeois and Lawson have conducted an empirical investigation with the purpose of uncovering groups of countries exhibiting a homogeneity of financial accounting styles. They found that "The U.K. and the U.S. models capture the essence of a broad set of international financial accounting proctices. A group of countries, former British Empire members, follows accounting practices which constitute a distinctly British model. A second group follows the lead of the United States in disassociating themselves from practices common to the British model" (29).

As mentioned before, there is another attempt which has been made by the American Accounting Association to classify the developing countries by zones of foreign influences (30).

These studies have tested the influences of foreign accounting by conducting hypothesis-testing studies.

c) Management and treatment: the three dimensions of managing accounting schizophrenia are:

1) Self help: Scott has used a good approach for self help. According to this approach "...developing nations should adopt formats for aspects of accounting, that is, for education, legislation, professional associations, and accounting principles and techniques, which are neither those used by advanced nations when they were developing (because the environments of developing nations of the past are different from those of the present), nor necessarily those presently existing in advanced nations (which are adapted to a different kind of economic context). Instead, developing nations should adopt accounting which consist of adaptions of modern methods to the special conditions of today's developing nations" (31).

2) Relative help: this kind of help may take the form of technical assistance programmes which must take into consideration the environmental needs of developing countries.

3) Professional help: this help consists of:

a) Domestic professional help: when the author gave an example of the accounting profession in Indonesia, it was found that "it is Dutch in its qualification structure, but the training and philosophy are American. Neither, however, is in the least relevant to the needs of Indonesia" (32). The qualification structure, the training programmes and the regulated legislation must be defined in terms of the developing countries' requirements.

b) International professional help: McPhail has answered the question: What is the role of the international accounting profession in developing countries? He summarised this role in two key areas: "increasing the relevance of accounting and auditing standards; and emphasising services relevant to the developing countries. Underpinning both these areas is the need, through training, to increase the professions's capacity to provide services" (33).

In summmary, the three main processes of the medical model for regulating schizophrenia can be applied in the identification and management of accounting problems in developing countries. Instrumented with this result the author will move to the last process of this analysis: the suggested model.

4.3.3 Suggested medical model for the identification and management of accounting problems in developing countries

Based on previous discussion and analysis, the author proposes the following model which identifies and manages the accounting problems in developing countries. The model consists of the following main processes:

a) Case history: this process can be done by taking into consideration the results of descriptive studies which examine the state of the art of accounting in the developing country by collecting relevant descriptive data.

b) Diagnosis: This process can be implemented within the following two stages:
   1) Preliminary examination: a model can be developed to examine the existing accounting practices (conceptual studies). The author has already developed this

model for testing (Chapter Two) and used it to examine accounting practices in developing countries (Chapter Three). This sub-model has essentially taken into consideration the three dimensions of the conceptual framework for financial accounting and reporting (structural, organisational and environmental characteristics) as basic tools for testing the accounting practices in developing countries.

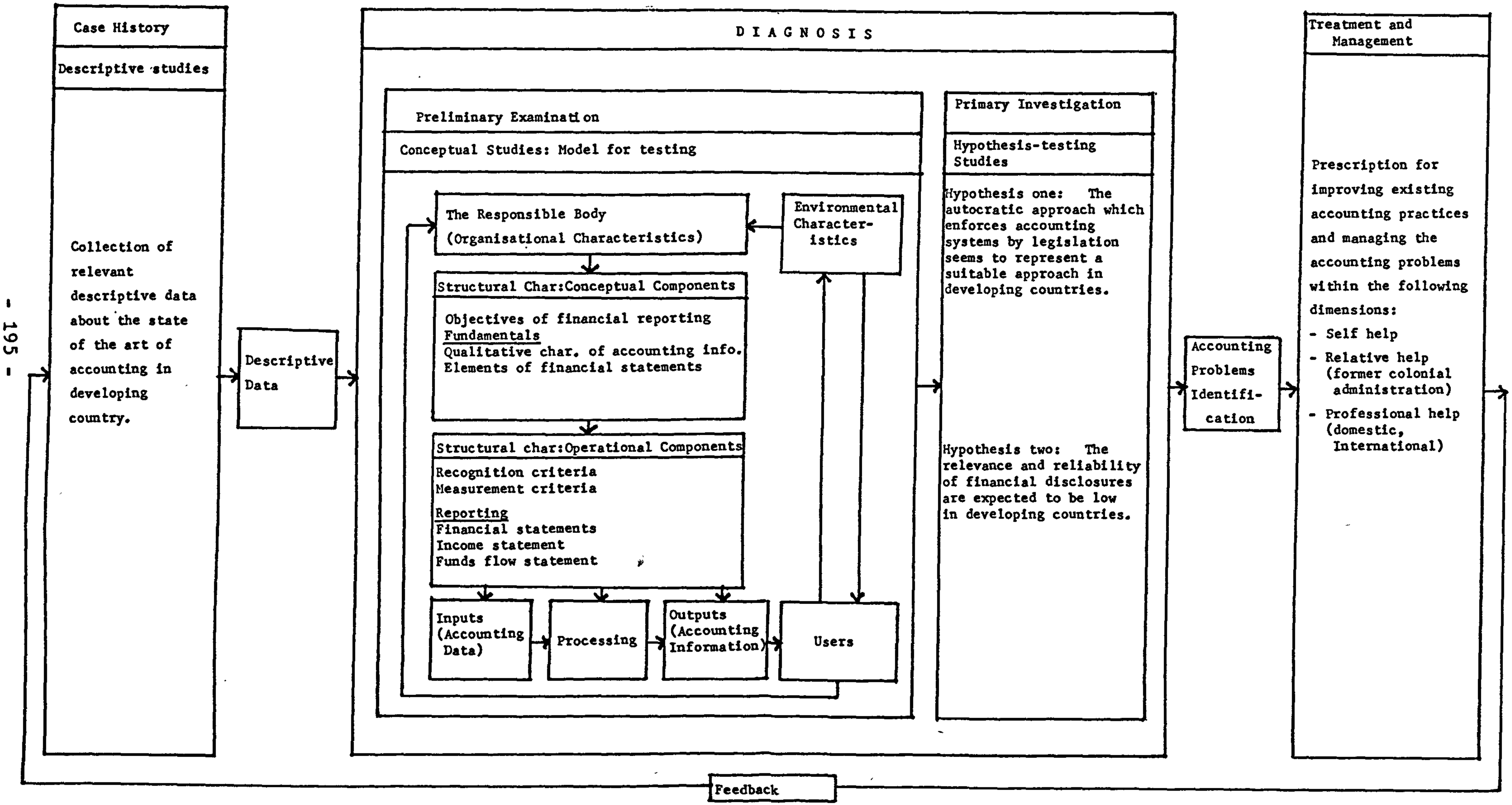
2) Primary investigation: the adoption of this sub-model has provided us with some hypotheses which need more advanced investigation. The main hypotheses which have been revealed are:
Hypothesis one: according to the environment prevalent in developing countries, it can be hypothesised that the autocratic approach which enforces accounting systems by legislation seems to represent a suitable approach in these countries.
Hypothsis two: as a result of the prevailing environment in the developing countries, the relevance and reliability of financial disclosures are expected to be low.

The output of the diagnosis process is the identification of the accounting problems in developing countries.

c) Treatment and management: based on the results of the descriptive studies, conceptual studies and hypothesis-testing studies the analyst can write a prescription for improving the existing accounting practices. The accounting problems can be managed within three dimensions: self-help, ralative help and professional help (domestic and international).

The three main processes of the suggested model appear in Figure 4.7.

FIGURE 4.7: Suggested Medical Model for the Identification and Management of Accounting Problems in Developing Countries.



The question now is: why does the author recommend the use of this model for identifying and managing accounting problems in developing countries? In fact, this model has the following advantageous characteristics:

1) It is inductive and deductive: as mentioned before a combination between the inductive and deductive approaches can be achieved by making a number of observations (the inductive approach) within the restrictions of a model representing what ought to be done (deductive approach). This methodology has been adopted in constructing the suggested model. The observations will be made within the restrictions of the general model (case history, diagnosis, treatment and management) and a sub-model for testing the existing accounting practices (the basic tools of this sub-model are the three characteristics of the conceptual framework for financial accounting and reporting: structural, organisational and environmental characteristics).

2) It is democratic and autocratic: the democratic approach has been followed in the first stage of the second process (preliminary examination). The users of accounting data have been represented as a dominant factor in most of the process. A presupposed agreement of the objective of accounting in developing countries (the maximization of the role of accounting for serving economic development) will have to be autocratically imposed. The model entails acceptance of a set of assumptions concerning the interrelationships among its components.

3) It is comprehensive: the interrelationships among the descriptive studies (case history), conceptual studies (preliminary examination) and hypothesis-testing studies (primary investigation) have been considered in the model. From another point of view Mueller "has classified accounting researches as either applied research or theoretical research" (34). The model gives an example of the applied research, it has been constructed to be applied in the developing countries. The theoretical studies have also been considered as an input in the first process (case history) and in the first stage in the second process (preliminary examination).

4) It is systematic: the system approach has been considered. The model proposes to view the accounting as a system; its components are interrelated (inputs, processing and outputs) and each of these components interacts with the three characteristics of the conceptual framework.

5) It is dynamic: the environmental characteristics have been considered to suit the nature of accounting as a discipline which operates in an atmosphere of change. In the process of using the model, the acquired information will be employed as a feedback as the environmental characteristics change.

6) It is descriptive and prescriptive: it was mentioned before, why it is considered a descriptive model. It is also considered as prescriptive (normative) because it will answer the question of what ought to be made to face the accounting problems in the developing countries.

Lev stated that "in constructing a model, the decision maker must weight the expected benefits against the expected cost (e.g. researchers' time, data collection and processing, etc.) of the model" (35). The expected benefits of the suggested model is to participate in identifying and managing accounting problems in developing countries in order to improve the existing accounting practices. This improvement may be reflected in maximization of the role of accounting for serving economic development. The process which is urgently needed in this group of countries. The expected costs include researcher's time, data collection (descriptive studies and conceptual studies), the cost of empirical investigation and processing, etc. However, with the possibility of general applicability of the model, the expected benefits may be maximized so as to compensate for the expected costs.

4.4 Conclusion

1) In the first section of this chapter the author examined some studies which have dealt with accounting problems in developing countries. The criteria which have been used in evaluating these studies are:
   a) Nature of the study: descriptive, conceptual and hypothesis-testing study.
   b) The characteristics of the conceptual framework: structural, organisational and environmental.

   No study has completely considered the above criteria. Therefore, in the process of constructing the suggested model these two criteria were considered.

2) The three main processes of the general medical model for disease regulation (Case history, diagnosis - preliminary examination and primary investigation - and treatment and management) can be applied in the identification of accounting problems by conducting the descriptive, conceptual, and hypothesis-testing studies.

3) It is evident that the two symptoms of the central syndrome (thought insertion or substitution and will taken over by external forces) of schizophrenia exist in the developing countries' accounting practices. The presence of the central syndrome is sufficient for a diagnosis of schizophrenia. Therefore, it can be concluded that the accounting practices in the developing countries suffer from accounting schizophrenia (chaotic practices and confusion in operations and procedures). Hence, the three main processes of the medical model for regulating schizophrenia can be applied in the identification and management of accounting problems in developing countries.

4) Instrumented with these results, the author has introduced the suggested model which identifies and manages the accounting problems in developing countries. This model consists of the following main processes:

a) Case history: this process can be done by taking into consideration the results of descriptive studies which examine the state of the art of accounting in developing countries by providing relevant descriptive data.

b) Diagnosis: the process can be implemented within the following stages:

1) Preliminary examination; a sub-model has been developed to examine the existing accounting practices (conceptual studies). The basic tools of this sub-model are the three dimensions of the conceptual framework for financial accounting and reporting (structural, organisational and environmental characteristics).

2) Primary investigation: the adoption of this sub-model has revealed the following hypotheses which need more advanced investigation:

Hypothesis one: the autocratic approach which enforces accounting systems by legislation seems to represent a suitable approach in developing countries.

Hypothesis two: the relevance and reliability of financial disclosures are expected to be low in developing countries.

c) Treatment and management: based on the results of the previous processes the analyst can write a prescription for improving the existing accounting practices. The accounting problems can be managed within three dimensions: self help, relative help and professional help (domestic and international).

The author recommends the use of this model for indentifying and managing accounting problems in developing countries because it has the following advantageous characteristics: it is inductive and deductive, democratic and autocratic, comprehensive, systematic, dynamic, descriptive and prescriptive.

In this chapter a model of general applicability in the identification and management of accounting problems in developing countries was developed. Next the author will test this model in one of the developing countries, namely, Egypt.

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CHAPTER FIVE

Chapter Five

The Egyptian Accounting Environment As A Case History

5.1 Introduction

5.2 The economic factors in the Egyptian environment
- 5.2.1 The main features of the Egyptian economy before 1956
- 5.2.2 The second stage 1956 - 1973
- 5.2.3 The third stage 1974 - 1982
- 5.2.4 Conclusion

5.3 The foreign influence on the Egyptian economy
- 5.3.1 The main features of foreign influence before 1956
- 5.3.2 The second stage 1956 - 1973
- 5.3.3 The third stage 1974 - 1982
- 5.3.4 Conclusion

5.4 The economic and foreign influence on accounting in Egypt
- 5.4.1 The influence on accounting before 1956
  - 5.4.1.1 Accounting legislation
  - 5.4.1.2 The status of Accounting profession
  - 5.4.1.3 The economic influence
  - 5.4.1.4 The foreign influence
  - 5.4.1.5 Conclusion
- 5.4.2 The economic and foreign influence on the Egyptian accounting in the period from 1956 to 1973
  - 5.4.2.1 Accounting legislation
  - 5.4.2.2 Accounting profession
  - 5.4.2.3 The economic influence
  - 5.4.2.4 The foreign influence
  - 5.4.2.5 Conclusion

5.4.3 The economic and foreign influence on Egyptian accounting in the period from 1974 to 1982

5.4.3.1 Accounting legislation

5.4.3.2 Accounting profession

5.4.3.3 The economic influence

5.4.3.4 The foreign influence

5.4.3.5 Conclusion

5.5 Conclusion

Chapter Five

The Egyptian Accounting Environment As A Case History

5.1 Introduction

In the previous chapter the author discussed the relevance of using a suggested medical model for the identification and management of accounting problems having taken into consideration the case of the developing countries. This chapter is devoted to shedding light on the Egyptian environment as a field for testing the suggested model (its first process: case history). Relevant descriptive data will be collected about the economic and foreign factors and their influence on accounting practices in Egypt.

Therefore, the essential questions that this chapter attempts to answer are: Have economic factors influenced accounting practices in Egypt?; have foreign factors (foreign investors and former colonial administration...) influenced accounting practices in Egypt? But before answering these questions, the economic and foreign factors will be reviewed in the Egyptian environment.

5.2 The economic factors in the Egyptian environment

Correlations do exist among the economic, the political and the social factors present in any environment. Therefore, when attempting to study one factor the others must be taken into consideration. We shall try to deepen our understanding of the Egyptian economy by subdividing its development into three periodic stages:

5.2.1 The main features of the Egyptian economy before 1956

"Mohammed Aly became the ruler of Egypt in 1805 and is generally considered the founder of modern Egypt. Within two decades, he turned it into what looked like a modern state - at least by standards of that time" (1). For this reason, the author has chosen to start our review from this point.

Before determining the main features of the Egyptian economy at that stage, it is necessary to differentiate among three types of economy: subsistence, export-oriented and complex economy. "In a subsistence economy, primitive techniques are used in all sectors, the proportion of output marketed is small, monetary transactions are few and foreign trade plays a very minor part... The characteristics of an export oriented economy is that one sector - usually some form of mining or the production of a specialised crop - is developed far more intensively than the rest of the economy... A complex economy is characterised by the development of other sectors, notably manufacturing... By examining the historical experience of underdeveloped countries, it would seem that, in the course of development, most countries outside Europe and North America tend to pass through three stages: from a subsistence economy to an export oriented economy and thence onto what, for lack of a better term, may be called a complex economy" (2). After this determination, the author is going to study how the Egyptian economy followed this pattern by reviewing the main changes during that stage:

A "Mohammed Aly (1805-49) attempted to affect a transition from the subsistence economy prevailing at the beginning of the nineteenth century to a modern complex economy... In brief, he was trying to carry out a programme of forced industrialisation" (3).

B "The attempted leap from a subsistence to a complex economy had failed, and instead the country had landed on the road leading to an export-oriented economy... This was obtained by greatly developing the production and export of cotton, which converted the economy into a highly specialised one-crop economy" (4).

C "The experiences of World War I had persuaded Egyptians that the pre-1914 economic system was no longer satisfactory. British officials had dominated decision making during that time, and insofar as they had elaborated a coherent economic plan it was one based on the notion that the world was divided into economic regions, each trading the products in which it had natural advantages. In this often self-serving view, Great Britian and Western Europe were seen as industrial centres, while countries like Egypt contributed vital agricultural products and raw materials. During the war, however, Egyptians learned how vulnerable their economy was, and self-sufficiency became an increasingly important goal... The constraints imposed by Egypt's unwillingness to engage in state borrowing and its reluctance to practice large-scale economic intervention meant that political leaders looked to an emerging Egyptian bourgeoisie as an engine of economic transformation" (5).

D "The Egyptian revolution of 1919 constituted an important turning point... New Economic organisations and ideas were accompanying and indeed growing out of the revolution of 1919. In 1920, landed magnates did what some Egyptians had been anticipating for four decades. They created a national bank - Bank Misr - the goal of which was to enable Egyptians to have more influence on their own economy and to diversify economic activities" (6). Bank Misr group began as the nucleus of a national bourgeoisie, that is, an Egyptian and independent bourgeoisie, whose ideology was embodied in the doctrine of economic independence" (7).

E "Egypt subsisted as an export oriented economy until the 1930's; during most of that period exports grew fairly rapidly, but this did not lead to a parallel growth in other sectors because of insufficient investment in them... The passage from an export oriented to a complex economy was greatly delayed... This delay resulted in the accumulation of severe difficulties" (8).

F "In 1951 Egypt was an overwhelmingly agrarian country, in which industry accounted for under 10 percent of GNP. It had a predominantly free-enterprise economy, with direct state activity restricted to such fields as irrigation and railways" (9).

G The Egyptian revolution of 1952 constituted another important turning point as the necessary prerequisite for the achievement of economic independence.

From this brief historial review of the changes of the Egyptian economy, it appears that this period has the following characteristics:

1) Chaotic economic system: a failed leap from a subsistence to a complex economy during the rule of Mohammed Aly. The passage from an export oriented to a complex economy was greatly delayed.

2) Foreign influence; British officials had dominated economic decision making.

3) The emergence of the Egyptian bourgeoisie and the establishment of Bank Misr.

4) In general, it was a period of free-enterprise economy and economic independence became an increasingly important goal.

5.2.2 The second stage 1956 - 1973

"In 1956 the Egyptian government pursued a course which differs sharply from the one described in the previous section. This course has been characterised by the Egyptianisation of foreign establishments; by closer state control of business; by nationalisation and sequestration of foreign and then of Egyptian property; and by intensified industrialisation... These changes were accompanied by a swift break-away from the West in both political alignment and ideological approach and by an increasing use, in public pronouncements and the press, of pseudo-Marxist socialist..." (10).

"Many causes contributed to this shift. First, there was worldwide trend towards socialism and planning... Secondly, Egypt's economic and social problems were far more intractable than had been realized in the first flush of revolutionary enthusiasm, and much more drastic methods were required for their solutions..." (11). In general, this stage has been characterised by the following:

A) Transition to comprehensive planning. "On planning the evolution was rapid... A National Planning Committee, composed of Ministers was formed and entrusted with the task of drafting a national comprehensive plan for social and economic development... A National Planning Act was promulgated in 1957" (12).

The first five-year plan was announced to cover the period from July 1960 to June 1965. "The National Planning Committee gathered an enormous amount of statistical data... They attempted to construct input-output tables, consistent sets of national accounts, and commodity balances for 1954 and 1959" (13). In spite of these efforts, "Planners made little use of the preparatory work and of the advice

received... And the criticisms fall into three broad categories. The first relates to the absence of policy guidelines for the implementation of the plan... The second group of criticisms, directed to investment criteria and methods of project appraisal... The third category of criticisms concerns a number of forecasts which appeared as highly unrealistic" (14).

"The second Five-Year Plan never materialised though a draft was prepared. A provisional three-year plan was supposed to have been in existence for 1965/6 - 1967/8. The Arab - Isreal war in 1967 must have inhibited for a while any new attempt. In 1972 a Ten-Year Plan was annouced" (15).

B) Egyptianisation and nationalisation. "As for Egyptianisation, the first and longest steps were taken on 14 January 1957. Law No. 22 decreed that banking business could be carried on only by Egyptian joint-stock companies, with nominative shares owned by Egyptians and with Egyptian directors and managers... Law No. 23 applied the same provisions to insurance companies and Law No. 24 stipulated that export and import agencies and commercial representatives should be Egyptian citizens... Several measures were also taken to subject the private sector to closer government control... As for the transference of private ownership to the government, there were the nationalisation of the Cairo Water Company and the National Bank of Egypt and Misr Bank. Law No. 117 (July 1961) nationalised all banks and insurance companies" (16). There is no doubt that the Egyptianisation and nationalisation constituted a radical change in the Egyptian economic structure.

C) Emergence and development of the public sector. "The expansion of public ownership and control over important economic sectors proceeded in discrete steps... Three factors, mutually reinforcing each other, explain the rapid expansion of the public sector through successive waves of nationalisation. First, Egyptianisation, which the Government could pursue with great ease after 1956 as the failure of the foreign military intervention in Suez strengthend the regime internally and removed the external obstacles to the policy. Second, the development drive which called for the implementation of development programmes with a large and growing volume of public investment... Third, the momentum of State involvement in the economy, and that of the expanding public sector itself, may have been very powerful in the Egyptian context. Nationalisation of major firms in one area led to further nationalsation because of the Governments reluctance to share with others the control of a sector in which it had acquired an important stake. Moreover, the Egyptian public sector, already large in 1957, had a tendency - common to all giant organisations - to spread its activities and extend its control" (17).

From the above, it is worth mentioning that this stage has been characterised by the transformation of the Egyptian economy from free private enterprise to central planned economy. The Egyptianisation and nationalsation constituted a radical change in the Egyptian economic structure. In which, the role of the public sector has been greatly expanded with the shrinking of the private sector.

5.2.3 The third stage from 1974 to 1982

"During the 18 years of the Nasser regime (1952 - 1970) the government had extended its control of the economy to the point where most of its major elements - industry, mining, large hotels, banks, insurance, transport and major

contracting - belonged to the public sector. Its share in manufacturing value added was near 90%, in import - export trade greater and in total investment close to 85%... Sadat's Presidency had been characterised by a shift to the 'Right'. Internally he had sought support from the middle classes by offering a policy of political and economic liberation. Against the extreme Left, he had pursued a policy of repression... Externally the failure of the Russian link to provide the nucleus for economic expansion had encouraged President Sadat to turn to the United States, both for investment and because he also saw it as the one power capable of imposing a settlement on Isreal" (18).

"The internal political pressures on President Sadat stem basically from the poor performance of the Egyptian economy over many years. Since 1965 growth per head in real terms has been negligable. Initially this was due to a rate of economic expansion insufficient to match population increase, aggravated by continuing balance of payments problems and massive defence spending" (19). Therefore, "October Paper" was issued in 1974 "in order to determine the inherent problems of the Egyptian economy and suggest general economic principles necessary to solve these problems. The paper stated that the defects in the public sector must be treated. It encouraged productive investment by private sector, Arab and foreign capital within a planning framework. Also it emphasised the necessity of introducing modern technology. These principles led to the adoption of the Open-Door Policy" (20).

"The Bureaucratic overmanning in industry was one of the factors which prompted Sadat to reverse Nasser's economic policies of state control, and restore an element of private enterprise in the economy again. President Sadat believed that the competition under the Open-Door Policy would not only help widen Egypt's industrial base, but also improve performance in the state sector" (21).

"The investment of Arab and Foreign capital in Egypt shall be for the purpose of realizing objectives of economic and social development within the framework of the state's general policy and national plan provided that the investment is made in projects in need of international expertise in the spheres of modern development or in projects requiring foreign capital. The projects, contained in the lists to be prepared by the Authority and approved by the Council of Ministers" (22).

Law No. 43 of 1974 concerning the investment of Arab and foreign funds stated that "Projects may not be nationalised or confiscated. The assets of such projects cannot be seized, blocked, confiscated or sequestrated except by judicial procedures. Projects shall be also exempted from the tax on commercial and industrial profits for the period of five-years" (23).

Despite these provisions of the Open Door Policy, the participation of its projects in the Gross Domestic Product was very low. It did not increase more than .4% in 1977, .7% 1978, and 1.3% in 1979 (see Table 5.1) (24).

In October 1981, President Sadat was assassinated and Mubarak became President of Egypt and declared that "Economic revival requires that both the public and private sector should flourish and that the Government is committed to the encouragement of the private sector especially foreign investment where it is to the benefit of the Egyptian economy... Thus the Open-Door Policy should be productive in the sense that the accepted projects within its framework should be directed towards the production of basic goods needed by the working classes, and not luxury goods which are used by an opulent minority" (25).

TABLE 5.1: The Participation of the Open Door Policy's Projects in the Gross Domestic Product Distributed Among Economic Activities.

(in Mill L.E.)

Economic Activities	Gross Domestic Product			Participation			Percentage		
	1977	1978	1979	1977	1978	1979	1977	1978	1979
Agriculture	2840.6	3472.8	3753.2	1.3	4	4.5	.1	.1	.1
Mining	32.3	35.5	38.6	2.2	2.2	2.2	6.8	6.2	.6
Industry	4216.3	4893.6	5460	26	50.1	109.2	.6	1	2
Petroleum	696.1	854.8	2476	-	5.8	22	-	.7	.9
Electricity	109.7	128.3	136.7	-	-	-	-	-	-
Construction	843.1	1199.2	1530.3	8.8	28.7	91.7	1	2.4	6
Total Commodity Sectors	8738.1	10584.2	13394.8	38.3	90.8	229.6	.4	.9	1.7
Transport and Communications	499	604.7	746.3	.3	1.7	2.5	.1	.3	.3
Suez Canal	174.2	299.7	429.3	-	-	-	-	-	-
Commerce	1629.6	2008.9	2504.7	-	-	-	-	-	-
Finance	266.9	398.8	516.5	12.9	21.3	27.9	4.8	5.3	5.4
Insurance	20.2	34.7	36	-	-	-	-	-	-
Tourism and Hotels	278.7	348.6	395.8	1.5	8.8	9.5	.5	2.5	2.1
Total Production Services Sector	2868.6	3695.4	4628.6	14.7	31.8	39.9	.5	.9	.9
Housing	252	271	297	-	-	.1	-	-	-
Public Utilities	35	40	46.4	-	-	-	-	-	-
Individual Social Services	477.3	554.6	657.3	-	.5	2.7	-	.1	.4
Government Services	1678.5	1815.2	2029.3	-	-	-	-	-	-
Total Social Services Sector	2442.8	2680.8	3030	-	.5	2.8	-	-	-
Gross Domestic Product	14049.5	16960.4	21053.4	53	123.1	272.3	.4	.7	1.3

Source: Ministry of Planning, The Development of the Egyptian Economy in Ten Years, 1970 - 79, p. 242.

In 1982, a new Five-Year Plan for economic and social development (1982/83 - 1986/87) was announced. "It demonstrates the Government's determination to continue the Open-Door Policy and to give the private sector - whether national, foreign or joint - an increasing role in the Egyptian economy" (26). "Increasing the level of growth is one of the main foundations of the plan, so that the standard of living can be increased by rates at least twice the rate of population growth. Development has to be founded upon commodity sectors especially agriculture and industry. This should be reflected in investment allocation. Proper pricing policy together with effective management should be used to increase the productive efficiency of the public sector enterprises; hence reducing the subsidy borne by the government budget" (27).

From the above it appears that this stage is characterised by the following:

1) The reversing of Nasser's economic policies of complete state control to the point where most of the economy's major elements belonged to the public sector with the shrinking of the private sector.

2) The reversion has been done by the adoption of the Open Door Policy which encourages productive investment by private sector, Arab and foreign capital within a planning framework.

3) The announcement of a new five-year plan for economic and social development (1982/83 - 1986/87).

5.2.4 Conclusion

The main characteristics of the Egyptian economy during the studied periods have been summarised in Table 5.2. From this table the following can be concluded:

1) The political leaders have a notable influence on the Egyptian economy's policies. This can be noticed from the following:

   A - Mohammed Aly attempted to make a transition from a subsistence economy to a complex economy. In this he failed.

   B - Nasser's economic policies which have extended the state control to the point where most of the economy's major elements belonged to the public sector with the shrinking of the private sector and foreign capital by nationalisation and Egyptianisation.

   C - Sadat and Mubarak's economic policies, in which they reversed Nasser's economic policies by adopting the Open Door Policy and the encouragement of productive investment by private sector, Arab, and foreign capital.

2) The differences among the political leaders' economic policies and attitudes have resulted in chaotic economic systems. The main features of these difference are:

   A - Before 1956, it was a period of free enterprise economy and the encouragement of the private sector. From 1956 to 1973, there was the Egyptianisation and nationalisation of the private sector and foreign capital. Since 1974, there has been encouragement of the private sector and foreign capital with complete protection against nationalisation.

TABLE 5.2: The Main Characteristics of the Egyptian Economy From 1805 to 1982

	From 1805 to 1956	From 1956 to 1973	From 1974 to 1982
Nature of the economic system	Chaotic economic system: a failed leap from a subsistence to a complex economy. The passage from an export-oriented to a complex economy was greatly delayed.	- Transition to comprehensive planning - The shrinking of private sector by Egyptianisation. - The expansion of the public sector and state control over important economic sectors.	- The adoption of the Open-Door Policy within a planned framework. - The encouragement of private sector, Arab and foreign capital which can not be nationalised. - The defects of the public sector must be treated, but it still has dominant role.
The main feature	In general, it was a period of free-enterprise economy.	In general, it was a period of central planned economy.	The adoption of the Open-Door Policy within a central planned framework.
The dominant factors in economic decision making	a) Foreign influence: British officials had dominated most of economic decision making.	a) Nasser regime: in which the government had extended its control to the point where most of the major economic elements belonged to public sector. b) Foreign influence: a swift break-away from the West to socialist ideas.	a) Sadat and Mubarak regime: in which they reversed Nasser's economic policies by adopting the Open-Door Policy. b) Foreign influence: the failure of the Russian link to provide the nucleas for economic expansion had encouraged Sadat to turn to the United States.

B - Before 1956, the British had dominated most of the economic decision making. From 1956 to 1973, there was a swift break-away from the West in both political alignment and ideological approach to the socialist ideas. From 1974 to 1982, there was another turn to the West, especially the United States of America.

These chaotic economic policies have resulted in a poor performance of the Egyptian economy over the different stages.

The foreign influence is another factor which has resulted in chaotic economic policies. This will be discussed in the next section.

5.3 The foreign influence on the Egyptian economy

5.3.1 The main features of foreign influence before 1956

A) One of the striking features of Egyptian history is "...the long period of foreign domination, stretching unbroken from the Persian Conquest in 525 B.C. to the nineteenth century. For over twenty-five centuries Egypt was not ruled by Egyptians... The ruler, the army and the higher ranks of the bureaucracy were almost without exception foreigners... Therefore, Egypt has always suffered from intensive economic exploitation" (28).

B) In spite of the failure of Mohammed Aly's economic plans, "...he made use of the three standard methods of technological development (1805-49):

1) foreign experts were brought in whose numbers rose from a few hundred to 10,000 in twenty five years;
2) missions were sent abroad to build an indigenous cadre of experts;
3) technology was imported in its modified form, as plant and equipment" (29).

C) "...colonial rule, extending from the 1870's, when foreign powers (mainly British) interfered directly in the government of Egypt, and up to the popular revolution of 1919" (30). As discussed earlier, "British officials had dominated economic decision making during that time, and insofar as they had elaborated a coherent economic plan it was based on the notion that the world was divided into economic regions, each trading the products in which it had a natural advantage" (31). According to this plan Egypt was integrated as an agricultural unit in the world economy.

D) During that time, "...the Egyptian bourgoisie was small and relatively weak, however, Egyptian leaders looked to foreign capital, foreign advisors, and foreign business firms as a second force for economic progress. Foreign capital had played a dominant role in the economy since the middle of the nineteenth century. By 1914 foreigners owned substantial tracts of land, they dominated the import-export trade, and enjoyed complete control of Egypt's banking structure. Often the recipients of monopolistic concessions, foreign companies maintained the public utilities in Egypt's major cities" (32).

E) In 1920, Bank Misr was established "...to enable the Egyptians to have more influence in their own economy and to diversify economic activities" (33). Unfortunately, "Bank Misr group failed to achieve its goals of economic independence and the formation of a national bourgoisie" (34).

F) Under these circumstances, the Egyptian revolution of 1952 constituted an important attempt to achieve economic independence.

From the above, it can be concluded that: Egypt has always suffered from extensive economic exploitation, foreign capital has played a dominant role in the economy since the middle of the nineteenth century and British officials dominated economic decision making during that time. Achieving economic independence represents one of the main objectives of the revolution of 1952.

5.3.2 The second stage 1956 - 1973

A "In July 1956 Nasser announced the nationalisation of the Suez Canal. The immediate chain of causation which led to this event - an apparent retaliation to the withdrawal of the U.S. and U.K. offers to finance the High Dam - was well known... But another powerful force was at work, a desire for national economic independence which involved the Egyptianisation of major foreign assets" (35). Therefore, the part played by foreigners in the national economy was appreciably reduced from its previous level.

B But "More serious is the fact that much of the development has been achieved by contracting large foreign debts, the servicing of which constituted an increasing burden in the following years" (36). "A large scale program of industrialisation was being carried out, with the help of a Soviet loan of 700 million rubles and West German loan of 545 million marks" (37).

C In addition, "Egypt's enormous spending on imported military supplies has resulted in its falling heavily into debt... The largest debt was to the Soviet Union, which was Egypt's main arms supplier during the Nasser era. The amount outstanding was in excess of $10,000 million... The strained relations between the Soviet Union and President Sadat have not helped matters, for the Russians have been unwilling to defer payments of debts... The Soviet Union has applied enormous pressure on Egypt, which has caused further problems for the economy. The most obvious pressure was the withholding of spare parts for Russian made military equipments... Pressure has also been applied to civilian projects, such as the country's aluminium smelter, which the Russians originally agreed to build, but then tried to delay considerably" (38).

Unfortunately the Egyptian desire for national economic independence has faced many obstacles. The large foreign debts and the enormous spending on imported military supplies have caused many foreign pressures and further problems for the Egyptian economy.

5.3.3 The third stage from 1974 to 1982

A "As part of the Open Door Policy, foreign banks have been invited to return to Egypt... There have been joint ventures announced by banks to undertake the full range of commercial operations - for instance Chase Manhattan

with the National Bank of Egypt and a three party venture between First National Bank of Chicago, Banco di Roma and Bank Misr. Permission has also been given for foreign banks to operate in the free zones and in foreign exchange... The decision to allow foreign banks to operate in Egypt is one of the more controversial aspects of the open-door policy, awakening memories of economic imperialism" (39).

B The Egyptians have tried to avoid economic imperialism by increasing their participation in the capital of projects (accepted according to Law No. 43 of 1974). Table 5.3 shows the Egyptian's participation in the capital of these projects. From this table it appears that the participation of the Egyptians in the capital of accepted projects according to Law No. 43 is 55.7% versus as foreigners' participation (44.3%).

In conclusion, the adoption of the Open Door Policy at this stage has awakened memories of economic imperialism. The return of foreign capital and the increasing burden of servicing large foreign debts have started to cause many foreign pressures.

5.3.4 Conclusion

The main features of the foreign influence on the Egyptian economy during the studied periods are:

1) For over twenty five centuries (from 525 B.C. to the nineteenth century) Egypt was not ruled by the Egyptians.

2) Foreign capital has played an important role in the economy since the middle of the nineteenth century and British officials dominated economic decision making during that time.

TABLE 5.3: The participation of the Egyptians and foreigners in the capital of the accepted projects according to Law No 43 of 1974.

(in Mill L.E.)

Accepted projects until 1979	Number of the projects	Capital	Egyptians' participation		Foreigners' participation	
			Value	Percentage	Value	Percentage
Projects inside the country	766	2277.7	1316.2	57.8	961.5	42.2
Projects in the free zones	312	395.8	172.2	43.5	223.6	56.5
Total	1078	2673.5	1488.4	55.7	1185.1	44.3

Source: Ministry of Planning, op.cit., p. 226.

3) In spite of the shrinking in the role of foreign capital during the second stage (1956 - 1973), there was an increasing foreign pressure because of large foreign debt and the enormous spending on imported military supply. In addition, there was a swift break away from the West coupled with the adoption of socialist ideas.

4) The adoption of the Open Door Policy has awakened memories of economic imperialism. In addition, there was another turn towards the West.

5) From the above it is evident that foreign influence has had a dominant role in the Egyptian economy.

5.4 The economic and foreign influence on accounting in Egypt

The two questions which the author will attempt to answer in this section are: (i) have economic factors influenced accounting practices in Egypt? and (ii) have foreign factors influenced accounting practices in Egypt? These influences will be discussed from two angles: accounting legislation and the status of the accounting profession. The same periodic classification used in the previous sections is to be used here.

5.4.1 The influence on accounting before 1956

5.4.1.1 Accounting legislation before 1956

A) "The first major development was the Decree of Commerce which was enacted in 1883. This obliged merchants to keep the following books:

- Journal: to record their daily transactions.
- Book of goods: to record the goods under their command at the end of every financial period.
- Record of correspondence: to keep copies of their correspondence to and from debtors and creditors" (40).

B) "There was little change in the legislation in the period from 1883 until 1939 when the Income Taxation Act was passed... Although the act did not have any direct affect on the accounting system, since it included no specific provisions concerning accounting regulations, its role was indirect in the sense that it obliged taxpayers to submit a tax report. This was to be ratified by a chartered accountant and supported by copies of the final accounts and the balance sheet, which the Act stipulated, should be extracted from properly kept books. Although the aim of that rule was to encourage the taxpayer to keep his books properly, the way in which this was to be done was not specified; it was instead left to accounting conventions and the accountant's opinion as to whether a firm kept books properly or otherwise" (41).

C) "The first professional body of accountants in Egypt is the Egyptian Society of Chartered Accountants and Auditors, which was created by a special decree in 1946. The Society's stated objectives were to promote the interests of accounting and control and regulate the profession in Egypt" (42).

D) "The law (No 133/1951) on the practice of accounting and auditing stipulated that students of commerce be entered in the Register of Juniors. Those who graduate as Bachelors of Commerce specialising in Accounting (or obtain the equivalent to this) must spend three years training in the office of a practising firm and receive

a Certificate of Completion for that training containing details of its make up. They may then be entered on the Register of Accountants and Auditors. They are allocated a number and thereafter entitled to practice under their own names. Law 133/1951 also stated that the accountant could not audit the balance sheet of a joint stock company within five years of joining the Register of Accountants and Auditors; this is to ensure he has adequate experience in the field" (43).

E) "Act No 388 for 1953 concerning commercial books (which was amended by Act No 58 for 1954) stipulated that, the journal, correspondence book, and inventory register were regarded as minimum books to be kept by each firm whose capital is more than one thousand pounds" (44).

F) "A special Act was enacted in 1954 to regulate the administrative system in corporation and limited companies, and this introduced a company disclosure system. The Act gave companies the discretion of choosing a bookkeeping system providing that it satisfied the requirements of the Act. It also stipulated that the company's disclosure system should be ratified by an auditor who should also give his opinion in his report on the system of bookkeeping in the company and on whether its accounts were correct or otherwise" (45).

G) "In 1955, Law No 394 was issued authorising the establishment of the Egyptian Syndicate of Accountants and Auditors" (46).

In conclusion, these legislations can be classified into two categories:

The First: legislations which dealt with the kind of books that were to be kept and the disclosure system that was to be followed. Under this category, we have the Decree of

Commerce which was enacted in 1883, the 1939 Income Taxation Act, The 1953 Act No 388 concerning commercial books and the 1954 Act No 26 concerning disclosure system in corporation and limited companies.

The Second: legislations which dealt with the regulating bodies of the accounting profession. Under this category we have a special decree in 1946 which created the Egyptian Society of Chartered Accountants and Auditors, Law No 133 which regulated the practice of accounting and auditing and Law No 394 which authorised the establishment of the Egyptian Syndicate of Accountants and Auditors. As it will be seen in the next section, this group of legislations has met some of the characteristics of an accounting profession.

5.4.1.2 The status of the accounting profession before 1956

"The most inclusive list of the characteristics of a profession may be that of the Members of the Commission on Standards of Education and Experience for CPA's, who report that the following list is generally considered to represent the characteristics of a profession:

1) a body of specialised knowledge;
2) a recognised formal education process for acquiring the requisite specialised knowledge;
3) a standard of professional qualifications governing admission to the profession;
4) a standard of conduct governing the relationship of the practitioner with clients, colleagues and the public;
5) Recognition of status;
6) an acceptance of the social responsibility inherent in an occupation endowed with public interest;
7) an organisation devoted to the advancement of the social obligations of the group" (47).

The question now: was the Egyptian accounting profession able to meet the above mentioned criteria? The author will try to answer this question taking into consideration each of the seven characteristics:

Concerning the body of specialised knowledge (first criteria). There was a body of specialised knowledge which can be communicated to the individual within two channels: formal educational process (the second criterion) and professional qualifications (the third criterion).

Concerning the formal educational process. According to Law No 133/1951 those who entered the Register of Juniors must obtain a Bachelor of Commerce specialising in Accounting (or obtain the equivalent to this) (48).

Concerning the professional qualifications (the third criterion). Those who entered the Register of Juniors must spend three years training in the office of a practising firm before entering the Register of Accountants and Auditors. They must spend another five years before auditing the balance sheet of a joint stock company (Law 133/1951). In order to gain the membership of the Egyptian Society of Chartered Accountants and Auditors "...the graduate should work for a practising member of the profession under a training contract for at least three years. During this period he must take two examinations, the intermediate and the final and upon passing both he may be admitted as a Member of the Society. This membership gives him an immediate right to audit joint stock companies, in contrast to non-members who must wait five years from joining the Register of Accountants and Auditors" (49).

Concerning the standard of conduct governing the relationship of the practitioner with client, colleagues and the public. In the period before 1956, the Egyptian accounting profession lacked such a standard of conduct.

Concerning the recognition of status (the fifth criterion). According to Law No 14 from 1939 (Income Taxation Act), taxpayers have to submit a tax report ratified by a chartered accountant. Also, Law No 26 for 1954 stipulated that the company's disclosure system should be ratified by an accountant. The public interest inherent in the services performed by the accountants has been recognised by both the government and the public.

Concerning the acceptance of the social responsibility (the sixth criterion). The accountants were active in regulating the professional qualifications to satisfy their social responsibility.

Concerning the organisation devoted to the advancement of the social obligations (the last criterion). There were two organisations in the period before 1956, the Egyptian Society of Chartered Accountants and Auditors and the Egyptian Syndicate of Accountants and Auditors.

In conclusion, the Egyptian accounting profession was able to meet six of seven characteristics of a profession in the period before 1956. Although the profession had missed an important characteristic (charter or constitution), it was able to meet the other characteristics with varying degrees. Needless to add that there was a concentration on issuing legislation and regulations and not on improving accounting practices.

5.4.1.3 The economic influence on Egyptian accounting before 1956

As mentioned before, it was a period of free-enterprise economy. Therefore, there was over-emphasis upon private sector financial accounting. For instance, the books that were to be kept by business enterprises had been determined by legislation (Decree of Commerce in 1883 and Act No 388 concerning commercial books) and the disclosure system that was to be followed by corporation and limited companies had been organised by Law No 26 in 1954.

It was also mentioned that there was a chaotic economic system during this period, therefore, it is expected to find chaotic accounting practices. Unfortunately, this had happened. "Although the type of books used for recording transactions were the outcome of both legislation and tradition, the determination of accounting principles, terms, concepts and definitions have been left entirely to different business practices. Consequently, the situation developed into wide variations in these accounting principles, concepts and definitions. The declared balance sheets and profit and loss accounts have often deviated from reality and the produced accounting information was unreliable" (50).

5.4.1.4 Foreign influence on Egyptian accounting before 1956

"The United Kingdom's political influence until 1956 meant that the organisation of the accounting profession and the financial reporting practices in Egypt closely followed those of the U.K." (51). "In a number of countries the British influence is very long standing and almost all of the colonial territories in which any substantial degree of industrial development took place under British rule will have had imposed upon them a British Companies Act with the usual reporting and auditing reguirements" (52). For

instance, "The British Companies Acts of 1948 and 1967 require all corporations to keep proper books of accounts containing the information to give a true and fair view of the company's financial affairs. In addition, each company is required to prepare a profit and loss account and a balance sheet at the end of each accounting period... The Acts mandate the appointment of a qualified auditor for each corporation" (53). The Egyptian Company Law No 26 of 1954 adopted the same rules as the British Company Act of 1948. "...many defects attributable to that adoption:

A An accounting profession which is biased towards British attitudes. This implies examination which concentrated upon legal and professional subjects, often in a British rather than a native form...

B Financial control of the private sector based upon accounting concepts laid down by the U.K. Companies Act, which may have been relevant to a British capitalist system one hundred years ago, but are hardly calculated to provide the information necessary for government regulation of industry in a newly independent country.

C A complete lack of interest on the part of most accountants to the problems of providing information within the spheres of government administration and economic planning..."(54)

5.4.1.5 Conclusion

On the basis of the above, it can be concluded that the economic and foreign factors influenced accounting practices in Egypt in the period before 1956. This proved the environmental hypotheses in this period.

5.4.2 The economic and foreign influence on Egyptian accounting in the period 1956 to 1973

5.4.2.1 Accounting legislation in this period

A In 1958, the Egyptian Syndicate of Accountants and Auditors issued its charter which represented a standard of conduct governing the relationships of the practitioner which clients, colleagues and the public.

B The accounting control boards (Law No 167 of 1961 Amended by Law No 44 of 1965). "After the establishment of public organisations each organisation established an Accounting Control Board to audit the financial activities of its affiliated companies in the same manner as independent accountants... Members of these boards expressed opinions as to the fairness of the financial statements, and were supposed to be independent in discharging their responsibilities" (55).

C The Central Auditing Agency (Law No 129 of 1964). "This agency became, by Presidential Decree, the authorised public agency (instead of the State Accounting Office) to audit the enterprises of the public sector and government institutions. Members of Accounting Control Boards became directly responsible to this new agency although they were still paid by public organisations" (56).

D The Unified Accounting System (Law No 4723 of 1966). "It was through the efforts of Central Auditing Agency that this law was introduced in 1966. This umbrella legislation covered all economic units under the jurisdiction of the National Planning Board with the exception of the banks and insurance companies which were under different regulations" (57). "The unified system has sought to achieve the following objectives:

1) Provision of the necessary accounting information for planning and control at all levels of the economy.
2) Provision of necessary links between micro-accounting on the one hand and macro-accounting on the other, thus contributing to the accuracy of national accounts based on business accounts of economic units.
3) Facilitating collection, tabulation and storage of unified data" (58).

E In 1972, Law No 40 was issued authorising the establishment of the Egyptian Syndicate of Commerce Professions, which consists of four divisions: accounting and auditing (in place of the Syndicate of Accountants and Auditors), organisation and business administration, economic and commercial statistics and insurance.

In conclusion, these legislations can be classified into two categories:

The First: legislations which dealt with the disclosure system to be followed by public companies. Under this category, we have Law No 4723 of 1966 which introduced the Unified Accounting System.

The Second: legislations which dealt with the regulating bodies and the regulations of accounting practices. Under this category we have the charter which was issued by the Egyptian Syndicate of Accountants and Auditors in 1958 to regulate accounting practices. There were also three regulating bodies: the Accounting Control Boards, The Central Auditing Agency and the Egyptian Syndicate of Commerce Professions.

5.4.2.2 Accounting profession in the period 1956 to 1973

Was the Egyptian accounting profession able to meet the previously mentioned criteria of a profession during that period? The author will try to answer this question taking into consideration the changes which happened in the seven characteristics of the criteria.

Concerning the body of specialized knowledge (first criterion). "The Egyptian Unified Accounting System is an accounting handbook published by the government. It traces the movements between accounts, sets norms for accounting classifications and spells out valuation and reporting methods" (59). Therefore, it represents a reliable body of specialised knowledge for both the users and regulators of accounting information.

Concerning the formal educational process (second criterion). The Unified Accounting System has been introduced as a compulsory course in all the faculties of commerce in Egyptian Universities since 1967.

Concerning the professional qualifications (third criterion). This was not satisfied since "...some members of the Central Auditing Agency and Accounting Control Boards may not be chartered accountants and, hence they may not meet the professional standards and requirements governing admission to professional institutions. These members may also lack some of the professional attitude of chartered accountants who should be aware of the standards of professional conduct" (60).

Concerning the standard of conduct governing the relationships of the practitioner with client, colleagues and the public (fourth criterion). In 1958, the Egyptian Syndicate of Accountants and Auditors issued its charter.

Concerning the recognition of status (fifth criterion). Although the public interest inherent in the services performed by accountants was notably recognised by the government, "The demand for the services of chartered accountants by private companies declined enormously due to the nationalisation of many companies whose accounts were examined by public agency" (61).

Concerning the acceptance of the social responsibility (sixth criterion). The social responsibility of the accountants increased because they became responsble for auditing the most important sectors in the economy - the public sector.

Concerning the organisational characteristics (last criterion). This period witnessed the establishment of the Accounting Control Boards, The Central Aduditing Agency and The Egyptian Syndicate of Commerce Professions. All these bodies were responsible for the regulation of the profession.

In conclusion, the Egyptian accounting profession witnessed some positive and negative developments during that period. The main positive development was the issuing of the Unified Accounting System which represents a reliable body of specialised knowledge for both the users and regulators of accounting information. The main negative developments were that some members of the Central Auditing Agency and the Accounting Control Boards were not professionally qualified accountants. In addition, the demand for the services of professionally qualified accountants by private companies declined enormously due to the nationalisation of many companies.

5.4.2.3 The economic influence on Egyptian accounting during this period

As mentioned earlier, it was a period of centrally planned economy. Therefore, there was a need for accounting information which can help in this process. Accordingly, the Unified Accounting System was issued in 1966 to facilitate collection, tabulation and storage of accounting information for national planning and control. This period also witnessed the shrinking of the private sector by Egyptianisation and nationalisation. Accordingly, the demand for the services of professionally qualified accountants declined enormously. In addition, the expansion of the public sector and state control over important economic sectors were accompanied by the establishment of The Accounting Control Boards and The Central Auditing Agency as public agencies for auditing.

5.4.2.4 Foreign influence on Egyptian accounting during this period

The swift break-away from the West to the adoption of socialist ideas was accompanied by a transition to comprehensive planning and closer state control. These changes notably affected accounting practices by emphasising on public sector financial accounting.

5.4.2.5 Conclusion

In can be concluded that the economic and foreign factors sharply influenced accounting practices in Egypt in the period from 1956 to 1973. This proved the environmental hypothesis in that period.

5.4.3 The economic and foreign influences on the Egyptian accounting in the period from 1974 to 1982

5.4.3.1 Accounting legislation in this period

In 1981, a new Company Law was issued (Law No 159 of 1981) to follow the development in the Egyptian economy which happened as a result of adoption of the Open Door Policy (62).

The old law (Law No 26 of 1954) was cancelled because it failed to follow the development in the economy (63).

Needless to add that Law No 43 of 1974 concerning the investment of Arab and foreign funds has given many exemptions to the companies which were established according to its rules.

5.4.3.2 Accounting profession in the period from 1974 to 1982

"The Open Door Policy has provided a major stimulus for private sector accountants, for many of the foreign firms investing in Egypt have insisted upon local auditors in independent public practice as opposed to subjecting themselves to government audit. As a consequence many accounting firms have sprung up and they have enjoyed rapid growth" (64).

The Egyptian Syndicate of Commerce Professions held two conferences in accounting and auditing. A National Conference held in June 1980 and an International Conference under the auspices of the President of Egypt held in December 1980. Some of the recommendations of these conferences will be discussed later.

Concerning the seven characteristics of the criteria of a profession, the Egyptian accounting profession has not notably changed from the previous period except that the demand for services of professionally qualified accountants rapidly increased as a result of adopting the Open Door Policy.

5.4.3.3 The economic influence on Egyptian accounting during this period

The period witnessed the encouragement of the private sector and Arab and foreign capital. Accordingly, the demand for the services of professionally qualified accountants rapidly increased.

5.4.3.4 Foreign influence on the Egyptian Accounting during this period

The National Conference on Accounting and Auditing held in June 1980 recommended that "...a committee should be formed to set accounting principles in line with generally accepted international principles in this respect" (65).

The International Conference on Accounting and Auditing held in December 1980 recommended that "...it is necessary to formulate accounting standards to be adopted in Egypt in the preparation of financial statements for external reporting... These standards should take into consideration the economic and accounting environment and needs in Egypt and should conform whenever possible with the accounting standards published by the International Federation of Accountants which has admitted Egypt to its membership" (66).

From these recommendations, it is worth mentioning that:

1) A rush step in the standard setting process. "There are three stages in the standard-setting process in any country: political, production of the standards and marketing

of the standards... First, there is a pressure group which would like to see the existence of standards having emerged (political stage). The next stage is the production of the standard. This can be an expensive and time consuming process. The third stage is marketing, which involves the attempt by the accounting standard-setting body to ensure that its standards are acceptable to the more powerful groups in the society" (67). If these recommendations are implemented it will represent a leap from the political stage (there is a pressure group consisting of Egyptian accounting professional bodies) to the marketing stage. "The fact that they intended to adopt international standards meant that the production stage would not be time consuming" (68).

2) In spite of the adoption of the Open Door Policy, Egypt is still a centrally planned economy. The Unified Accounting System was issued to provide information for national planning and control. There is no doubt that any new system must suffer from many problems during its first adoption. The Egyptians must concentrate on evaluating and improving their own accounting system instead of rushing towards the adoption of international accounting standards. All these have happened because of the new foreign pressure groups.

5.4.3.5 Conclusion

On the basis of the above, it can be concluded that the economic and foreign factors influenced accounting practices in Egypt in the period from 1974 to 1982. This proved the environmental hypotheses in that period.

5.5 Conclusion

The essential questions that this chapter has attempted to answer are: have economic factors influenced accounting practices in Egypt?; have foreign factors (foreign investors and former colonial administration...) influenced accounting practices in Egypt? In order to answer these questions, three periodic stages have been studied:

- The period from 1805 to 1956.
- The period from 1956 to 1973.
- The period from 1973 to 1982.

In each period the author has discussed the economic factors, the foreign influence factors, and then the influence of these factors on Egyptian accounting from two angles: accounting legislation and the status of the accounting profession. The main results of this discussion appear in Table 5.4. These results proved the following environmental hypotheses:

A) Economic factors have influenced accounting practices in Egypt.

B) Foreign factors (former colonial administration and foreign investors...) have influenced accounting practices in Egypt.

In this chapter the author has considered the environmental characteristics of the Egyptian unified accounting system (in the second stage from 1956 to 1973). In the next chapter, the remaining characteristics of the system, namely, the structural and organisational will be presented and critically discussed.

TABLE 5.4: Summary of the economic and foreign influences on accounting in Egypt

The period	Economic and Foreign Factors	Influence on Accounting
From 1805 to 1956	- It was a period of free enterprise economy.	- There was over-emphasis upon private sector financial accounting in legislation and accounting profession.
	- There was a chaotic economic system	- There were chaotic accounting practices because of the wide variations in accounting principles, terms, concepts and definitions. The declared accounting information was unreliable.
	- British officials had dominated most of the economic decision making.	- The organisation of the accounting profession and the financial reporting practices in Egypt closely followed those of the United Kingdom.
From 1956 to 1973	- It was a period of central planned economy.	- The unified accounting system was issued in 1966 to facilitate collection, tabulation and storage of accounting information for national planning and control.
	- The shrinking of the private sector by Egyptianisation and nationalisation.	- The demand for the services of chartered accountants by private companies was declined enormously.
	- The expansion of the public sector and state control over important economic sectors.	- The stablishment of the Accounting Control Boards and the Central Auditing Agency as public agencies for auditing.
	- A swift break-away from the West to the socialist ideas.	- There was over emphasis upon public sector financial accounting in legislation and accounting profession.

TABLE 5.4: Summary of the economic and foreign influences on accounting in Egypt Continued/2.....

The period	Economic and Foreign Factors	Influence on Accounting
From 1974 to 1982	- The adoption of the Open-Door Policy. - The encouragement of the private sector and Arab and foreign capital. - A turn to the Western ideas again and new pressures from the foreign groups.	- A new Company Law was issued to follow the development in the economy. - The demand for the services of chartered accountants has notably increased. - Rush step in the standard setting process by trying to adopt international accounting standards without following the reasonable steps: political, production of the standards, and marketing of them.

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CHAPTER SIX

Chapter Six

Preliminary Examination of the Egyptian Unified Accounting System

6.1 Introduction

6.2 The organisational characteristics of the Egyptian unified accounting system
- 6.2.1 The adopted approach in the preparation of the system
- 6.2.2 The structure of the responsible body

6.3 The structural characteristics of the Egyptian unified accounting system
- 6.3.1 Objectives of the system
- 6.3.2 Qualitative characteristics of accounting information
- 6.3.3 Elements of financial statements
- 6.3.4 Recognition criteria
- 6.3.5 Measurement criteria
- 6.3.6 Financial reporting
  - 6.3.6.1 Balance sheet
  - 6.3.6.2 Statement of sources and applications of funds
  - 6.3.6.3 Current operations account
  - 6.3.6.4 The production and trading account
  - 6.3.6.5 The profit and loss account
  - 6.3.6.6 Cash flow statement
  - 6.3.6.7 Planning budget

6.4 Conclusion

Chapter Six

Preliminary Examiniation of the Egyptian Unified Accounting System

6.1 Introduction

In the previous chapter the author discussed the Egyptian accounting environment as a field for testing the suggested model (its first process: case history). In this chapter, we are going to start the first stage (preliminary examination) of the model's second process (diagnosis).

The basic tools of this stage are the three dimensions of the conceptual framework for financial accounting and reporting (structural, organisational and environmental characteristics). The author has already considered the environmental characteristics of the Egyptian unified accounting system in the previous chapter. Therefore, this chapter is devoted to discussing the organisational and structural characteristics of the system.

6.2 The organisational characteristics of the Egyptian unified accounting system

This group of characteristics is concerned with studying the structure of the body which took on the responsibility of developing the system and the approach adopted in the preparation of the system.

6.2.1 The approach adopted in the preparation of the system

The approach used is outlined below (1) and illustrated in Figure 6.1:

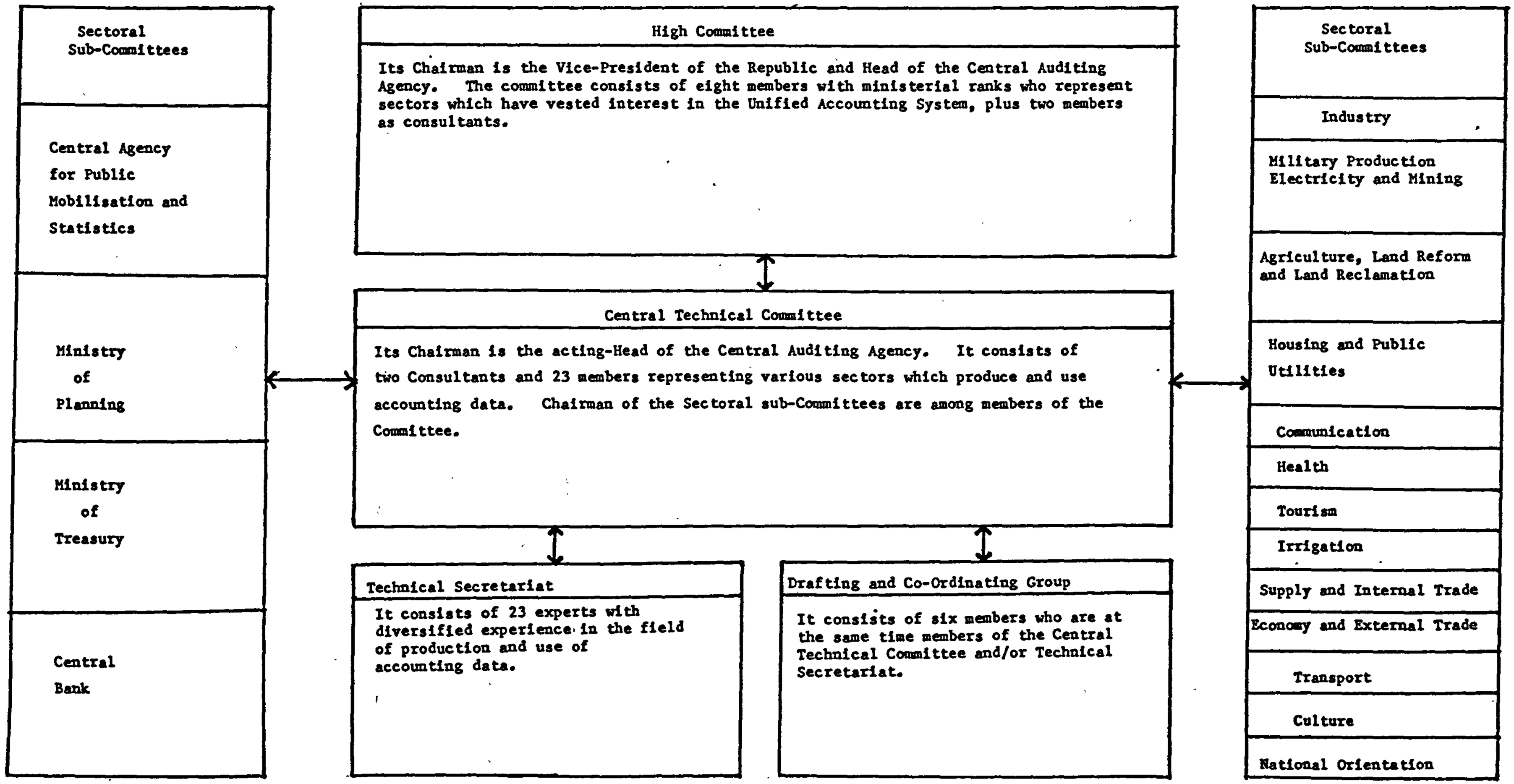
A After preparing a draft project by the Central Auditing Agency, it submitted a suggested programme for examining the project by producers and users of accounting data.

B The Presidential Decree No 2125 for 1966 (issued May 1966) established the "High Committee for Supervising the Formulation of the Unified Accounting System" under the Chairmanship of the Vice-President of the Republic and Head of the Central Auditing Agency. This "High Committee" was assisted by the "Central Technical Committee". The Vice-President of the Republic was authorised to form the latter committee which was entrusted with the appraisal of the project and suggestion of programmes for its formulation and implementation. According to the Presidential Decree indicated above, a period of six months was determined for the formulation of the system.

C Together with the formation of the "Central Technical Committee" (Decree No 16 for 1966), a "Technical Secretariat" and several "Sectoral Sub-Committees" were established to assist in examining the suggested project.

D Before submitting the project in its final form to the "High Committee", it was carefully edited and revised by a "Drafting and Co-ordinating Group" which was appointed by the "Central Technical Committee". The group consisted of six experts who were members of the latter committee and/or the "Technical Secretariat".

FIGURE 6.1: Organisation Chart of the Unified Accounting System Preparation Process



Source: Central Auditing Agency, A Note on the Unified Accounting System in Egypt, op.cit., p. 7.

E After the High Committee's approval of the project in its final form, the Presidential Decree No 4723 (dated 10 December 1966) was issued promulgating the Unified Accounting System.

In addition, "According to the Presidential Act No 4723 for 1966, the Vice-President of the Republic and head of the Central Auditing Agency is authorised to form "Standing Committee on Clarification and Amendment of the Unified Accounting System". The purpose of the Committee (and its sub-committee) is two-fold. First, it provides answers to questions that may be raised by both producers and users of accounting information included in the unified system. All interpretations and clarifications of the system must emerge from this standing committee. Secondly, the committee is entrusted with all modifications in both form and substance of the system" (2).

In fact, the approach which has been adopted in the preparation and clarification of the system has the following characteristics:

1) It is inductive and deductive: as mentioned before, a combination between the inductive and deductive approaches can be achieved by making a number of observations (the inductive approach) within the restrictions of a framework representing what ought to be done (deductive approach). This represents what has happened in the process of developing the system. The draft project which was prepared by the Central Auditing Agency included a clear statement of the system's objectives, a number of assumptions about the environment in which the system is to function and the development of a number of principles which derived from the objectives (deductive approach). The observation process (inductive approach) has been conducted by the different committees like the "High Committee for

Supervising the Formulation of the System", "The Central Technical Committee", "Technical Secretariat", "Drafting and Co-ordinating Group", the "Sectoral Sub-Committees" and "The Standing Committee on Clarification and Amendment of the System".

2) It is autocratic and democratic: the system's objectives have been autocratically imposed. The system itself was issued by legislation. But in the process of developing the system, the users and preparers of accounting data were represented in the different committees (democratic approach). In addition, the Standing Committee on Clarification and Amendment of the System is entrusted with all modifications and the answering of questions that may be raised by both producers and users of accounting information included in the system.

6.2.2 The structure of the responsible body

The users and producers of accounting data were represented in the process of developing the system by sectoral sub-committees. For instance, The Central Agency for Public Mobilisation and Statistics, Ministry of Planning, Ministry of Treasury, and the Central Bank were represented as users. Sectors which have vested interest in the system like Industry, Agriculture, Transport and Electricity were also represented. In addition, The Standing Committee on Clarification and Amendment of the System gave answers to 608 questions in the period from 1967 to 1975 (3). These questions were raised by users and producers of accounting information.

By disucssing the organisational characteristics of the system, the author will deal with the structural characteristics in the next section.

6.3 The structural characteristics of the Egyptian unified accounting system

6.3.1 Objectives of the system (4)

A Provision of the necessary accounting information and analytical tools for planning, execution of plan, control at all levels

For instance, at the micro-level (economic units), the enterprises must prepare three budgets: physical budget, financial budget and cash budget. This will enable the enterprises to co-ordinate their plans in physical terms with their financial plans. This co-ordination is essential for achieving the economic balance at the micro-level which represents a goal of the comprehensive economic plan. In addition, the system provides the necessary information for the decision making process and the analysis of the financial statements.

At the macro-level, the system serves the Ministry of Planning by facilitating the co-ordination of the physical, financial and cash budgets at the micro-level with the national plan at the macro-level. Also, the system provides the unified information to enable the ministry to follow up the plan at all levels. The system supplies the information needed by the Ministry of Treasury and the Ministry of Economics by co-ordinating the accounts of economic units with the National Budget and the Foreign Currency Budget. The system facilitates the function of the Central Auditing Agency in carrying out financial control and performance evaluation through the provision of the unified information. Moreover, the system supplies the Central Agency for Public Mobilisation and Statistics with unified information which facilitates the process of tabulation and storing of information.

B Provision of necessary links between micro-accounting on the one hand and macro-accounting on the other, thus contributing to the accuracy of national accounts based on business accounts of economic units.

An author argues that "Microaccounting would provide an effective data base for macroaccounting if the following factors prevail:

1) An agreement between microaccounting and macroaccounting regarding the definitions, the measurement base, the unit of measurement and the basis of accounting, of the input data necessary for obtaining information of certain economic constructs that would be needed for evaluating the country's economic performance or for monitoring the progress of a development plan.

2) An agreement between microaccounting and macroaccounting regarding the qualitative characteristics, classifications and degree of detail of microaccounting data for macroaccounting purposes.

3) An awareness by accountants, at the micro-level, that the accounting measurements they perform could have a significant impact upon policy making at the macro-level. Such an awareness is necessary for inducing accountants to broaden the scope of their accounting work and to accept the challenge of their new role in the development process.

4) An awareness by managements of micro units of the application of certain macro aggregates in planning and controlling their operations effectively. Such an awareness is necessary for creating the support needed for the creation of microaccounting systems that are compatible with the needed macroaccounting system" (5).

In fact, the Egyptian unified accounting system has met these factors by unifying the definitions, the measurement base, the unit of measurement of accounting information, classifications and the qualitative characteristics (the first and second factor) and by organising detailed training programmes for both accountants and managements to increase their awareness of their new role in the development process (the third and forth factor).

C <u>Facilitating collection, tabulation and storage of unified data</u>

"The tabulation of data in a unified manner would:

1) facilitate the task of the state in collecting the desired information;
2) ensure an improvement in the accuracy of information;
3) shorten the time taken in collecting data on all economic activities in the country;
4) enable management to judge its performance through comparison with similar enterprises" (6).

From the above, it is worth mentioning that:

1) The basic objective of the system is to provide useful information to users of financial reporting produced as a result of the application of the system (informational approach) with emphasis on serving the purposes of planning and control at all levels. This emphasis reflected the transition of the Egyptian economy to a comprehensive planned economy. The provision of unified accounting information, the links between micro-accounting and macro-accounting and tabulation of the stored unified data could serve the purposes of making economic decisions at the micro and macro levels.

2) The users of financial reporting have been classified as to internal users (management at the micro-level) and external users (governmental organisations like the

Ministry of Planning, Ministry of Treasury, Ministry of Economics, The Central Auditing Agency and the Central Agency of Public Mobilisation and Statistics). The governmental organisations come at the top of the users' list of accounting information in Egypt.

3) A reasonable understanding of the system and its benefits is required by the users and producers of accounting information. "In order to secure efficiency in the application of the system detailed training programmes, including different levels of both producers and users of accounting information, were prepared by the "Technical Secretariat" and discussed and approved by both the "Central Technical Committee" and the "High Committee" indicated before. Two groups (A and B) were separated on the training programmes. Group A included senior officials who were involved in planning and supervising the production and use of accounting data in different sectors. Group B included those officials who were practising actual implementation of the accounting system. It was arranged to hold a series of discussion seminars for the former group. The leaders of the early seminars were experts who participated in the work of the "Technical Committees". Arrangements were made to collect systematically the questions raised and answers given to them. The collection appears in the form of a "supplement" to the system. The responsibility of training Group B falls mainly on the sectors concerned. This task includes the delivery of lectures as well as in services (on the job) training" (7).

4) Users' needs: for internal users, information needed for planning, control and decision making process. For external users, information needed for national planning and control.

5) The system's responses to user's needs: "Economic units must prepare the following budgets:

a) Physical budget, which shows the production programme in relation to capacities; requirements of commodity and non-commodity inputs - including manpower - for the fulfilment of production targets.

b) Financial budget, which is the financial expression of the physical budget and which reflects the financial plan of the economic unit.

c) Cash budget, which shows the prospective receipts and payments of cash" (8). These budgets will enable the management to co-ordinate their plans in physical terms with their financial plans and to achieve control of organisation's operations.

Economic units must prepare the following statements and accounts:

a) Balance-sheet,

b) Statement of sources and applications of funds,

c) Current operations account,

d) Production and trading account,

e) Profit and loss account, and

f) Cash statement.

"Apart from the traditional types (a, d, e), the above statements and accounts include other types (b, c, f) which were introduced to serve the purposes of national planning and control" (9).

6.3.2 Qualitative characteristics of accounting information

The following system's advantages have been mentioned by two authors (10):

A The accounts have been carefully preclassified. The classification reflects the kind of information needed by governmental bodies and simultaneously meets

management's needs for financial information. (Therefore, it is expected that the system will provide relevant information for the purposes of serving the decision making process because it has considered the users' needs).

B The committee which was responsible for establishing the system incorporated a combination of many specialisations; macro-accountants, mirco-accountants, enterprise managers, government representatives, bankers and academics. The inclusion of all these professionals, especially macro-accountants and micro-accountants, ensured that the interests of the various groups in the system would be fully considered. (This guarantees that the relevance will be achieved).

C The application of unified accounting concepts ensures that information is provided in a homogeneous form (this uniformity facilitates the comparison between the financial information for the different economic units because of the consistency in adopting accounting concepts. The homogeneity improves the capacity of information for prediction).

D The provision of training programmes for users and producers of accounting information will enable them to understand and absorb the system. (This will increase the understandability of the system and secure efficiency in its application).

E The stability and the flexibility of the system. The former is reflected in the uniform accounting classification which provides a boundary to firms within which they have relatively little discretion, for the enterprise's right to add additional accounts to the classification is restricted. If the need for such an addition arises, an enterprise must consult the relevant

minister and obtain approval of the Central Auditing Agency. (This guarantees that consistency will be continued). Flexibility is obtained by establishing a committee whose responsibility is to supervise the execution of the system, to add more accounts to the classification if the need arises and to review the system in order to incorporate any new ideas that might appear appropriate. (This guarantees the continuous relevance of the produced accounting information).

F Accounts are regularly audited. The continuous auditing approach by the Central Auditing Agency minimises the time that might elapse between the occurance of a mistake and its revelation. (Therefore, it is expected that the system will provide reliable information for the purpose of serving the decision making process because it is trustworthy and accurate).

From the above, it is worth mentioning that the Egyptian unified accounting system has considered most of the qualitative characteristics of accounting information.

6.3.3 Elements of financial statements

One of the most important parts of the Egyptian unified system is the chart of accounts. This chart is designed to meet all the requirements of the financial accounting system as a system for providing financial information. It included an explanation of the elements of financial statements.

An author argued that "The most prominent requirements for a good standard chart of accounts are the following:

A Flexibility. This is the dominant quality required. The chart must be flexible, adaptable to the circumstances and adoptable with equal ease to all economic units.

B Lucidity and distinctness. The chart must be simple and logical; it should be easily understood and readily become fixed in memory. The terms and concepts must be defined in an unambiguous manner. The scope of each class, each group and each account must be delimited clearly. The borderlines should be drawn in such a manner that the sums or balances of classes and groups are significant and important figures.

C The classification symbols. The use of symbols for all accounts is necessary... to allow the giving of precise titles to the accounts..." (11).

The question now: has the Egyptian unified chart of accounts been able to meet the above requirements? The author will try to answer this question taking into consideration each of the three requirements:

Concerning flexibility (first requirement). "The extent of detail in the classification of accounts is governed by the possibilities available to the economic units on the one hand and the needs for accounting data on the other. However, the classfication included in the system is regarded as minimum, in the sense that it can be expanded by sub-dividing the accounts to add additional items. But before making an expansion of the classification, the economic unit must consult the relevant authority and acquire the approval of the Central Auditing Agency" (12).

Concerning lucidity and distinctions (second requirement). "In order to avoid potential confusion in adopting the classfication, accounts are clearly described in sufficient detail. These explanations and clarifications of the chart of accounts are intended to provide maximum precision to what these accounts actually mean and increase the effectiveness of accounting communication to the users. The system proceeds to the standardisation of accounting principles,

terms, concepts and definitions, since these are the backbone of any unified system. Terms and definitions which vary in current practices have been standardised. Generally, standardisation has kept faithful to the principle of maintaining those terms and definitions which are most accepted in practice" (13).

Concerning the classification symbols (third requirement). "Notations in the Egyptian Chart of accounts are made in terms of numbers (with the exception of zero). Accounts included in the chart are classified into three main categories, namely (1) balance-sheet accounts, (2) operating accounts, and (3) control accounts. The balance-sheet accounts are devided into assets and liabilities; the operating accounts into uses and sources; and control accounts into production, production services, administrative and financing services, marketing services and capital expenditures. Each of these divisions (called total account) is identified by a one-digit number (from 1 to 9). However, the general account is identified by a two-digit number, the first digit to the left indicates the "total account"; while the first and second digits taken together identify the "general account". The process of sub-division continues until the stage of accounts denoted by a six-digit number is reached. This system of notation is obviously shown in the "framework of the chart accounts" which is attached hereto in Figure 6.2" (14).

In conclusion, the Egyptian unified chart of accounts has met the three prominent requirements for a good standard chart of accounts. The standardisation definitions of the elements of financial statements are intended to provide maximum precision to what these elements mean and increase the effectiveness of accounting communication to the users. The use of notations in the Egyptian unified chart of accounts has increased the possibilities of becoming fixed in the memory of the users of the financial statements. The

FIGURE 6.2: Framework of the Chart of Accounts

Balance Sheet Accounts		Operating Accounts		Distribution of Uses by Control Centre of:				
Assets 1	Liabilities 2	Uses 3	Sources 4	Production 5	Production Services 6	Marketing Services 7	Administrative & Financing Services 8	Capital Expenditure 9
11 Fixed Assets	21 Capital	31 Wages	41 Revenues from Cur. Operations	531 Wages	631 Wages	731 Wages	831 Wages	931 Wages
12 Projects in Progress	22 Reserves & Forwarded Surplus	32 Commodity inputs	42 Subsidies	532 Commodity Inputs	632 Commodity inputs	732 Commodity Inputs	832 Commodity Inputs	932 Commodity Inputs
13 Inventories & work in progress	23 Provisions	33 Non-Commodity inputs	43 Income of Securities	533 Non-Commodity Inputs	633 Non-Commodity Inputs	733 Non-Commodity Inputs	833 Non-Commodity Inputs	933 Non-Commodity Inputs
14 Long-Term Lending	24 Long-Term Loans	34 Purchases for Re-Sale	44 Transfer Receipts	534 Purchases for Re-Sale	.....	.....	.....	.....
15 Financial Investments	25 Overdrafts & Facilities	35 Current Transfer Expenses	45	535 Current Transfer Expenses	635 Current Transfer Expenses	735 Current Transfer Expenses	835 Current Transfer Expenses	935 Current Transfer Expenses
16 Debtors	26 Creditors	36 Current Specified Transfers	.....	.....	.....	.....	836 Current Specified Transfers	.....
17 Miscellaneous Debit Accounts	27 Miscellaneous Credit Accounts	.....	.....	.....	.....	.....	.....	.....
18 Cash in hand and at Banks	28 Results of the year	.....	.....	.....	.....	.....	.....	.....
19.....	.....	.....	.....	.....	.....	.....	.....	.....

provision for enlargement in the classification has increased the possibilities of satisfying the variable users' needs.

6.3.4 Recognition criteria

"The system has specified accounting principles and defined accounting terms and rules which should determine when an item is included as an asset or liability etc." (15). As indicated before, recognition is the process of formally recording or incorporating an item in the financial statements of an entity. It might be worthwhile to point out that the system has recognised and incorporated in the financial statements items which can satisfy the needs of macro-accounting and micro-accounting at the same time. Two examples will be mentioned here.

Capital investment "At the macro level such an investment is classified into two main classes: capital investment added and capital investment transferred. While the former constitutes the actual increase in the capital resources in the country, the latter represents movements in capital goods between enterprises at the micro level which do not affect the actual existence of those goods at the macro level. The purchase price of land and of second-hand assets is consequently considered as capital transferred, while other expenses which are incurred in adapting the land and in acquiring new fixed assets are regarded as capital investment added. To satisfy the financial accountant's needs at the micro level all capital expenditure that is incurred in an enterprise is considered as capital investment, while to meet the macro-accounting requirements those investments are recorded in such a way as to separate capital added from capital transferred when disclosing this information... Furthermore, customs duties and all taxes that might be included in capital investment are recorded in independent accounts and revealed separately in firms' reports so that the effect of taxes on capital investments can be calculated" (16).

"One more example could be taken from including "opposite twin accounts" which are designed to link micro-accounting to macro-accounting. These accounts appear, at the same value on both sides of the Current Operations Account (to be discussed later). Among these opposite twin accounts are the following:

Uniform A. Number	Resources	Uniform A. Number	Uses of Resources
413	Valuation differences of finished inventory	358	Valuation differences of finished inventory
4183	Valuation differences of finished goods purchased for sale.	359	Valuation differences of finished goods purchased for sale.

It is worth pointing out that the existence of these accounts have a significant role in linking the requirements of macro-accounting and micro-accounting. Account numbers 413 and 4183 above help to calculate the value of production at the selling price according to the requirements of macro-accounting. Account numbers 358 and 359 offset the effect of the preceding accounts and provide the financial accountant with his needs for financial data in the evaluation of inventory at cost or market price, whichever is lower" (17).

6.3.5 Measurement criteria

The basic rule for the determination of the amount to be shown in financial accounts is the historical cost. "The system, however, recognised the deficiency of historical cost under inflation environment and required that an appropriation of profits should be made to provide for the difference between historical cost and predicted replacement cost of assets" (18). Some remedial measures have been taken which in one way or another have attempted to reduce the effects of inflation. These measures include the following (19):

A Creation of a Reserve for Higher Prices of Assets (Account No 226) which is to be credited by 5% of surplus available for distribution. This reserve, however, has been found to be small in profit making enterprises. Further, it was found to diminish annually with the decrease in profits precipitated by the continuous rise in prices. On the other hand, companies with a loss balance were unable to set aside such a reserve and thus for them the problem remained unsolved.

B Creation of a Reserve for Financing Investment Projects, Renewals and Expansions (Account No 223). Despite the fact that the system has provided for the creation of such reserve, public sector companies were unable to create it as the regulations governing the distribution of profits, do not allow for the appropriation of any percentage of profits for this purpose. In view of the flexibility of this reserve which is not restricted by any specific percentage, it could serve in reducing the effects of inflation.

C Crediting capital gains to reserves. The system has treated capital gains as a transfer receipt (Account No 443). Such capital gains are credited to the reserve for financing, renewals and expansions (Account No 223) when the appropriation account is prepared.

From the above, it is worth mentioning that:

1) The system has used historical cost as a basic rule for the measurement of the elements of the financial statements without taking into consideration that historical cost information is not sufficient to satisfy the users' needs.

2) The Reserve for Higher Prices of Assets is restricted by specific percentage (5% of surplus available for distribution). On the other hand, the Reserve for Financing Investment Projects, Renewals and Expansions is not restricted by any specific percentage. However, if the objective of creation of these reserves is to reduce the effects of inflation, it will be better to relate both of them, by some reliable method, with the rate of inflation. Moreover, it is not clear enough why the percentage is 5% of surplus available for distribution.

3) The creation of these reserves is conditional upon achieving surplus. Therefore, companies with a loss balance will be unable to set aside such reserves and the problem of reducing the effects of inflation remained unsolved. Hence, it is better to charge these reserves against revenue rather than treat them as an appropriation of profits.

6.3.6 Financial reporting

As mentioned before, the economic units must prepare the following statements and accounts: Balance-sheet, Statement of sources and applications of funds, Current operations account, Production and trading account, profit and loss account and cash statement. In addition to the previous statements and accounts, the economic units must prepare Physical budget, Financial, and Cash budget.

When discussing these statements and accounts, an emphasis will be placed upon the information that would be meaningful for national investment decisions as it represents the field of the empirical work of this research.

6.3.6.1 Balance-sheet

The form of the Balance-sheet is attached hereto. From this form it can be noted that:

A The Balance-sheet's form and the arrangement of the information in it. In the unified accounting system, the balance-sheet has been arranged in the account form.

In an international analytical comparative study of the structure and content of annual reports in the European Economic Community, Switzerland and the United States, the authors have found that "...the most obvious distinctions among the three balance-sheet structures is that the European Economic Community and Switzerland disclose first the more permanent type of resources and equities (liabilties) on the ground that they are generally more difficult to convert into liquid funds. In the United States this structure is reversed, showing the most current resources and obligations first, apparantly assuming readers are more interested in these current items" (20). The arrangement of the

FIGURE 6.3: Balance Sheet At.....

Code No.					Code No.				
	Capital					**Assets**			
211	Owned (Paid-up) Capital	-			111	Land		-	
212	Government Participation (to be redeemed)	-	-		112	Buildings, Constructions & Roads		-	
	Reserves and Surplus				113	Plant and Machinery		-	
221	Statutory Reserves	-			114	Transportation Systems		-	
222	Government Securities Reserve Fund	-			115	Loose Tools and Equipment		-	
223	Reserves for Financing Investment Projects,				116	Furniture, Office Equipment and Fixtures		-	
	Renewals, and Expansions	-			117	Livestock		-	
224	General Reserves	-			118	Deferred Revenue Expenditure		-	-
225	Reserve for Redeeming Government Participation	-				**Projects in Progress**			
226	Reserve for Replacement Value of Assets	-			121	Fixed Assets under Erection		-	
227	Other Reserves	-			122	Investment Expenditure		-	-
228	Surplus	-	-			**Inventories**			
	Provisions			-	1311	Raw Materials	-		
231	Provisions for Depreciation	-			1312	Fuels	-		
232	Provisions for Taxes	-			1313	Spare Parts and Loose Tools	-		
233	Provisions for Doubtful Debts	-			1314	Packing Material	-		
234	Other Provisions	-	-		1315	Scraps	-		
	Long Term Liabilities				132	Unfinished Production and Work in Progress	-		
241	Domestic	-			133	Finished Production	-		
242	Foreign	-	-		134	Merchandise held by Others	-		
	Credit Banks				135	Goods for Resale	-		
251	Bank Overdraft and Facilities	-			136	Documentary Credits for Purchasing Goods	-	-	
252	Secured Short Term Loans	-				**Long Term Debts**			
253	Documentary Credits	-	-		141	Domestic	-		
					142	Foreign	-	-	

FIGURE 6.3: Balance Sheet (Continued/2)At.....

Code No.					Code No.				
	Creditors					**Financial Investment**			
261	Accounts Payable Trade	-			151	Government Securities and Bonds	-		
262	Bills Payable-Trade	-			152	Investment in Domestic Securities	-		
263	Otherathan Trade	-			153	Investment in Foreign Securities	-		
264	Unpaid Dividends	-							
			-			**Debtors**			
	Miscellaneous Credit Account				161	Accounts Receivable Trade	-		
272	Miscellaneous Creditors	-			162	Bills Receivable-Trade	-		
273	Other Credit Balances	-			163	Others Than Trade	-		
274	Accrued Current and Ear Marked Expenses	-						-	
			-			**Miscellaneous Accounts Receivable**			
					171	Miscellaneous Debtors	-		
					172	Other Debit Balances	-		
					173	Accrued Current and Ear Marked Receipts	-		
								-	
						Cash in Hand and At Banks			
					182	Bank Current Account	-		
					183	Deposits on Demand	-		
					181	Cash in Hand	-		
								-	
						Deficit, Carried Over			-
				-					-
				=					=

information in the balance-sheet stated in the Egyptian unified accounting system is similar to that practiced by the European Economic Community and Switzerland. Therefore, the balance-sheet begins with those items that usually are most difficult to convert into liquid funds, namely, fixed assets followed by investments and current assets ending with cash. The same applies to the liability side. In other words, the balance-sheet is arranged to reflect increasing degree of liquidity.

B The balance-sheet's classification. Before the unified accounting system, assets were classified into three main groups: fixed assets, followed by current assets and then intangible assets. On the equity side, there were two main groups: share capital, provisions and retained earning first, followed by other liabilities distributed among fixed liabilities, current liabilities and other credit balances.

Since issuing the unified accounting system, the items in the balance sheet have been classified in order to reflect the economic significance of various groups of items. Therefore, the assets have been classified into four main groups: the first represented by fixed assets which express the available productive capacity under the control of the economic unit; the second included projects in progress which express the productive capacity under construction; the third included inventories which express a stock capacity; the fourth group included long term debts, financial investment, debtors, miscellaneous accounts receivable, and cash in hand and at the bank which express the financial rights and lending sections. Generally, each group expressed different categories for using available funds. On the equity side, liabilities have been classified to reflect the different sources of finance. For instance, reserves and provisions express the sources of self

financing. Moreover, long term liabilties, bank(s) credit, creditors and the miscellaneous credit accounts express the sources of credit financing.

Generally, the unified accounting system has introduced a development in the balance sheet's classification to reflect the economic significance of the various groups of items. The main purpose of this development is to help in the preparation of the statement of sources and applications of funds as will be seen later.

C The information that would be meaningful for national investment decisions. The balance-sheet can provide the following information:

1) The fixed national wealth. Before the unified accounting system, land was treated sometimes as a fixed asset and sometimes as a current asset. The treatment depends upon the purpose of using the land and the economic unit's activity. After issuing the unified system, land is always to be treated as a fixed asset because it is a component of the fixed national wealth.

2) National investment components. Before the unified accounting system the incorporation expenses, pre-operation experiments, researches, cost of technical documents, pre-operation interest and advertising campaign were treated as intangible assets. Since issuing the system, these items are treated as fixed assets under the title of deferred revenue expenditures. The reason for this treatment is that such items represent components of the national investment.

3) Gross capital formation. Before the unified accounting system the provisions for depreciation were subtracted from related fixed assets to reveal net fixed assets. Since issuing the system, the provisions for depreciation are not subtracted from the fixed assets and appear on the equity side. The reason for this is to reveal the gross capital formation by economic units.

4) Projects in progress. Before the system, this item was treated as a category under the fixed asset group. Since the system, this item is separated from the fixed asset group and appears in a separate group. This separation facilitates the control over investment projects as stated in the national investment plan.

5) Sources of financing investment. The sources can take these forms: self financing (reserves, surplus and provisions), credit financing (long term liabilities, bank(s) credit, creditors and the miscellaneous credit accounts), and government participation.

Generally, the balance-sheet provides information which can serve in the process of national investment decision making.

6.3.6.2 Statement of sources and applications of funds

This statement has been introduced by the unified accounting system to serve the purposes of national planning and control. The form of the statement is attached in Figure 6.4. From this form we notice the following:

A The statement of sources and applications of funds' form and the arrangement of the information in it. The statement takes the account form with sources on the left side and applications on the right side. There are three categories of sources: self financing, liquidity, and borrowed capital (credit or external financing). Self financing includes increases in all reserves, surplus, and all provisions. Liquidity includes cost of assets sold, decreases in inventories, decrease in long term lending, decrease in securities and other investment, and decreases in debtors and cash. The external financing includes increases in long term loans domestic and foreign, government participation which is to be redeemed, and increases in creditors and bank(s) credit. In other words, the increases in liabilities and the decreases in assets are considered as sources of funds.

There are two main categories of applications of funds: uses of investment funds and capital transfers. Uses of investment funds (or capital investment) includes two main groups: gross capital formation and projects in progress. Gross capital formation includes increases in all fixed asset items except purchase price of land, deferred revenue expenditures, increases in inventories, and customs and duties on investment components. Projects in progress include all costs except the cost of purchasing land. Capital transfers include the purchase price of second hand assets, cost of purchasing land, pre-production interest, increase in long term lending, increase in financial investment, increase in debtors, redemption of long term loans, increase in cash in hand and at bank, decrease in creditors, decrease in provisions and reserves. In other words, the decreases in liabilities and the increases in assets are considered as applications of funds.

FIGURE 6.4: Statement of Sources and Applications of Funds for.....

Code No.				
	Self Financing			
221	Statutory Reserve	—		
222	Government Securities Reserve Fund	—		
223	Reserve for Financing Investment Projects, Renewals, and Expansions	—		
224	General Reserve	—		
225	Reserve for Redeeming Government Participation	—		
226	Reserve for Replacement Value of Assets	—		
227	Other Reserves	—		
228	Surplus	—	—	
231	Provision for Depreciation	—		
232	Provision for Taxes	—		
233	Provision for Doubtful Debts	—		
234	Other Provisions	—	—	
	Liquidity		—	—
11 - 15	Cost of Assets Sold		—	
	Decrease in Inventories			
131	Commodity Inputs	—		
132	Unfinished Production and Work in progress	—		
133	Finished Production	—		
134	Merchandise Held by Others	—		
135	Goods for Re-sale	—		
136	Documentary Credits for Purchasing Goods	—	—	
14	Decrease in Long-Terms Lending	—		
15	Decrease in Securities and Other Investment	—	—	

Code No.				
	Uses of Investment Funds			
	Gross Capital Formation			
111	Land Leveling (All Expenses Except Cost of Purchase)		—	
112	Buildings, Constructions, & Roads		—	
113	Machinery and Equipment (Exclusing Custom Duties)		—	
114	Transportation Systems (Excluding Custom Duties)		—	
115	Loose Tools & Equipment (Excluding Custom Duties)		—	
116	Furniture, Office Equipment and Fixtures		—	
117	Livestock (Excluding Custom Duties)		—	
	Deferred Revenue-Expenditure			
1181	Preliminary Expenses	—		
1182	Pre-Production Costs	—		
1183	Research and Experimental Expenses	—		
1184	Patterns and Models	—	—	
				—
	Inventories			
131	Commodity Inputs (Excluding Custom Duties)		—	
132	Unfinished Production and Work in Progress		—	
133	Finished Production		—	
134	Merchandise Held by Others		—	
135	Goods for Resale (Excluding Custom Duties)		—	
136	Documentary Credits for Purchasing Goods		—	
	Customs and Duties on Investment Components			
	Customs and Duties on Gross Fixed Capital Formation		—	
	Customs and Duties on Inventories		—	
12	Projects in Progress (All Costs except the Cost of Purchasing Land)			—

FIGURE 6.4: Statement of Sources and Applications of Funds (Continued/2).....

Code No.				
	Decrease in Debtors			
161	Accounts Receivable-Trade	—		
162	Bills Receivable-Trade	—		
163	Others Than Trade	—		
171	Miscellaneous Debtors	—		
172	Other Debit Balances	—		
173	Accrued Current and Ear-Marked Receipts	—		
18	Cash in Hand and at Banks	—		
		—	—	
	Borrowed Capital			
	Long Term Loans			
241	Domestic	—		
242	Foreign	—		
212	Government Participation (to be redeemed)	—		
		—	—	—
	Creditors and Banks			
25	Credit Banks		—	
261	Accounts Payable-Trade		—	
262	Bills Payable-Trade		—	
263	Others than Trade		—	
264	Dividend Creditors		—	
272	Miscellaneous Creditors		—	
273	Other Credit Balances		—	
274	Accrued Current and Ear Marked Expenses		—	
			—	—
				=

Code No.				
	Capital Transfers			
2722	Second Hand Assets	—		
11111	Lands (Cost of Purchasing)	—		
11121	————			
11123	————			
	(Other Assets must be Shown According to the Classification of Capital Formation)	—	—	
1185	Pre-Production Interest		—	
14	Long Term Lending		—	
			—	—
	Financial Investment			
151	Government Securities and Bonds	—		
152	Domestic Securities	—		
153	Foreign Securities	—	—	
	Debtors			
161	Accounts Receivable-Trade	—		
162	Bills Receivable-Trade	—		
163	Others Than Trade	—		
171	Miscellaneous Debtors	—		
172	Other Debit Balances	—		
173	Accrued Current and Ear Marked Receipts	—	—	
	Redemption of Long-Term Loans			
241	Installements of Domestic Loans	—		
242	Installements of Foreign Loans	—		
18	Cash in Hand and at Banks	—	—	
	Decrease in Creditors			
25	Credit Banks	—		
26	Creditors	—		
272	Miscellaneous Creditors	—		
273	Other Credit Accounts	—		
274	Accrued Current and Ear Marked Expenses	—	—	
22,23	Decrease in Provisions and Reserves		—	
			—	—
	Current Deficit			—
				=

B The statement's classification. The statement follows the classification of the balance-sheet. Each category of item has an economic significance.

C The information that would be meaningful for national investment decisions. The statement of sources and applications of funds can provide the following information:

1) The distinction between capital transfers and the uses of investment funds (capital investment). This distinction has been reflected, as mentioned before, in excluding the purchase price of land and second-hand assets from the gross capital formation, because these items do not constitute an actual increase in the capital resources in the country. Also, the pre-production interest has been excluded from the gross capital formation, because this item relates with the financial policy at the micro-level. Therefore, it must not be included as a national investment cost. Further, customs and duties on investment components have appeared separately on the statement. This separation can serve in analysing the government financial policy.

2) The distinction between the gross capital formation and projects in progress. The gross capital formation includes increases in all fixed asset items except purchase price of land (available productive capacity under the control of the economic unit), increases in deferred revenue-expenditure, customs and duties on investment components (such items represent components of the national investment).

Projects in progress include all costs except the cost of purchasing land (such items represent the productive capacity under construction by the economic unit).

3) The distinction between self financing and borrowed capital (external financing).

4) The distinction between domestic and foreign financing.

5) Explanation of the changes in the pool of liquid resources. These changes measure the changes in the economic unit's solvency.

If we compare the statement of sources and applications of funds with the balance-sheet concerning the purposes of serving national investment decision making, we will find that this statement is more comprehensive because it includes the changes during two financial periods and it is more reliable because it includes current year prices and not historical cost information as in the balance-sheet.

6.3.6.3 Current operations account

The unified accounting system has categorised the activity of each economic unit into: current and investment activity. It demands a final account of each activity:

- Current operations account which represents the final account of the economic unit's current activity.
- Statement of sources and applications of funds which represents the final account of the economic unit's investment activity.

The second statement has already been discussed in the previous section. The current operations account's main objective is to provide the necessary links between mincro-accounting on the one hand and macro-accounting on the other, thus contributing to the accuracy of national accounts based on accounts of economic units.

The form of current operations account is attached in Figure 6.5. From this form we can notice the following:

A The arrangement of the information in the account. The receipts appear on the left hand side and expenses on the right side. The account is divided into three main sections: The first section's output is the current operation surplus (or deficit) generated from normal operation. This balance comes from comparing the receipts from current activity at market price with the different expenses like wages, general expenses, current transfer expenses, depreciation and interest. The second section's output is the distributive surplus (or current deficit). This balance comes from adjusting the current operation surplus or deficit (the output of the first section) with the receipts from securities and transfer receipts (to be added) and the current ear-marked transfers (to be deducted). The third section's output is the appropriations of distributive surplus between retained surplus and the distributions to employees, state, shareholders and others.

B The current operations account's classification. The items have been classified in order to differentiate between the income generated from normal operation (the first section) and other revenues like receipts from securities and transfer receipts (the second section).

C The information that would be meaningful for national investment decisions. "The current operations account is a quick and efficient tool for calculating value added in such a way to satisfy the needs of the social accountant (macro-accounting) without sacrificing the needs of the financial accountant (micro-accounting)" (21). In order to achieve this objectivem the current operations account includes "opposite twin accounts". These accounts appear, at the same value, on both sides of the current operations account. The author has

FIGURE 6.5: Current Operations Account for the Financial year ended at.....

Code No.			
	Receipts From Current Activity		
	Production at Sales Prices		
411	Net Sales of Finished Production	-	
412	Changes in Inventories of Finished Production at Cost Price	-	
413	Finished Production Revaluation Adjustment (difference between sales prices & cost price)	-	-
414	Changes in Inventories of Unfinished Production at Cost Price		-
415	Cost of Producing Capital Assets for Own Use		-
416	Receipts of Work Done to Others		-
417	Sales of Services		-
	Goods for Re-Sale		
4181	Sales (Net)		-
4182	Changes in Inventories of Goods for Re-sale at Cost Price		-
4183	Goods for Re-Sale Revaluation Adjustment (difference between sales prices & cost price)		
	Subsidies		
421	Subsidies (for Production)		-
422	Subsidies (for Exportation)		-
	Current Deficit		-

Code No.			
	Wages		
311	Wages in Cash	-	
312	Wages in Kind	-	
313	Social Insurance	-	-
	General Expenses		
32	Commodity Inputs)	-	
33	Non-Commodity Inputs) Excluding Customs Duties	-	
34	Purchases for Re-Sale)	-	-
	Current Transfer Expenses		
	Commodity Taxes and Duties		
3511	Customs Duties	-	
3512	Production Excise	-	
3513	Treasury Share	-	
3514	Other Taxes	-	-
	Depreciation		
3522	Buildings, Constructions, and Roads	-	
3523	Plant and Machinery	-	
3524	Transportation Systems	-	
3525	Loose Tools and Equipment	-	
3526	Furniture	-	
3527	Livestock	-	
3528	Deferred Revenue Expenditure	-	
353	Actual Rent	-	
354	Rent Adjustment (difference between actual and imputed rent)	-	-

FIGURE 6.5: Current Operations Account (Continued/2).....

Code No					Code No				
						Interest			
					355	Domestic	-		
					356	Foreign	-		
					357	Interest Adjustment (difference between actual and imputed interest)	-		
					358	Finished Production Revaluation Adjustment	-	-	
					359	Goods for Re-Sale Revaluation Adjustment	-	-	
									-
						Current Surplus			-
				-					-
	Current Surplus	-				Current Deficit			-
43	Receipts from Securities	-	-						
	Transfer Receipts					**Current Ear-Marked Transfers**			
441	Credit Interest		-		361	Donations		-	
442	Credit Rent		-		362	Subsidies		-	
443	Capital Gains		-		363	Compensations and Fines		-	
444	Receipts of Previous Years		-		364	Capital Losses		-	
445	Compensations and Fines		-		365	Previous Years Expenses		-	
446	Miscellaneous Receipts		-		366	Dead Debts		-	
447	Rent Adjustment (difference between actual and imputed rent)		-		367	Provisions (Other Provisions Depreciation)		-	
					368	Taxes on Real Estate		-	
448	Interest Adjustment (difference between actual and imputed interest)		-		369	Income Taxes		-	
				-					-
2812	Current Deficit			-		Distributive Surplus			-
				-					-

FIGURE 6.5: Current Operations Account (Continued/3).....

Code No.	
	Distributive Surplus

Code No.	
	Current Deficit
	Retained Surplus
221	Statutory Reserve
222	Government Securities Reserve Fund
223	Reserve for Financing Investment Projects, Renewals, and Expansions
224	General Reserve
225	Reserve for Redeeming Government Participation
226	Reserve for the Replacement Value of Assets
227	Other Reserves
228	Surplus, Carried Over
	Surplus Distributed to
2643	Employees
2641	State
2642	Shareholders
2644	Others

already mentioned two examples of these accounts. Another two examples are:

- Rent adjustment - difference between actual and imputed rent. (Account No 354 on the expenses side and Account No 447 on the revenues' side.) The objective of these two accounts is to calculate the actual rent as a component of the national value added regardless of whether the economic units own or lease the property. "Account No 354 represents the difference between the depreciation on assets and the rent that would have been paid if the assets were leased. The corresponding contra-account (No 447) will nullify the effect of this imputed cost" (22).

- Interest adjustment (difference between actual and imputed interest (Account No 357 on the expenses side and Account No 448 on the receipts side). The objective of these two accounts is to calculate the actual interest as a component of the national value added regardless of whether the economic units own or borrow the invested capital, "Account No 357 reports the difference between the actual interest expenses on outside loans and the imputed interest on invested capital based on interest rates provided by the Ministry of Finance" (23).

From the above examples, it is clear enough that the current operations account has considered the needs of both macro-accounting and micro-accounting.

6.3.6.4 The production and trading account

The purpose of this account is to evaluate the performance of the functions of production and marketing in the economic unit. A form of this account is attached in Figure 6.6. The following features are noted about the account:

A The production and trading account's form and the arrangement of the information on it. In the unified accounting system, the production and trading account has been arranged in the horizontal form, The account is divided into three sections: the first section's output is the production costs. This balance comes from deducting the cost of inventories of unfinished production from the sum of production costs and the cost of production services. The second section's output is the total production surplus (or total production deficit). This balance comes from adding the cost of purchases for re-sale to the production costs (the balance of the first section) and matching the total against sales of finished production, changes in inventories of finished production at cost prices, cost of producing capital assets for own use, receipts of work done to others, sales of services, sales of goods for re-sale, and changes in inventories of goods for re-sale at cost price. Also the changes in inventories revaluation adjustments (difference between sales prices and cost prices) appear on both sides of the account and do not affect the balance of this section. The third section's output is the total production and trading surplus (or deficit). This balance comes from adding the subsidies to total production surplus (the balance of the second section) and matching the total against the cost of marketing services. The balance of this section is carried over to profit and loss account.

FIGURE 6.6: Production and Trading Account for the period.....

Code No.				Code No.			
414	Inventories of Unfinished Production at Cost Price				Production Costs		
	Production Costs (Balance Carried Over)			531	Wages	-	
				532	Commodity Inputs	-	
				533	Non-Commodity Inputs	-	
				535	Current Transfer Expenses	-	-
					Cost of Production Services		
				631	Wages	-	
				632	Commodity Inputs	-	
				633	Non-Commodity Inputs	-	
				635	Current Transfer Expenses	-	-
			-				-
			-				-
	Current Activity Receipts				Production Cost (Balance Carried From)		-
	Production at Sales Prices		-	534	Purchases for Re-Sale		-
411	Sales of Finished Production	-			Changes in Inventories Revaluation Adjustment		
412	Changes in Inventories of Finished Production				(Difference between Sales Prices and Cost Price)		
	at Cost Price	-		358	Finished Production		-
413	Inventories (Finished Production) Revaluation			359	Goods for Re-Sale		-
	Adjustment (Difference between Sales Prices						-
	and Cost Price)	-			Total Surplus (Balance Carried Over)		-
		-	-				
415	Cost of Producing Capital Assets for Own Use		-				
416	Receipts of Work Done to Others		-				
417	Sales of Services		-				
	Goods for Re-Sale						
4181	Sales	-					
4182	Changes in Inventories of Goods for Re-Sale						
	at Cost Price	-					
4183	Inventories of Goods for Re-Sale Revaluation						
	Adjustment	-					
	Total Deficit (Balance Carried Over)		-				
				-			
				-			-

FIGURE 6.6: Production and Trading Account (Continued/2).....

Code No.					Code No.				
	Total Surplus			-		Total Deficit			-
	Subsidies					**Cost of Marketing Services**			
421	Subsidies for Production	-			731	Wages		-	
422	Subsidies for Exportation	-	-		732	Commodity Inputs		-	
					733	Non Commodity Inputs		-	
					735	Current Transfer Expenses		-	
	Total Deficit			-		Total Surplus			-
	(Carried Over to Profit and Loss Account)			-		(Carried Over to Profit and Loss Account)			-

B The production and trading account's classification. The items have been classified in functional classification (cost centres). We have production costs, cost of production services and cost of marketing services. In each function, expenses have been classified according to their nature: wages, commodity inputs, non-commodity inputs (service inputs), and current transfer expenses. The functional classification facilitates the process of controlling the different activities by the economic unit's management.

C The information that would be meaningful for national investment decisions. The main purpose of this account is to serve the economic unit's management in controlling expenses. Therefore, it is an account for serving the micro level purposes. The national investor can find most of the information of this account in the current operations account which is designed and introduced for serving national purposes.

6.3.6.5 The Profit and Loss Account

The purpose of this account is to determine the surplus available for distribution. A form of this account is attached in Figure 6.7. The following points are noted about the account:

A The profit and loss account's form and the arrangement of the information on it. The account have been arranged in the horizontal form with significant sub-totals. The account is divided into two sections: the first section's output is the current surplus or deficit before income taxes. This balance comes from adding the transfer receipts and the miscellaneous receipts to the total surplus of production and trading (carried from the production and trading account) and the receipts from securities and matching the total

FIGURE 6.7: Profit and Loss account for the period.....

Code No					Code No				
	Total Surplus of Production and Trading (Carried from Production and Trading Account)			-		Total Deficit of Production and Trading (Carried from Production and Trading Account)			-
43	Receipts from Securities		-			Administrative and Financing Services Costs			
	Transfer Receipts				831	Wages		-	
441	Credit Interest		-		832	Commodity Inputs		-	
442	Credit Rent		-		833	Non-Commodity Inputs		-	
443	Capital Gains		-		835	Current Transfer Expenses		-	
444	Receipts Concerning Previous Years		-						-
445	Compensations and Fines		-			Current Ear Marked Transfers			
	Miscellaneous Receipts				361	Donations		-	
4461	Sales of Scrap		-		362	Subsidies		-	
4462	Discount on Purchases		-		363	Compensations and Fines		-	
4463	Receipts from Dead Debts		-		364	Capital Losses		-	
4464	Profit of Materials Sales		-		365	Expenses Concerning Previous Years		-	
4465	Commissions		-		366	Dead Debts		-	
447	Imputed Rent Adjustment		-		367	Provisions (Other Than Depreciation Provisions)		-	
	Deficit (Balance Carried Over)			-	368	Taxes on Real Estate		-	
						Surplus (Balance Carried Over)			-
				-					-
	Current Deficit			-		Deficit (Balance Carried From)			
					369	Income Taxes			-
						Distributive Surplus			-
				-					-

against the sum of administrative and financing costs and the current ear-marked transfers. The second section's output is the surplus available for distribution. This balance comes from deducting the income taxes from current surplus (the balance of the first section). Sometimes, the whole result may be a current deficit. The balance of this section (surplus) is carried over to the distribution account.

B The profit and loss account's classification. Exactly like the production and trading account, there is functional classification. But in this account, it relates to the administrative and financing functions. Also the items have been classified according to their nature: wages, commodity inputs, service inputs and current transfer expenses.

C The information that would be meaningful for national investment decisions. It is an account for serving the micro level purposes. If the national investor wants to know the surplus available for distribution, he can determine it from the second section of the current operations account.

The balance of the profit and loss account (surplus available for distribution) is carried over to the distribution account. A form of this account is attached in Figure 6.8. It is worth mentioning that it is an identical copy of the third section of the current operations account. Hence, it can be said that it does not add any new information to the users of such accounts.

FIGURE 6.8: Distribution account for the period.....

Code No		Code No	
	Distributive Surplus		Retained Surplus
		221	Statutory Reserve
		222	Government Securities Reserve Fund
		223	Reserve for Financing Investment Projects, Renewals, and Expansions
		224	General Reserve
		225	Reserve for Redeeming Government Participation
		226	Reserve for the Replacement Value of Assets
		227	Other Reserves
		228	Surplus, Carried Over
			Surplus Distributed to
		26431	Employees
		26441	State
		2642	Shareholders
		2644	Other

6.3.6.6 Cash flow statement

While the statement of sources and applications of funds answers the question of where the financial resources come from and where they are used, the cash flow statement answers the question of where the cash comes from and where it is paid. It gives a complete analysis of cash receipts and disbursements during an accounting period. A form of this statement is attached in Figure 6.9. The following features are noted about the statement:

A The cash flow statement's form and the arrangement of information on it. The statement takes the report form incorporating three sections: the first for current payments, the second for capital and other payments, and the third for receipts.

B The cash flow statements classification. The items have been classified according to their classification in: (i) the current operations account and (ii) the statement of sources and applications of funds In addition, there is a separation between the current year activity and the previous years' activities concerning the items of payments and receipts.

Enterprises which deal with the economic units have been classified into domestic enterprises and foreign enterprises. Domestic enterprises have been sub-classified into: Administrative (Governmental) services - public sector, Business - public sector, and private sector. Foreign enterprises which deal with the economic unit have been classified into those from countries with payment agreement with Egypt and those from hard currency countries.

FIGURE 6.9: Cash Flow Statement

Designation	Domestic			Foreign		Total
	Public Sector		Private Sector	Other Countries	Payment Agreements Countries	
	Administrative	Business				
	L.E.	L.E.	L.E.	L.E.	L.E.	L.E.
Total Cash Payments Total Cash Receipts						
Surplus (Deficit)						

	L.E.
Cash Balance at the Beginning of the period	-
Add Surplus	-
or	
Deduct Deficit	-
Balance At.....	-

FIGURE 6.9: Cash Flow Statement (Continued/2)
PAYMENTS

Accounting Code	Designation of Payments	Payment of Current Year Activity			Previous Year Payments					
		(1) Domestic	(2) O.C.	(3) P.A.C.	Redemption of Long Term Loans			Other Redemptions		
					Domestic	O.C.	P.A.C.	Domestic	O.C.	P.A.C.
2741	Wages									
2635	Social Insurance									
263211	Taxes Retained at the Source (Earnings, defence, stamps etc.)									
2731	Deduction from Employees									
418/33/32	Commodity Inputs, Non Commodity Inputs, Goods for Re-Sale									
	Current Transfer Expenses									
26331	Custom Duties									
26333	Production Excise									
26341	Treasury Share									
2742	Rent									
2743	Interest									
	Current Ear Marked Transfers									
2744	Donations									
2744	Subsidies									
2745	Compensations and Fines									
263272	Taxes on Real Estate									
263221	Income Taxes									
	Distributed Surplus to:									
	State									
	Shareholders									
	Employees									
	Other									

(1) This Column is broken down into (a) Public Sector (Administrative & Business Separately) & (b) Private Sector

(2) O.C. = Other Countries

(3) P.A.C. = Payments Agreements' Countries

FIGURE 6.9: Cash Flow Statement (Continued/3)
PAYMENTS

Accounting Code	Designation of Disbursements	Payments of Current Year Activity			Payment Concerning Previous Years					
		Domestic	Hard Currency	Agreements	Domestic	Hard Currency	Agreements	Domestic	Hard Currency	Agreements
	Gross Capital Formation (Except Inventories and Inventories Duties and Taxes) And Projects in Progress									
2721/2411/2421	Purchases of New Fixed Assets									
26332	Custom Duties on Fixed Assets Purchased From the Rest of the World									
	Capital Transfer									
2722/2412	Purchases of Existing Assets									
2723	Pre-Production Interest									
2724	Purchases of Government Bonds									
2725	Purchases of Securities									
2726	Purchases of Other Investments									
	Other Payments									
14	Long Term Debts									
1613	Insurances to Others									
1632	Loans to Employees									
1633	Deposits Customs Department									
232	Unsettled Taxes									
263212	Taxes Retained at Source (Transfer Value, Defence, Municipal & Stamps)									
2631	Redemption of Insurance from Others									
2636	Current Account with the Organisation									
26342	Current Account with the Treasury									
2733	Miscellaneous Credit Balances									
172	Miscellaneous Debit Balances									

FIGURE 6.9: Cash Flow Statement (Continued/4)
RECEIPTS

Accounting Code	Designation of Receipts	Receipts of Current Year Activity			Receipts Concerning Previous Years					
		(1) Domestic	(2) O.C.	(3) P.A.C.	Recovery of Long Term Loans			Other Recoveries		
					Domestic	O.C.	P.A.C.	Domestic	O.C.	P.A.C.
	Receipts of Current Activity									
161/162	Sales of Finished Production, Goods for Re-Sale									
	Receipts of Work done to Others and Sales of Services									
175	Subsidies									
173	Receipts of Securities									
	Transfer Receipts									
73	Credit Interest									
173	Credit Rent									
173	Compensations									
173	Miscellaneous Receipts									
173	Previous Years Receipts									
1711	Sales of Fixed Assets									
1712	Amortization of Government Bonds									
1713	Sales of Securities									
1714	Sales of Other Investments									
212	Government Participation (to be redeemed)									
	Other Receipts									
14	Recovered Long Term Loans									
1613	Recovered Insurances									
2631	Insurance from Others									
2636	Current Account with the Organisation									
26342	Current Account with the Treasury									
24	Long Term Borrowing									
172	Other Debit Balances									

(1) This column is broken into (a) Public Sector (Administration & Business separately) & (b) Private Sector
(2) O.C. = Other Countries
(3) P.A.C. = Payments Agreements Countries

C The information that would be meaningful for national investment decisions. The measurement of past cash flows from all sources provides the management of the economic unit with valuable information for predicting future cash flow. However, the information in this statement , especially the sectoral classification, could help the construction of national cash flow tables which are useful national planning tools.

6.3.6.7 Planning budgets

In addition to the previous statements, the economic unit must prepare three budgets: physical budget, financial budget, and cash budget. As we have mentioned, the physical budget shows the production programme in relation to capacities, the financial budget reflects the financial plan of the economic unit, and the cash budget shows the prospective receipts and payments of cash (while the cash statement shows the actual receipts and payments for an accounting period).

As we have done before, an emphasis will be placed upon the information that would be meaningful for national investment decisions. The two following forms have direct benefit for national investment decisions:

Form No 6: the physical and financial analysis of capital uses (applications) at the investment project level.

Form No 6/A: time distribution of capital uses (applications) costs.

Form No 6 appears in Figure 6.10. The information generated as a result of providing the form is:

A Information to analyse the budgeted cost of each investment project.

B Information to explain financial resources of the capital uses of each project divided into domestic sources and foreign sources.

C Information to explain methods of payment of each source of financing.

Form 6/A appears in Figure 6.11. The information generated as a result of providing the form is:

A Information to explain the estimated time for undertaking the investment projects.

B Information to analyse the suggested and allowed total costs of each investment project distributed among the different periods and classified into investment uses and capital transfers.

6.3.6.8 Conclusion

In this section, we have discussed the financial reports in the Egyptian unified accounting system. An emphasis has been placed upon the information that would be relevant for national investment decisions as it represents the field of the empirical work of this research.

FIGURE 6.10: Form No 6 - Physical and Financial Analysis of Capital Uses at the Investment Project Level

Acc. Code	Designation	Total Estimated Cost for the Period	Sources of Funds and Payments Media												
			Domestic Sources and Payments Media							Foreign Sources and Payments Media					
			Total	Public Sector			Private Sector			Total	Against Credit Accounts (opened)		Against Credit Accounts (to be opened)		Against Facilities
				In Cash	Against pre-paid Annuities	On Credit	In Cash	Against pre-paid Annuities	On Credit		Payment Agreements	Other	Payment Agreements	Other	

Notes:
1 - Component elements of various operations in investment projects must be shown by quantity, where possible.
2 - The classification of capital transfers must correspond to that of capital formation.

FIGURE 6.11: Form No 6/A - Time Distribution of Capital Uses Costs

PROJECT..... DATE OF THE BEGINNING OF EXECUTION.....

Accounting Code	Designation	Total Costs, Suggested									Total Costs, Allowed									Costs of Accomplishment as at the Beginning of the Period									Estimated Costs During the Period									Cost Carried Over to Coming Periods								
		Total			Investment Uses			Capital Transfers			Total			Investment Uses			Capital Transfers			Total			Investment Uses			Capital Transfers			Total			Investment Uses			Capital Transfers			Total			Investment Uses			Capital Transfers		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	1	1	2	3	1	2	3

Notes:
- Details given under the second column "Designation" must correspond to those shown under the same column in Form 6.
- A separate form must be used for each investment project.
- A consolidated form must be prepared for all projects of the economic unit.
- (1), (2), (3), denote credit accounts to be opened, non-payments agreements areas, and payments agreements areas respectively.

6.4 Conclusion

In this chapter the author has conducted a preliminary examination of the Egyptian unified accounting system. The basic tools of this examination are the dimensions of the conceptual framework for financial accounting and reporting. Some hypotheses can be formulated from the main implications of this examination. For instance:

A Organisational characteristics: In the process of developing the system, the users and preparers of accounting data were represented in the different committees (democratic approach). But the system's objectives have been autocratically imposed. The system itself was issued by legislation. It can be hypothesised that according to the prevailing environment in Egypt, the financial accounts based on legal requirements are likely to provide an appropriate approach to establishing an accounting system in Egypt. The success of this approach will be investigated by measuring the usefulness of financial reports produced as a result of applying the system.

B Structural characteristics:

1) The basic objective of the system is to provide useful information to serve the process of decision-making at all levels with particular emphasis being made on serving the purposes of planning and control. A question can be raised about how well the information provided as a result of the application of the unified system meets the predetermined objectives of the system.

2) The Egyptian unified accounting system has considered most of the qualititive characteristics of accounting information. A question can be raised about how well the produced information meets these characteristics in actual practice.

3) Elements of financial statements: the Egyptian unified chart of accounts has met the three prominent requirements for a good standard chart of accounts. The standardised definitions of the elements of financial statements are intended to provide maximum precision to what these elements mean and increase the effectiveness of accounting communication to the users. The use of notations in the chart is expected to increase the possibilities of becoming fixed in the memory of the users. A question can be raised about how well the different standardised definitions increase the effectiveness of accounting communication to the users in actual practice.

4) Recognition criteria: the system has recognised and incorporated in the financial statements items which can satisfy the needs of micro and macro accounting. A question can be raised about the success of these broad recognition criteria in actual practice.

5) Measurement criteria: the basic rule for the determination of the amount to be shown in financial accounts is the historical cost. The system, however, recognised the deficiency of historical cost under inflation environment and required that an appropriation of profits should be made to provide for the difference between historical cost and replacement cost of assets. A question can be raised about the percentage of the produced annual financial reports which succeeded in declaring the current value accounting information.

6) Financial reporting: in addition to the traditional atatements (Balance-sheet, Production and trading account and the Profit and loss account), the economic unit must prepare other statements which were introduced by the system to serve the purposes

of national planning and control (statement of sources and applications of funds and the current operation account). A question can be raised about how well the information generated as a result of introducing these statements meets its predetermined objectives in practice.

The preliminary examination (the first stage of the suggested model's second process-diagnosis) of the Egyptian unified accounting system provided us with some questions and hypotheses which need more primary investigation (the second stage of the suggested model's second process-diagnosis). In the next chapter, the author will continue the diagnosis process by starting the empirical investigation of the Egyptian unified accounting system.

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CHAPTER SEVEN

Chapter Seven

Primary Investigation of the Egyptian Unified Accounting System: Methods

7.1 Introduction

7.2 Details of the National Investment Bank of Egypt
- 7.2.1 Nature of the National Investment Bank
- 7.2.2 Purpose of the National Investment Bank
- 7.2.3 Financial resources of the Bank
- 7.2.4 The main sectors in the National Investment Bank:
  - 7.2.4.1 Programmes and Policies sector
  - 7.2.4.2 Project sectors: Industrial sector, Agricultural sector and Economic Organisations sector
  - 7.2.4.3 Financial sector
- 7.2.5 Conclusion

7.3 The reasons for the selection of the National Investment Bank as a field site

7.4 Developing the questionnaire:
- A - Methods of data collection.
- B - Method of approaching the respondents.
- C - The build up of question sequences.
- D - The order of questions within each question sequence.
- E - The use of structured and unstructured questioning (questioning structure) and the use of precoded or free response questions (response structure).

7.5 Procedure
7.5.1 Initial arrangements before starting the empirical work
7.5.2 Pilot test
7.5.3 Interviews
7.5.4 From paper into a file

7.6 Conclusion

Appendices

Chapter Seven

Primary Investigation of the Egyptian Unified Accounting System: Methods

7.1 Introduction

In the previous chapter the author discussed the first stage (preliminary examination of the Egyptian unified accounting system) of the model's second process (diagnosis). In this chapter, we are going to continue the diagnosis process by introducing the methods of the empirical investigation of the Egyptian unified accounting system (primary investigation - methods).

In other words, this chapter presents a design of the field study. It introduces the population in this study which will be represented by the staff at the National Investment Bank of Egypt; secondly, it discusses the reasons for the selection of the National Investment Bank as a field site and lastly, it describes the development of the questionnaire and the procedure to conduct the research.

7.2 Details of the National Investment Bank of Egypt (1)

7.2.1 Nature of the National Investment Bank

The question arises about the nature of the Bank in practising its activity, and whether the National Investment Bank is a (bank) in the real sense, or an economic organ that uses, in carrying out its economic responsibility, the pure banking technique. Indeed, the law establishing the Bank gave it both banking and economic functions.

In order to carry out its responsibilities , the organ should be in the form of a bank functioning within the framework of sound banking rules and bases. Technically, the bank should function in its capacity as a borrower with respect to public resources and compulsory savings it obtains, and as a lender in the field of financing economic units within the framework of the state's general plan in the light of economic feasibility study of projects and other banking considerations. The law establishing the bank provided, however, for another function; the Bank is authorised to control the implementation of the investment projects - both field and office work - at the level of each project in addition to their evaluation and participation in their capital.

Some of those provisions confirm the banking capacity of the National Investment Bank as the function of financing and lending is a pure known banking activity. The Bank's economic function is also confirmed regarding the definition of its targets and the method of achieving it. However, it could be stated that the economic style of the activity of the National Investment Bank is more apparent than the banking style. In fact, the later serves the former, especially as the Bank is not profit making.

This system is considered a special kind of bank - it is not an institution that undertakes executive or pure banking business. In fact, it is a continuation to the operation of planning for national development and the achievement of its targets either with respect to profounding studies necessary for drawing finance programmes or to ensuring the continuity of its finance and controlling its implementation materially or financially.

7.2.2 Purpose of the National Investment Bank

The main purpose of the Bank is to finance all projects included in the state's general plan for economic and social development, through participation in the capital of those projects (as an investor) or by providing them with loans (as a creditor), as well as controlling their implementation through the following procedures:

A Determining the regulations and conditions of finance according to the type and nature of the project and in the light of its economic and social returns.

B Setting up a financing programme to implement the projects included in the national plan and which are endorsed to be financed within the limits of the funds allocated to them according to the plan.

C Providing the essential local and foreign financing for implementing each project during the years of implementation according to the plan.

D Authorising the disbursement of funds deposited in the Bank or in its accounts to secure the organisation of the flow of investment expenditures according to the achieved progress in the implementation of projects.

E Effective control of investments - both field and office work - to guarantee the disbursement on the specified items of investment expenditures according to the approved studies and for the specified purposes.

F Participating in the mobilisation of local savings and foreign capital necessary to finance the local and foreign capital formation for projects included in the plan.

7.2.3 Financial resources of the Bank

The financial resources of the Bank consist of two groups:

Group One: Special Resources. These were defined according to the law establishing the Bank as follows:

A The allocated funds in the General State Budget.

B Revenues from the Bank's activities.

C Receipts of the sales of shares owned by the Bank in the projects it participates in.

D Local and foreign grants accepted by the Bank's Board of Directors.

E Loans transacted by the Bank.

F Funds generated through the issue of stocks (shares) by the Bank in local and foreign currency.

Group Two: Another group of resources as stipulated by the law establishing the Bank is concerned with agencies where generated funds are considered by the law as financial resources that should be deposited to its account at the Bank. The law provided that the following investment resources should be deposited or included in the Bank's accounts:

A Loans available for investment projects.

B Funds available in the General State Budget and the budgets of public organisations, economic organisations and local government for public and joint investments with local and foreign private sectors.

C Loans and grants designated for investment and transacted with foreign countries, international and regional organisations and agencies.

D "Surplus" of self financing in the Public Sector Units (after considering the costs of financing their investment projects included in the national plan).

E Surplus of monetary allotments for central and local services for workers as determined in the General State Budget in this respect.

In conclusion, the concept of investment financing adopted by the National Investment Bank signifies a concentration of financial resources in the hands of one government agency or, in other words, centralised investment financing, and then a redistribution of these resources among the sectors of the economy, organisations and enterprises in order to fulfill the planning targets of national development.

The centralisation of financial resources for investments in Egypt is an important precondition for overcoming the economic and financial constraints such as the lack of capital and an increasing number of development projects. In this way, there is a guarantee that the financial resources are completely directed towards the fulfillment of the national plan's targets at the appropriate time.

7.2.4 The main sectors in the National Investment Bank

7.2.4.1 Programmes and Policies Sector

A It is concerned with designing an integrated system to control activities, assess performance and estimate the extent of achieving the Bank's targets. It directs and co-ordinates the controlling departments in the three project sectors (industrial sector, Agricultural sector and Economic Organisations sector) and plan their operations. Control concentrated on two main sections:

- Financial control which measures actual investment expenditures against the approved national investment plan.
- Material control which measures the progress in construction and actual project implementation against the approved implementation programme.

Within this framework, the sector is responsible for the processing of a complete picture of the situation of national investment and its details at the level of the main sectors of the national economy.

B In order to achieve the above mentioned targets, the sector collects data related to aspects of investment business and projects financed by the Bank. It also assists in providing the necessary information for the bank's research activities, besides classification and analysis of collected data to derive important indicators suitable to the requirements of work in the Bank.

7.2.4.2 Project Sectors:
Industrial Sector,
Agricultural Sector,
Economic Organisations Sector

These three project sectors are concerned, each within its jurisdiction, with the following basic commissions:

A Participate with counterpart departments or sectors in the Ministry of Planning when studying the feasibility of projects which are proposed for inclusion in the national plan and make the relevant recommendations in this context.

B Co-operate with the Ministry of Planning in defining the criteria of accepting projects for inclusion in the economic and social development plan.

C Design the structure of the feasibility study, and define its elements that should be committed to, when presented for financing from the Bank.

D Study the structure of investments required for projects from the various sources (local, self finance, foreign loans) and recommend financing from the Bank within appropriate limits.

E Control material implementation and investment expenditures for projects, take measures to amend finance programmes and permit disbursements according to rates of progress in actual implementation.

F Evaluate the general situation of investment activity in the country.

7.2.4.3 Financial Sector

A It is concerned with monitoring, controlling, and development of Bank resources. In case of insufficient resources to finance estimated uses, the task of the sector is to seek alternative sources to develop the Bank's resources. In the case of surplus in the resources, the sector is reponsible for seeking fields to invest these funds in a way remunerative to the Bank. In other words, it controls the implementation of the investment budget and proposes the appropriate adjustments according to the rates of actual implementation.

B It studies the financial positions of public sector companies in order to ensure the soundness of estimating the expected surplus of self financing projects.

C It undertakes the financing of projects according to the priorities and requirements revealed by the investigation of varous project sectors. It draws financial programmes in the light of the funding needs of the projects. In addition, it studies the spheres of investment outside the plan and suggests methods of financing.

D It is responsible for the bank's financial accounting system and for the preparation of the bank's closing accounts.

7.2.5 Conclusion

A The National Investment Bank is a special kind of bank - it is not a profit making institution which undertakes executive or pure banking business. In fact, it is a continuation to the operation of planning for national development and the achievement of its targets.

B The main purpose of the Bank is to finance all projects included in the state's general plan for economic and social development, through participations in the capital of these projects (as an investor) or by providing them with loans (as a creditor), as well as controlling the implementation of national investments either materially or financially.

C The concept of investment financing adopted by the National Investment Bank signifies a concentration of financial resources in the hands of one government agency (centralised investment financing), and then a redistribution of these resources among the sectors of the economy in order to fulfill the planning targets of national development.

D In order for the National Investment Bank to be an effective tool in national investment planning and control, it should be provided with a flow of information from the different economic units in the economy. As previously mentioned, the basic objective of the unified accounting system is to provide useful information to serve the purpose of national planning and control. A question can be raised about how well the information provided, as a result of the application

of the unified system, meets the Bank's needs for information regarding national investment planning and control. This question can only be answered by the empirical investigation of the usefulness of the produced information in the actual practice.

7.3 The reasons for the selection of the National Investment Bank as a field site.

Five reasons were behind the selection of the National Investment Bank as a field site. The first two reasons concern the characteristics of the Bank as a user of financial reports. The third and fourth reasons relate to the general objective of accounting in developing countries and to the special objective of the Egyptian unified accounting system respectively. The final reason concerns the relative importance of the Bank in the distribution pattern of the Egyptian Investment:

A In Chapter Two, it was noticed that investors and creditors have been given a high priority as users of financial reports. In this chapter, we have highlighted the fact that the National Investment Bank works as an investor by participating in the capital of investment projects and as a creditor by providing them with loans. Therefore, a high priority could be given to the National Investment Bank as a user of financial reports.

B In Chapter Three, it was concluded that government agencies come at the top of the users list of financial reports in developing countries. In this chapter, we noticed that the concept of investment financing adopted by the National Investment Bank signifies a concentration of financial resources in the hands of one government agency (centralised investment financing). Accordingly, a place could be given for the National Investment Bank at the top of the users' list of financial reports.

C Again in Chapter Three, it was pointed out that there is no difference between developed and developing countries concerning the basic objective of accounting. The role of accounting is to provide useful information to users for the purpose of making economic decisions. But in developing countries, accounting is a necessary technique for aiding economic and social development by providing useful information. In this chapter, we found that the main purpose of the National Investment Bank is to finance all projects included in the state's general plan for economic and social development. Therefore, we can find in the National Investment Bank a direct application of the above mentioned objective of accounting in developing countries.

D In Chapter Six, it was mentioned that the basic objective of the Egyptian Unified Accounting System is to provide useful information for serving the purposes of national planning and control. In this chapter, we mentioned that the National Investment Bank needs to be provided with a flow of information in order to be an effective tool for national investment planning and control. Accordingly, we can find in the National Investment Bank a direct application of the basic objective of the Egyptian unified accounting system.

E The relative importance of the National Investment Bank in the distribution pattern of the Egyptian national investment can be seen from the following two points (2):

1) Actual investment distribution pattern in the period 1977 - 1981/2. Table 7.1 indicates the size and distribution of implemented fixed investment during this period. The period witnessed considerable expansion in fixed investment. It reached L.E.18 billion in current prices or L.E.3.3 billion a year. It should be noted from Table 7.1 that the

TABLE 7.1: The Size and Distribution of Implemented Fixed Investments (1977 - 1981/82)

(Current Market Prices & in Mill.LE)

Sectors	Public Sector	Private Sector	Total	Share of Total			Share of Sector	
				Public	Private	Total	Public	Private
Agriculture	1171.0	487.5	1658.5	6.5	2.7	9.2	8.0	14.8
Industry & Mining	3901.9	966.7	4868.6	21.6	5.4	2.7	26.5	29.2
Oil & Oil Products	475.9	-	475.9	2.6	-	2.6	3.2	-
Electricity	1292.5	-	1292.5	7.2	-	7.2	8.8	
Construction	448.6	142.8	591.4	2.5	0.8	3.3	3.0	4.3
Total Commodity Sectors	7289.9	1597.0	8886.9	40.4	8.9	49.3	49.5	48.3
Trans., Communic & Suez Canal	4258.2	150.3	4408.5	23.6	0.8	24.4	28.9	4.5
Commerce & Finance	459.6	75.8	535.4	2.6	0.4	3.0	3.1	2.3
Total Product. Services Sectors	4717.8	226.1	4943.9	26.2	1.2	27.4	32.0	6.8
Housing	472.5	1376.8	1849.3	2.6	7.7	10.3	3.2	41.6
Public Utilities	1134.5		1134.5	6.3		6.3	7.7	
Other Services	1229.8	259.6	1489.4	6.8	1.4	8.2	8.3	7.9
Total Social Services	2836.8	1636.4	4473.2	15.7	9.1	24.8	19.2	49.5
Minus Land	114.5	151.5	266.0	0.6	0.9	1.5	0.7	4.6
Grand Total	14730.0	3308.0	18038.0	81.7	18.3	100.0	100.0	100.0

Source: Ministry of Planning, The Detailed Frame of the Five Year Plan for Economic and Social Development 1982/83 - 1986/87, op.cit., p. 11.

share of the public sector in implemented fixed investment reached L.E.14.7 billion (or 81.7% in the 1977-1981/82 period), compared to L.E. 3.3 billion (18.3%) implemented by the private sector in the same period. This pattern of distribution means that the National Investment Bank was responsible for controlling, financially and materially, 81.7% of the implemented fixed investment (the part implemented by the public sector).

2) Planned investment distribution pattern in the five-year plan 1982/83 - 1986/87, Tables 7.2, 7.3 indicate the size and distribution of expected fixed investment during this period. It should be noted that the share of the public sector in expected fixed investment reaches L.E. 26.2 billion (or 77.8% of total investment) compared to L.E. 7.7 billion (or 22.2% of total investment) expected to be implemented by the private sector in the five-year plan. In other words, the Bank is responsible for controlling, financially and materially, 77.8% of the total investment in the five-year plan (the expected share by the public sector).

7.4 Developing the questionnaire:

After determining from whom to collect the information, the next step is to discuss the method of data-collection. There are many methods of obtaining data, but we have chosen to use a questionnaire for reasons that will be mentioned later. Before actually constructing the questionnaire the author has to make a number of decisions, these decisions fall into five groups (3):

A - Decisions as to the method of data collection, such as interviews and mail questionnaires.

TABLE 7.2: Investment - Saving Balance in the Five Year Plan

(in Mill.L.E.)

Item	1982/83	1983/84	1984/85	1985/86	1986/87	
Savings :						
Gross National Savings	3740.7	4514.3	5420.0	6600.0	7990.0	28265.0
Balance of payments Deficit	1580.0	1375.0	1130.0	850.0	500.0	5435.0
Total Savings	5320.7	5889.3	6550.0	7450.0	8490.0	33700.0
Investment :						
Fixed Capital Formation in public Sector	4158.0	4672.0	5178.0	5768.0	6439.0	26215.0
Fixed Capital Formation in Private Sector	1262.7	13173.0	1472.0	1682.0	1951.0	7685.0
Gross Fixed Investments (include change in stock)	5420.7	5989.3	6650	7450.0	8390.0	33900.0
Change in Stock	100.0-	100.0-	100.0-	0.0	100.0	200.0-
Gross Fixed Investments (excludes change in stock)	5320.7	5889.3	6550.0	7450.0	8490.0	33700.0

Source: Ibid., p. 40.

TABLE 7.3: Relative Importance of Investment - Saving Balance in the Five Year Plan

%

Item	82/83	83/84	84/85	85/86	86/87	Total Five Year Plan
Saving:						
Gross National Saving	70.3	76.7	82.7	88.6	94.1	83.9
Balance of Payments Deficit	29.7	23.3	17.3	11.4	5.9	16.1
Total Saving	100.0	100.0	100.0	100.0	100.0	100.0
Investment:						
Fixed Investments in Public Sector	78.2	79.3	79.1	77.4	75.8	77.8
Fixed Investments in Private Sector	23.7	22.4	22.4	22.6	23.0	22.8
Gross Fixed Investments in Economy (include change in stock)	101.9	101.7	101.5	100.0	98.8	100.6
Change in Stock	1.9-	1.7-	1.5-	0.0	1.2	0.6-
Gross Fixed Investments (exclude change in stock)	100.0	100.0	100.0	100.0	100.0	100.0

Source: Ibid., p. 41.

B - The method of approaching the respondents including sponsorship, stated purpose of reasearch, and confidentiality.

C - The build-up of questions sequences.

D - The order of questions within each question sequence.

E - The use of precoded versus free response questions (response structure) and structured versus unstructured questioning.

A - Methods of data collection; there are many methods of obtaining data but those most widely used are mail questionnaires and personal interviews. Each method has its advantages and disadvantages, the choice between them depends on the circumstances of the individual research.

The major advantage of mail questionnaires is that "...they are lower in cost than personal interviews... The more dispersed the sample, the more likely it is that mail will be the low-cost method... Another value in using mail is that we can contact respondents who might otherwise be inaccessible. Persons such as major corporate executives are difficult to reach in any other way... In a mail survey the respondents can more easily take time to collect facts, talk with others or consider his replies at length than is possible with personal interview" (4). Moser and Kalton added that the "...mail questionnaire is a particularly quick method of conducting a survey. It certainly takes little time to send out the questionnaire, and the bulk of the returns will probably be received within two weeks. But time must be allowed for late returns and responses to follow-up attempts. As a result a period of a month is probably needed from the date of the initial mailing to the commencement of the final analysis. The mail questionnaire, of course, avoids the problems associated with the use of interviewers; there are several sources of interviewer errors..." (5).

Now, the author will try to study these advantages in our research.

(i) Cheap cost; the approximate total cost of sending and returning our questionnaires from London to Cairo and then back is £300 (£4 per case multiplied by 75 cases). This cost is approximately equal to the cost of a student return ticket to Egypt. In other words, postal charges take the place of the interviewer's cost for travelling to Egypt and return to London.

(ii) The dispersion of the sample; in our research the respondents are in one place (the National Investment Bank in Egypt). Therefore, the dispersion sample factor has no effect in our research.

(iii) Contacting respondents, who might otherwise be inaccessible, such as major corporate executives; The author believes that persons who are difficult to reach for personal interviews would not have the time to answer a mail questionnaire and return it.

(iv) Giving respondents enough time to collect facts and answer the questionnaire; if the time factor is under the control of the interviewer (as in our case), enough time can be allowed for each respondent to answer the questionnaire.

(v) Taking little time to send and receive the questionnaires; in our case, the mail questionnaire is not a sufficiently quick method as the survey is to be conducted in another country and the time needed for mail questionnaires could amount to the time needed for personal interviews.

(vi) Avoiding the problems associated with the use of interviewers; in our case, these problems are completely avoided because the survey is to be conducted by the author.

In other words, all the advantages of a mail questionnaire can be quaranteed if we conduct the survey by personal interview because of the special circumstances of our research. Needless to add the disadvantages of the mail questionnaire such as "...strong bias of non-response... the limitation of the type and amount of information which can be secured by this method" (6). However, before reaching a decision concerning our method of data-collection the author must study the advantages of the personal interview, the requirements for interview success, and personal interview problems.

"The greatest value of the personal interview is the depth and detail of information that can be secured. It far exceeds, in volume and quality, the information we can usually secure from a mail questionnaire.... The interviewer has more control over the personal interview than other interrogation types (such as a mail questionnaire)... He can pre-screen to assure that the correct respondent is replying; he can influence, and often, can set up and control interviewing conditions" (7). In order to achieve these advantages, we must consider the necessary conditions for interview success.

"Cannell and Kahn distinguish three broad concepts as necessary conditions for a successful interview. First, there is the accessibility of the required information to the respondent. If the respondent does not have the information he can not answer the question... The second condition is that of cognition, or understanding by the respondent of what is required of him. In entering on an interview the respondent is adopting a particular role, and he needs to know what is expected of him in that role... It is part of the interviewer's job to teach the respondent his role, both in the initial explanation of the survey and of what is being asked of the respondent and in the way he treats the answers, in particular by probing for further details when the answer

is incomplete or off the point. The third condition for a successful interview is motivation on the part of the respondent to answer the question accurately" (8). "Kahn and Cannell suggest that there are two sets of motivations that foster the willingness of the respondent to participate. First, there is extrinsic motivation, described as the desire of a person to bring about a change or take an action that he considers desirable. The respondent sees the interviewer as an instrument that can help bring this change... they are being heard by those in positions of influence. Motivation of the intrinsic type depends much more on the personal relationship between the interviewer and the respondent... The respondent reacts to the interviewer's behaviour, receives cues from the interviewer's appearance, and is affected by the interviewing situation, his perception of the thrust of the questions, and his own personal needs" (9)

The question which the author will attempt to answer is whether the requirements for the successful use of interviews are met in this research:

(i) The accessibility of the required information to the respondent; in order to carry out its reponsibilities, the National Investment Bank should be provided with the standarised financial reports prepared by the different economic units. This provision is on a compulsory basis, therefore, our respondents have accessibility to the required information.

(ii) The understanding by the respondent of what is required; the interview will be conducted by the researcher, therefore, it is part of his job to teach the respondent what is being asked. In addition, there are some questions which test the respondent's understanding.

(iii) The motivations that foster the willingness of the respondent to participate; as it will be seen later there is

an open-ended question which deals with the most important problems that have affected the usefulness of the information provided as a result of the application of the Egyptian unified accounting system. Whilst answering this question, the respondents considered the interviewer (the researcher) as an instrument that could help to bring about a change so as to increase the usefulness of the provided information (extrinsic motivation). Concerning motivation of the intrinsic type, there is a strong personal relationship between the interviewer (the researcher) and over 50% of the respondents in the Bank. This personal relationship was established during the researcher's work as an assistant researcher in the Egyptian Institute of National Planning which co-operates very closely with the National Investment Bank.

In conclusion most of the requirements for interview success have been appreciated in our research. But in order to successfully collect the research data we must deal with the problems of personal interviewing.

In personal interviewing the researcher must deal with two major problems, bias and cost. Biased results grow out of three major types of error; sampling error, non-response error and response error (10):

Sampling error. This type of error can result when the members of a sample may not be fully representative of the population, and values calculated from sample data (statistics) vary from the population values (parameters).

Non-response error. This type of error can result when there are difficulties in finding the respondent who has been selected for the sample. It can cause a strong bias when the non-respondents vary from the respondents in some systematic way.

Response error. This bias occurs when the data reported differs from the actual data. There are many ways where such errors can occur. One form is errors in processing and tabulating. Another important source of error is the respondent who fails to report fully and accurately. Finally, the interviewer is another important cause of response bias; he can distort the results of any survey by inappropriate suggestions, word emphasis, tone of voice and question rephrasing.

In our research, we intend to undertake a complete coverage survey, thus there is no possibility of either sampling error or nonresponse error. Concerning the third type of error (response error) this could happen, but there is the possibility of minimising this type of error as the interviews are to be conducted by the researcher.

Concerning the high cost of personal interviewing; as mentioned before the dispersion population factor has no effect on our research and the postal charges can take the place of interviewer's travelling cost. Therefore, the high cost factor makes no difference to our research.

In conclusion, the data will be collected through personal interview by questionnaire. The main reason for this decision is the depth and detail of information that can be secured from this method, and most of the requirements for interview success have been appreciated in our research.

B - The method of approaching the respondents; this will be considered by:

- Establishing a friendly relationship with the respondents.
- Conveying the fact that the interview is important and confidential plus the respondents co-operation to achieve the purpose of the research will be meaningful both to themselves and to the work of the Bank by increasing the usefulness of the received information from the different economic units.

- Declaring the authorisation of the Egyptian Central Agency for Public Mobilisation and Statistics to the research being conducted in the National Investment Bank.
- Declaring the permission from the Chairman of the Bank to conduct the research.
- Giving the respondents complete freedom to sign or not to sign their questionnaires. (Fortunately, all of them signed.)

C - The build-up of question sequences; although the author will read and explain each question, all necessary instructions are included in the body of the questionnaire. In other words, it is self-explanatory. The questions are arranged in different groups. Each group is identified with a title: Objectives, Qualitative characteristics of accounting information, Element of financial statements, Measurement, and Financial reporting. In other words, in building the questionnaire the author has followed most of the structural characteristics of the conceptual framework for financial accounting and reporting. Meanwhile, two additional groups of questions have been included at the end of the questionnaire: one of them is concerned with the problems and the suggested solutions, and the other is concerned with classification questions.

D - The order of questions within each question sequence; the funnel approach has been followed. "It is so named because it starts off with a broad question and then progressively narrows down the scope of the questions until it comes to some very specific points" (11). For instance:

- Question 1 asks about an evaluation of the main broad objectives of the Egyptian unified accounting system in practice.
- Question 2 asks about a ranking of the importance of the different financial statements.
- Question 3 asks about the degree of influence that each statement has on investment decision making process.

- Question 5 asks about the relevance and reliability of the different financial statements.
- Questions 13 - 15 ask about specific points in the statements.

"Repetition of the same questions in different contexts or by the use of different techniques" (12) has been undertaken. For instance:

- Question 2 asks about the ranking of importance of the different financial statements and Question 11 asks about the pattern of reading of these statements. If, for instance, a respondent gives a high importance to a specific statement, it is expected that he will read it thoroughly as there are three patterns of reading: do not read at all, read briefly for interest, and read thoroughly. However, if a specific statement is given a high importance but a low pattern of reading, there will be some doubt about the validity of these answers.
- Question 2 also asks about importance by using the ranking scale technique. At the same time, Question 3 asks about the degree of influence of the different financial statements by using the rating scale technique (as it will be seen later).

Classification questions are left to the end of the questionnaire "...so as to avoid crowding the opening minutes of the interview with personal questions... They are asked chiefly to provide information by which the main groups of respondents can be distinguished in the analysis" (13). For instance:

- Concerning qualifications, there are respondents with accounting qualifications and respondents with other qualifications.
- Concerning the study of the unified accounting system, there are four categories of study: the undergraduate process, the postgraduate process, training programmes, and others.

- Concerning position, there are top management group and middle management group.
- Concerning the Bank's sectors, there are three main sectors: Programmes and Policies sector, Project sectors and Financial sector.

E - The use of structured and unstructured questioning (questioning structure) and the use of precoded or free response questions (response structure):

Questioning structure; questioning may be classified as structured and unstructured questioning. "With structured questioning the interviewer asks questions in a standardised format and sequence. This helps assure that each question is asked in the same way in each interview, promoting measurement reliability. A standardised questioning sequence also makes it easier to develop a standard line of questioning that builds on prior responses... At the other extreme are the relatively unstructured interview processes. These include the so-called depth interviews, focused, and non-directive methods. A depth interview is a loosely structured effort to question a respondent in detail about opinions, feeling and attitudes.The interviewer usually uses an interview guide to assure coverage of the topics of interest. A focused interview is a special form of depth interview where the interviewer attempts to focus the discussion on some particular experience to which the respondent has been exposed. A non-directive interview is the least structured of the three... Unstructured interviewing is particularly useful in exploratory research where the lines of investigation are not clearly defined and when investigating many sensitive topical areas" (14).

The choice between structured and unstructured questioning depends on the circumstances of each research. In our research, the lines of investigation are clearly defined; the author is looking for an evaluation of the application of the Egyptian unified accounting system by using the

characteristics of the conceptual framework for financial accounting and reporting. Therefore, structured interviewing is particularly useful in our case. In addition, a standardised question sequence makes it easier to compare the results of one interview with another. Last, but not least, the author is not investigating a sensitive area.

Response structure: "Forms of response may be classified as open or closed. In the open form respondents are free to reply with their own choice of words and concepts... With the closed response form the respondent chooses from two or more predetermined response possibilities" (15). Whether to use open or closed response questions depends upon the situation. Kahn and Cannell point out five situational factors that affect this decision. They are (16):

- Objectives of the interview; if the objectives of the interview are to classify the respondent on some stated point of view then the closed form is preferable. Open response questions are appropriate when the interviewer seeks sources of information, dates of events, suggestions, or when probes are used to secure more information.

- Respondent's level of information on the topic; when the topic of a question is likely to be outside the respondent's experience then the open end question may be the better way to learn his level of information.

- Degree respondent has thought through the topic; if a respondent has developed a clear opinion on the topic the closed response question does well. If this process of thinking out an answer has not been done, the open end question may give the respondent a chance to think over his reply, and to elaborate and revise it as he answers.

- Ease of communication and motivation of respondent to talk; closed questions take less motivation and the process of answering is less threatening to respondents,

- Degree by which the above respondent factors are known to the interviewer; it may be better to use open end questions when the interviewer does not have a clear idea of the respondent's frame of reference or level of information. Closed response questions are better when there is a clear frame of reference, the respondent's level of information is predictable and the interviewer believes the respondent understands the topic.

Now the author is going to test these factors in this research to determine which kind of forms will be used. The result of this test are:

Concerning the first factor; objectives of the research. The author is looking for the respondent's point of view on the following points.

- The usefulness of provided information as a result of the application of the Egyptian unified accounting system (question 1).
- Ranking of importance of the different financial statements (question 2).
- Degree of influence that each statement has in relation to investment decisions (question 3).
- Qualitative characteristics of the provided information (question 4).
- Relevance and reliability of the financial statements (question 5).
- The effectiveness of the different definitions of the elements of the financial statements (question 6).
- The importance of current value accounting information (question 8).
- The pattern of reading of the different financial statements (question 11) and the budget statements (question 12).

- The usefulness of the statement of sources and applications of funds (question 13), Form No 6: the quantitative and financial analysis of the capital applications at the investment project level (question 14), and Form No 6/A: the time distribution of the costs of capital applications (question 15).

In the above mentioned examples the closed response form has been used (the justification of this choice will be clearer after testing the other factors that affect this decision). Meanwhile, "...the open response format allows and encourages respondents to give their opinions fully and with as much nuance as they are capable of... It also allows respondents to express themselves in language that is comfortable for them and congenial to their views. In many instances it produces vignettes of considerable richness and quotable material that will enliven research reports" (17). Therefore, this type has been used in two questions concerning the most important problems of the system and their suggested solutions (questions 16 and 17).

Concerning the second factor; respondent's level of understanding of the topic under investigation. The Egyptian unified accounting system has been applied for over fifteen years, therefore, the topic is likely to be within the respondent's experience. Accordingly, the close form response is preferable in this case.

Concerning the third factor; degree of respondent's interest in the research topic. What was mentioned in the previous paragraph is also valid here. The long application of the system increases the possibility of respondent's thinking through of the topic. In this case, the closed response question does well.

Concerning the fourth factor; ease of communication and motivation of respondents to talk. The author has used more closed question than open questions to ease communication with the respondents.

Concerning the fifth factor; the interviewer's idea about the above respondent factors. The interviewer (the author in our case) has a clear idea of respondents' frame of reference and level of information on the subject area. Closed response questions are better in this case.

In conclusion, the author has used both open and closed response questions. But we have used more closed than open response form because of the above mentioned reasons. In the closed response form scaling techniques have been used. "Scales may be classified as categorical or comparative. These approaches are also known as rating or ranking, respectively. Categorical (rating) scales are used when a respondent scores some object without direct reference to other objects. In the comparative (ranking) scaling the respondent is asked to compare two or more objects... The essence of ranking, then, is a relative comparison of a certain property of two or more objects" (18).

Rating scale; The rating scale has been used to judge the following properties:

- The usefulness of provided information as a result of the application of the unified system for planning and controlling national investment (question 1).
- Rating of degree of influence that each financial statement has in relation to investment decisions (question 3).
- Rating of qualitative characteristics of the provided information (question 4).
- Rating of the effectiveness of the different definitions of the elements of the financial statements (question 6).

- Rating of the importance of current value accounting information (question 8).
- Rating of the pattern of reading of the different financial statements (question 11) and the budget statements (question 12).
- Rating of the usefulness of the statement of sources and applications of funds (question 13), Form No 6 (question 14), and Form No 6/A (question 15).

In all the above questions (except No 4) the summated scale has been used; "this consists of a number of statements which express either a favourable or unfavourable attitude toward the object of interest... Each response is given a numerical score to reflect its degree of attitude favourableness" (19). In question 4, the semantic differential technique has been used; "It consists essentially of a number of seven-point rating scales that are bipolar, with each extreme defined by an adjective... The respondent is given a set of such scales, and his task is to rate each of a number of objects on every scale in turn" (20).

"Rating scales require less time, are interesting to use, and have a wider range of application than most other methods. In addition they may be used with a large number of properties or variables" (21). But they suffer from some problems. The most common type is the halo effect; "Which means that respondents classify the object on each scale according to their general impression, rather than according to the scale's meaning" (22). In order to counteract the halo effect; "...the location of the positive end should be randomised; so as to try to counteract response set due to position. If several concepts have to be rated, it is best to have a separate rating sheet for each one" (23). This remedy has been followed in question 4. The bi-polar adjectives are randomised in direction (favourable/unfavourable) and a separate sheet for rating information for planning and control has been allocated.

Ranking scale; The author has also used the rank order method and the respondent is asked to rank:

- the importance of the different financial statements (question 2).
- Relevance and reliability of the financial statements (question 5).

In this section the author discussed the different techniques which were used in developing the questionnaire. These techiques are summarised in Figure 7.1. The process of developing each question in the questionnaire appears in Table 7.4. The complete questionnaire is illustrated in Appendix (A).

7.5 Procedure

7.5.1 Initial arrangements before starting the empirical work

In the first week of September, 1984, the author met with the Managing Director of the National Investment Bank in Egypt to explain the purpose of the research, to collect some background information about the Bank, and to ask permission to conduct the research in the Bank. One week later the Manager informed the researcher of the Bank's readiness to help in the reasearch - conditional on getting permission from the Egyptian Central Agency for Public Mobilisation and Statistics to conduct the reasearch in the Bank plus routine permission from the Chairman of the Bank to conduct the research.

FIGURE 7.1

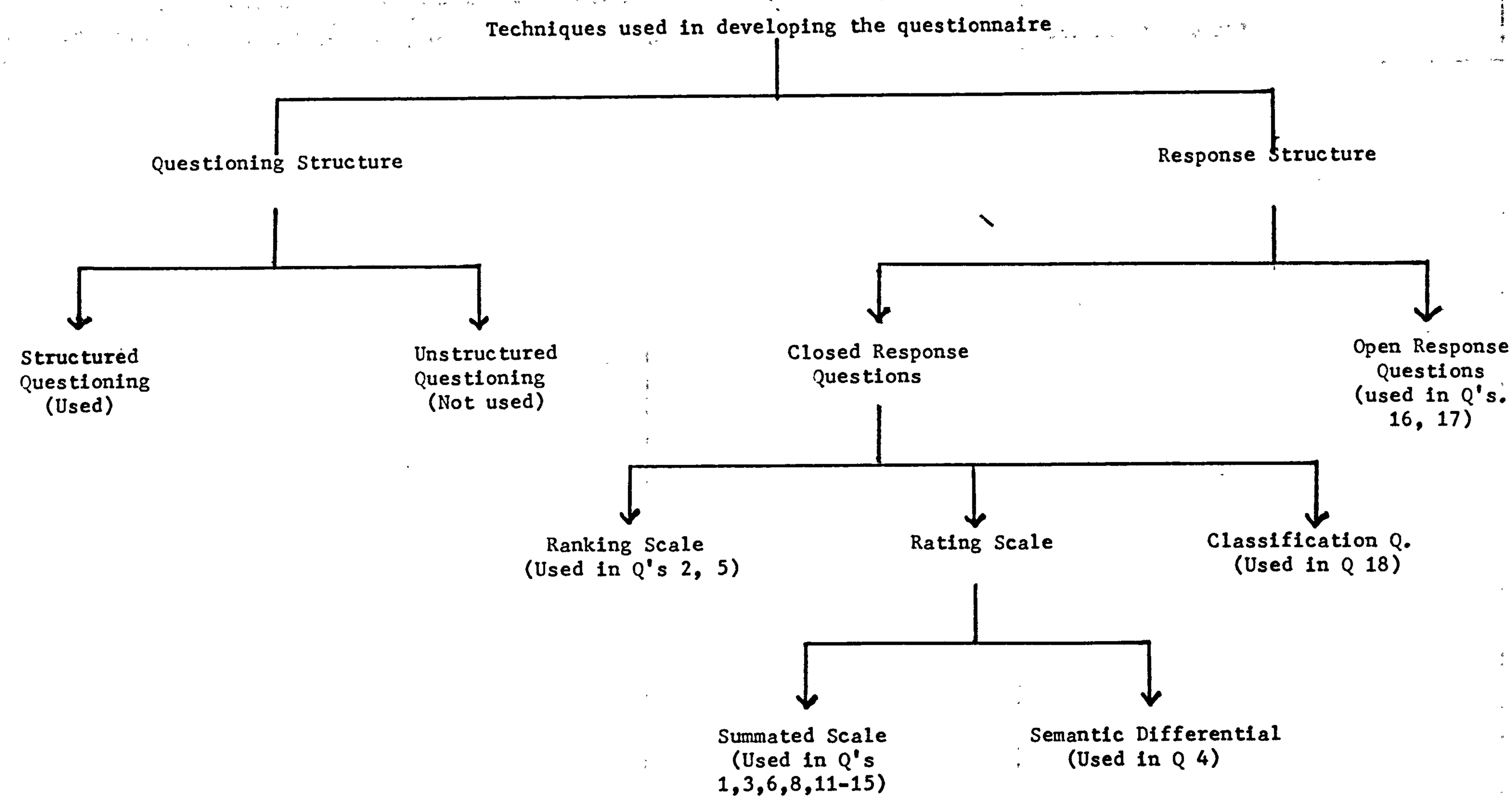
Techniques used in developing the questionnaire
Questioning Structure
Response Structure
Structured Questioning (Used)
Unstructured Questioning (Not used)
Closed Response Questions
Open Response Questions (used in Q's. 16, 17)
Ranking Scale (Used in Q's 2, 5)
Rating Scale
Classification Q. (Used in Q 18)
Summated Scale (Used in Q's 1,3,6,8,11-15)
Semantic Differential (Used in Q 4)

TABLE 7.4: Developing the questionnaire

Question No	Purpose of the question	Output	Use of the output
Q.No.1	The main objective of the Egyptian unified accounting system is to provide users of the financial reports with basic information and analytical tools for planning, execution of plans and control at all levels. The purpose of this question is to examine, in actual practice, the adequacy of the information provided as a result of the application of the system in relation to meeting the information needs of the Egyptian national investor represented by the staff at the National Investment Bank.	Practical evaluation of the information provided as a result of the application of the system in relation to meeting the information needs of the national investor.	Testing the following hypothesis: "The information provided as a result of the application of the system is able to satisfy the informational needs of the Egyptian national investor." The answer to this question is to be used in correlation analysis with other data from the questionnaire. For example, the usefulness of the information provided as a result of the application of the Egyptian unified accounting system. This usefulness is judged by studying the qualitative characteristics of accounting information in Question 4.

TABLE 7.4: Developing the questionnaire Continued/2.....

Question No	Purpose of the question	Output	Use of the output
Q.No 2	The purpose of this question is to provide some evidence of the level of understanding the importance of the different financial statements in serving national investment planning and control. For instance, the statement of sources and applications of funds is designed primarily to serve the objectives of national planning and control. Therefore, it is expected that this statement will be given a high ranking by respondents if they are able to understand the differences between the purposes of the financial statements.	Measurement of the respondent's level of understanding as indicated by their ranking of the importance of the different financial statements.	The answer to this question is to be used in correlation analysis with other data from the questionnaire. For example, ranking of relevance and reliability (the two main qualitative characteristics) of the different financial statements for serving national investment planning and control (this ranking is measured in Question 5). The correlation, if there is any, will test how the two main qualitative characteristics are related with the ranking of importance.
Q.No 3	The purpose of this question is to examine whether the system provides the national investor with influential data for the purpose of making investment decisions.	Measurement of the degree of influence of the information provided as a result of the application of the system.	The answer to this question will be used in correlation analysis with other data from the questionnaire. For example, the pattern of reading of the different financial statements (Q.11).

TABLE 7.4: Developing the questionnaire Continued/3.....

Question No	Purpose of the question	Output	Use of the output
Q.No 4	The purpose of this question is to examine the usefulness of the information provided as a result of the application of the system by studying its qualitative characteristics (24) (25).	Measurement of the usefulness of providing information for serving national investment planning and control.	- Testing some hypotheses. For instance, it can by hypothesised that as a result of adopting the system, the relevance and reliability of the financial reports are expected to be high. - Correlation analysis with the evaluation of the information as measured in Question 1.
Q.No 5	The purpose of this question is to measure the ranking of relevance and reliability of the different financial statements for serving national investment planning and control.	Measurement of the rankings of relevance and reliability of the different financial statements.	The answer to this question is to be used in correlation analysis with other data from the questionnaire. For instance, the ranking of importance of the different financial statements as indicated in Question 2.
Q.No 6	The purpose of this question is to measure the respondent's attitudes towards the standardised definitions of the elements of the financial statements as a means of increasing the effectiveness of accounting communication.	Measurement of the respondent's attitudes towards the standardised definitions of the elements of the financial statements.	Testing the following hypothesis: "The standardised definitions of the elements of the financial statements increased the effectiveness of accounting communication to the users."

TABLE 7.4: Developing the questionnaire Continued/4.....

Question No	Purpose of the question	Output	Use of the output
Q.No 7	The purpose of this question is to determine the percentage of the annual financial reports which has succeeded in declaring current value accounting information.	Determination of the percentage of annual financial reports which has succeeded in declaring current value accounting information.	Testing the following hypothesis: "The instructions to declare current value accounting information on a voluntary basis have been followed by economic units in their annual financial reports."
Q.No 8	The purpose of this question is to measure the respondents' perceived importance of current value accounting information.	Measurement of the respondents' perceived importance of current value accounting information.	The answer will be used in correlation analysis with the determined monetary value of current value accounting information as indicated in Question 9.
Q.No 9 and 10	The purpose of these two questions is to measure the monetary value of current value accounting information and to determine the bases used to establish such measurement (26).	Measurement of the monetary value of current value accounting information and determination of the bases used in such measurement.	The answer will be used in correlation analysis with the perceived importance of current value accounting information as indicated in Question 8.

TABLE 7.4: Developing the questionnaire Continued/5.....

Question No	Purpose of the question	Output	Use of the output
Q.No 11 and 12	The purpose of these two questions is to determine the pattern of reading of annual financial statements and reports. It has been mentioned before that the statement of sources and applications of funds is designed primarily to serve the objectives of national planning and control. Therefore, it is expected that this statement will be read thoroughly by respondents if they are able to understand its importance in serving national investment planning and control (27).	Respondent's pattern of reading of the annual financial statements and reports.	Provide some evidence of the respondent's level of understanding of the usefulness of the different financial statements and reports. The answers to these questions will be used in correlation analysis with: - Measurement of the respondent's level of understanding as indicated by their ranking of the importance of the statements (Q.2). - Measurement of the degree of influence of the information in relation to investment decisions (Q.3). - Measurement of the background factors as indicated in Question 18.

TABLE 7.4: Developing the questionnaire Continued/6.....

Question No	Purpose of the question	Output	Use of the output
Q.No 13, 14 and 15	The purpose of these questions is to examine the adequacy of the information provided as a result of introducing statements and forms such as: The statements of sources and applications of funds (Q.13). Form No 6: The quantitative and financial analysis of the capital applications at the investment project level (Q.14). Form No 6/A: The time distribution of costs of capital applications (Q.15). These statements are primarily designed and introduced by the system to serve the objectives of national planning and control.	Evaluation of the information provided as a result of introducing these statements in relation to meeting the information needs of the national investor.	Testing the following hypothesis: "The information provided as a result of introducing some new statements and forms is able to satisfy the information needs of the Egyptian national investor." Testing the relationship between the respondents' satisfaction with the usefulness of the information provided in the different statements and forms.
Q.No 16	The purpose of this question is to determine the most important practical problems that affect the usefulness of the information provided as a result of application of the Egyptian unified accounting system.	Determination of the most important problems that affect the usefulness of the information provided.	Determination of these problems will be used as a starting point for improving the usefulness of the information provided.

TABLE 7.4: Developing the questionnaire Continued/7.....

Question No	Purpose of the question	Output	Use of the output
Q.No 17	The purpose of this question is to collect the respondents' opinions as to what should be done to solve the perceived problems of the system.	Proposed methods for improving the usefulness of the information provided.	Analysing the proposed methods for improving the system's usefulness and categorising them.
Q.No 18	The purpose of this question is to study the respondents' background factors such as: - qualifications - the extent to which they have studied the Egyptian unified accounting system. - position at bank.	Classification of the respondents' according to background factors.	Testing the following hypotheses: Hypotheses concerning the effects of the background factors on the respondent's pattern of reading of the different financial statements and budgets. Hypotheses concerning control of the effects of some of the background factors.

In the first week of August, 1985, the researcher applied to the Egyptian Central Agency for Public Nobilisation and Statistic's for permission. The application was accompanied by a copy of the questionnaire. Three months later, the researcher received permission to conduct the research in the Bank. In the first week of December, 1985, the researcher received permission from the Chairman of the Bank to start his research in the Bank.

7.5.2 Pilot study

Although the researcher received no objections to the questions in the questionnaire, a pilot study was conducted in the second and third week of December, 1985. Ten respondents (two from each of the main five sectors in the Bank; one represented top management and the other represented the middle management in each sector) were selected by the Managing Director for the pilot test of the questionnaire. The following resulted from the pilot test:

In question 9, we found that there was difficulty in determining the monetary value of the current value accounting information. Therefore, we decided to explain the bases which can be used for establishing the estimate of value (Q 10), before answering question 9. Having done that, the picture became clearer.

Questions 16 and 17, as mentioned before, these two questions are open-ended questions about the problems and suggested solutions. The author noticed that some repondents spent a long time answering these two questions. Therefore, we decided to ask question 18 before questions 16 and 17 and after that the questionnaire was left to the respondent to answer questions 16, 17 and to edit the answers in a relaxed way.

As the results of the pilot test were only in the way of managing the interview, the questionnaires of the ten respondents in the pilot test were incorporated with those of the major survey and the data analysed together.

7.5.3 The interviews

The interview usually took between one hour and one and a half hours to complete. The overall time taken to cover all the main sectors in the Bank was three months (including the pilot test period). In other words, it took from December, 1985 until the end of February, 1986.

7.5.4 From paper into a file

After finishing the interview process, the data was coded and entered onto a disk file using a terminal. Each answer on the questionnaire was quantifiable with the exception of the open questions (Q. 16 and Q. 17). Two decisions which had to be made were, how many records would be needed for each case and in which column locations each variable was to be stored? The answers to these questions are shown in Appendix (B) with the variable labels and value labels.

The computer analysis of the data was undertaken by the researcher at the City University's Computing Centre, and the programme used was the Statistical Package for the Social Sciences (SPSS^{x}).

7.6 Conclusion

In this chapter, the author discussed the primary investigation methods of the Egyptian unified accounting system. The chapter presented a design of the field study. The main characteristics of this design are:

A The population will be represented by the staff in the National Investment Bank in Egypt. Its main purpose is to finance all projects in the state's general plan through participation in capital of these projects (as an investor) or by providing them with loans (as a creditor), as well as controlling their implementation of national investment. The Bank aims to concentrate the financial resources in the hands of one government agency and then redistribute these resources to fulfill the planning targets of national development.

B The reasons behind the selection of the Bank as a field site are the following:

- A high priority could be given to the Bank as a user of financial reports because it works as both investor and creditor at the same time.
- It is a government agency and government agencies come at the top of the users' list of financial reports in developing countries.
- We can find in the Bank a direct application of the accounting objective as a technique for aiding development by providing useful information.
- We can find in the Bank a direct application of the unified system's basic objective in serving the purposes of national planning and control.
- The high relative importance of the Bank in the distribution pattern of Egyptian national investment.

C The data will be collected through personal interview by questionnaire. The main reason for this decision is the depth and detail of information that can be secured from this method. In addition, most of the requirements for interview success have been appreciated in our research.

D In building the questionnaire the author has arranged the questions in different groups. Each group is identifiable with a title: Objectives, Qualitative characteristics of accounting information, Elements of financial statements, Measurement, and Financial reporting. In other words, most of the structural characteristics of the conceptual framework for financial accounting and reporting have been considered.

E Repetition of the same questions in different contexts or by the use of different techniques has been undertaken in the questionnaire.

F Structured interviewing has been used because the lines of investigation of our research are clearly defined; the author is looking for an evaluation of the application of the Egyptian unified accounting system by using the characteristics of the conceptual framework for financial accounting and reporting. In addition, a standardised question sequence makes it easier to compare the results of one interview with another.

G Both open and closed response questions have been used. But the author has used more closed than open response because of previously mentioned justification. In the closed response questions we have used scaling techniques. Both rating (categorical) and ranking (comparative) scaling have been used.

In this chapter, the author has developed the methods of the primary investigation of the Egyptian unified accounting system. In the next chapter, we shall start presenting the analysis of the research data collected using the questionnaire.

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A-FASB, SFAC No 2, op.cit., para. 33.
B-Stamp, E., "Accounting Standards and the Conceptual Framework: A Plan For Their Evaluation," op.cit., pp. 219 - 221.

26) The idea of judging the monetary value of current value accounting information has been adapted from: Falk, H., "Current Value Accounting Preferences: The Case for Canada," The International Journal of Accounting: Education and Research, Volume 14, No 2, (Spring 1979), pp. 32 - 33.

27) The idea of using the pattern of reading as an acid test of information usefulness has been adapted from: Lee, T.A., and Tweedie, D.P., The Private Shareholder and the Corporate Report, A Report to the Research Committee of The Institute of Chartered Accountants in England and Wales, (London: The Institute of Chartered Accountants in England and Wales, 1977), pp. 53 - 54.

Appendix A

Questionnaire
to determine
The Usefulness Of The Information
Provided As A Result Of
The Application Of
The Egyptian Unified Accounting System
In Satisfying The Users' Needs
In The Egyptian National Investment Bank

OBJECTIVES

1. To the best of your knowledge, please use the scales below to indicate how well you think the information provided as a result of the application of the Egyptian Unified Accounting System meets the following objectives (circle the number that describes your opinion):

a) Provides information for planning national investment

Not at all			Somewhat			Very Well
7	6	5	4	3	2	1

b) Provides information to control national investment

Not at all			Somewhat			Very well
7	6	5	4	3	2	1

2. What ranking of importance would you give to the following statements of the company annual financial reports?

1 = most important, 2 = next important, and so on.

	N. Investment Planning	N. Investment Control
The Balance Sheet		
Statement of sources and ap. of funds		
The current operations account		
The production and trading account		
The profit and loss account		
The cash flow statement		

3. What degree of influence does each statement have in relation to your investment decisions (planning and control)?

1 = maximum, 2 = considerable, 3 = moderate, 4 = slight, 5 = none.

	N. Investment Planning	N. Investment Control
The Balance Sheet		
Statement of sources and ap. of funds		
The current operations account		
The production and trading account		
The profit and loss account		
The cash flow statement		

QUALITATIVE CHARACTERISTICS OF ACCOUNTING INFORMATION

4. The following sections contain two lists of scales which are concerned with the qualitative characteristics of accounting information. You are asked to judge the usefulness of the information provided as a result of the application of the Egyptian Unified Accounting System on each of the scales by placing an (X) in the appropriate space. Please judge the usefulness of the information for the following investment decisions:

(a) National Investment Planning

(b) National Investment Control

(a) Information for planning national investment

	very	quite	slightly	neutral	slightly	quite	very	
Relevant	( )	( )	( )	( )	( )	( )	( )	Irrelevant
Predictive value	( )	( )	( )	( )	( )	( )	( )	Predictive valueless
Feedback value	( )	( )	( )	( )	( )	( )	( )	Feedback valueless
Ill-timed	( )	( )	( )	( )	( )	( )	( )	Well-timed
Unnecessary	( )	( )	( )	( )	( )	( )	( )	Necessary
Simple	( )	( )	( )	( )	( )	( )	( )	Complex
Unreliable	( )	( )	( )	( )	( )	( )	( )	Reliable
Trustworthy	( )	( )	( )	( )	( )	( )	( )	Untrustworthy
Accurate	( )	( )	( )	( )	( )	( )	( )	Inaccurate
Unconfirmed	( )	( )	( )	( )	( )	( )	( )	Confirmed
Incomplete	( )	( )	( )	( )	( )	( )	( )	Complete
Biased	( )	( )	( )	( )	( )	( )	( )	Unbiased
Well-compared	( )	( )	( )	( )	( )	( )	( )	Ill-compared
Consistent	( )	( )	( )	( )	( )	( )	( )	Inconsistent
Benefits > costs	( )	( )	( )	( )	( )	( )	( )	Benefits < costs
Material	( )	( )	( )	( )	( )	( )	( )	Immaterial

(b) Information to control national investment

	very	quite	slightly	neutral	slightly	quite	very	
Relevant	( )	( )	( )	( )	( )	( )	( )	Irrelevant
Predictive value	( )	( )	( )	( )	( )	( )	( )	Predictive valueless
Feedback value	( )	( )	( )	( )	( )	( )	( )	Feedback valueless
Ill-timed	( )	( )	( )	( )	( )	( )	( )	Well-timed
Unnecessary	( )	( )	( )	( )	( )	( )	( )	Necessary
Simple	( )	( )	( )	( )	( )	( )	( )	Complex
Unreliable	( )	( )	( )	( )	( )	( )	( )	Reliable
Trustworthy	( )	( )	( )	( )	( )	( )	( )	Untrustworthy
Accurate	( )	( )	( )	( )	( )	( )	( )	Inaccurate
Unconfirmed	( )	( )	( )	( )	( )	( )	( )	Confirmed
Incomplete	( )	( )	( )	( )	( )	( )	( )	Complete
Biased	( )	( )	( )	( )	( )	( )	( )	Unbiased
Well-compared	( )	( )	( )	( )	( )	( )	( )	Ill-compared
Consistent	( )	( )	( )	( )	( )	( )	( )	Inconsistent
Benefits > costs	( )	( )	( )	( )	( )	( )	( )	Benefits < costs
Material	( )	( )	( )	( )	( )	( )	( )	Immaterial

5. Having recognised the qualitative characteristics of accounting information, what ranking of relevance and reliability (the two main qualitative characteristics) would you give to the following statements of the company annual financial reports?
1 = most relevant, 2 = next relevant, and so on.
Please rank the relevance and reliability of the statements for serving the following investment decisions:

(a) National investment planning
(b) National investment control

(a) National investment planning

	Relevance	Reliability
The Balance Sheet		
Statement of sources and ap. of funds		
The current operations account		
The production and trading account		
The profit and loss account		
The cash flow statement		

(b) National investment control

	Relevance	Reliability
The Balance Sheet		
Statement of sources and ap. of funds		
The current operations account		
The production and trading account		
The profit and loss account		
The cash flow statement		

ELEMENTS OF FINANCIAL STATEMENTS

6. Please indicate the extent to which you agree or disagree with the following statement. (Please circle the most appropriate number on the scale.)

	Strongly agree				Strongly disagree
The different definitions of the elements of the financial statements (e.g. Assets, Liabilities.....) which have been stated in the Egyptian Unified Accounting System have increased the effectiveness of accounting communication to the users.	1	2	3	4	5

MEASUREMENT

7. The Unified Accounting System recognised the deficiency of historical cost information under conditions of rising prices and required that current value accounting information could be provided in the annual financial reports.

To the best of your knowledge, what percentage of the received annual financial reports has succeeded in declaring current value accounting information? (Please check one of the following):

(a) Less than 25% of the received annual financial reports.

(b) From 25% to 50% of the received annual financial reports.

(c) More than 50% but less than 75% of the received annual financial reports.

(d) From 75% to 100% of the received annual financial reports.

8. How important do you think it is necessary to provide current value accounting information in the annual financial reports?
(Please check one of the following):

(1) Very important.

(2) Important.

(3) Moderately important.

(4) Slightly important.

(5) Unimportant.

9. Assume that in future the bank would receive current value accounting information only if it contracted on a commercial basis with a consultative organisation for the continued provision of this information in the national level.

What is the maximum amount the bank would be ready to pay annually for obtaining the current value accounting information in the national level (e.g. E.p. 0, E.p. 1,000, E.p. 10,000, E.p. 1,00,000 or more)?

Maximum amount E.p. .....per year.

10. Having established a vlaue for current value accounting information for annual use, please check one of the following to describe the basis you used for establishing your estimate of value:

(a) Based on the cost of adding personnel in the Bank to collect and compile the current value data in the national level.

(b) Based on the expected benefits of obtaining this information and using it in making national investment decisions.

(c) Based on both (a) and (b).

(d) Based on other factors (please specify).

FINANCIAL REPORTING

11. To what degree do you read each of the following financial statements in company annual financial reports?

	Do not read at all	Read briefly for interest	Read thoroughly
The Balance Sheet			
Statement of sources and ap. of funds			
The current operations account			
The production and trading account			
The profit and loss account			
The cash flow statement			

12. To what degree do you read each of the following budget statements in the company annual financial reports?

	Do not read at all	Read briefly for interest	Read thoroughly
Quantitative budget			
Financial budget			
Cash budget			

13. To the best of your knowledge, please use the scales below to indicate how well you think the information generated as a result of providing the statement of sources and applications of funds meets the following objectives (circle the number that describes your opinion):

(a) Provides information to make a distinction between capital transfer and capital investment.

Not at all — Somewhat — Very well

7 6 5 4 3 2 1

(b) Provides information to make a distinction between projects in progress and gross capital formation.

7 6 5 4 3 2 1

(c) Provides information to make a distinction between internal financing and external financing.

7 6 5 4 3 2 1

(d) Provides information to make a distinction between local and foreign sources and applications of funds.

7 6 5 4 3 2 1

(e) Provides information to explain changes in liquid resources.

7 6 5 4 3 2 1

14. Please use the scales below to indicate how well you think the information generated as a result of providing Form No 6: The quantitative and financial analysis of the capital applications at the investment project level meets the following objectives (circle the number that describes your opinion):

(a) Provides information to analyse the budgeted cost of each investment project.

Not at all			Somewhat			Very well
7	6	5	4	3	2	1

(b) Provides information to explain financial resources of the capital application of each project divided into local sources and foreign sources.

7	6	5	4	3	2	1

(c) Provides information to explain methods of payment of each source of financing.

7	6	5	4	3	2	1

15. Please use the scales below to indicate how well you think the information generated as a result of providing Form No 6/A: The time distribution of costs of capital applications meets the following objectives (circle the number that describes your opinion):

(a) Provides information to explain the estimated time for undertaking the investment projects.

Not at all			Somewhat			Very well
7	6	5	4	3	2	1

(b) Provides information to analyse the budgeted and authorised total cost of each investment project distributed at the different time periods.

7	6	5	4	3	2	1

16. In your opinion, what are the most important problems that affect the usefulness of the information provided as a result of the application of the Egyptian Unified Accounting System?

17. In your opinion, what should be done to help solve these problems and to improve the usefulness of the information provided?

18. Accounting experience and occupation

(a) Accounting qualifications (state which).....

Other qualifications (state which).....

(b) Have you ever studied the Egyptian Unified Accounting System?

YES or NO

If YES, please specify where:

(1) In the undergraduate process.

(2) In the postgraduate process.

(3) In training programmes.

(4) Others - please specify.....

(c) What is the title of your present position in the bank?

.....

.....

.....

(d) How would you best describe your role in the making of investment decisions?:

.....

.....

NAME.....

DEPARTMENT.....

Appendix B

- Variable locations and codes

- Variable labels

- Value Labels

VARIABLE LOCATIONS AND CODES

VARIABLE	REC	START	END	FORMAT	WIDTH	CODE
CASEID	1	1	2	F	2	1_64
RECORDID	1	4	4	F	1	1_3
PLANINFO	1	6	6	F	1	1_7
CONTINFO	1	8	8	F	1	1_7
RANKBSPL	1	10	10	F	1	1_6
RANKSAPL	1	11	11	F	1	1_6
RANKCOPL	1	12	12	F	1	1_6
RANKPTPL	1	13	13	F	1	1_6
RANKPLPL	1	14	14	F	1	1_6
RANKCSPL	1	15	15	F	1	1_6
RANKBSCO	1	17	17	F	1	1_6
RANKSACO	1	18	18	F	1	1_6
RANKCOCO	1	19	19	F	1	1_6
RANKPTCO	1	20	20	F	1	1_6
RANKPLCO	1	21	21	F	1	1_6
RANKCSCO	1	22	22	F	1	1_6
INFLBSPL	1	24	24	F	1	1_6
INFLSAPL	1	25	25	F	1	1_6
INFLCOPL	1	26	26	F	1	1_6
INFLPTPL	1	27	27	F	1	1_6
INFLPLPL	1	28	28	F	1	1_6
INFLCSPL	1	29	29	F	1	1_6
INFLBSCO	1	31	31	F	1	1_6
INFLSACO	1	32	32	F	1	1_6
INFLCOCO	1	33	33	F	1	1_6
INFLPTCO	1	34	34	F	1	1_6
INFLPLCO	1	35	35	F	1	1_6
INFLCSCO	1	36	36	F	1	1_6
PRELEVAN	1	38	38	F	1	1_7
PPREDVAL	1	39	39	F	1	1_7
PFEEDBAC	1	40	40	F	1	1_7
PWELLTIM	1	41	41	F	1	1_7
PNECESSA	1	42	42	F	1	1_7
PSIMPLE	1	43	43	F	1	1_7
PRELIABL	1	45	45	F	1	1_7
PTRUSTY	1	46	46	F	1	1_7
PACCURAT	1	47	47	F	1	1_7
PCONFIRM	1	48	48	F	1	1_7
PCOMPLET	1	49	49	F	1	1_7
PBIASED	1	50	50	F	1	1_7
PCOMPARE	1	52	52	F	1	1_7
PCONSIST	1	53	53	F	1	1_7
PBENCOST	1	54	54	F	1	1_7
PMATERIA	1	55	55	F	1	1_7
CRELEVAN	1	57	57	F	1	1_7
CPREDVAL	1	58	58	F	1	1_7
CFEEDBAC	1	59	59	F	1	1_7
CWELLTIM	1	60	60	F	1	1_7
CNECESSA	1	61	61	F	1	1_7
CSIMPLE	1	62	62	F	1	1_7
CRELIABL	1	64	64	F	1	1_7
CTRUSTY	1	65	65	F	1	1_7
CACCURAT	1	66	66	F	1	1_7
CCONFIRM	1	67	67	F	1	1_7
CCOMPLET	1	68	68	F	1	1_7
CBIASED	1	69	69	F	1	1_7
CCOMPARE	1	71	71	F	1	1_7
CCONSIST	1	72	72	F	1	1_7
CBENCOST	1	73	73	F	1	1_7
CMATERIA	1	74	74	F	1	1_7

RELVBSPL	2	6	6	F	1	1_6
RELVSAPL	2	7	7	F	1	1_6
RELVCOPL	2	8	8	F	1	1_6
RELVPTPL	2	9	9	F	1	1_6
RELVPLPL	2	10	10	F	1	1_6
RELVCSPL	2	11	11	F	1	1_6
RELIBSPL	2	13	13	F	1	1_6
RELISAPL	2	14	14	F	1	1_6
RELICOPL	2	15	15	F	1	1_6
RELIPTPL	2	16	16	F	1	1_6
RELIPLPL	2	17	17	F	1	1_6
RELICSPL	2	18	18	F	1	1_6
RELVBSCO	2	20	20	F	1	1_6
RELVSACO	2	21	21	F	1	1_6
RELVCOCO	2	22	22	F	1	1_6
RELVPTCO	2	23	23	F	1	1_6
RELVPLCO	2	24	24	F	1	1_6
RELVCSCO	2	25	25	F	1	1_6
RELIBSCO	2	27	27	F	1	1_6
RELISACO	2	28	28	F	1	1_6
RELICOCO	2	29	29	F	1	1_6
RELIPTCO	2	30	30	F	1	1_6
RELIPLCO	2	31	31	F	1	1_6
RELICSCO	2	32	32	F	1	1_6
INFOCOMM	2	34	34	F	1	1_5
PECVINFO	2	36	36	F	1	1_4
IMCVINFO	2	38	38	F	1	1_5
MACVINFO	2	40	47	F	8	0_2000000
BACVINFO	2	49	49	F	1	1_4
READBASH	2	51	51	F	1	1_3
READSSAF	2	52	52	F	1	1_3
READCOST	2	53	53	F	1	1_3
READPRTR	2	54	54	F	1	1_3
READPRLO	2	55	55	F	1	1_3
READCAST	2	56	56	F	1	1_3
READQUBU	2	58	58	F	1	1_3
READFIBU	2	59	59	F	1	1_3
READCABU	2	60	60	F	1	1_3
CATRCAIN	2	62	62	F	1	1_7
PRIPGCFO	2	63	63	F	1	1_7
INFIEXFI	2	64	64	F	1	1_7
LOSAFOSA	2	65	65	F	1	1_7
CHLIQRES	2	66	66	F	1	1_7
BUDGINVE	2	68	68	F	1	1_7
FINRESOU	2	69	69	F	1	1_7
METHPAYM	2	70	70	F	1	1_7
ESTIMTIM	2	72	72	F	1	1_7
SUGGCOST	2	73	73	F	1	1_7
QUALIFIC	3	51	51	F	1	1_2
UASSTUDY	3	53	53	F	1	1_2
CATSTUDY	3	55	55	F	1	1_4
POSITION	3	57	57	F	1	1_2
SECTOR	3	59	59	F	1	1_5

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VARIABLE LABELS
 CASEID 'CASE IDENTIFICATION NUMBER'
 PLANINFO 'PROVIDE INFO.FOR PLAN.N.INVESTMENT'
 CONTINFO 'PROVIDE INFO.FOR CONT.N.INVESTMENT'
  RANKBSPL 'RANK OF B.S.IMPORT.FOR N.INVEST.PLAN.'
  RANKSAPL 'RANK OF SSAF.IMPORT.FOR N.INVEST.PLAN.'
  RANKCOPL 'RANK OF C.O.IMPORT.FOR N.INVEST.PLAN.'
  RANKPTPL 'RANK OF P.T.IMPORT.FOR N.INVEST.PLAN.'
  RANKPLPL 'RANK OF P.L.IMPORT.FOR N.INVEST.PLAN.'
  RANKCSPL 'RANK OF C.S.IMPORT.FOR N.INVEST.PLAN.'
  RANKBSCO 'RANK OF B.S.IMPORT.FOR N.INVEST.CONT.'
  RANKSACO 'RANK OF SSAF.IMPORT.FOR N.INVEST.CONT.'
  RANKCOCO 'RANK OF C.O.IMPORT.FOR N.INVEST.CONT.'
  RANKPTCO 'RANK OF P.T.IMPORT.FOR N.INVEST.CONT.'
  RANKPLCO 'RANK OF P.L.IMPORT.FOR N.INVEST.CONT.'
  RANKCSCO 'RANK OF C.S.IMPORT.FOR N.INVEST.CONT.'
  INFLBSPL 'DEGREE OF B.S.INFLU.IN N.INVEST.PLAN.'
  INFLSAPL 'DEGREE OF SSAF.INFLU.IN N.INVEST.PLAN.'
  INFLCOPL 'DEGREE OF C.O.INFLU.IN N.INVEST.PLAN.'
  INFLPTPL 'DEGREE OF P.T.INFLU.IN N.INVEST.PLAN.'
  INFLPLPL 'DEGREE OF P.L.INFLU.IN N.INVEST.PLAN.'
  INFLCSPL 'DEGREE OF C.S.INFLU.IN N.INVEST.PLAN.'
  INFLBSCO 'DEGREE OF B.S.INFLU.IN N.INVEST.CONT.'
  INFLSACO 'DEGREE OF SSAF.INFLU.IN N.INVEST.CONT.'
  INFLCOCO 'DEGREE OF C.O.INFLU.IN N.INVEST.CONT.'
  INFLPTCO 'DEGREE OF P.T.INFLU.IN.N.INVEST.CONT.'
  INFLPLCO 'DEGREE OF P.L.INFLU.IN N.INVEST.CONT.'
  INFLCSCO 'DEGREE OF C.S.INFLU.IN N.INVEST.CONT.'
 PRELEVAN 'RELEVANCE OF INFO. FOR N.INVEST.PLAN.'
 PPREDVAL 'PREDICTIVE V.OF INFO. FOR N.INVEST.PLAN.'
 PFEEDBAC 'FEEDBACK V. OF INFO. FOR N.INVEST.PLAN.'
 PWELLTIM 'TIMELINESS OF INFO. FOR N.INVEST.PLAN.'
 PNECESSA 'NECESSITY OF INFO. FOR N.INVEST.PLANNING'
 PSIMPLE 'SIMPLICITY OF INFO.FOR N.INVEST.PLANNING'
 PRELIABL 'RELIABILITY OF INFO.FOR N.INVEST.PLANING'
 PTRUSTY 'TRUST. OF INFO.FOR N.INVEST.PLANNING'
 PACCURAT 'ACCURACY OF INFO.FOR N.INVEST.PLANNING'
 PCONFIRM 'CONFIRM. OF INFO.FOR.N.INVEST.PLANNING'
 PCOMPLET 'COMPLETENESS OF INFO.FOR N.INVEST.PLAN.'
 PBIASED 'FREEDOM OF BIAS IN INFO.FOR N.IN.PLAN.'
 PCOMPARE 'COMPARABILITY OF INFO.FOR N.INVEST.PLAN.'
 PCONSIST 'CONSISTENCY OF INFO.FOR N.INVEST.PLAN.'
 PBENCOST 'BENEFIT&COST OF INFO.FOR N.INVEST.PLAN.'
 PMATERIA 'MATERIALITY OF INFO.FOR N.INVEST.PLAN.'
 CRELEVAN 'RELEUANCE OF INFO.FOR N.INVEST.CONTROL'
 CPREDVAL 'PREDICTIVE V.OF INFO.FOR N.INVEST.CONT.'
 CFEEDBAC 'FEEDBACK V.OF INFO.FOR N.INVEST.CONTROL'
 CWELLTIM 'TIMELINESS OF INFO.FOR N.INVEST.CONTROL'
 CNECESSA 'NECESSITY OF INFO.FOR N.INVEST.CONTROL'
 CSIMPLE 'SIMPLICITY OF INFO.FOR N.INVEST.CONTROL'
 CRELIABL 'RELIABILITY OF INFO.FOR N.INVEST.CONTROL'
 CTRUSTY 'TRUST.OF INFO.FOR N.INVEST.CONTROL'
 CACCURAT 'ACCURACY OF INFO.FOR N.INVEST.CONTROL'
 CCONFIRM 'CONFIRM.OF INFO.FOR N.INVEST.CONTROL'
 CCOMPLET 'FCOMPLETENESS OF INFO.FOR N.INVEST.CONT.'
 CBIASED 'FREEDOM OF BIAS OF INFO.FOR N.IN.CONTROL'
 CCOMPARE 'COMPARABILITY OF INFO.FOR N.INVEST.CONT.'
 CCONSIST 'CONSISTENCY OF INFO.FOR N.INVEST.CONTROL'
 CBENCOST 'BENEFIT&COST OF INFO.FOR N.INVEST.CONT.'
 CMATERIA 'MATERIALITY OF INFO.FOR N.INVEST.CONTROL'
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RELVBSPL 'RANK OF B.S.RELEVAV.FOR N.INVEST.PLAN.'
RELVSAPL 'RANK OF SSAF.RELEVAN.FOR N.INVEST.PLAN.'
RELVCOPL 'RANK OF C.O.RELEVAN.FOR N.INVEST.PLAN.'
RELVPTPL 'RANK OF P.T.RELEVAN.FOR N.INVEST.PLAN.'
RELVPLPL 'RANK OF P.L.RELEVAN.FOR N.INVEST.PLAN.'
RELVCSPL 'RANK OF C.S.RELEVAN.FOR N.INVEST.PLAN.'
RELIBSPL 'RANK OF B.S.RELIABL.FOR N.INVEST.PLAN.'
RELISAPL 'RANK OF SSAF.RELIABL.FOR N.INVEST.PLAN.'
RELICOPL 'RANK OF C.O.RELIABL.FOR N.INVEST.PLAN.'
RELIPTPL 'RANK OF P.T.RELIABL.FOR N.INVEST.PLAN.'
RELIPLPL 'RANK OF P.L.RELIABL.FOR N.INVEST.PLAN.'
RELICSPL 'RANK OF C.S.RELIABL.FOR N.INVEST.PLAN.'
RELVBSCO 'RANK OF B.S.RELEVAN.FOR N.INVEST.CONT.'
RELVSACO 'RANK OF SSAF.RELEVAN.FOR N.INVEST.CONT.'
RELVCOCO 'RANK OF C.O.RELEVAN.FOR N.INVEST.CONT.'
RELVPTCO 'RANK OF P.T.RELEVAN.FOR N.INVEST.CONT.'
RELVPLCO 'RANK OF P.L.RELEVAN.FOR N.INVEST.CONT.'
RELVCSCO 'RANK OF C.S.RELEVAN.FOR N.INVEST.CONT.'
RELIBSCO 'RANK OF B.S.RELIABL.FOR N.INVEST.CONT.'
RELISACO 'RANK OF SSAF.RELIABL.FOR N.INVEST.CONT.'
RELICOCO 'RANK OF C.O.RELIABL.FOR N.INVEST.CONT.'
RELIPTCO 'RANK OF P.T.RELIABL.FOR N.INVEST.CONT.'
RELIPLCO 'RANK OF P.L.RELIABL.FOR N.INVEST.CONT.'
RELICSCO 'RANK OF C.S.RELIABL.FOR N.INVEST.CONT.'
INFOCOMM 'STANDARDIZED DEFIN.INCREASED ACC.COMM.'
PECVINFO 'PERCENTAGE OF CURRENT VALUE INFO.'
IMCVINFO 'IMPORTANCE OF CURRENT VALUE INFO.'
MACVINFO 'MONETARY VALUE OF CURRENT VALUE INFO.'
BACVINFO 'BASES FOR EVALUAT.CURRENT VALUE INFO.'
READBASH 'READING PATTERN OF THE BALANCE SHEET'
READSSAF 'READING PATTERN OF THE S.S.A.FUNDS'
READCOST 'READING PATTERN OF THE C.O.ACCOUNT'
READPRTR 'READING PATTERN OF THE PRODUCT.&TRAD.AC.'
READPRLO 'READING PATTERN OF THE P.&L.ACCOUNT'
READCAST 'READING PATTERN OF THE CASH STATEMENT'
READQUBU 'READIHG PATTERN OF THE QUANT. BUDGET'
READFIBU 'READING PATTERN OF THE FINANCIAL BUDGET'
READCABU 'READING PATTERN OF THE CASH BUDGET'
CATRCAIN 'INFO.TO ANALYSE CAPITAL TRANSFER&INVEST.'
PRIPGCFO 'INFO.TO ANALYSE PROJECTS IN PROGRESS'
INFIEXFI 'INFO.TO ANALYSE INTERNAL&EXTERNAL FUNDS'
LOSAFOSA 'INFO.TO ANALYSE LOCAL&FOREIGN FUNDS'
CHLIQRES 'INFO.TO ANALYSE LIQUID RESOURCES'
BUDGINVE 'INFO.TO ANALISE BUDGETED INVESTMENT'
FINRESOU 'INFO.TO ANALISE FINANCIAL RESOURCES'
METHPAYM 'INFO.TO ANALISE METHODS PAYMENT'
ESTIMTIM 'INFO.TO ANALYSE ESTIMATED TIME'
SUGGCOST 'INFO.TO ANALYSE THE SUGGEST. INVEST.COST'
QUALIFIC 'QUALIFICATIONS'
UASSTUDY 'STUDYING OF THE UNIFIED ACC.SYSTEM'
CATSTUDY 'CATEGORIES OF STUDING THE UN.ACC.SYSTEM'
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VALUE LABELS
 PLANINFO CONTINFO PRELEVAN TO CMATERIA CATRCAIN TO SUGGCOST
 1 'VERY SUCCESSFUL' 2 'QUITE SUCCESSFUL' 3 'SLIGHTLY SUCCESSFUL'
 4 'NEUTRAL' 5 'SLIGHT UNSUCCESSFUL' 6 'QUITE UNSUCCESSFUL'
 7 'VERY UNSUCCESSFUL'/
 RANKBSPL TO RANKCSCO 1 'MOST IMPORTANT' 2 'SECOND IMPORTANT'
                      3 'THIRD IMPORTANT' 4 'FORTH IMPORTANT'
                      5 'FIFTH IMPORTANT' 6 'SIXTH IMPORTANT'/
 INFLBSPL TO INFLCSCO 1 'MAXIMUM INFLUENCE' 2 'CONSIDERABLE INFLU.'
 3 'MODERATE INFLUENCE' 4 'SLIGHT INFLUENCE' 5 'NONE INFLUENCE'/
 RELVBSPL TO RELVCSPL RELVBSCO TO RELVCSCO 1 'MOST RELVANT'
 2 'SECOND RELEVANT' 3 'THIRD RELEVANT' 4 'FORTH RELEVANT'
                      5 'FIFTH RELEVANT' 6 'SIXTH RELEVANT'/
 RELIBSPL TO RELICSPL RELIBSCO TO RELICSCO 1 'MOST RELIABLE'
 2 'SECOND RELIABLE' 3 'THIRD RELIABLE' 4 'FORTH RELIABLE'
                      5 'FIFHT RELIABLE' 6 'SIXHT RELIABLE'/
 INFOCOMM 1 'STRONGLY AGREE' 2 'QUITE AGREE' 3 'NEUTRAL'
          4 'QUITE DISAGREE' 5 'STRONGLY DISAGREE'/
 PECVINFO 1 'LESS THAN 25%'
          2 'FROM 25% TO 50%'
          3 'FROM 50% TO 75%'
          4 'FROM 75% TO 100%'/
 IMCVINFO 1 'VERY IMPORTANT' 2 'IMPORTANT' 3 'MODERATELY IMPORTANT'
          4 'SLIGHTLY IMPORTANT' 5 'UNIMPORTANT'/
 BACVINFO 1 'EXPECT.COST' 2 'EXPECT.BENEFIT' 3 'COST&BEN.' 4 'OTHER'/
 READBASH TO READCABU 1 'R.THOROUGHLY' 2 'R.BRIEFLY' 3 'DO NOT READ'/
 QUALIFIC 1 'ACCOUNTING QUALIFIC.' 2 'OTHER QUALIFICATIONS'/
 UASSTUDY 1 'YES' 2 'NO'/
 CATSTUDY 1 'UNDERGRADUATE' 2 'POSTGRADUATE' 3 'TRAINING PROGRAMS'
          4 'OTHERS'/
 POSITION 1 'TOP MANAGMENT' 2 'MIDDLE MANAGMENT'/
 SECTOR   1 'PROGRAMS&POLICIES S.'
          2 'FINANCIAL SECTOR' 3 'INDUSTIAL SECTOR'
          4 'AGRICULTURAL SECTOR' 5 'ECONOMIC ORGAN. S.'/
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CHAPTER EIGHT

Chapter Eight

Primary Investigation of the Egyptian Unified Accounting System: Descriptive Empirical Findings

8.1 Introduction

8.2 Level of measurement and statistics used to analyse data

8.3 Response rate and the respondents' background factors
- 8.3.1 Response rate
- 8.3.2 The respondents' background factors:
  - 8.3.2.1 Qualifications
  - 8.3.2.2 Studying the Egyptian unified accounting system
  - 8.3.2.3 Managerial position
  - 8.3.2.4 Working sectors
  - 8.3.2.5 Conclusion

8.4 Satisfaction with the structural characteristics of the Egyptian unified accounting system:
- 8.4.1 Objectives
  - 8.4.1.1 Degree to which the system meets its main objectives
  - 8.4.1.2 Respondents' views of the ranking of importance of the different financial statements for serving the purposes of national investment planning and control
  - 8.4.1.3 Respondents' views of the degree of influence of the different financial statements on national investment planning and control

8.4.2 Qualitative characteristics of accounting information

8.4.2.1 Respondents' views of the qualitative characteristics

8.4.2.2 Respondents' views of the ranking of relevance and reliability of the different financial statements for serving the purposes of national investment planning and control

8.4.3 Respondents' views of the effectiveness of standardised accounting definitions of the elements of financial statements

8.4.4 Measurement

8.4.4.1 Percentage of current value accounting information

8.4.4.2 Perceived importance of current value accounting information

8.4.4.3 Perceived monetary value of current value accounting information

8.4.4.4 Bases used by respondents to estimate the monetary value of current value accounting information

8.4.5 Financial reporting

8.4.5.1 Respondents' reading of the annual financial statements

8.4.5.2 Respondents' reading of the annual budget statements

8.4.5.3 Respondents' views of the usefulness of the statement of sources and applications of funds

8.4.5.4 Respondents' views of the usefulness of Form No 6: the quantitative and financial analysis of the capital applications at the investment project level

8.4.5.5 Respondents' views of the usefulness of Form No 6/A: the time distribution of the costs of capital applications

8.5 The most important problems that affect the usefulness of the provided information and the suggested solutions

8.5.1 Structural problems:

8.5.1.1 Objectives

8.5.1.2 Qualitative characteristics of the provided accounting information

8.5.1.3 Elements of financial statements

8.5.1.4 Recognition criteria

8.5.1.5 Measurement criteria

8.5.1.6 Financial reporting

8.5.2 Organisational problems

8.5.3 Environmental problems

8.6 Summary

Chapter Eight

Primary Investigation of the Egyptian Unified Accounting System: Descriptive Empirical Findings

8.1 Introduction

In the previous chapter the author developed the methods for the empirical investigation of the Egyptian unified accounting system (primary investigation - methods). In this chapter, we are going to present and discuss the descriptive results of using these methods (primary investigation - descriptive empirical findings).

The discussion of the background factors of the participating respondents includes the qualifications, the studying of the Egyptian unified accounting system, the managerial position, and the work sector in the Bank.

Descriptive statistics are used to indicate the respondents' degree of satisfaction with the application of the Egyptian unified system in meeting the structural characteristics of the conceptual framework for financial accounting and reporting: objectives, qualitative characteristics of accounting information, elements of financial statements, measurement, and financial reporting.

Finally, respondents' views regarding the most important problems that affect the usefulness of the information provided as a result of the application of the Egyptian unified accounting system with the suggested solutions will be summarised.

8.2 Level of measurement and statistics used to analyse data

It is necessary to employ some criteria for choosing among alternative statistics. One of the most important criterion is the level of measurement. Here, four levels of measurement will be summarised - nominal, ordinal, interval and ratio - and an example will be given of the appropriate descriptive statistics that are permitted with each level (measure of central tendency). Three points will be summarised: meaning in verbal terms, the formal properties of the level of measurement, and the appropriate measure of central tendency.

In verbal terms, Emory stated that "When we use a nominal scale we partition a set into subsets or categories that are mutually exclusive and collectively exhaustive... The ordinal scales include the uniqueness characteristics of the nominal scale plus an indicator of order... The use of an ordinal scale implies a statement of 'greater that' or 'less than' (an equality statement is also acceptable) without our being able to state how much greater or less... The interval scale has the powers of nominal and ordinal scales plus one additional strength - it incorporates the concept of equality of intervals... The ratio scales incorporate all of the powers of the previous ones plus the concept of absolute zero or origin. The ratio scale represents the actual amounts of a variable" (1).

As to the formal properties of each level of measurement, Siegel stated that "The only relation involved in nominal scale is that of equivalence. That is, the members of any one subclass must be equivalent in the property being scaled... The fundamental difference between a nominal and an ordinal scale is that the ordinal scale incorporates not only the relation of the equivalence but also the relation 'greater than' (or'less than')... In constructing an interval role, one must not only be able to specify equivalences, as

in a nominal scale, and greater than (order) relations, as in an ordinal scale, but one must also be able to specify the ratio of any two intervals... Ratio scales are achieved only when all four of these relations are operationally possible to attain; (a) equivalance, (b) greater than, (c) known ratio of any two intervals and (d) known ratio of any two scale values" (2).

Concerning the appropriate measure of central tendency, Emory stated that "In nominal scale, the only quantification is the number count of cases in each subset. Therefore, we are restricted to the use of the mode as the measure of central tendency... Because the numbers of the ordinal scale have only a rank meaning, the appropriate measure of central tendency is the median... More powerful tools can be used with interval scale... The arithmetic mean is the appropriate measure of central tendency... Any measure of central tendency mentioned to this point is usable with ratio scale... Geometric mean can be used as measure of central tendency, and coefficients of variation may also be calculated" (3).

From the above, the following can be noted:

A Any scale includes the uniqueness characteristics of the previous scale (or scales) in addition to its own characteristics. For instance, the ordinal scale includes the characteristics of the nominal scale (equivalence) plus its own characteristics (an indicator of order). Ratio scale includes the characteristics of the ordinal scale (an indicator of order), and the characteristics of the interval scale (known ratio of any two intervals) plus its own characteristics (known ratio of any two scale values). In other words, it can be said that the different levels of measurement are cumulatively characterised.

B This cumulative character of the different levels of measurement has been reflected in using the alternative statistics. For instance, in nominal scale, we are restricted to the use of the mode as the measure of central tendency. However, in ordinal scale we can use the median in addition to the mode (as a measure of central tendency in the nominal scale). Also, in interval scale we can use the arithmetic mean as a measure of central tendency in addition to the median (as an appropriate measure of central tendency in ordinal scale) and the mode (as an appropriate measure of central tendency in nominal scale). And in ratio scale we can use any measure of central tendency.

C In other words, the power of the level of measurement is related to its cumulative characteristics. Nominal scales are the least powerful of the four types and ratio scales are the most powerful.

After this brief introduction about the different levels of measurement, the author is going to determine the levels of measurement of the data collected through the questionnaire. As mentioned before, this determination is a necessary criterion for choosing among alternative statistics. The results of adopting this criterion are shown in Table 8.1. The Table consists of three columns; in the first column, we present "what is measured" (output of each question); in the second column, we determine the levels of measurement; finally, we determine some of the statistics used to analyse data (Descriptive ones). The other statistics will be mentioned during the analysis.

The descriptive statistics can be grouped into three categories according to what they quantify: central tendency, dispersion, and shape.

TABLE 8.1: Levels of measurement in the questionnaire and statistics used to analyse data

Question Number	What is measured	Level of measurement	Statistics used to analyse data
Q.No 1	Rating of the usefulness of provided information for planning and controlling investment	Ordinal	Questions from 1 to 6 Measures of Central tendency - Median - Mode - Mean (to be used with caution). Measures of Dispersion - Range - Variance and standard deviation (to be used with caution). Measures of Shape - Skewness - Kurtosis.
Q.No 2	Ranking of importance of the different financial statements in serving national investment planning and control.	Ordinal	
Q.No 3	Rating of degree of influence that each financial statement has in relation to national investment decisions.	Ordinal	
Q.No 4	Rating of the qualitative characteristics of the provided information.	Ordinal	
Q.No 5	Ranking of relevance and reliability of the different financial statements.	Ordinal	
Q.No 6	Rating of the effectiveness of the different definitions of the elements of the financial statements.	Ordinal	

TABLE 8.1: Levels of measurement in the questionnaire and statistics used to analyse data (continued/2.....)

Question Number	What is measured	Level of measurement	Statistics used to analyse data
Q.No 7	The percentage of the annual financial reports which succeeded in declaring the current value accounting information.	Ratio	Mean, Median and Mode. Variance, standard deviation and range. Skewness and Kurtosis.
Q.No 8	Rating of the importance of current value accounting information.	Ordinal	As questions from 1 to 6.
Q.No 9	The monetary value of current value accounting information.	Ratio	As question 7
Q.No 10	The bases for determing the monetary value of current value accounting information.	Nominal	The mode and frequency counts.
Q.No 11	Rating of the pattern of reading of the different financial statements.	Ordinal	Statistics used to analyse questions from 11 to 15 will be as those used in questions from 1 to 6.
Q.No 12	Rating of the pattern of reading of the different budget statements.	Ordinal	
Q.No 13	Rating of the usefulness of the statement of sources and applications of funds	Ordinal	

TABLE 8.1: Levels of measurement in the questionnaire and statistics used to analyse data (continued/3.....)

Question Number	What is measured	Level of measurement	Statistics used to analyse data
Q.No 14	Rating of the usefulness of Form No 6: the quantitative and financial analysis of the capital applications.	Ordinal	
Q.No 15	Rating of the usefulnees of Form No 6/A: the time distribution of the cost of capital applications.	Ordinal	
Q.No 16 and 17	Determination of the most important problems that affect the usefulness of the provided information and the suggested solutions.	Nominal	Frequency counts
Q.No 18	- Qualifications. - Studying the Egyptian unified accounting system. - Management position. - Working sectors.	Nominal	Frequency counts

(i) The measure of central tendency: Since most of the collected data through the questionnaire is measured in the ordinal level, the author is going to concentrate the discussion on this level of measurement. As mentioned before, for ordinal data the median is a good measure of central tendency because it uses the rank order information. The mode can also be used for data measured at ordinal level. As to the mean, Siegel stated that "When only the rank order of scores is known, means and standard deviations found on the scores themselves are in error to the extent that the successive intervals (distances between classes) on the scale are not equal" (4). But what is the situation when the distances between classes are equal? Only at this point, the mean can be used. And it was mentioned before that an equality statement is acceptable for data measured at ordinal level. Therefore, when the mean is used for data measured at ordinal level, it must be used with caution. Meanwhile, the author is going to calculate the mean, not to use it, but to see how the three measures of central tendency are close in value. If they give close estimates, the distribution of the collected data will be symmetric.

(ii) The measure of dispersion: "A quick and useful index of dispersion, is the range. Since the range is computed only from minimum and maximum values, it is sensitive to extremes" (5). In our case, there is no possibility of severe extremes because the responses are restricted to the limits of each scale. Therefore, the range can be used. "But it does not take into account the distribution of observations between the maximum and minimum. Commonly used measures of variation that are based on all observations are the variance and standard deviation" (6). However, as the calculation of these two measures are based on the calculated mean, they must be used with caution (as the mean).

(iii) The measure of shape; "When most observations are concentrated near the middle of the distribution and the frequency of observations decreases as the distance from the central concentration increases, such distributions are often described as 'bell-shaped' or normal distribution. The normal distribution is symmetric: when it is folded in the centre, the two sides are identical" (7).

"A distribution that is not symmetric but has more cases towards one end of the distribution than the other is called skewed. If the tail is toward larger values, the distribution is positively skewed or skewed to the right. If the tail is toward smaller values, the distribution is negatively skewed or skewed to the left" (8).

"Another characteristic of the form of a distribution is called kurtosis, the extent to which observations cluster around a central point. If cases within a distribution cluster more than those in the normal distribution (that is, the distribution is more peaked) the distribution has positive values for kurtosis. If cases cluster less than in the normal distribution (that is, it is flatter), the distribution has negative values for kurtosis" (9).

To examine whether the collected data approaches normal distribution, the skewness and kurtosis will be computed. "As for samples from a normal distribution, measures of skewness and kurtosis typically will not be exactly zero but will fluctuate about zero because of sampling variation" (10).

8.3 Response rate and the respondents background factors

8.3.1 Response rate

In our research, a complete coverage survey was undertaken. The actual total number of the technical staff in the National Investment Bank is 75, distributed among the different main sectors in the Bank. The author has succeeded in interviewing 64 of the total population which represents a response rate of 85.3%. This response rate seems to be reasonable and high. The continued support of the Chairman of the Bank and the different methods of approaching the respondents, discussed in the previous chapter, have contributed towards increasing the response rate.

The eleven non-respondents representing 14.7% of our population could not respond because of illness (two cases), refusal to co-operate (five cases), inaccessibility (four cases). They were distributed between top management (two cases) and middle management (nine cases). Therefore, the non-response rate in the top management levels was 10.5% (two cases from nineteen cases) compared with 16% in the middle management level (nine cases from fifty-six). No consistent pattern of non-response was discovered because the two rates of non-response were close to each other.

Table 8.2 shows the responses by sector and their percentages. From the Table, it can be noticed that the highest response rate was achieved in the Programmes and Policies Sector (92%) and the lowest one was in the Financial Sector (72.7%).

TABLE 8.2: Response rate by sector

Sector	Total Technical Staff			Interviewed Staff			Response Rate %		
	Top Man.	Middle Man.	Total	Top Man.	Middle Man.	Total	Top Man.	Middle Man.	Total
Programmes and Policies Sector	7	18	25	7	16	23	100	88.8	92
Project Sector									
Industrial Sector	3	8	11	3	6	9	100	75	81.8
Agricultural Sector	3	13	16	3	11	14	100	84.6	87.5
Economic Organisation Sector	3	9	12	2	8	10	66.6	88.8	83.3
Financial Sector	3	8	11	2	6	8	66.6	75	72.7
TOTAL	19	56	75	17	47	64	89.4	83.9	85.3

8.3.2 The respondents' background factors

Information was gathered to provide means of classifying respondents according to qualifications, categories (type of used courses) of studying the Egyptian unified accounting system, the managerial position and the work sector in the Bank. The following sections discuss each of their background factors.

8.3.2.1 Qualifications

The respondents were classified into two main groups: respondents with accounting qualifications and respondents with other qualifications. The distribution of the second group is shown in Table 8.3.

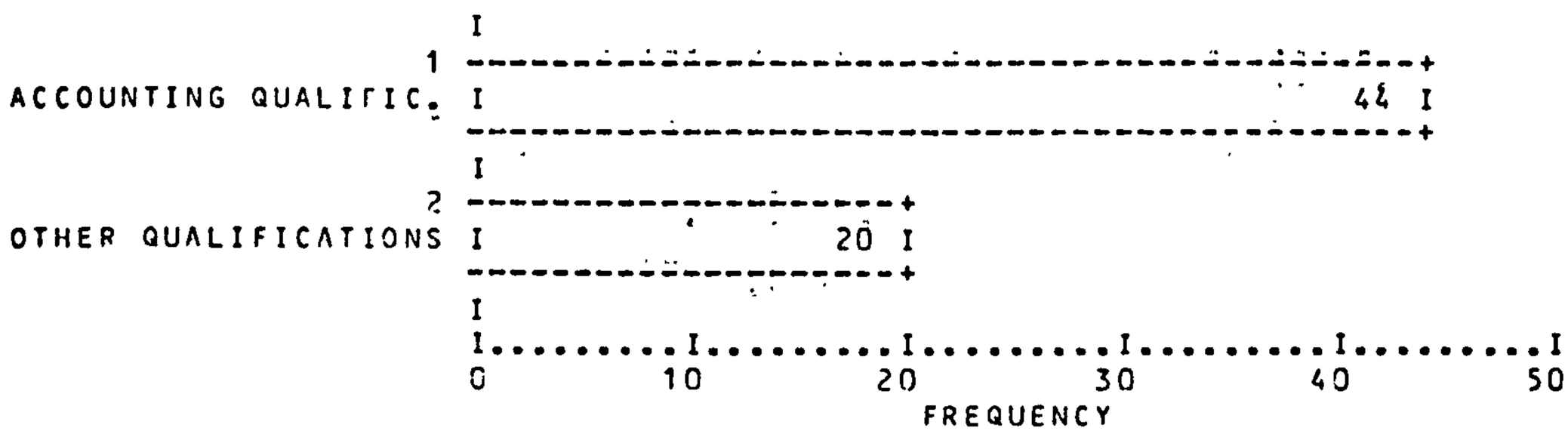
TABLE 8.3: Distribution of the respondents with other qualifications

Sector \ Qualifications	Economic Science	Agricultural Science	Engineering Science	Law Science	Literature Science
Programmes & Policies Sector	3	4	1	-	-
Financial Sector	-	-	-	-	-
Project Sector					
Industrial Sector	-	-	1	-	-
Agricultural Sector	3	2	1	-	-
Economic Organisations	2	-	1	1	1
Total (20 cases)	8	6	4	1	1

The classification into accounting and other qualifications is shown in Table 8.4. As can be seen from this Table, 68.8% of our respondents have accounting qualifications, and the rest (31.2%) have other qualifications. In other words, the dominant group is of respondents with accounting qualifications.

TABLE 8.4
QUALIFICATIONS

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
ACCOUNTING QUALIFIC.	1	44	68.8	68.8	68.8
OTHER QUALIFICATIONS	2	20	31.3	31.3	100.0
	TOTAL	64	100.0	100.0	



VALID CASES 64 MISSING CASES 0

8.3.2.2 Studying the Egyptian unified accounting system

We have categorised the type of courses used for studying the system into: Undergraduate, Postgraduate, Training programmes, and others. By the 'others' category we mean the self efforts to study the system without attending any course or programme.

The four categories are shown in Table 8.5. As can be seen from this Table, 48.4% of our respondents have studied the system at the undergraduate degree level.

8.3.2.3 Managerial position

By this background factor, we intend to classify the respondents according to their years of work experience. Respondents who are classified under the top management level, had more than fifteen years of work experience. The other group of repondents had from five to fifteen years of work experience.

The classification is shown in Table 8.6. As can be seen from this Table, the middle management (experience from 5 - 15 years) represents the dominant category (73.4%) among our respondents.

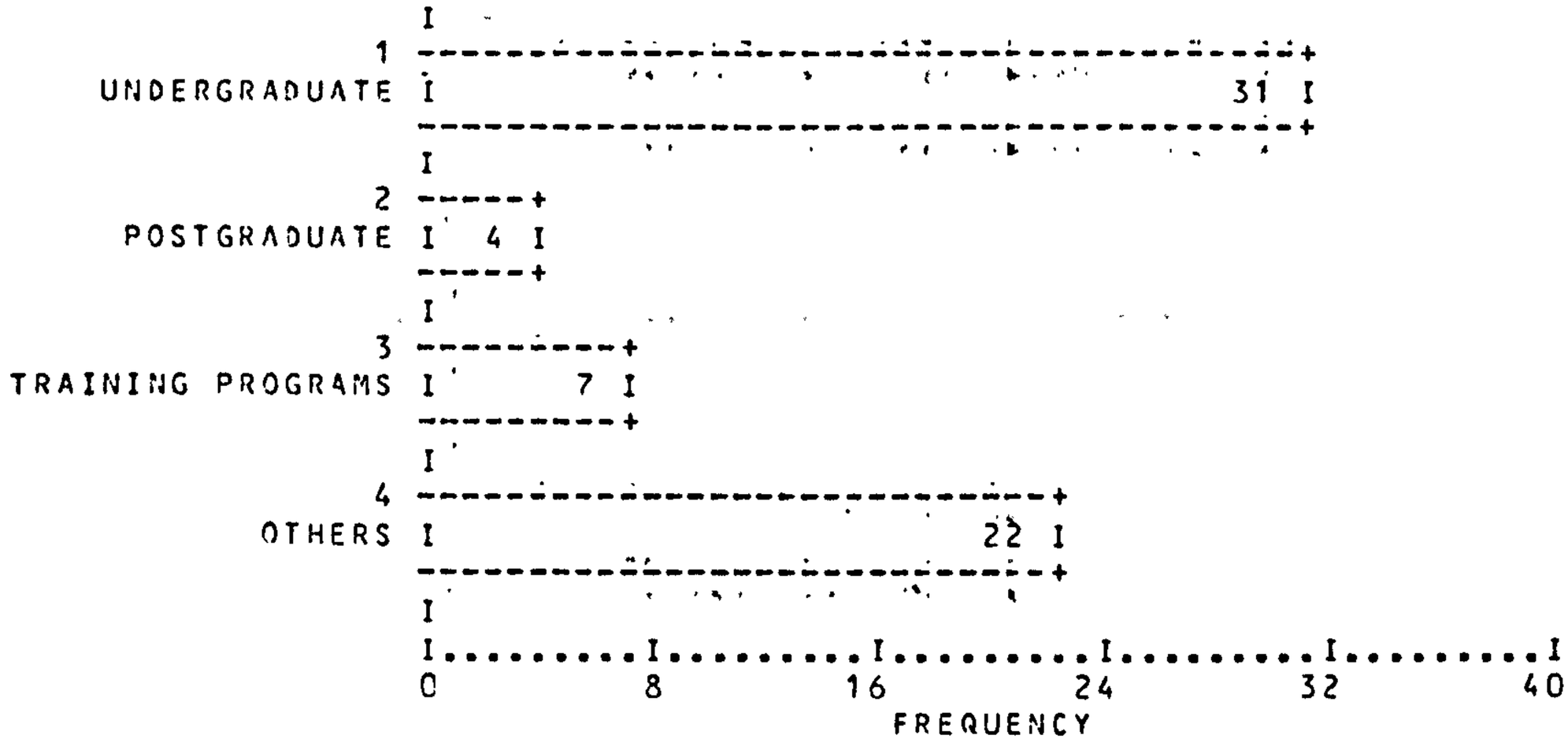
8.3.2.4 Working sectors

The distribution of the respondents among the different main sectors in the bank is shown in Table 8.7. From this Table, it can be seen that more than one third (35.9%) of our respondents came from the Programmes and Policies Sector.

TABLE 8.5

CATEGORIES OF STUDYING THE EGYPTIAN UNIFIED ACCOUNTING SYSTEM

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
UNDERGRADUATE	1	31	48.4	48.4	48.4
POSTGRADUATE	2	4	6.3	6.3	54.7
TRAINING PROGRAMS	3	7	10.9	10.9	65.6
OTHERS	4	22	34.4	34.4	100.0
	TOTAL	64	100.0	100.0	



VALID CASES 64 MISSING CASES 0

TABLE 8.6
MANAGEMENT POSITION

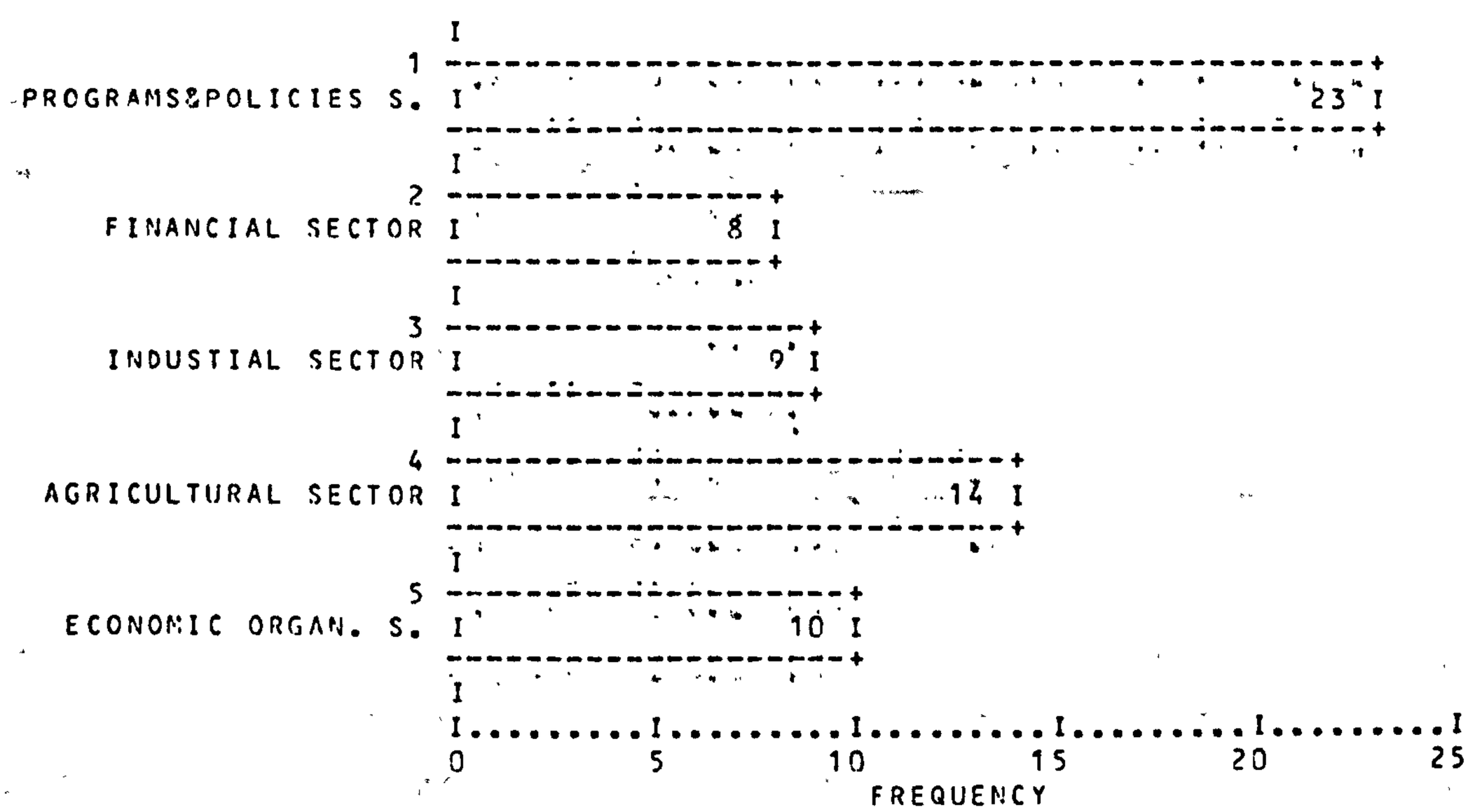
VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
TOP MANAGMENT	1	17	26.6	26.6	26.6
MIDDLE MANAGMENT	2	47	73.4	73.4	100.0
	TOTAL	64	100.0	100.0	

```
                    I
                  1 ----------------+
     TOP MANAGMENT  I             17 I
                    ----------------+
                    I
                  2 ------------------------------------------+
  MIDDLE MANAGMENT  I                                       47 I
                    ------------------------------------------+
                    I
                    I.........I.........I.........I.........I.........I
                    0         10        20        30        40        50
                                      FREQUENCY
```

VALID CASES 64 MISSING CASES 0

TABLE 8.7.
WORKING SECTOR

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
PROGRAMS&POLICIES S.	1	23	35.9	35.9	35.9
FINANCIAL SECTOR	2	8	12.5	12.5	48.4
INDUSTIAL SECTOR	3	9	14.1	14.1	62.5
AGRICULTURAL SECTOR	4	14	21.9	21.9	84.4
ECONOMIC ORGAN. S.	5	10	15.6	15.6	100.0
	TOTAL	64	100.0	100.0	



VALID CASES 64 MISSING CASES 0

8.3.2.5 Conclusion

In conclusion; 68.8% of our respondents have accounting qualifications; 48.4% have studied the Egyptian Accounting System at the undergraduate degree level; 73.4% of them had from five to fifteen years of work experience; finally 35.9% of our respondents came from the Programmes and Policies Sector.

8.4 Satisfaction with the structural characteristics of the Egyptian unified accounting system

8.4.1 Objectives

8.4.1.1 Degree to which the system meets its main objectives

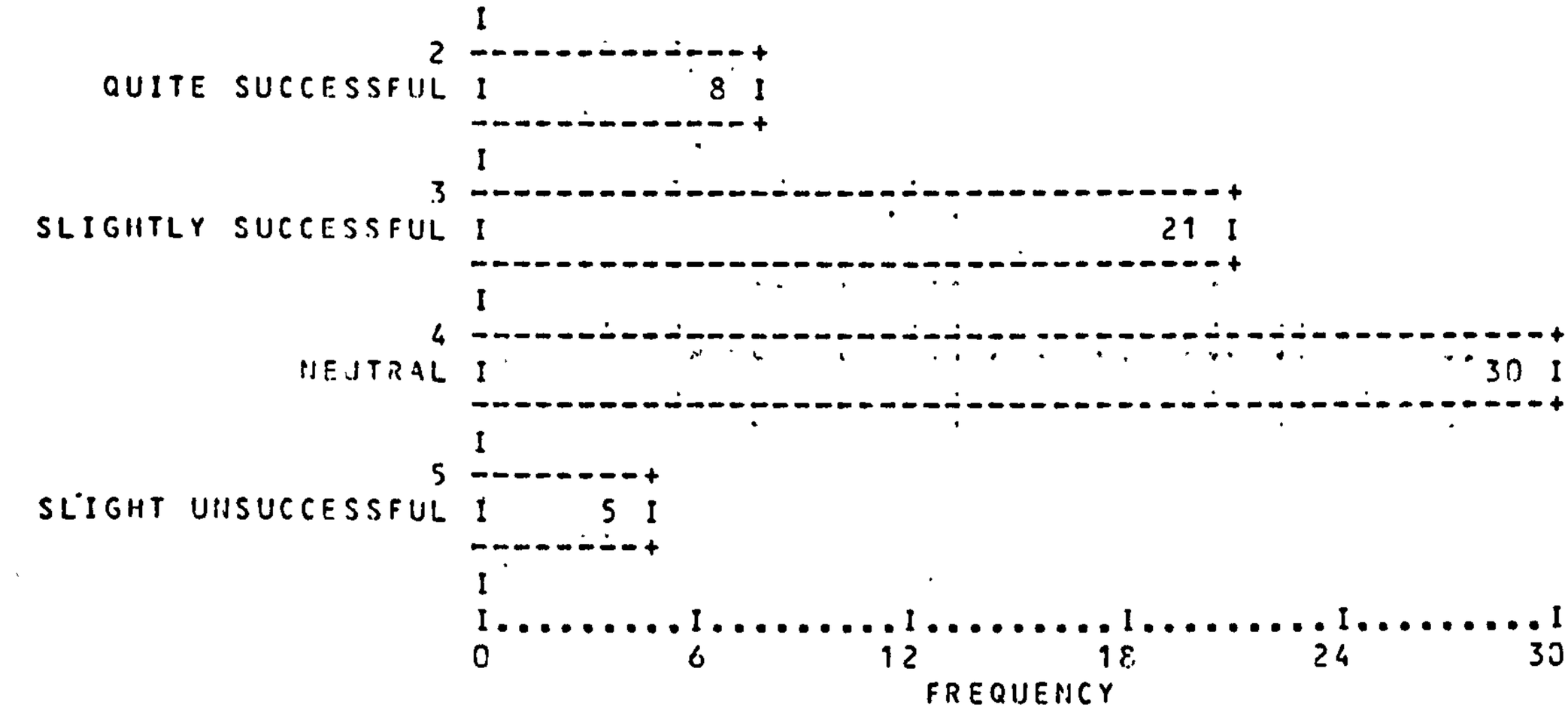
Interviewees were asked to rate on a seven point scale how well the information provided, as a result of the application of the system, meets its predetermined main objectives, namely, to provide information useful for planning national investment, and to provide information useful for controlling national investment. On the seven point scale, 1 was defined as very well (very successful), 7 as not at all (very unsuccessful), and 4 being neutral.

The views expressed by interviewees are summarised in Tables 8.8 and 8.9. The first Table represents the evaluation of the information provided for planning national investment. The second Table presents the evaluation of the information provided for controlling national investment. The descriptive statistics and the bar charts are presented in these two Tables. From which, the following results can be summarised:

TABLE 8.8

Providing Information For Planning National Investment

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
QUITE SUCCESSFUL	2	8	12.5	12.5	12.5
SLIGHTLY SUCCESSFUL	3	21	32.8	32.8	45.3
NEUTRAL	4	30	46.9	46.9	92.2
SLIGHT UNSUCCESSFUL	5	5	7.8	7.8	100.0
	TOTAL	64	100.0	100.0	



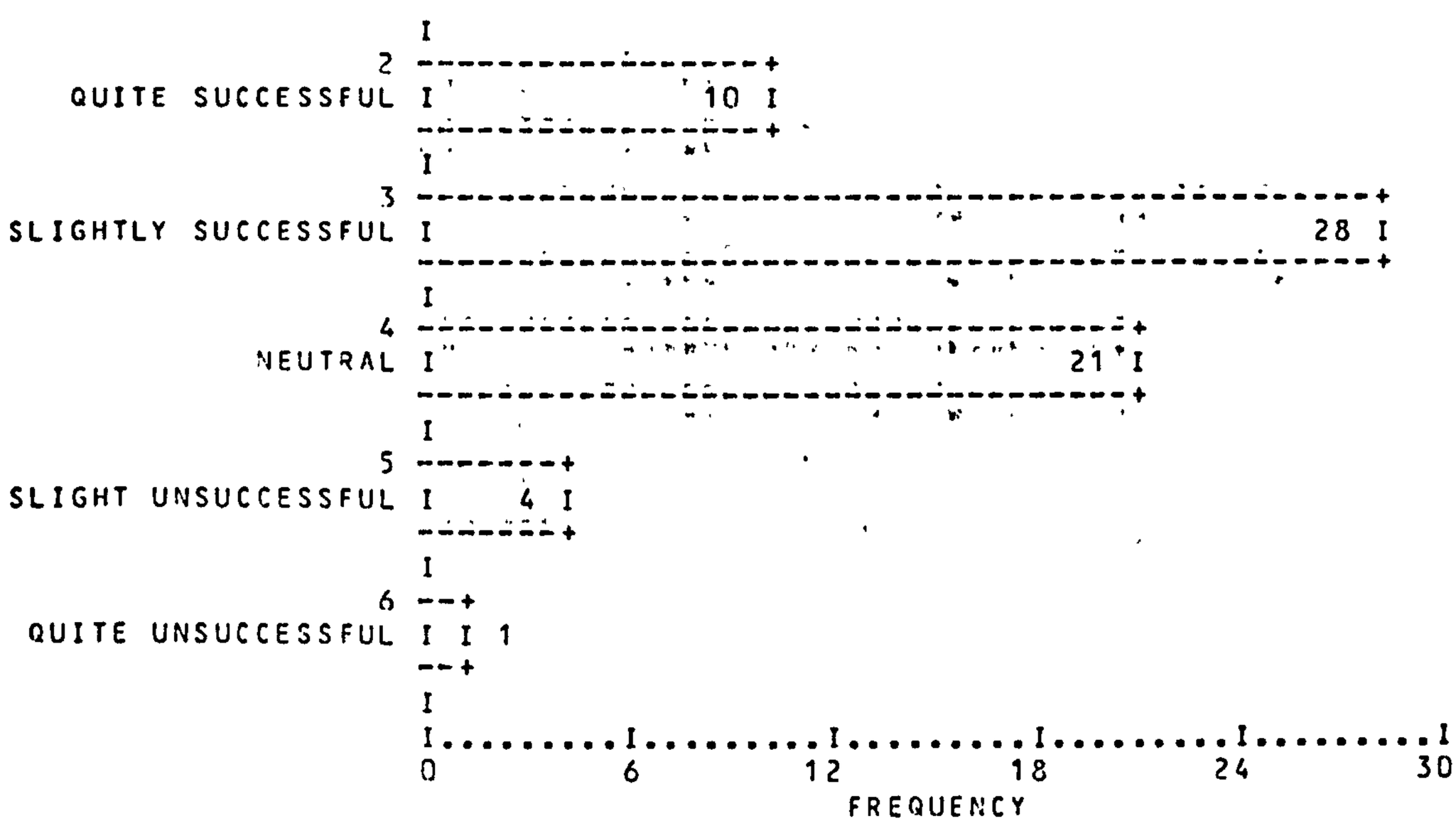
MEAN	3.500	STD ERR	.102	MEDIAN	4.000
MODE	4.000	STD DEV	.816	VARIANCE	.667
KURTOSIS	-.438	S E KURT	1.973	SKEWNESS	-.271
S E SKEW	.299	RANGE	3.000	MINIMUM	2.000
MAXIMUM	5.000	SUM	224.000		

VALID CASES 64 MISSING CASES 0

TABLE 8.9.

Providing Information For Controlling National Investment

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
QUITE SUCCESSFUL	2	10	15.6	15.6	15.6
SLIGHTLY SUCCESSFUL	3	28	43.8	43.8	59.4
NEUTRAL	4	21	32.8	32.8	92.2
SLIGHT UNSUCCESSFUL	5	4	6.3	6.3	98.4
QUITE UNSUCCESSFUL	6	1	1.6	1.6	100.0
	TOTAL	64	100.0	100.0	



MEAN	3.344	STD ERR	.110	MEDIAN	3.000
MODE	3.000	STD DEV	.877	VARIANCE	.769
KURTOSIS	.301	S E KURT	1.973	SKEWNESS	.424
S E SKEW	.299	RANGE	4.000	MINIMUM	2.000
MAXIMUM	6.000	SUM	214.000		

VALID CASES 64 MISSING CASES 0

A As to the provided information's usefulness for planning national investment: the median score is 4 (neutral) and the Mode is also 4 (the mean is 3.5). Meanwhile, the usefulness of information for controlling national investment is rated 3 as median score (slightly successful). The mode is also 3 (the mean is 3.344). Therefore, the usefulness of information for controlling national investment was considered to be slightly more successful than its counterpart's usefulness for planning national investment. The slightly higher rating given to the provision of information useful for control is, perhaps, to be expected in view of the usual emphasis placed on the control objective because the system was developed by control organisation (The Central Auditing Agency) and The Standing Committee on Clarification and Amendment of the System belongs to the same organisation.

B The replies demonstrated some measures of agreement: 80% of the replies rated the usefulness of information for planning at points 3 and 4 (slightly successful and neutral). Meanwhile, 77% of the replies rated the usefulness of information for controlling at the same two points. In other words, there was little variation in the responses. In addition, the 1 point (very successful) and 7 point (very unsuccessful) were not used in any response.

C The values of the median, mode and mean are close to each other. In addition, the kurtosis values are (-.438 and .301) and the skewness values are (-.271 and .424). In other words, they fluctuate about zero. Therefore, the distribution of these responses is almost normal.

8.4.1.2 Respondents' views of the ranking of importance of the different financial statements for serving the purposes of national investment planning and control

The interviewees were instructed to rank the importance of the different financial statements on six points. On this ranking, 1 meaning most important, and 6 meaning sixth or least important. The statements were ranked according to two purposes, namely, serving national investment planning and control.

The rankings determined by interviewees are presented in two groups of Tables (in the supplement to this chapter):
The first group (Tables from S.8.1 to S.8.6). In these Tables, the ranking of importance of each of the six financial statements is presented (planning purpose).
The second group (Tables from S.8.7 to S.8.12). These Tables show the ranking of importance of each of the six financial statements (control purpose).
Both Tables 8.10 and 8.11 present a summary of the results. In addition, Table 8.12 presents a comparison of the two results; planning and control. From these Tables, we can summarise the following results:

A As to the ranking of importance for serving the purpose of national investment planning. Table 8.10 indicates the following ranking according to the agreement of the three measures of central tendency:
- Balance Sheet (second most important);
- Statement of sources and applications of funds (most important);
- Current operations account (fourth most important);
- The production and trading account (fifth most important);
- The profit and loss account (sixth most important);
- The cash flow statement (third most important).

TABLE 8.10: Respondents' views of the ranking of importance of different financial statements for serving national investment planning.

Financial Statements	Ranking of Importance							Central Tendency Measurement		
	1	2	3	4	5	6	Total	Median	Mode	Mean
	%	%	%	%	%	%	%			
The Balance Sheet	23.4	53.1	23.4	-	-	-	100	2	2	2
Statement of sources and applications of funds	73.4	25	1.6	-	-	-	100	1	1	1.281
The current operation account	-	-	14.1	78.1	7.8	-	100	4	4	3.938
The production and trading account	-	-	-	10.9	78.1	10.9	100	5	5	5
The profit and loss account	-	-	1.6	-	12.5	85.9	100	6	6	5.828
The cash flow statement	3.1	20.3	60.9	12.5	-	3.1	100	3	3	2.953

TABLE 8.11: Respondents' views of the ranking of importance of different financial statements for serving national investment control.

Financial Statements	Rank of Importance							Central Tendency Measurement		
	1	2	3	4	5	6	Total	Median	Mode	Mean
	%	%	%	%	%	%	%			
The Balance Sheet	18.8	64.1	17.2	-	-	-	100	2	2	1.984
Statement of sources and applications of funds funds	79.7	17.2	3.1	-	-	-	100	1	1	1.234
The current operation account	-	-	12.5	79.7	6.3	1.6	100	4	4	3.969
The production and trading account	-	-	-	9.4	75	15.6	100	5	5	5.063
The profit and loss account	-	-	1.6	-	18.8	79.9	100	6	6	5.766
The cash flow statement	1.6	18.8	67.2	9.4	-	3.1	100	3	3	2.969

TABLE 8.12: Respondents' views of the ranking of importance of different F. Statements for serving National investment planning and control

	Planning and Control	Rank of Importance													
		1		2		3		4		5		6		Total	
		F	%	F	%	F	%	F	%	F	%	F	%	F	%
The Balance Sheet	Planning	15	23.4	34	53.1	15	23.4	-	-	-	-	-	-	64	100
	Control	12	18.8	41	64.1	11	17.2	-	-	-	-	-	-	64	100
Statement of sources and applications of funds	Planning	47	73.4	16	25	1	1.6	-	-	-	-	-	-	64	100
	Control	51	79.7	11	17.2	2	3.1	-	-	-	-	-	-	64	100
The current operation account	Planning	-	-	-	-	9	14.1	50	78.1	5	7.8	-	-	64	100
	Control	-	-	-	-	8	12.5	51	79.7	4	6.3	1	11.6	64	100
The production and trading account	Planning	-	-	-	-	-	-	7	10.9	50	78.1	7	10.9	64	100
	Control	-	-	-	-	-	-	6	9.4	48	75	10	15.6	64	100
The profit and loss account	Planning	-	-	-	-	1	1.6	-	-	8	12.5	55	85.9	64	100
	Control	-	-	-	-	1	1.6	-	-	12	18.8	51	79.9	64	100
The cash flow statement	Planning	2	3.1	13	20.3	39	60.9	8	12.5	-	-	2	3.1	64	100
	Control	1	1.6	12	18.8	43	67.2	6	9.4	-	-	2	3.1	64	100

Table 8.11 indicates the same ranking of importance concerning serving the purpose of national investment control. Meanwhile, we notice from Table 8.12 that 47 respondents (73.4%) considered the statement of sources and applications of funds the most important for serving national investment planning compared with 51 respondents (79.7%) who considered it the most important for serving national investment control. In other words, the statement was considered to be slightly more important for control purpose than for planning purpose. Also, 34 respondents (53.1%) considered the balance sheet the second most important for serving planning purpose compared with 41 respondents (64.1%) who gave the same ranking for serving control purpose. In addition, 39 respondents (60.9%) considered the cash flow statement the third most important for serving planning purpose compared with 43 respondents (67.2%) who gave the same ranking for serving control purpose. In other words, the slightly higher rating given to the usefulness of information for control in question 1 (previous section), has been confirmed by the results in this question because the first, second and third most important financial statements were considered to be slightly more important for control purpose than for planning purpose.

B The replies demonstrated some measures of agreement with respect to the investment planning purpose:
53.1% of the respondents ranked the balance sheet as the second most important statement (Table S.8.1), 73.4% of the respondents ranked the statement of sources and applications of funds as the most important statement (Table S.8.2), 78.1% of the respondents ranked the current operations account as the fourth most important statement (Table S.8.3), 78.1% of the respondents ranked the production and trading accounting as the fifth most important statement (Table S.8.4),

85.9% of the respondents ranked the profit and loss account as the sixth most important statement (Table S.8.5), and 60.9% of the respondents ranked the cash flow statement as the third most important statement for planning purpose (Table S.8.6).

Concerning control purpose, 64.1% of the respondents ranked the balance sheet as the second most important statement (Table S .8.7), 79.7% of the respondents ranked the statement of sources and applications of funds as the most important statement (Table S.8.8), 79.7% of the respondents ranked the current operation account as the fourth most important statement (Table S.8.9), 75% of the respondents ranked the production and trading account as the fifth most important statement (Table S.8.10), 79.7% of the respondents ranked the profit and loss account as the sixth most important statement (Table S.8.11), and 67.2% of the respondents ranked the cash flow statement as the third most important statement (Table S.8.12).

C Both Tables 8.10 and 8.11 indicate that the observed median, mode and mean are close in value. Therefore, the distribution is almost symmetric.

It was mentioned in Chapter Six how the different financial statements provide meaningful information for serving the purposes of national investment planning and control. According to the previous analysis, the results in this section concerning the ranking of importance indicate a reasonable level of understanding of the objectives of the different financial statements by our interviewees.

8.4.1.3 Respondents' views of the degree of influence of the different financial statements on national investment planning and control

The interviewees were asked to rate the degree of influence of the different financial statements on a five point scale. On this rating, 1 meaning maximum influence, 2 meaning considerable influence, 3 meaning moderate influence, 4 meaning slight influence, and 5 meaning no influence. The statements were rated according to two purposes, namely, serving national investment planning and control.

The ratings determined by interviewees are presented in two groups of Tables (in the supplement to this chapter):
The first group (Tables from S.8.13 to S.8.18). In these Tables, the degree of influence of each of the six financial statements is summarised (planning investment decisions).
The second group (Tables from S.8.19 to S.8.24). These Tables show the degree of influence of each of the six financial statements (control investment decisions).
Both Tables 8.13 and 8.14 present a summary of the results. In addition, Table 8.15 presents a comparison of the two results; planning and control. From these Tables, the following can be noted:

A As to the degree of influence on national investment planning decisions, Table 8.13 indicates the following ranking. This ranking is based on points scores (the sum) attributed to respondents rating to each of the six financial statements:
- The balance sheet (second most influential);
- Statement of sources and applications of funds (most influential);
- The current operations account (fourth most influential);
- The production and trading account (fifth most influential);
- The profit and loss account (sixth most influential);
- The cash flow statement (third most influential).

TABLE 8.13: Respondents' view on the degree of influence of the different financial statements on national investment planning.

Financial Statements	Degree of Influence						Central Tendency			Sum	Rank-ing
	Maxi	Con	Mod	Slght	None	Total	Median	Mode	Mean		
	1	2	3	4	5						
	%	%	%	%	%						
The Balance Sheet	51.6	43.8	4.7	-	-	100	1	1	1.531	98	2
Statement of sources and applications of funds	79.7	20.3	-	-	-	100	1	1	1.203	77	1
The current operation account	-	21.9	71.9	6.3	-	100	3	3	2.844	182	4
The production and trading account	-	15.6	57.8	23.4	3.1	100	3	3	3.141	201	5
The profit and loss account	-	14.1	51.6	31.3	3.1	100	3	3	3.234	207	6
The cash flow statement	21.9	51.6	25	1.6	-	100	2	2	2.063	132	3

TABLE 8.14: Respondents' view on the degree of influence of the different financial statements on national investment control.

Financial Statements	Degree of Influence						Central Tendency			Sum	Ranking
	Maxi	Con	Maxi	Slght	None	Total	Median	Mode	Mean		
	1	2	3	4	5						
	%	%	%	%	%	%					
The Balance Sheet	46.9	48.4	4.7	-	-	100	2	2	1.578	101	2
Statement of sources and applications of funds	78.1	20.3	1.6	-	-	100	1	1	1.234	79	1
The current operation account	-	23.4	70.3	6.3	-	100	3	3	2.828	181	4
The production and trading account	-	17.2	54.7	25	3.1	100	3	3	3.141	201	5
The profit and loss account	-	15.6	51.6	29.7	3.1	100	3	3	3.203	205	6
The cash flow statement	23.4	46.9	28.1	1.6	-	100	2	2	2.078	133	3

TABLE 8.15: Respondents' views of the degree of influence of the different financial statements on national investment planning and control.

Financial Statements	Planning and Control	Degree of Influence												Sum	Ranking
		Maxi.		Con.		Mod.		Slight		None		Total			
		1		2		3		4		5					
		F	%	F	%	F	%	F	%	F	%	F	%		
The Balance Sheet	Planning	33	51.6	28	43.8	3	4.7	-	-	-	-	64	100	98	2
	Control	30	46.9	31	48.4	3	4.7	-	-	-	-	64	100	101	2
Statement of sources and applications of funds	Planning	51	79.7	13	20.3	-	-	-	-	-	-	64	100	77	1
	Control	50	78.1	13	20.3	1	1.6	-	-	-	-	64	100	79	1
The current operation account	Planning	-	-	14	21.9	46	71.9	4	6.3	-	-	64	100	182	4
	Control	-	-	15	23.4	45	70.3	4	6.3	-	-	64	100	181	4
The production and trading account.	Planning	-	-	10	15.6	37	57.8	15	23.4	2	3.1	64	100	201	5
	Control	-	-	11	17.2	35	54.7	16	25	2	3.1	64	100	201	5
The profit and loss account	Planning	-	-	9	14.1	33	51.6	20	31.3	2	3.1	64	100	207	6
	Control	-	-	10	15.6	33	51.6	19	29.7	2	3.1	64	100	205	6
The cash flow statement	Planning	14	21.9	33	51.6	16	25	1	1.6	-	-	64	100	132	3
	Control	15	23.4	30	46.9	18	28.1	1	1.6	-	-	64	100	133	3

Table 8.14 indicates the same ranking of the degree of influence on national investment control decisions. Meanwhile, we can notice from Table 8.15 that there are slight differences (ranged from 0 to 3 point scores) between the point scores (the sum) attributed to the influence of the different financial statements on national investment planning decisions and control decisions.

B The replies demonstrated some measures of agreement regarding the effects upon national investment planning decisions:

95.3% of the respondents considered that the balance sheet has a maximum and considerable influence (Table S.8.13), 100% of the respondents considered that the statement of sources and applications of funds has a maximum and considerable influence (Table S.8.14), 93.8% of the respondents considered that the current operations account has a considerable and moderate influence (Table S.8.15), 81.2% of the respondents considered that the production and trading account has a slight and moderate influence (Table S.8.16), 82.8% of the respondents considered that the profit and loss account has a moderate and slight influence (Table S.8.17), 76.5% of the respondents considered that the cash flow statement has a considerable and moderate influence on planning decisions (Table S.8.18).

Concerning the influence on national investment control decisions,95.3% of the respondents considered that the balance sheet has a maximum and considerable influence (Table S.8.19), 98.4% of the respondents considered that the statement of sources and applications of funds has a maximum and considerable influence (Table S.8.20), 93.8% of the respondents considered that the current operations account has a considerable and moderate influence (Table S.8.21), 79.6% of the respondents

considered that the production and trading account has a moderate and slight influence (Table S.8.22), 81.3% of the respondents considered that the profit and loss account has a moderate and slight influence (Table S.8.23), and 75% of the respondents considered that the cash flow statement has a considerable and moderate influence on control decisions (Table S.8.24).

C Both Tables 8.13 and 8.14 indicate that the observed median, mode and mean are close in value. Also the values of kurtosis and skewness fluctuate about zero. Therefore, the distribution is almost symmetric.

At the end of the objectives section, we must repeat that the usefulness of information for controlling national investment was considered to be slightly more successful (and more important) than those for planning national investment.

8.4.2 Qualitative characteristics of accounting information

8.4.2.1 Respondents' views of the qualitative characteristics

Interviewees were asked to rate on a seven point scale the usefulness of the information provided, as a result of the application of the system, by evaluating its qualitative characteristics. This evaluation has been done by using the semantic differential technique.

On scoring the semantic differences, 1 was defined as very well (very successful), 4 as neutral (the mid point) and 7 being not at all (very unsuccessful).

Information usefulness was rated according to two purposes, namely, usefulness for serving national investment planning and control. The descriptive statistics are presented in two groups of Tables (in the supplement to this chapter):

The first group (Tables from S.8.25 to S.8.40). In these Tables the usefulness of information for national investment planning is presented.

The second group (Tables S.8.41 to S.8.56). In these Tables the usefulness of information for national investment control is presented.

Both Tables 8.16 and 8.17 show a summary of the result. In addition, Table 8.18 presents a comparison of the two results: planning and control. From these Tables, the following can be summarised:

A As to the usefulness of information for national investment planning, Table 8.16 indicates the ranking of the sixteen qualitative characteristics. This ranking is based on point scores (the sum) attributed to respondents' rating of each of the qualitative characteristics. Necessity, simplicity, consistency, predictive value and relevance (or comparability) of information were rated as the five best qualitative characteristics. And completeness, materiality, benefits compared with costs, timeliness, and freedom of bias of information were rated as the five worst qualitative characteristics of the provided information concerning serving national planning.

As to the usefulness of information for national investment control, Table 8.17 indicates the ranking of the sixteen qualitative characteristics. Necessity, simplicity, relevance, consistency and predictive value of information were rated as the five best qualitative characteristics. And completeness, materiality, benefits compared with costs, timeliness and freedom of bias of information were rated as the five worst qualitative characteristics.

TABLE 8.16: Respondents' views of the qualitative characteristics of the provided information for planning national investment.

Qualitative characteristics Pair of adjectives	Judgement of Usefulness								Central Tendency			Sum	Ranking
	1	2	3	4	5	6	7	Total	Median	Mode	Mean		
	Very Suc.	Quite Suc.	Slight Suc.	Neutral	Slight Unsuc.	Quite Unsuc.	Very Unsuc.	%					
Relevant & Irrelevant	1.6	50	25	17.2	6.3	-	-	100	2	2	2.766	177	5
Predictive value & valueless	1.6	56.3	18.8	15.6	7.8	-	-	100	2	2	2.719	174	4
Feedback value & valueless	1.6	48.4	21.9	20.3	7.8	-	-	100	2.5	2	2.844	182	7
Well & Ill timed	-	4.7	32.8	54.7	6.3	1.6	-	100	4	4	3.672	235	15
Necessary & Unnecessary	37.5	42.2	10.9	9.4	-	-	-	100	2	2	1.922	123	1
Simple & Complex	15.6	57.8	9.4	17.2	-	-	-	100	2	2	2.281	146	2
Reliable & Unreliable	1.6	43.8	28.1	21.9	4.7	-	-	100	3	2	2.844	182	7
Trustworthy & Untrustworthy	6.3	35.9	25	28.1	4.7	-	-	100	3	2	2.891	185	10
Accurate & Inaccurate	3.1	39.1	29.7	23.4	4.7	-	-	100	3	2	2.875	184	9
Confirmed & Unconfirmed	4.7	32.8	34.4	23.4	3.1	1.6	-	100	3	3	2.922	187	11
Complete & Incomplete	4.7	32.8	31.3	25	4.7	1.6	-	100	3	2	2.969	190	12
Biased & Unbiased	-	3.1	28.1	56.3	10.9	1.6	-	100	4	4	3.797	243	16
Well & Ill compared	6.3	43.8	18.8	29.7	1.6	-	-	100	2.5	2	2.766	177	5
Consistent & Unconsistent	12.5	42.2	21.9	20.3	3.1	-	-	100	2	2	2.594	166	3
Benefits or costs	4.7	20.3	26.6	40.6	7.8	-	-	100	3	4	3.266	209	14
Material & Immaterial	1.6	34.4	20.3	37.5	6.3	-	-	100	3	4	3.125	200	13

TABLE 8.17: Respondents views of the qualitative characteristics of the provided accounting information for controlling National Investment.

Qualitative Characteristics	Judgement of Usefulness								Central Tendency			Sum	Rank-ing
Pair of adjectives	1	2	3	4	5	6	7	Total	Median	Mode	Mean		
	Very Suc.	Quite Suc.	Slight Suc.	Neutral	Slight Unsuc.	Quite Unsuc.	Very Unsuc.,	Total					
Relevant & Irrelevant	1.6	54.7	29.7	10.9	1.6	1.6	-	100	2	2	2.609	167	3
Predictive value & valueless	3.1	53.1	23.4	17.2	3.1	-	-	100	2	2	2.641	169	5
Feedback value & valueless	1.6	46.9	31.3	17.2	3.1	-	-	100	3	2	2.734	175	7
Well & Ill timed	-	1.6	35.9	53.1	7.8	1.6	-	100	4	4	3.719	238	15
Necessary & Unnecessary	25	57.8	9.4	6.3	1.6	-	-	100	2	2	2.016	129	1
Simple & Complex	9.4	60.9	10.9	18.8	-	-	-	100	2	2	2.391	153	2
Reliable & Unreliable	1.6	51.6	28.1	17.2	1.6	-	-	100	2	2	2.656	170	6
Trustworthy & Untrustworthy	1.6	43.8	32.8	18.8	3.1	-	-	100	3	2	2.781	178	9
Accurate & Inaccurate	1.6	45.3	29.7	20.3	3.1	-	-	100	3	2	2.781	178	9
Confirmed & Unconfirmed	1.6	37.5	34.4	23.4	1.6	1.6	-	100	3	2	2.906	186	11
Complete & Uncomplete	1.6	42.2	28.1	20.3	6.3	1.6	-	100	3	2	2.922	187	12
Biased & Unbiased	-	4.7	26.6	59.4	7.8	1.6	-	100	4	4	3.750	240	16
Well & Ill compared	7.8	42.2	20.3	28.1	1.6	-	-	100	2.5	2	2.734	175	7
Consistent & Unconsistent	7.8	46.9	23.4	18.8	3.1	-	-	100	2	2	2.625	168	4
Benefits or Costs	3.1	21.9	29.7	35.9	9.4	-	-	100	3	4	3.266	209	14
Material & Immaterial	1.6	34.4	21.9	35.9	6.3	-	-	100	3	4	3.109	199	13

TABLE 8.18: Respondents' views of the qualitative characteristics of the provided accounting information for planning and controlling National Investment.

Qualitative Characteristics Pair of adjectives	Planning & Control	Judgement of Usefulness								Central Tendency			Sum	Rank-ing
		1	2	3	4	5	6	7	Total	Median	Mode	Mean		
		Very Suc.	Quite Suc.	Slight Suc.	Neutral	Slight Unsuc.	Quite Unsuc.	Very Unsuc.	%					
Relevant & Irrelevant	Plan.	1.6	50	25	17.2	6.3	-	-	100	2	2	2.766	177	5
	Cont.	1.6	54.7	29.7	10.9	1.6	1.6	-	100	2	2	2.609	167	3
Predictive value & valueless	Plan.	1.6	56.3	18.8	15.6	7.8	-	-	100	2	2	2.719	174	4
	Cont.	3.1	53.1	23.4	17.2	3.1	-	-	100	2	2	2.641	169	5
Feedback value & valueless	Plan.	1.6	48.4	21.9	20.3	7.8	-	-	100	2.5	2	2.844	182	7
	Cont.	1.6	46.9	31.3	17.2	3.1	-	-	100	3	2	2.734	175	7
Well & Ill timed	Plan.	-	4.7	32.8	54.7	6.3	1.6	-	100	4	4	3.672	235	15
	Cont.	-	1.6	35.9	53.1	7.8	1.6	-	100	4	4	3.719	238	15
Necessary & Unnecessary	Plan.	37.5	42.2	10.9	9.4	-	-	-	100	2	2	1.922	123	1
	Cont.	25	57.8	9.4	6.3	1.6	-	-	100	2	2	2.016	129	1
Simple & Complex	Plan.	15.6	57.8	9.4	17.2	-	-	-	100	2	2	2.281	146	2
	Cont.	9.4	60.9	10.9	18.8	-	-	-	100	2	2	2.391	153	2
Reliable & Unreliable	Plan.	1.6	43.8	28.1	21.9	4.7	-	-	100	3	2	2.844	182	7
	Cont.	1.6	51.6	28.1	17.2	1.6	-	-	100	2	2	2.656	170	6
Trustworthy & Untrustworthy	Plan.	6.3	35.9	25	28.1	4.7	-	-	100	3	2	2.891	185	10
	Cont.	1.6	43.8	32.8	18.8	3.1	-	-	100	3	2	2.781	178	9

TABLE 8.18: Respondents' views of the qualitative characteristics of the provided accounting information for planning and controlling National Investment (continued/2.....)

Qualitative Characteristics		Judgement of Usefulness								Central Tendency			Sum	Rank-ing
Pair of adjectives		1	2	3	4	5	6	7	Total	Median	Mode	Mean		
	Planning & Control	Very Suc.	Quite Suc.	Slight Suc.	Neutral	Slight Unsuc.	Quite Unsuc.	Very Unsuc.	%					
Accurate & Inaccurate	Plan.	3.1	39.1	29.7	23.4	4.7	-	-	100	3	2	2.875	184	9
	Cont.	1.6	45.3	29.7	20.3	3.1	-	-	100	3	2	2.781	178	9
Confirmed & Unconfirmed	Plan.	4.7	32.8	34.4	23.4	3.1	1.6	-	100	3	3	2.922	187	11
	Cont.	1.6	37.5	34.4	23.4	1.6	1.6	-	100	3	2	2.906	186	11
Complete & Incomplete	Plan.	4.7	32.8	31.3	25	4.7	1.6	-	100	3	2	2.969	190	12
	Cont.	1.6	42.2	28.1	20.3	6.3	1.6	-	100	3	2	2.922	187	12
Biased & Unbiased	Plan.	-	3.1	28.1	56.3	10.9	1.6	-	100	4	4	3.797	243	16
	Cont.	-	4.7	26.6	59.4	7.8	1.6	-	100	4	4	3.750	240	16
Well & Ill Timed	Plan.	6.3	43.8	18.8	29.7	1.6	-	-	100	2.5	2	2.766	177	5
	Cont.	7.8	42.2	20.3	28.1	1.6	-	-	100	2.5	2	2.734	175	7
Consistent & Unconsistent	Plan.	12.5	42.2	21.9	20.3	3.1	-	-	100	2	2	2.594	166	3
	Cont.	7.8	46.9	23.4	18.8	3.1	-	-	100	2	2	2.625	168	4
Benefits or Costs	Plan.	4.7	20.3	26.6	40.6	7.8	-	-	100	3	4	3.266	209	14
	Cont.	3.1	21.9	29.7	35.9	9.4	-	-	100	3	4	3.266	209	14
Material & Immaterial	Plan.	1.6	34.4	20.3	37.5	6.3	-	-	100	3	4	3.125	200	13
	Cont.	1.6	34.4	21.9	35.9	6.3	-	-	100	3	4	3.109	199	13

From the above, we can notice that the replies demonstrated agreement concerning the five best and worst qualitative characteristics of the provided information concerning serving national investment planning and control. In addition, we can notice from Table 8.18 that ten qualitative characteristics have the same rankings. Meanwhile, there is some slight difference between the two results as the sum scores of the information provided for planning is 2960 (grand mean 2.890) and for controlling is 2921 (grand mean 2.852). Therefore, the qualitative characteristics of the information for controlling purpose were considered to be slightly more successful than those for planning purpose (as 1 meaning very successful and 7 meaning very unsuccessful, therefore, the lower the score, the higher the success). This result confirms the slightly higher rating given to the usefulness of information for controlling purposes in the previous sections (8.4.1.1 and 8.4.1.2).

B The median score of the best of the qualitative characteristics is 2 (quite successful) in both planning and control. The mode is also 2 (the mean is 1.922 for planning and 2.016 for controlling). Meanwhile, the median score of the worst of the qualitative characteristics is 4 in both planning and control. The mode is also 4 (neutral) (the mean is 3.797 for planning and 3.750 for controlling). In other words, the rating of the qualitative characteristics of the provided information lies in the success area (between 4 neutral and 2 quite successful). Needless to add that the grand mean is 2.890 and 2.852 for planning and control respectively which is near the slight success; 3 and far from the quite success; 2.

C As to the usefulness of information for planning, the values of kurtosis fluctuate between -1.194 and 1.108 and the values of skewness fluctuate between -.381 and .974. Concerning control, the values of kurtosis fluctuate between -1.155 and 2.654 and the values of skewness fluctuate between -.183 and 1.191. Therefore, the distribution differs slightly from the symmetric one.

8.4.2.2 Respondents' views of the ranking of relevance and reliability of the different financial statements for serving the purposes of national investment planning and control

The interviewees were instructed to rank the relevance and reliability of the different financial statements on six points. On this ranking, 1 meaning most relevant or reliable, and 6 meaning least relevant or reliable. The statements were ranked according to two purposes, namely, serving national investment planning and control.

The rankings determined by interviewees are shown in four groups of Tables (in the supplement to this chapter):
The first group (Tables from S.8.57 to S.8.62). In these Tables, the ranking of relevance of each of the six financial statements is shown (planning purpose).
The second group (Tables from S.8.63 to S.8.68). In these Tables, the ranking of relevance of each of the six financial statements is shown (control purpose).
Both Tables 8.19 and 8.20 show a summary of the results (the ranking of relevance). In addition, Table 8.21 presents a comparison of the two results: planning and control.
The third group (Tables from S.8.69 to S.8.74). In these Tables, the ranking of reliability of each of the six financial statements is shown (planning purpose).

The fourth group (Tables from S.8.75 to S.8.80). In these Tables, the ranking of reliability of each of the six financial statements is shown (control purpose).
Both Tables 8.22 and 8.23 show a summary of the results (the ranking of reliability). In addition Table 8.24 presents a comparison of the two results: planning and control. From these Tables, the following can be summarised:

A As to the ranking of relevance for serving the purpose of national investment planning, Table 8.19 indicates the following ranking according to agreement between the three measures of central tendency:

- The balance sheet (second most relevant);
- Statement of sources and applications of funds (most relevant);
- The current operations account (fourth most relevant);
- The production and trading account (fifth most relevant);
- The profit and loss account (sixth most relevant);
- The cash flow statement (third most relevant).

Table 8.20 indicates the same ranking of relevance concerning serving the purpose of national investment control. Meanwhile, we can notice from Table 8.21 that 49 respondents (76.6%) considered the statement of sources and applications of funds the most relevant statement for serving both national investment planning and control. And 38 respondents (59.4%) considered the balance sheet the second most relevant statement for serving planning purpose compared with 40 respondents (62.5%) who gave it the same ranking for serving control purpose. In addition, 43 respondents (67.2%) considered the cash flow statement the third most relevant for serving planning purpose compared with 45 respondents (70.3%) who gave it the same ranking for serving control purpose. In other words, the second and third most relevant financial statements were considered to be slightly more relevant for control purpose than for planning purpose.

TABLE 8.19: Respondents' views of the ranking of relevance of different financial statements for serving National Investment Planning

Financial Statements	Rank of relevance							Central Tendency		
	1	2	3	4	5	6	Total	Median	Mode	Mean
	%	%	%	%	%	%	%			
The balance sheet	20.3	59.4	20.3	-	-	-	100	2	2	2
Statement of sources and applications of funds	76.6	23.4	-	-	-	-	100	1	1	1.234
The current operation account	-	-	10.9	82.8	6.3	-	100	4	4	3.953
The production and trading account	-	-	-	7.8	76.6	15.6	100	5	5	5.078
The profit and loss account	-	-	1.6	-	17.2	81.3	100	6	6	5.781
The cash flow statement	3.1	17.2	67.2	9.4	-	3.1	100	3	3	2.953

TABLE 8.20: Respondents' views of the ranking of relevance of different financial statements for serving National Investment Control

Financial Statements	Rank of relevance							Central Tendency		
	1	2	3	4	5	6	Total	Median	Mode	Mean
	%	%	%	%	%	%	%			
The balance sheet	21.9	62.5	15.6	-	-	-	100	2	2	1.938
Statement of sources and applications of funds	76.6	21.9	1.6	-	-	-	100	1	1	1.250
The current operation account	-	-	10.9	79.7	7.8	1.6	100	4	4	4
The production and trading account	-	-	1.6	10.9	71.9	15.6	100	5	5	5.016
The profit and loss account	-	-	-	-	20.3	79.7	100	6	6	5.797
The cash flow statement	3.1	15.6	70.3	7.8	-	3.1	100	3	3	2.953

TABLE 8.21: Respondents' views of the ranking of relevance of financial statements for serving National Investment Planning and Control

Financial Statements	Planning & Control	Rank of relevance														Sum	Ranking
		1		2		3		4		5		6		Total			
		F	%	F	%	F	%	F	%	F	%	F	%	F	%		
The balance sheet	Planning	13	20.3	38	59.4	13	20.3	-	-	-	-	-	-	64	100	128	2
	Control	14	21.9	40	62.5	10	15.6	-	-	-	-	-	-	64	100	124	2
Statement of sources and applications of funds	Planning	49	76.6	15	23.4	-	-	-	-	-	-	-	-	64	100	79	1
	Control	49	76.6	14	21.9	1	1.6	-	-	-	-	-	-	64	100	80	1
The current operation account	Planning	-	-	-	-	7	10.9	53	82.8	4	6.3	-	-	64	100	253	4
	Control	-	-	-	-	7	10.9	51	79.7	5	7.8	1	1.6	64	100	256	4
The production and trading account	Planning	-	-	-	-	-	-	5	7.8	49	76.6	10	15.6	64	100	325	5
	Control	-	-	-	-	1	1.6	7	10.9	46	71.9	10	15.6	64	100	321	5
The profit and loss account	Planning	-	-	-	-	1	1.6	-	-	11	17.2	52	81.3	64	100	370	6
	Control	-	-	-	-	-	-	-	-	13	20.3	51	79.7	64	100	371	6
The cash flow statement	Planning	2	3.1	11	17.2	43	67.2	6	9.4	-	-	2	3.1	64	100	189	3
	Control	2	3.1	10	15.6	45	70.3	5	7.8	-	-	2	3.1	64	100	189	3

TABLE 8.22: Respondents' views of the ranking of reliability of different financial statements for serving National Investment Planning

Financial Statements	Rank of reliability							Central Tendency		
	1	2	3	4	5	6	Total	Median	Mode	Mean
	%	%	%	%	%	%	%			
The balance sheet	20.3	56.3	23.4	-	-	-	100	2	2	2.031
Statement of sources and applications of funds	73.4	26.6	-	-	-	-	100	1	1	1.266
The current operation account	-	-	7.8	84.4	7.8	-	100	4	4	4
The production and trading account	-	-	-	9.4	75	15.6	100	5	5	5.063
The profit and loss account	-	-	1.6	-	17.2	81.3	100	6	6	5.781
The cash flow account	6.3	17.2	67.2	6.3	-	3.1	100	3	3	2.859

TABLE 8.23 Respondents' views of the ranking of reliability of different financial statements for serving National Investment Control

Financial Statements	Rank of reliability							Central Tendency		
	1	2	3	4	5	6	Total	Median	Mode	Mean
	%	%	%	%	%	%	%			
The balance sheet	23.4	59.4	17.2	-	-	-	100	2	2	1.938
Statement of sources and applications of funds	75	23.4	1.6	-	-	-	100	1	1	1.266
The current operation account	-	-	7.8	82.8	7.8	1.6	100	4	4	4.031
The production and trading account	-	-	1.6	10.9	68.8	18.8	100	5	5	5.047
The profit and loss account	-	-	-	-	23.4	76.6	100	6	6	5.766
The cash flow statement	1.6	17.2	71.9	6.3	-	3.1	100	3	3	2.953

TABLE 8.24: Respondents' views of the ranking of reliability of financial statements for serving National investment Planning and Control

Financial Statements	Planning & Control	Rank of reliability														Sum	Ranking
		1		2		3		4		5		6		Total			
		F	%	F	%	F	%	F	%	F	%	F	%	F	%		
The balance sheet	Planning	13	20.3	36	56.3	15	23.4	-	-	-	-	-	-	64	100	130	2
	Control	15	23.4	38	59.4	11	17.2	-	-	-	-	-	-	64	100	124	2
Statement of sources and applications of funds	Planning	47	73.4	17	26.6	-	-	-	-	-	-	-	-	64	100	81	1
	Control	48	75	15	23.4	1	1.6	-	-	-	-	-	-	64	100	81	1
The current operation account	Planning	-	-	-	-	5	7.8	54	84.4	5	7.8	-	-	64	100	256	4
	Control	-	-	-	-	5	7.8	53	82.8	5	7.8	1	1.6	64	100	258	4
The production and trading account	Planning	-	-	-	-	-	-	6	9.4	48	75	10	15.6	64	100	324	5
	Control	-	-	-	-	1	1.6	7	10.9	44	68.8	12	18.8	64	100	323	5
The profit and loss account	Planning	-	-	-	-	1	1.6	-	-	11	17.2	52	81.3	64	100	370	6
	Control	-	-	-	-	-	-	-	-	15	23.4	49	76.6	64	100	369	6
The cash flow account	Planning	4	6.3	11	17.2	43	67.2	4	6.3	-	-	2	3.1	64	100	183	3
	Control	1	1.6	11	17.2	46	71.9	4	6.3	-	-	2	3.1	64	100	189	3

B As to the ranking of reliability for serving the purpose of national investment planning, Table 8.22 shows the following ranking according to the agreement between the three measures of central tendency:

- The balance sheet (second most reliable);
- Statement of sources and applications of funds (most reliable);
- The current operations account (fourth most reliable);
- The production and trading account (fifth most reliable);
- The profit and loss account (sixth most reliable);
- The cash flow statement (third most reliable).

Table 8.23 shows the same ranking of reliability concerning the goal of national investment control. Meanwhile, Table 8.24 indicates that 48 respondents (75%) considered the statement of sources and applications of funds the most reliable statement for serving national investment control compared with 47 respondents (73.4%) who considered it the most reliable statement for planning purpose. Also 38 respondents (59.4%) considered the balance sheet the second most reliable statement for serving control purpose compared with 36 respondents (56.3%) who gave it the same ranking for planning purpose. In addition, 46 respondents (71.9%) considered the cash flow statement the third most reliable statement for control purpose compared with 43 respondents (67.2%) who gave it the same ranking for planning purpose. In other words, the first, second , and third most reliable financial statements were considered to be slightly more reliable for control purpose than for planning purpose. This confirms what was mentioned about the slightly higher rating of the usefulness of information for controlling national investment.

C The replies demonstrated some measures of agreement. For instance 59.4% of the respondents ranked the balance sheet as the second most relevant statement for planning purpose (Table S.8.57), 76.6% of the respondents ranked the statement of sources and applications of funds as the most relevant statement for planning purpose Table S.8.58), 82.8% of the respondents ranked the current operations account as the fourth most relevant statement for planning purpose (Table S.8.59), 76.6% of the respondents ranked the production and trading account as the fifth most relevant statement for planning purpose (Table S.8.60), 81.3% of the respondents ranked the profit and loss account as the sixth most relevant statement for planning purpose (Table S.8.61) and, finally, 67.2% of the respondents ranked the cash flow statement as the third most relevant statment for planning purpose (Table S.8.62).

D Tables 8.19, 8.20, 8.22, and 8.23 indicate that the observed median, mode, and mean are close in value, therefore, the distributions are almost normal.

According to the previous analysis about the usefulness of the different financial statements for serving national investment decisions, in Chapter Six, the results in this section concerning the ranking of relevance and reliability indicate a reasonable level of understanding of the statements' objectives by our interviewees.

8.4.3 Respondents' views of the effectiveness of standardised accounting definitions of the elements of financial statements

Interviewees were asked to rate on a five point scale the extent to which they agree or disagree that the different definitions of the elements of the financial statements (e.g. Assets, liabilities...) which have been stated in the

Egyptian unified accounting system have increased the effectiveness of accounting communication to the users. The scale ranged from 1 (strongly agree) to 5 (strongly disagree).

The views expressed by interviewees are summarised in Table 8.25. From this Table, the following can be concluded:

A The median score is 2 (quite agree) and the mode is also 2 (the mean is 2). In other words, there is an agreement between the three measures of central tendency. Accordingly, the majority of our respondents quite agreed that the standardised definitions increased the effectiveness of accounting communication.

B The replies demonstrated some measures of agreement as 50% of the replies rated the effectiveness of standardised definitions at 2 points (quite agree).

C The values of the median, mode and mean are identical. In addition, the skewness value is (0) and the kurtosis has a negative value of (-.983). Accordingly, the distribution is almost normal.

8.4.4 Measurement

8.4.4.1 Percentage of current value accounting information

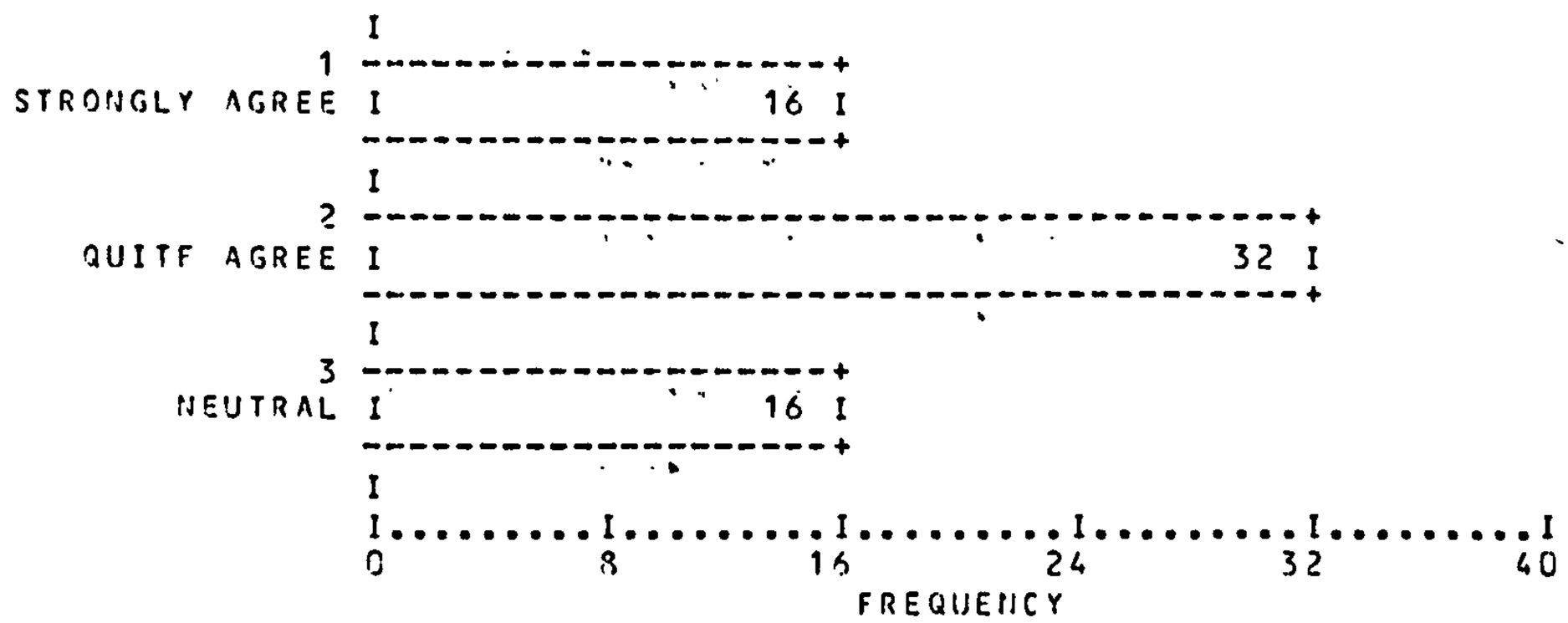
Respondents were asked to determine the percentage of the annual financial reports which succeeded in declaring current value accounting information. The following percentages were provided in the question:

(a) less than 25% of the received annual financial reports.
(b) From 25% to 50% of the received annual financial reports.
(c) More than 50% but less than 75% of the received reports.
(d) From 75% to 100% of the received annual financial reports.

TABLE 8.25

INFOCOMM STANDARDIZED DEFIN.INCREASED ACC.COMM.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
STRONGLY AGREE	1	16	25.0	25.0	25.0
QUITE AGREE	2	32	50.0	50.0	75.0
NEUTRAL	3	16	25.0	25.0	100.0
	TOTAL	64	100.0	100.0	



MEAN	2.000	STD ERR	.089	MEDIAN	2.000
MODE	2.000	STD DEV	.713	VARIANCE	.508
KURTOSIS	-.933	S E KURT	1.973	SKEWNESS	0.0
S E SKEW	.299	RANGE	2.000	MINIMUM	1.000
MAXIMUM	3.000	SUM	128.000		

VALID CASES 64 MISSING CASES 0

Table 8.26 shows the determined percentages by respondents. From this Table, we notice the following:

A The median score is 1 (the first percentage - less than 25%) and the mode is also 1 (the mean is 1). In other words, there is an agreement between the three measures of central tendency.

B Both the variance and standard deviation are zero. Accordingly, the replies demonstrated absolute agreement as 100% of the replies chose the first percentage.

Needless to add that the instructions to declare current value accounting information in the annual financial reports were on a voluntary basis. Less than 25% of the economic units have followed these voluntary instructions.

8.4.4.2 Perceived importance of current value accounting information

Interviewees were instructed to rate the degree of importance that they would attach to receiving current value accounting information. A five point rating scale was provided for this purpose. The scale ranged from 1 (very important) to 5 (unimportant). The descriptive statistics of the responses are summarised in Table 8.27. From this Table, we notice the following:

A The median score is 1 (very important) and the mode is also 1. Although the mean score is 1.609, it is still in the area between 1 (very important) and 2 (important).

B The replies demonstrated some measures of agreement. 86% of the replies rated the current value accounting information at points 1 and 2 (very important and important). In other words, there was a little variation in the reponses.

TABLE 8.26

PECVINFO PERCENTAGE OF CURRENT VALUE INFO.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
LESS THAN 25%	1	64	100.0	100.0	100.0
	TOTAL	64	100.0	100.0	

```
                    I
                  1 ----------------------------------------+
LESS THAN 25%     I                                        64 I
                    ----------------------------------------+
                    I
                    I.........I.........I.........I.........I.........I
                    0        15        30        45        60        75
                                      FREQUENCY
```

MEAN	1.000	STD ERR	0.0	MEDIAN	1.000
MODE	1.000	STD DEV	0.0	VARIANCE	0.0
RANGE	0.0	MINIMUM	1.000	MAXIMUM	1.000
SUM	64.000				

VALID CASES 64 MISSING CASES 0

TABLE 8.27

INCVINFO IMPORTANCE OF CURRENT VALUE INFO.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
VERY IMPORTANT	1	38	59.4	59.4	59.4
IMPORTANT	2	17	26.6	26.6	85.9
MODERATELY IMPORTANT	3	7	10.9	10.9	96.9
UNIMPORTANT	5	2	3.1	3.1	100.0
	TOTAL	64	100.0	100.0	

```
                    I
                  1 ----------------------------------------------------+
       VERY IMPORTANT I                                                38 I
                    ----------------------------------------------------+
                    I
                  2 ----------------------+
             IMPORTANT I                 17 I
                    ----------------------+
                    I
                  3 ----------+
   MODERATELY IMPORTANT I       7 I
                    ----------+
                    I
                  5 ---+
          UNIMPORTANT I  I 2
                    ---+
                    I
                    I.........I.........I.........I.........I.........I.........I
                    0         8        16        24        32        40
                                          FREQUENCY
```

MEAN	1.609	STD ERR	.115	MEDIAN	1.000
MODE	1.000	STD DEV	.919	VARIANCE	.845
KURTOSIS	4.093	S E KURT	1.273	SKEWNESS	1.882
S E SKEW	.299	RANGE	4.000	MINIMUM	1.000
MAXIMUM	5.000	SUM	103.000		

VALID CASES 64 MISSING CASES 0

The findings in Table 8.27 lead to the conclusion that the majority of the respondents considered the current value accounting information as very important to be declared in the annual financial reports.

8.4.4.3 Perceived monetary value of the current value accounting information

The respondents were asked to estimate the maximum amount that the National Investment Bank would be ready to pay annually for obtaining the current value accounting information in the national level having taken into consideration the assumption that in future the Bank would receive current value accounting information only if it contracted on a commercial basis with a consultative organisation for the continued provision of this information at the national level

The descriptive statistics associated with responses to this question are presented in Table 8.28. The findings in the Table reflect the following:

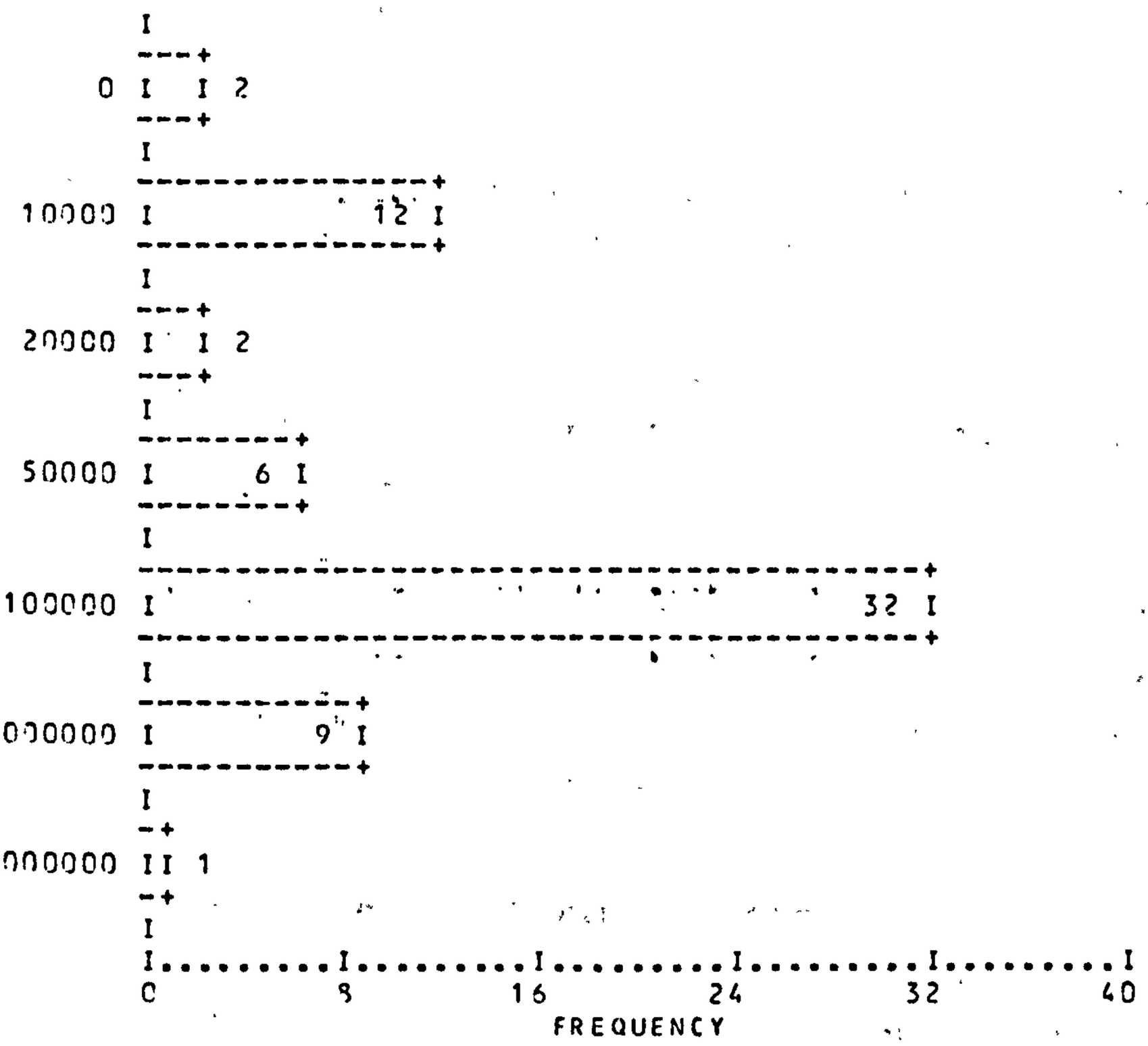
A The median score is E.p. 100,000, and the mode has the same value. Meanwhile, the mean score is E.p 229,062.5. In other words, there is a difference between the value of the mean and other measures of central tendency.

B As mentioned before the range is sensitive to extremes as it is computed from the minimum and maximum. In our case, it is ranged from 0 (minimum) to 2,000,000 (maximum). Therefore, it can not be used. The standard deviation can be used as a measure of dispersion having taken into consideration that the responses' level of measurement is ratio.

TABLE 8.28

MACVINFO MONETARY VALUE OF CURRENT VALUE INFO.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	2	3.1	3.1	3.1
	10000	12	18.8	18.8	21.9
	20000	2	3.1	3.1	25.0
	50000	6	9.4	9.4	34.4
	100000	32	50.0	50.0	84.4
	1000000	9	14.1	14.1	98.4
	2000000	1	1.6	1.6	100.0
	TOTAL	64	100.0	100.0	



MEAN	229062.500	STD ERR	49748.733	MEDIAN	100000.000
MODE	100000.000	STD DEV	397989.865	VARIANCE	1.5840E+11
KURTOSIS	5.945	S E KURT	1.973	SKEWNESS	2.445
S E SKEW	.299	RANGE	2000000.00	MINIMUM	0.0
MAXIMUM	2000000.00	SUM	14660000.0		

VALID CASES 64 MISSING CASES 0

C The cases within the distribution cluster more than those in the normal distribution (the distribution is more peaked) because the distribution has a positive value (5.945) for kurtosis. Also, the distribution is positively skewed. In other words, the distribution is not symmetric.

8.4.4.4 Bases used by respondents to estimate the monetary value of current value accounting information

Respondents were asked to determine the basis of estimating the monetary value of current value accounting information. The following bases were provided in the question:

(a) The cost of adding personnel in the Bank to collect and compile the current value information.

(b) The expected benefits of obtaining this information and using it in making national investment decisions.

(c) Both (a) and (b).

(d) Other factors. The last basis was left open for respondents to choose any other factors that formed the basis for their estimates of the monetary value of current value accounting information.

Two respondents added the following factor "There are practical difficulties in calculating the current value accounting information in the Egyptian environment. Accordingly, the adoption of this approach is impossible." It is interesting to add that these two respondents rated the necessity of this information as unimportant and estimated its monetary value at zero.

The answers to this question are presented in Table 8.29. From this Table, we notice the following:

A The mode is 3 (the third basis). The replies demonstrated some measures of agreement as 54 respondents (84.4%) chose the third basis (the expected cost and benefits) for their monetary value estimates.

TABLE 8.29

BACVINFO BASES FOR EVALUAT.CURRENT VALUE INFO.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
EXPECT.COST	1	4	6.3	6.3	6.3
EXPECT.BENEFIT	2	4	6.3	6.3	12.5
COST&BEN.	3	54	84.4	84.4	96.9
OTHER	4	2	3.1	3.1	100.0
	TOTAL	64	100.0	100.0	

```
                 I
               1 ---+
     EXPECT.COST I   I 4
                 ---+
                 I
               2 ---+
 EXPECT.BENEFIT  I   I 4
                 ---+
                 I
               3 ----------------------------------------------+
       COST&BEN. I                                            54 I
                 ----------------------------------------------+
                 I
               4 --+
            OTHER I I 2
                 --+
                 I
                 I.........I.........I.........I.........I.........I
                 0         12        24        36        48        60
                                   FREQUENCY
```

MEAN	2.844	STD ERR	.071	MEDIAN	3.000
MODE	3.000	STD DEV	.570	VARIANCE	.324
KURTOSIS	5.455	S E KURT	1.973	SKEWNESS	-2.144
S E SKEW	.299	RANGE	3.000	MINIMUM	1.000
MAXIMUM	4.000	SUM	182.000		

VALID CASES 64 MISSING CASES 0

B The cases within the distribution cluster more than those in the normal distribution because the distribution has a positive value (5.455) for kurtosis. It is also positively skewed. In other words, the distribution is not symmetric.

8.4.5 Financial reporting

8.4.5.1 Respondents' reading of the annual financial statements

The interviewees were asked to rate to what degree they read each of the annual financial statements. On this rating, 1 was defined as read thoroughly, 2 as read briefly for interest, and 3 being do not read at all. The degrees of reading determined by interviewees and the descriptive statistics are presented in Tables from S.8.81 to S.8.86. (in the supplement to this chapter). Table 8.30 shows a summary of the results. From these Tables, we can notice the following:

A The statement of sources and applications of funds, the balance sheet, and the cash flow statement are the most widely read statements because both the median and the mode are 1 (read thoroughly). And the mean value is 1 concerning the fund statement but it is slightly higher than 1 concerning the other statements. The current operations account, the production and trading account, and the profit and loss account were given less attention because both the median and the mode are 2 (read briefly for interest). Their mean values differ slightly from 2.

B The replies demonstrated some measures of agreement: 100% of the respondents read thoroughly the statement of sources and applications of funds (Table S.8.82), 92.2% of the respondents read thoroughly the balance sheet (Table S.8.81), 75% of the respondents read thoroughly

TABLE 8.30: Respondents' reading of the annual financial statements

Financial Statements	Pattern of reading								Central Tendency		
	Read thoroughly		Read briefly		Do not read		Total		Median	Mode	Mean
	F	%	F	%	F	%	F	%			
The balance sheet	59	92.2	5	7.8	-	-	64	100	1	1	1.078
Statement of sources and applications of funds	64	100	-	-	-	-	64	100	1	1	1
The current operation account	22	34.4	38	59.4	4	6.3	64	100	2	2	1.719
The production and trading account	22	34.4	35	54.7	7	10.9	64	100	2	2	1.766
The profit and loss account	28	43.8	31	48.4	5	7.8	64	100	2	2	1.641
The cash flow statement	48	75	16	25	-	-	64	100	1	1	1.250

the cash flow statement (Table S.8.86), 59.4% of the respondents read briefly the current operations account (Table S.8.83), 54.7% of the respondents read briefly the production and trading account (Table S.8.84), and 48.4% of the respondents read briefly the profit and loss account (Table 8.85).

In the previous sections it has been concluded that the statement of sources and applications of funds, the balance sheet, and the cash flow statement are the most important (question 2) and the most influential (question 3) statements for serving national investment planning and control. In this section, it has been noticed that those statement are the most widely read statements. In other words, these results indicate a reasonable level of understanding of the financial statements' objectives by our interviewees.

8.4.5.2 Respondents' reading of the annual budget statements

The interviewees were asked to rate to what degree they read each of the annual budget statements. The same pattern of reading has been used as in the previous section. The degrees of reading determined by the interviewees and the descriptive statistics are presented in Tables from S.8.87 to S.8.89. Table 8.31 shows a summary of the results. From these Tables, we notice the following:

A The Quantitative budget, financial budget, and cash budget have the same median value and mode value (1; read thoroughly). In order to differentiate between the three budgets, we have to use the sum scores to rank them. The ranking is based on the sum scores (the lower the sum the higher the ranking) attributed to respondents' rating to each of the three budget statements. Table 8.31 indicates the following ranking:

- Cash budget.
- Financial budget.
- Quantitative budget.

TABLE 8. 31: Respondents' reading of the annual budget statements

Budget Statements	Pattern of Reading								Central Tendency				
	Read thoroughly		Read briefly		Do not read		Total		Median	Mode	Mean	Sum	Rank.
	F	%	F	%	F	%	F	%					
Quantitative budget	34	53.1	23	35.9	7	10.9	64	100	1	1	1.578	101	3
Financial budget	43	67.2	19	29.7	2	3.1	64	100	1	1	1.359	87	2
Cash budget	55	85.9	9	14.1	-	-	64	100	1	1	1.141	73	1

This ranking of reading is reasonable having taken into consideration that both the cash budget and the financial budget are directly related to investment decisions but the quantitative budget shows the economic unit's production programme. In other words, these results indicate a reasonable understanding of budget statements' objectives by the interviewees.

B The replies demonstrated some measures of agreement: 53.1% of the respondents read thoroughly the quantitative budget (Table S.8.87). 67.2% of our respondents read thoroughly the financial budget (Table S.8.88), and 85.9% of the respondents read thoroughly the cash budget (Table S.8.89).

8.4.5.3 Respondents' views of the usefulness of the statement of sources and applications of funds

Interviewees were asked to rate on a seven point scale how well the information generated, as a result of providing the statement of sources and applications of funds, meets the following objectives:

(a) Provides information to make a distinction between capital transfer and capital investment.
(b) Provides information to make a distinction between projects in progress and gross capital formation.
(c) Provides information to make a distinction between internal financing and external financing.
(d) Provides information to make a distinction between local and foreign sources and applications of funds.
(e) Provides information to explain changes in liquid resources.

On the seven point scale, 1 meaning very well (very successful), 4 meaning neutral (the mid point), and 7 meaning not at all (very unsuccessful). The views expressed by interviewees are presented in Tables from S.8.90 to S.8.94 (in the supplement to this chapter).. Table 8.32 shows a summary of the results. From these Tables the following can be concluded:

A Considering the usefulness of the information provided, in enabling the following distinctions to be made; (i) between capital transfer and capital investment, the median score is 3 (slightly successful), the mode is 4 (neutral), and the mean is 3.109 (near to slight success), (ii) between projects in progress and gross capital formation, the median score is 3, the mode is 4, and the mean is 3.250, (iii) between internal financing and external financing, the median scores is 3, the mode is 4, and the mean is 3.219, and (iv) between local and foreign sources and applications of funds, the median score is 4, the mode is also 4, and the mean is 3.609. Concerning the usefulness of the information provided in explaining the changes in liquid resources, the median score is 4, the mode is also 4, and the mean is 3.641. In other words, the usefulness of the provided information in the statement of sources and applications of funds is ranged from 4 (neutral) to 3 (slightly successful).

B The replies demonstrated some measures of agreement: 67.2% of the respondents rated the first group of information at the points 3 and 4 (slightly successful and neutral), 71.9% of the respondents rated the second group of information at points 3 and 4, 56.3% of the respondents rated the third group of information at points 3 and 4, 59.3% of the respondents rated the fourth group of information at points 3 and 4, 61% of the respondents rated the fifth group of information at points 3 and 4 (Tables S.8.90 to S.8.94).

TABLE 8.32: Respondents' views of the usefulness of the statement of sources and applications of funds

Information for	Judgement of Usefulness								Central Tendency		
	1	2	3	4	5	6	7	Total	Median	Mode	Mean
	Very Suc.	Quite Suc.	Slight Suc.	Neutral	Slight Unsuc.	Quite Unsuc.	Very Unsuc.	%			
Making distinction between capital transfer and capital investment	4.7	25	28.1	39.1	3.1	-	-	100	3	4	3.109
Making distinction between projects in progress and gross capital formation	6.3	17.2	28.1	43.8	3.1	1.6	-	100	3	4	3.250
Making distinction between internal financing and external financing	9.4	20.3	26.6	29.7	10.9	3.1	-	100	3	4	3.219
Making distinction between local and foreign funds	4.7	15.6	23.4	35.9	14.1	3.1	3.1	100	4	4	3.609
Explaining changes in liquid resources	4.7	15.6	17.2	43.8	14.1	1.6	3.1	100	4	4	3.641

8.4.5.4 Respondents' views of the usefulness of Form No. 6: the quantitative and financial analysis of the capital applications at the investment project level.

Interviewees were asked to rate on a seven point scale how well the information generated, as a result of providing Form No 6, meets the following objectives:

(a) Provides information to analyse the budgeted cost of each investment project.

(b) Provides information to explain the local and foreign financial resources of each project.

(c) Provides information to explain methods of payment of each source of financing.

The views expressed by interviewees are presented in Tables from S.8.95 to S.8.97. Table 8.33 shows a summary of the results. From these Tables the following can be noticed:

A As to the provided information's usefulness for analysing the budget cost of each investment project, both the median and the mode are 4 (neutral) but the mean is 4.281. Concerning the provided information's usefulness for explaining the local and foreign financial resources of each project, both the median and the mode are also 4 but the mean is 4.344. As to the provided information's usefulness for explaining methods of payment of each source of finance, both the median and the mode are again 4 but the mean is 4.469. In other words, the values of the median, mode, and mean are close to each other. All the values indicate that the usefulness of the information in Form No 6 is neutral or slightly unsuccessful.

TABLE 8.33: Respondents' views of the usefulness of Form No 6: the quantitative and financial analysis of capital application

Information for	Judgement of Usefulness								Central Tendency		
	1	2	3	4	5	6	7	Total	Median	Mode	Mean
	Very Suc.	Quite Suc.	Slight Suc.	Neutral	Slight Unsuc.	Quite Unsuc.	Very Unsuc.	%			
Analysing the budgeted cost of each investment project	-	4.7	15.6	42.2	23.4	12.5	1.6	100	4	4	4.281
Explaining local and foreign financing of each project	-	6.3	12.5	37.5	28.1	15.6	-	100	4	4	4.344
Explaining methods of payment of each source of financing	-	4.7	7.8	40.6	32.8	10.9	3.1	100	4	4	4.469

B The replies demonstrated some measures of agreement: 65.6% of the respondents rated the first group of information at points 4 and 5 (neutral and slightly unsuccessful), 65.6% of the respondents rated the second group of information at points 4 and 5, and 73.4% of the respondents rated the third group of information at points 4 and 5 (Tables from S.8.95 to S.8.97).

8.4.5.5 Respondents' views of the usefulness of Form No 6/A: the time distribution of the costs of capital applications

Interviewees were asked to rate on a seven point scale how well the information generated, as a result of providing Form No 6/A, meets the following objectives:

(a) Provides information to explain the estimated time for undertaking the investment projects.

(b) Provides information to analyse the budgeted and authorised total cost of each investment project distributed at the different time periods.

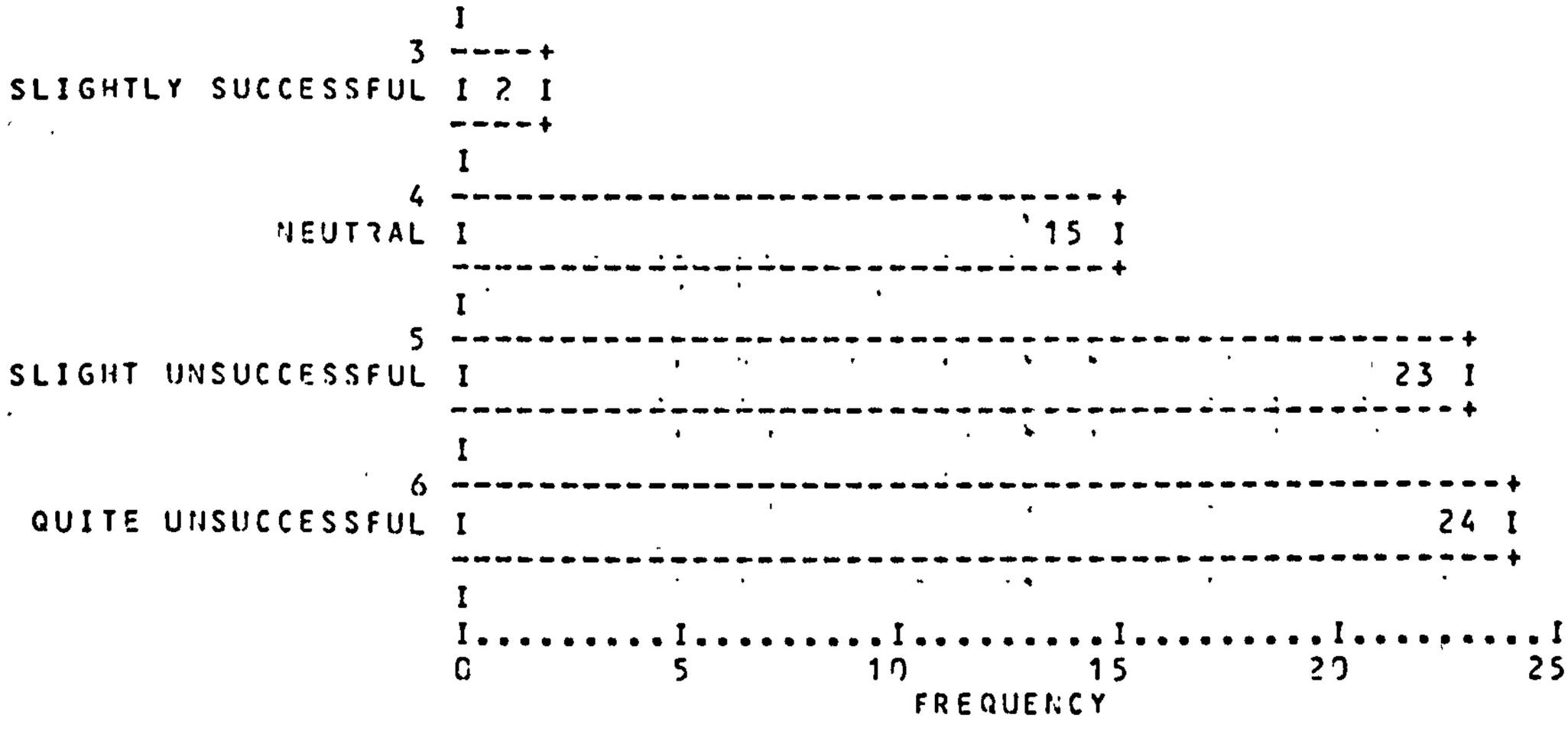
The views expressed by interviewees are summarised in Tables 8.34 and 8.35. From these Tables, the following can be noted:

A As to the provided information's usefulness in explaining the estimated time for undertaking the investment projects, the median score is 5 (slightly unsuccessful), the mode is 6 (quite unsuccessful), and the mean is 5.078 (near the slight unsuccess). Concerning the provided information's usefulness in analysing the budgeted and authorised total cost of each investment project distributed at the different time periods, the median score is 5, the mode is 6, and the mean is 5.109. In other words, the usefulness of the provided information in Form No 6/A ranged from 5 (slightly unsuccessful) to 6 (quite unsuccessful).

TABLE 8.34

ESTIMTIM INFO.TO ANALYSE ESTIMATED TIME

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
SLIGHTLY SUCCESSFUL	3	2	3.1	3.1	3.1
NEUTRAL	4	15	23.4	23.4	26.6
SLIGHT UNSUCCESSFUL	5	23	35.9	35.9	62.5
QUITE UNSUCCESSFUL	6	24	37.5	37.5	100.0
	TOTAL	64	100.0	100.0	



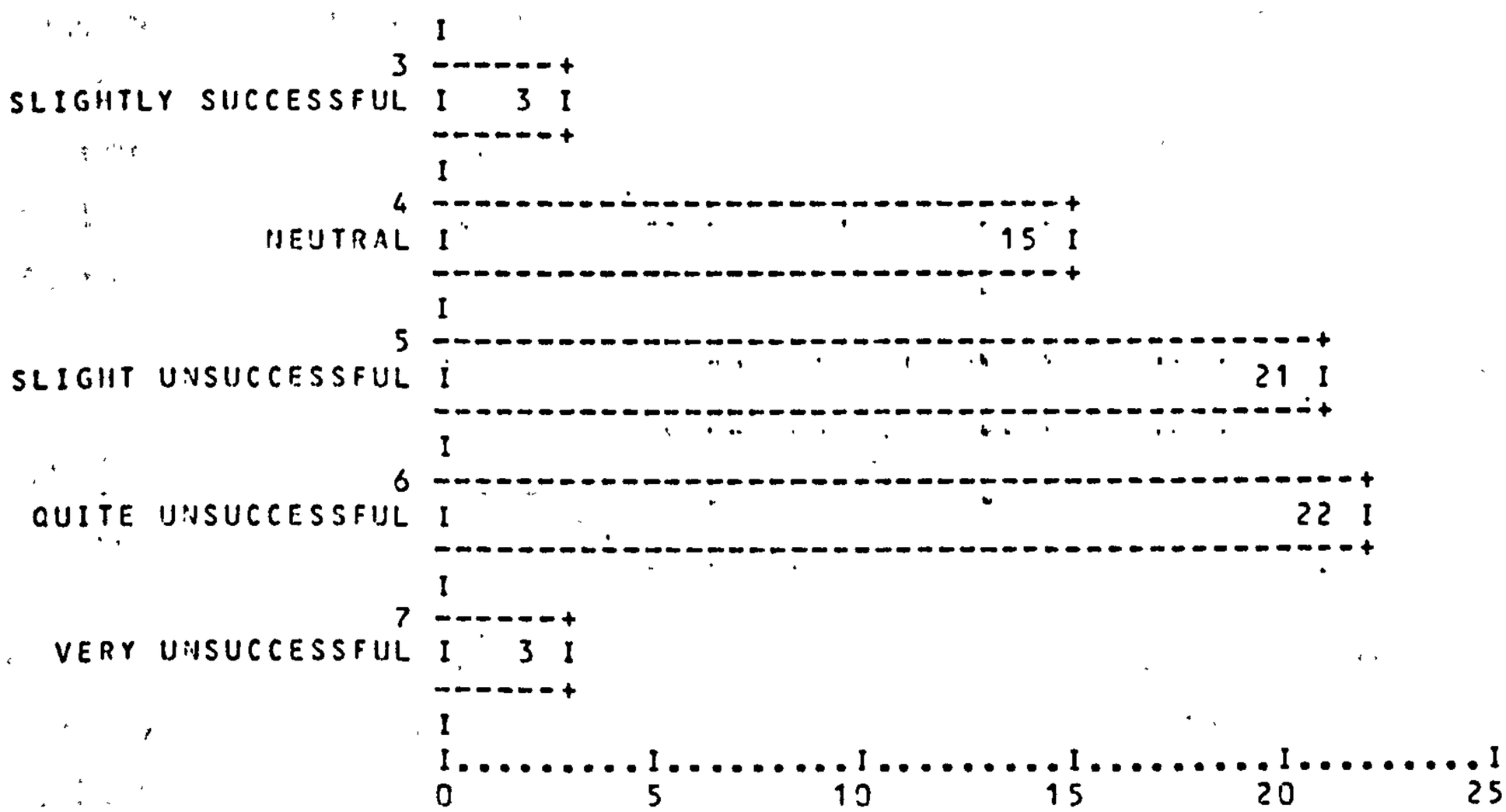
MEAN	5.078	STD ERR	.108	MEDIAN	5.000
MODE	6.000	STD DEV	.860	VARIANCE	.740
KURTOSIS	-.759	S E KURT	1.273	SKEWNESS	-.462
S E SKEW	.299	RANGE	3.000	MINIMUM	3.000
MAXIMUM	6.000	SUM	325.000		

VALID CASES 64 MISSING CASES 0

TABLE 8.35

SUGGCOST INFO.TO ANALYSE THE SUGGEST. INVEST.COST

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
SLIGHTLY SUCCESSFUL	3	3	4.7	4.7	4.7
NEUTRAL	4	15	23.4	23.4	28.1
SLIGHT UNSUCCESSFUL	5	21	32.8	32.8	60.9
QUITE UNSUCCESSFUL	6	22	34.4	34.4	95.3
VERY UNSUCCESSFUL	7	3	4.7	4.7	100.0
	TOTAL	64	100.0	100.0	



MEAN	5.109	STD ERR	.122	MEDIAN	5.000
MODE	6.000	STD DEV	.978	VARIANCE	.956
KURTOSIS	-.533	S E KURT	1.973	SKEWNESS	-.225
S E SKEW	.299	RANGE	4.000	MINIMUM	3.000
MAXIMUM	7.000	SUM	327.000		

VALID CASES 64 MISSING CASES 0

B The replies demonstrated some measures of agreement: 73.4% of the respondents rated the first group of information at points 5 and 6 (slight and quite unsuccessful) (Table 8.34), and 67.2% of the respondents rated the second group of information at the same two points (Table 8.35).

To conclude, the two mentioned forms of the planning budget. Form No 6: the quantitative and financial analysis of the capital applications and Form No 6/A: the time distribution of the costs of capital applications did not achieve their predetermined objectives. Their usefulness ranged from slightly unsuccessful to quite unsuccessful.

8.5 The most important problems that affect the usefulness of the provided information and the suggested solutions

In fact, there are interrelationships among these problems and also among the suggested solutions. Meanwhile, the author will try to classify them according to the characteristics of the conceptual framework in their various dimensions: structural, organisational, and environmental.

8.5.1 Structural problems

8.5.1.1 Objectives

20 respondents (31.2%) stated that the unified accounting system objectives are very broad because there is coupling between the financial accounting objectives and national accounting objectives at the same set of reports. Therefore, the provided information is either incomplete or ill timed and consequently not useful for making national investment decisions. Reasons for these problems were believed to be:

a) The producers of accounting information, at the micro-level, lack awareness that the accounting measurements they perform could have a significant impact upon policy making at the macro-level. Some of them do not understand or know how to file the unified system's forms. In addition, they are not able to adjust themselves to the installation of a new system which requires national accounting information in addition to financal accounting information.

b) The management of some micro units lack understanding of the importance and the critical role of the unified accounting information for national decisions. Therefore, they send the financial reports in insufficient time to be useful for users.

The suggested solution for these problems is traditional. Detailed training programmes must be organised for both producers of accounting information and managements of micro units to increase their awareness of the importance of the unified accounting information.

8.5.1.2 Qualitative characteristics of the provided accounting information

12 respondents (18.7%) believed that the provided accounting information is ill timed because the final accounts can not be sent to any user before auditing by the Central Auditing Agency. The process which always takes a long time because the Agency has to audit all the economic units' final accounts.

10 respondents (15.6%) stated that the provided accounting information is biased to achieve benefits to the economic units by hiding some numbers like the resources available for self financing. By hiding these numbers, the units can ask for loans from the National Investment Bank with a low rate of interest.

Some respondents suggested that the economic units can send the final accounts' draft before auditing by the Central Auditing Agency and later they can send the audited accounts with the audit report. By this procedure they can save at least three months of time. Other respondents suggested an agreed fixed limit of time for sending the financial reports and after this deadline, sanctions must be applied against late senders.

Also, sanctions must be applied against the economic units which try to hide some numbers. The sanctions can be in the form of raising the rate of interest paid by these units or by stopping the finance to their investment projects.

8.5.1.3 Elements of financial statements

8 respondents (12.5%) stated that although the standardised definitions of the elements of financial statements are intended to provide maximum precision to what these elements mean and increase the effectiveness of accounting communcation, there is still some confusion in current practices. Reasons for this confusion were believed to be that the economic units are under the control of many governmental bodies like the Ministry of Planning, the Ministry of Treasury, the Ministry of Economics, and the Central Auditing Agency. These government agencies insist on applying some rigid definitions and forms which are slightly different from those introduced in the Egyptian unified accounting system. This contradiction minimised the benefits from the standardised definitions and confused both the users and producers of accounting information.

The respondents suggested that representatives of the different interested government agencies must meet to discuss the reasons for this contradiction and try to achieve absolute standardisation.

8.5.1.4 Recognition criteria

20 respondents (31.2%) stated that the system has recognised and incorporated in the financial statement items which can satisfy the needs of macro-accounting and micro-accounting at the same time. These broad recognition criteria have overloaded the work required by producers of accounting information to prepare the financial statements. Therefore, the received financial statements sometimes suffer from incompleteness and lack timeliness.

The suggested solution is more training programmes for the producers of accounting information.

8.5.1.5 Measurement criteria

20 respondents (31.2%) stated that the provided accounting information is based on historical cost principle which is not sufficient to satisfy the purposes of making national decisions and that current cost accounting information must be provided in supplementary bases in addition to historical cost information in order to increase the usefulness of accounting information. But no specific steps have been suggested for pursuing changes to account for inflation.

8.5.1.6 Financial reporting

The financial reporting is the output of the system. Therefore, all the previous mentioned problems could affect the reporting. For instance, the reasons for the inadequacy of the information disclosed in the financial reporting were believed to be the following:

- Lack of awareness of the importance and the critical role of the unified accounting information for serving national investment decisions.
- Financial reports are received too late to be useful.
- Financial reports lack completeness.
- Information is measured on an historical cost basis.
- Contradictory restrictions imposed by different government bodies.
- Financial reports are biased to achieve the benefits of some economic units.

The suggested solutions to these problems have been mentioned before.

8.5.2 Organisational problems

10 respondents (15.6%) stated that the Standing Committee on Clarification and Amendment of the Unified Accounting System which belongs to the Central Auditing Agency did not provide the National Investment Bank (as a user) with the answers and interpretations to the questions raised by the different economic units (as producers of accounting information). Therefore, they suddenly find some adjustments in the financial reports without receiving any notice about them from the responsible committee. They suggested that the economic units must attach a copy of the clarifications (given by the Standing Committee) with their financial reports.

8 respondents (12.5%) stated that the economic units' planning offices (these offices are responsible for co-ordinating the work between the Ministry of Planning and the different economic units by providing the planning bodies with the information and studies required for their work) did not play their predetermined role in the planning process although they included many qualified persons. The respondents suggested that the members of the planning

offices and the members of the accounting departments must share the process of filing the financial reports especially budget statements.

It has already been mentioned that some government agencies insist on applying some rigid forms although they are slightly different from those introduced by the unified accounting system. This contradiction between different organisations minimised the usefulness of the provided information.

8.5.3 Environmental problems

16 respondents (25%) stated that the interest in the unified accounting system declined enormously after the adoption of the Economic Open Door Policy in 1973 and the encouragement of the private sector and the Arab and foreign investments. The aspects of this affect were believed to be the following:

a) The human element is probably of even greater importance in the restrictions on the growth of the unified accounting system. Most of the qualified accountants have left the public sector and the governmental bodies like the Central Auditing Agency to work in the new investment projects with high salaries or to work in other Arab countries.
b) Other pressures came from the new foreign investment groups which introduced modern accounting systems and increased the gap between the different systems in the same country.
c) Recent inflationary periods raised problems of adjustments.

The respondents suggested that a revision is a prime necessity in keeping the system in operation. The Standing Committee on Clarification and Amendment of the Unified Accounting System must revise the system periodically, to permit the correction, improvement, and additions which will become necessary from time to time according to environmental changes. A maximum period of three years was suggested to elapse between revisions.

8.6 Summary

A 68.8% of the respondents have accounting qualifications, 48.4% of them have studied the Egyptian unified accounting system in the undergraduate degree level, 73.4% of them have experience ranged from five to fifteen years, finally 35.9% of them work for the Programmes and Policies Sector in the National Investment Bank.

B Satisfaction with the structural characteristics of the Egyptian unified accounting system:

First: Objectives

(1) Degree to which the system meets its main objectives. The usefulness of information for controlling national investment was considered to be slightly more successful than its counterpart's usefulness for planning national investment. The slightly higher rating given to the usefulness of information for control purposes is, perhaps, to be expected in view of the usual emphasis placed on control objective because the system was developed by a control organisation (The Central Auditing Agency).

(2) As to the ranking of importance for serving the purposes of national investment planning and control, the slightly higher rating given to the usefulness of information for controlling has been confirmed because the first, second, and third most important financial statements were considered to be slightly more important for control purpose than for planning purpose.

(3) As to the degree of influence of the different financial statements on national investment planning and control, there were slight differences between the degrees of influence of the different financial statements on national investment planning and control decisions.

The results concerning the ranking of importance and the degree of influence of the different financial statements indicate a reasonable level of understanding of the objectives of the different statements by the respondents.

Second: Qualitative characteristics of accounting information

(1) As to the five best and worst qualitative characteristics of the provided information with regard to serving national investment planning and control; necessity, simplicity, consistency, predictive value, and relevance (or comparability) of information were rated as the five best qualitative characteristics for both planning and control purposes. And completeness, materiality, benefits compared with costs, timeliness, and freedom of bias of information were rated as the five worst qualitative characteristics of the provided information for both planning and control purposes.

(2) The qualitative characteristics of the information for controlling purpose were considered to be slightly more successful than its counterpart for planning purpose. Meanwhile, the rating of the qualitative characteristics of the provided information for both planning and control purpose lies in the success area.

(3) As to the ranking of relevance and reliability of the different financial statements for serving the purposes of national investment planning and control, the first, second, and third most relevant (or reliable) financial statements were considered to be slightly more relevant (or reliable) for control purpose than for planning purpose.

(4) The ranking of relevance and reliability given by the respondents indicates a reasonable level of understanding the statements' objectives.

Third: Elements of financial statements

The majority of our respondents quite agreed that the standardised definitions which have been stated in the unified accounting system have increased the effectiveness of accounting communication to the users.

Fourth: Measurements

(1) Less than 25% of the economic units have followed the voluntary instructions to declare current value accounting in the financial reports.

(2) The majority of the respondents considered the declaration of current value accounting information to be very important in the annual financial reports.

(3) In estimating the monetary value of current value accounting information, the majority of the respondents chose the expected cost and benefits as a basis for their estimates.

Fifth: Financial reporting

(1) The statement of sources and applications of funds, the balance sheet, and the cash flow statement are the most widely read statements. This result confirms the previous results that these statements are the most important and influential statements for serving national investment planning and control. The current operations account, the production and trading account, and the profit and loss account were given less attention in reading, less importance, and less influence.

(2) Concerning the pattern of reading the budget statements, the cash budget was considered as the most thoroughly read budget, the financial budget as the second best read, and quantitative budget as the third best read. This ranking is reasonable having taken into consideration the relative importance of each budget for serving investment decisions.

(3) The usefulness of the information provided in the statement of sources and applications of funds was rated in the range from neutral to slightly successful.

(4) The usefulness of the information provided in Form No 6: the quantitative and financial analysis of the capital applications at the investment project level was rated in the range from neutral to slightly unsuccessful.

(5) The usefulness of the information provided in Form No 6/A: the time distribution of the cost of capital applications was rated in the range from slightly unsuccessful to quite unsuccessful. In other words, both Form No 6 and Form No 6/A did not achieve their predetermined objectives.

C Like any system, the Egyptian unified accounting system suffers from some problems which affect the usefulness of the information provided. These problems are classified into three categories: structural, organisational, and environmental problems. There are interrelationships among these problems and also among the suggested solutions.

In this chapter, the author has presented the descriptive results of the empirical investigation of the Egyptian unified accounting system (primary investigation - descriptive empirical findings). In the next chapter, the inferential analysis (primary investigation - inferential empirical findings) will be presented.

References

1) Emory, C.W., op.cit., pp. 113 - 117.

2) Siegel, S., Nonparametric Statistics: for the Behavioral Sciences, International Student Edition, (N.Y.: McGraw-Hill Book Company, 1956), pp. 23 - 29.

3) Emory, C.W., op.cit., pp. 114 - 117.

4) Siegel, S., op.cit., p. 26.

5) Norusis, M.J., SPSS* Introductory Statistics Guide, (N.Y.: McGraw-Hill Book Company, SPSS Inc., 1983), p. 38.

6) Ibid., pp. 38 - 39.

7) Ibid., p. 39

8) Ibid., p. 40.

9) Ibid., p. 40.

10) Ibid., p. 40.

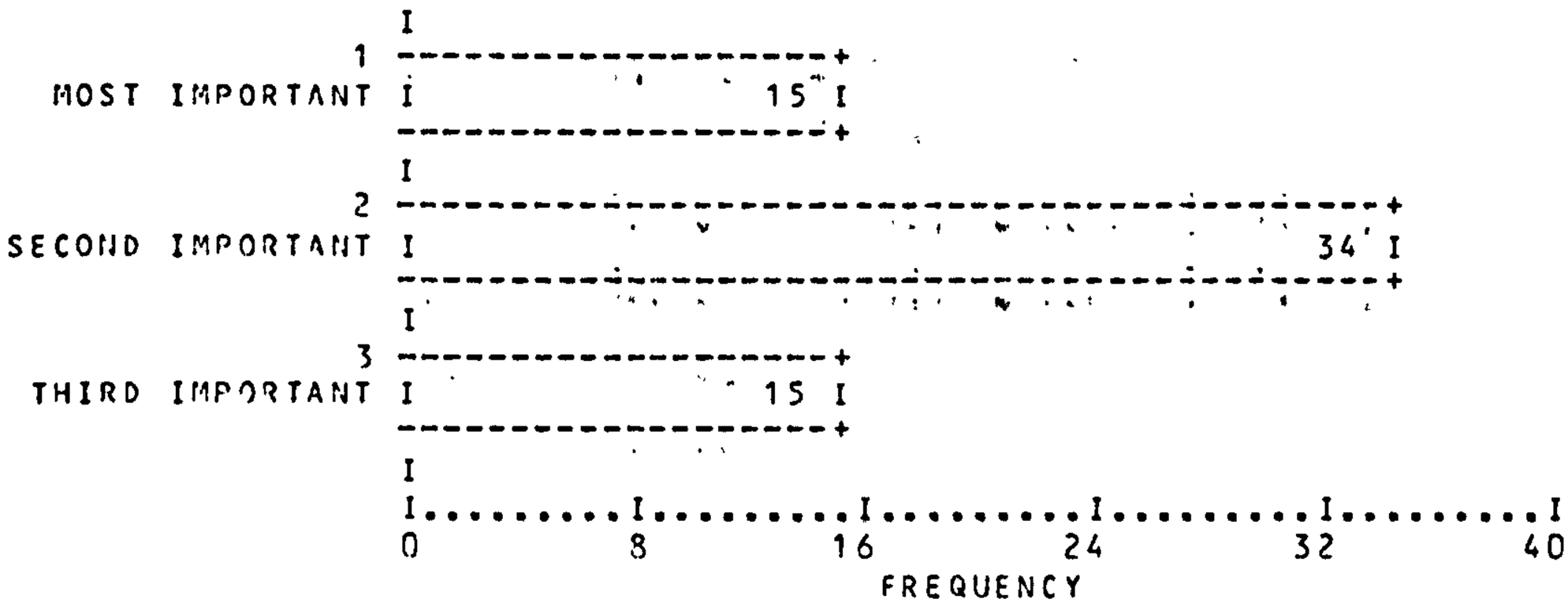
SUPPLEMENT TO CHAPTER EIGHT

TABLES S.8.1 to S.8.97

TABLE S.8.1

RANKBSPL RANK OF B.S.IMPORT.FOR N.INVEST.PLAN.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
MOST IMPORTANT	1	15	23.4	23.4	23.4
SECOND IMPORTANT	2	34	53.1	53.1	76.6
THIRD IMPORTANT	3	15	23.4	23.4	100.0
	TOTAL	64	100.0	100.0	



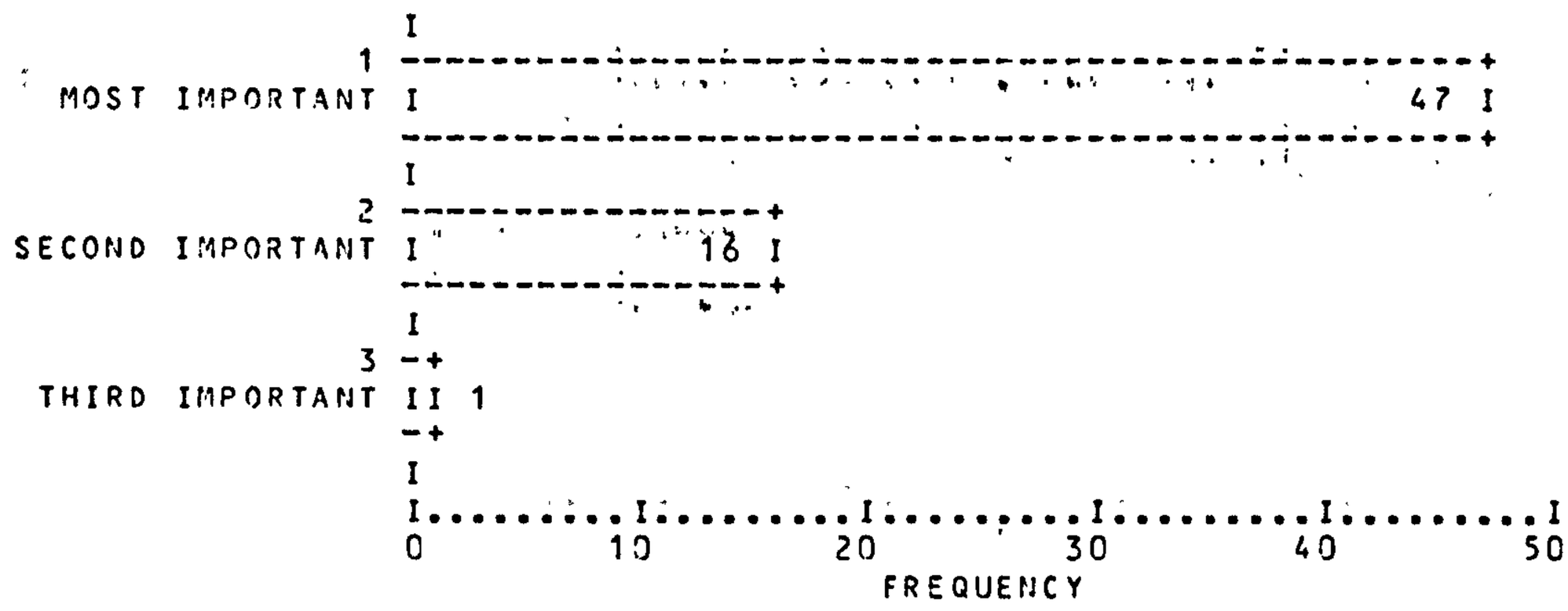
MEAN	2.000	STD ERR	.086	MEDIAN	2.000
MODE	2.000	STD DEV	.690	VARIANCE	.476
KURTOSIS	-.838	S E KURT	1.973	SKEWNESS	0.0
S E SKEW	.299	RANGE	2.000	MINIMUM	1.000
MAXIMUM	3.000	SUM	128.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.2

RANKSAPL RANK OF SSAF.IMPORT.FOR N.INVEST.PLAN.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
MOST IMPORTANT	1	47	73.4	73.4	73.4
SECOND IMPORTANT	2	16	25.0	25.0	98.4
THIRD IMPORTANT	3	1	1.6	1.6	100.0
	TOTAL	64	100.0	100.0	



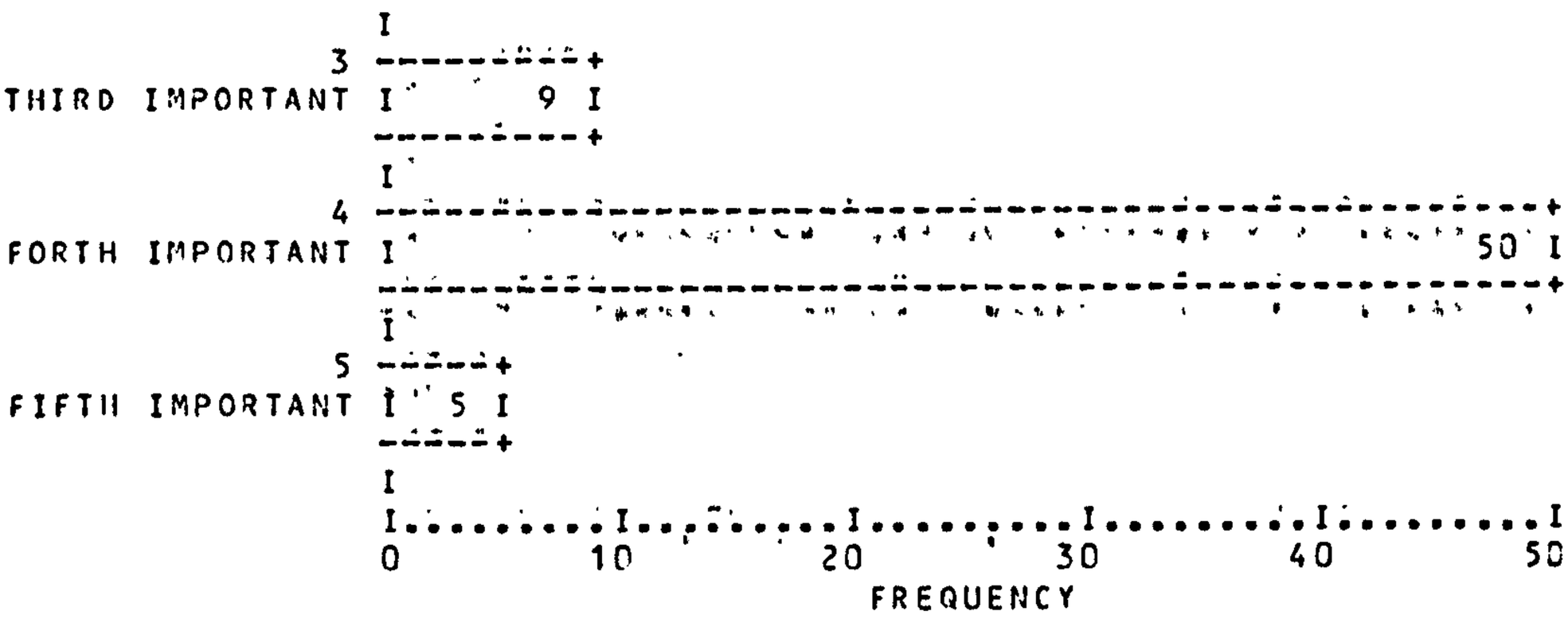
MEAN	1.281	STD ERR	.061	MEDIAN	1.000
MODE	1.000	STD DEV	.487	VARIANCE	.237
KURTOSIS	.979	S E KURT	1.973	SKEWNESS	1.415
S E SKEW	.299	RANGE	2.000	MINIMUM	1.000
MAXIMUM	3.000	SUM	82.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.3

RANKCOPL RANK OF C.O.IMPORT.FOR N.INVEST.PLAN.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
THIRD IMPORTANT	3	9	14.1	14.1	14.1
FORTH IMPORTANT	4	50	78.1	78.1	92.2
FIFTH IMPORTANT	5	5	7.8	7.8	100.0
	TOTAL	64	100.0	100.0	



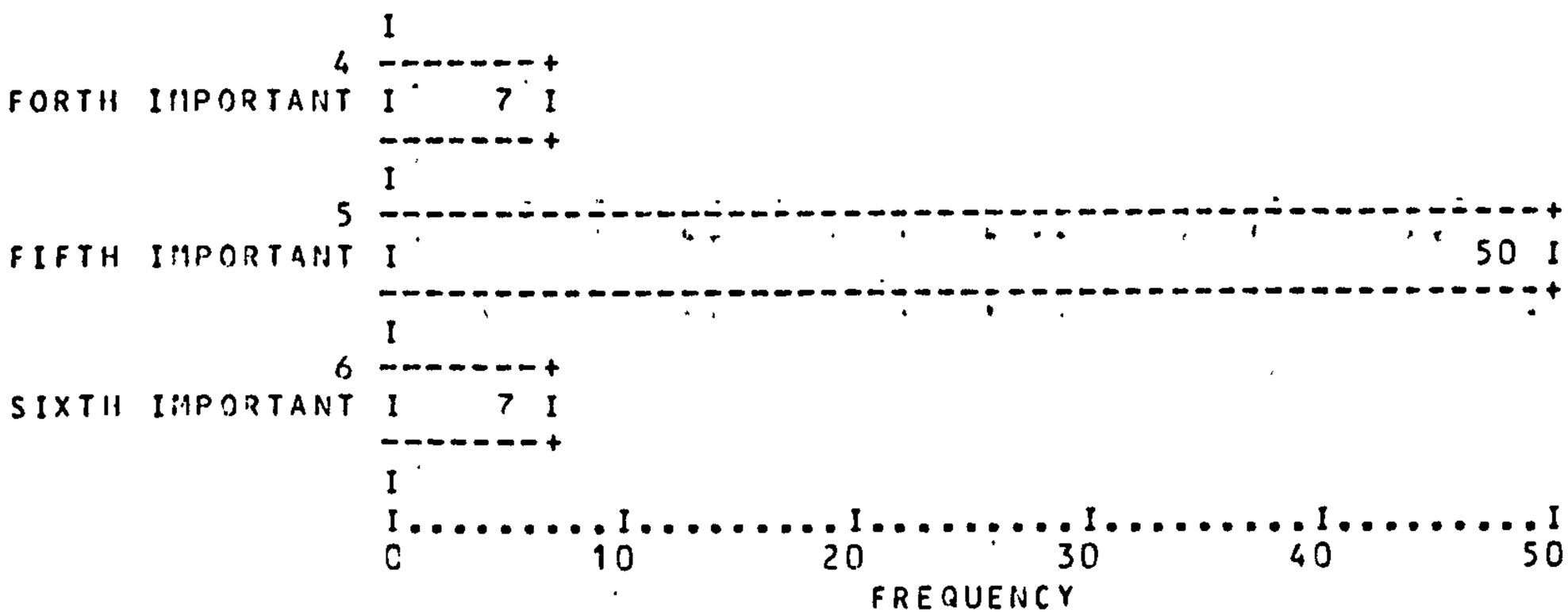
MEAN	3.938	STD ERR	.058	MEDIAN	4.000
MODE	4.000	STD DEV	.467	VARIANCE	.218
KURTOSIS	1.736	S E KURT	1.973	SKEWNESS	-.226
S E SKEW	.299	RANGE	2.000	MINIMUM	3.000
MAXIMUM	5.000	SUM	252.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.4

RANKPTPL RANK OF P.T.IMPORT.FOR N.INVEST.PLAN.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
FORTH IMPORTANT	4	7	10.9	10.9	10.9
FIFTH IMPORTANT	5	50	78.1	78.1	89.1
SIXTH IMPORTANT	6	7	10.9	10.9	100.0
	TOTAL	64	100.0	100.0	



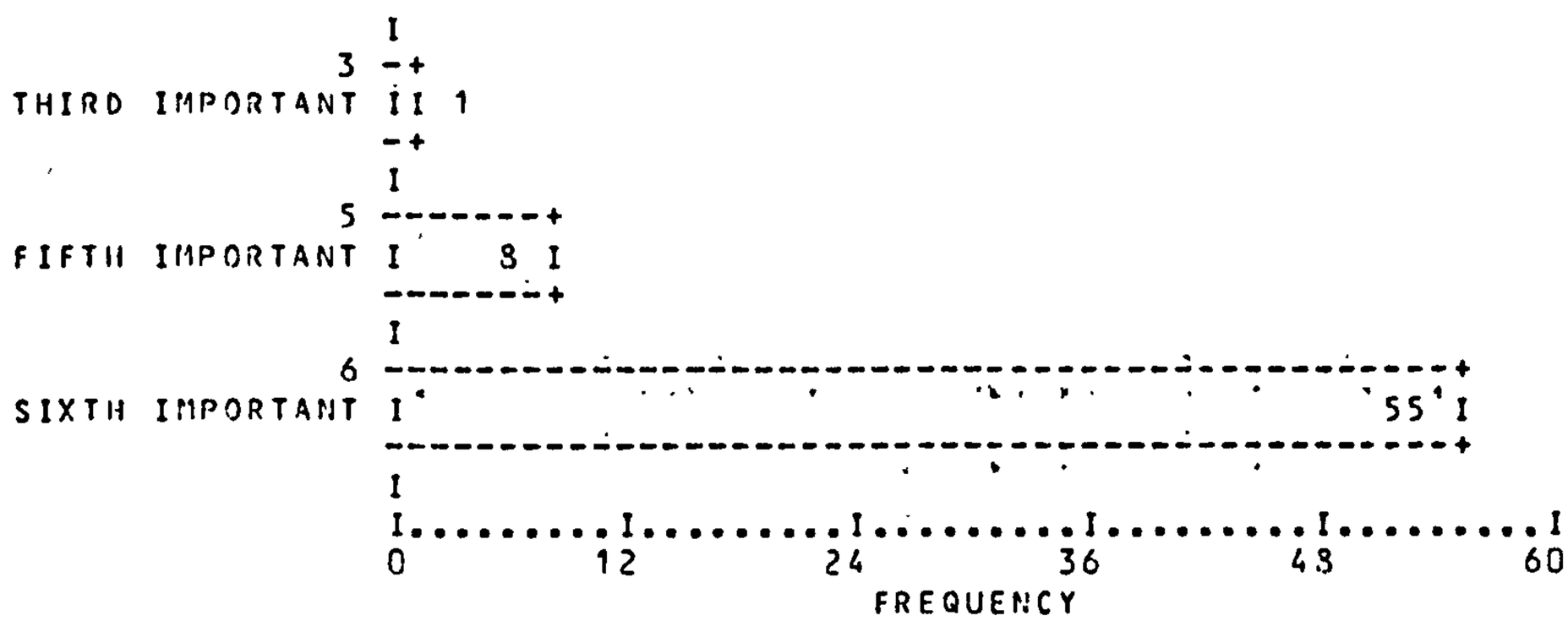
MEAN	5.000	STD ERR	.059	MEDIAN	5.000
MODE	5.000	STD DEV	.471	VARIANCE	.222
KURTOSIS	1.801	S E KURT	1.973	SKEWNESS	0.0
S E SKEW	.299	RANGE	2.000	MINIMUM	4.000
MAXIMUM	6.000	SUM	320.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.5

RANKPLPL RANK OF P.L.IMPORT.FOR N.INVEST.PLAN.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
THIRD IMPORTANT	3	1	1.6	1.6	1.6
FIFTH IMPORTANT	5	8	12.5	12.5	14.1
SIXTH IMPORTANT	6	55	85.9	35.9	100.0
	TOTAL	64	100.0	100.0	



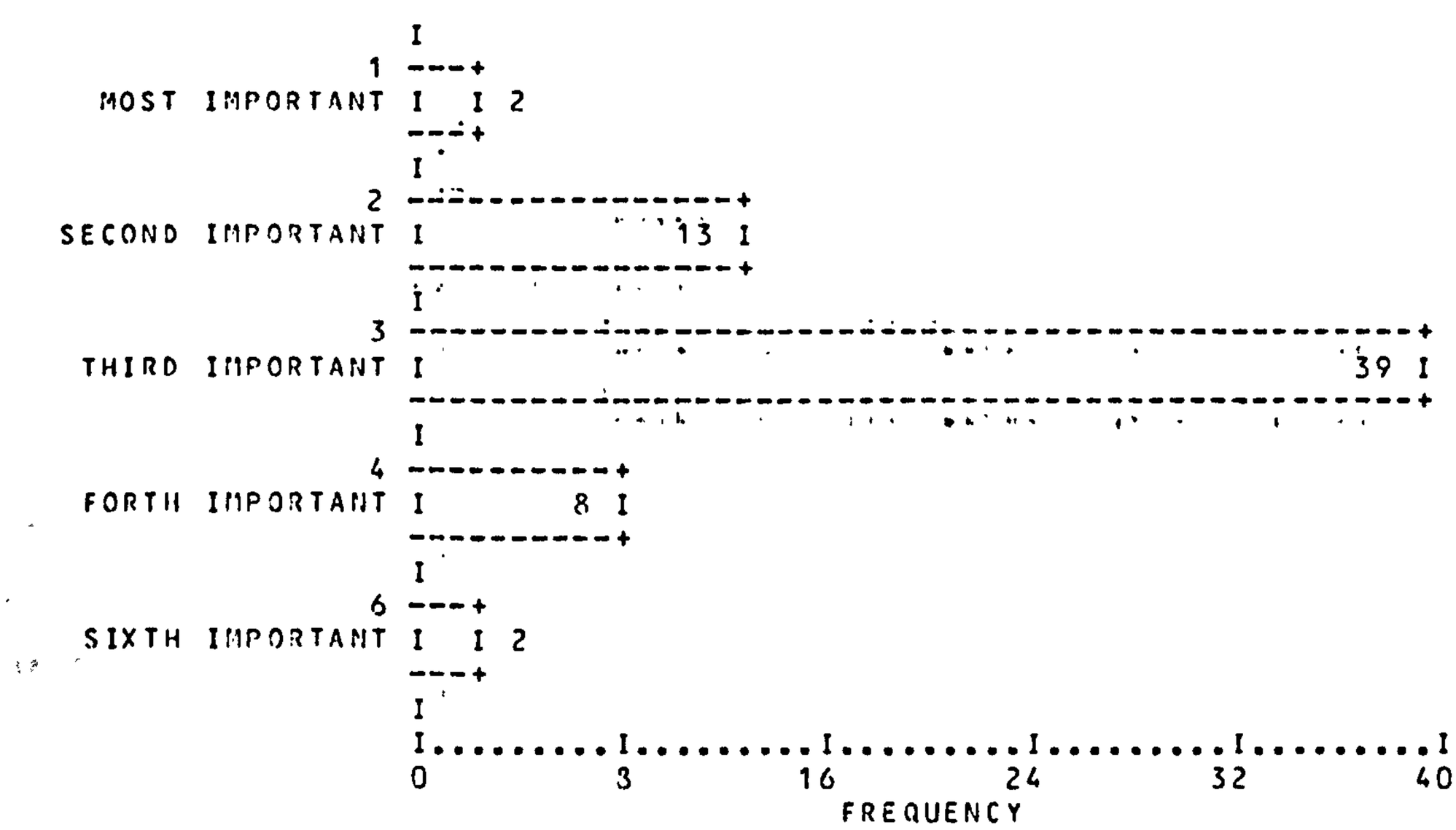
MEAN	5.828	STD ERR	.061	MEDIAN	6.000
MODE	6.000	STD DEV	.490	VARIANCE	.240
KURTOSIS	17.427	S E KURT	1.973	SKEWNESS	-3.750
S E SKEW	.299	RANGE	3.000	MINIMUM	3.000
MAXIMUM	6.000	SUM	373.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.6

RANKCSPL RANK OF C.S.IMPORT.FOR N.INVEST.PLAN.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
MOST IMPORTANT	1	2	3.1	3.1	3.1
SECOND IMPORTANT	2	13	20.3	20.3	23.4
THIRD IMPORTANT	3	39	60.9	60.9	84.4
FORTH IMPORTANT	4	8	12.5	12.5	96.9
SIXTH IMPORTANT	6	2	3.1	3.1	100.0
	TOTAL	64	100.0	100.0	



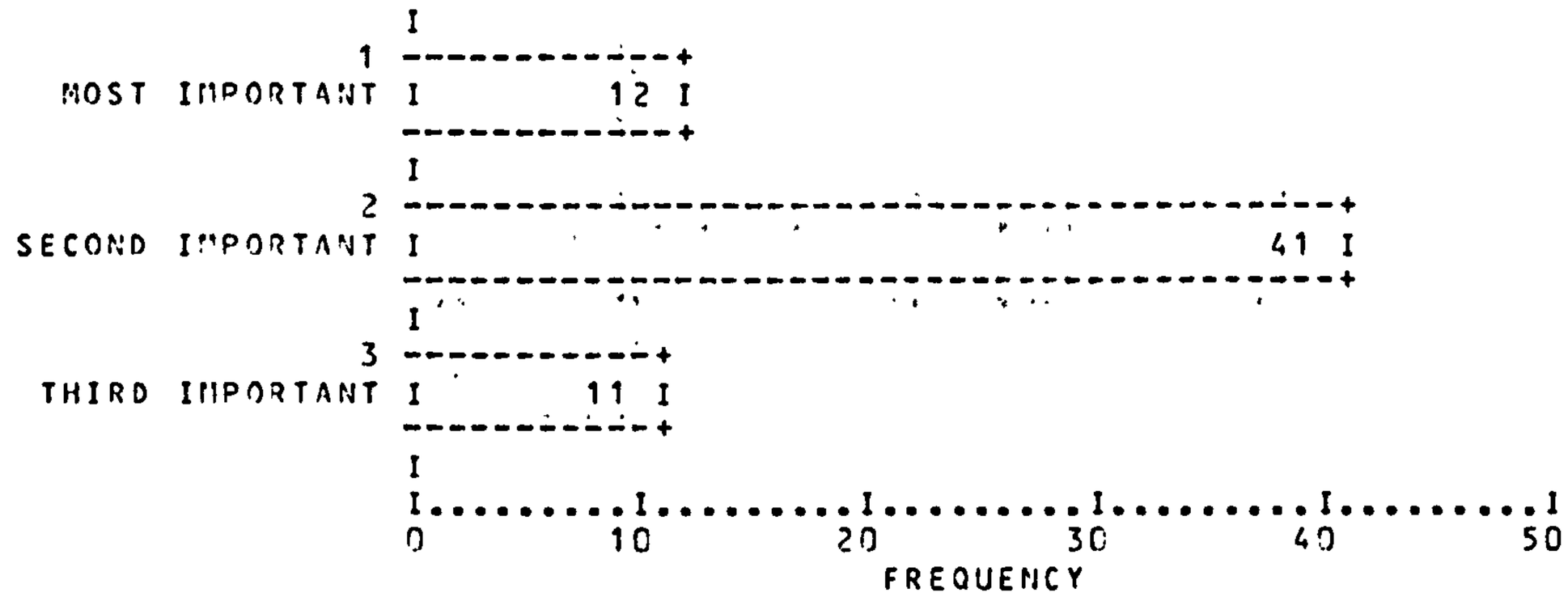
MEAN	2.953	STD ERR	.108	MEDIAN	3.000
MODE	3.000	STD DEV	.862	VARIANCE	.744
KURTOSIS	3.352	S E KURT	1.973	SKEWNESS	1.011
S E SKEW	.299	RANGE	5.000	MINIMUM	1.000
MAXIMUM	6.000	SUM	189.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.7

RANKBSCO RANK OF B.S.IMPORT.FOR N.INVEST.CONT.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
MOST IMPORTANT	1	12	18.8	18.8	18.8
SECOND IMPORTANT	2	41	64.1	64.1	82.8
THIRD IMPORTANT	3	11	17.2	17.2	100.0
	TOTAL	64	100.0	100.0	



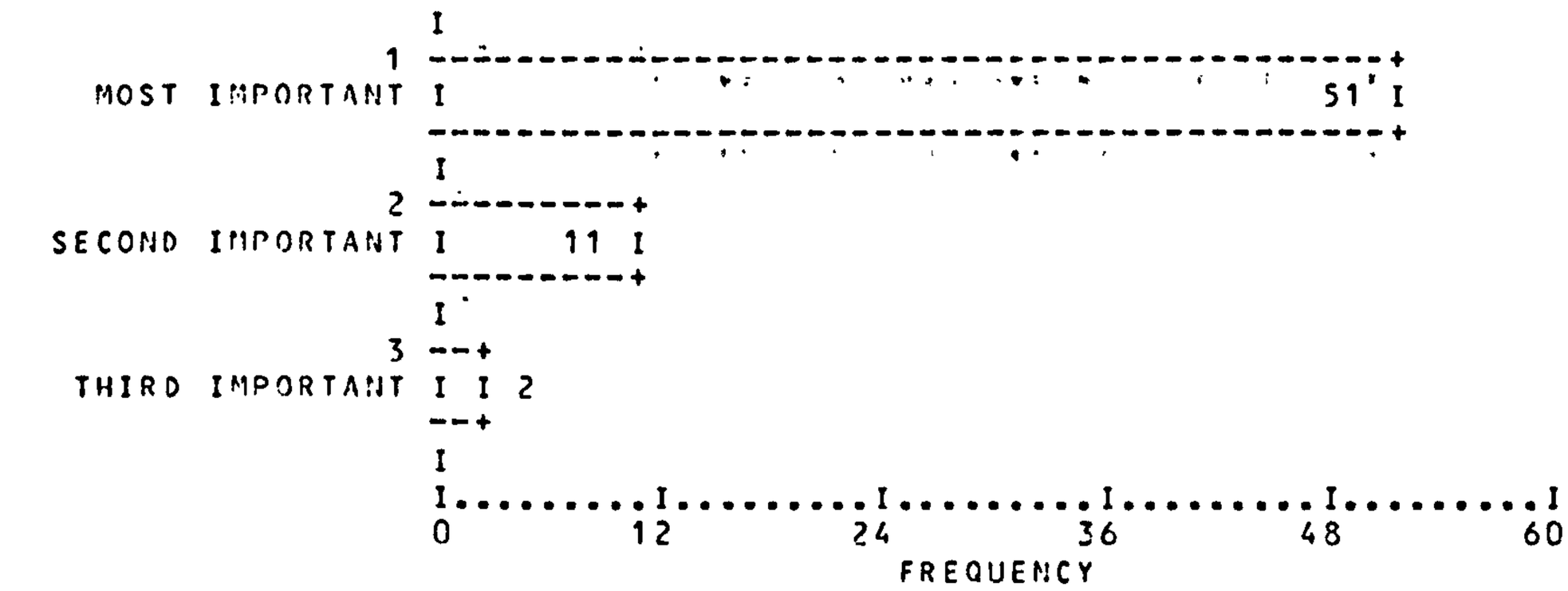
MEAN	1.984	STD ERR	.076	MEDIAN	2.000
MODE	2.000	STD DEV	.604	VARIANCE	.365
KURTOSIS	-.135	S E KURT	1.973	SKEWNESS	.006
S E SKEW	.299	RANGE	2.000	MINIMUM	1.000
MAXIMUM	3.000	SUM	127.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.8

RANKSACO RANK OF SSAF.IMPORT.FOR N.INVEST.CONT.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
MOST IMPORTANT	1	51	79.7	79.7	79.7
SECOND IMPORTANT	2	11	17.2	17.2	96.9
THIRD IMPORTANT	3	2	3.1	3.1	100.0
	TOTAL	64	100.0	100.0	



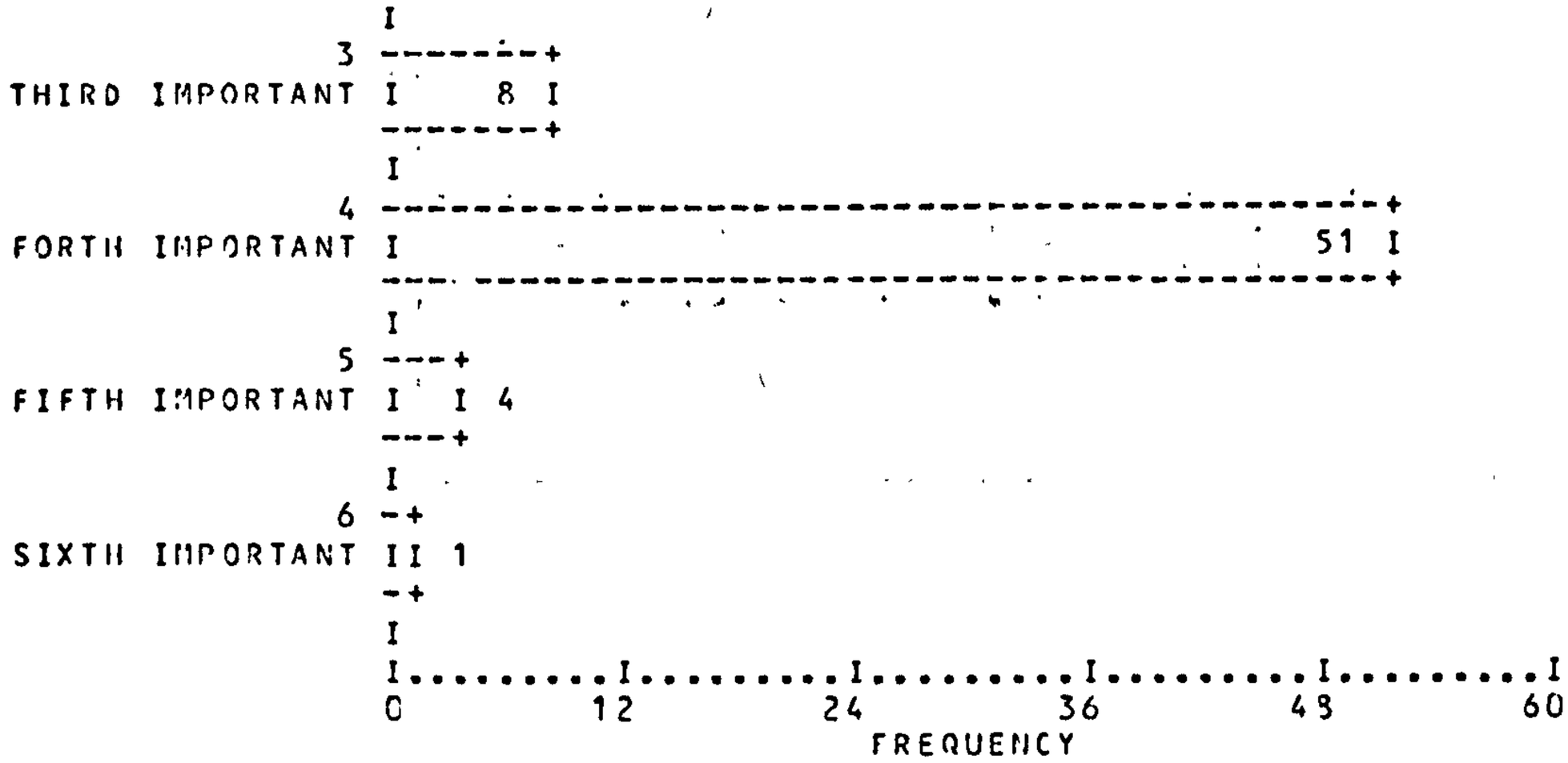
MEAN	1.234	STD ERR	.062	MEDIAN	1.000
MODE	1.000	STD DEV	.496	VARIANCE	.246
KURTOSIS	3.606	S E KURT	1.973	SKEWNESS	2.056
S E SKEW	.299	RANGE	2.000	MINIMUM	1.000
MAXIMUM	3.000	SUM	79.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.9

RANKCOCO RANK OF C.O.IMPORT.FOR N.INVEST.CONT.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
THIRD IMPORTANT	3	8	12.5	12.5	12.5
FORTH IMPORTANT	4	51	79.7	79.7	92.2
FIFTH IMPORTANT	5	4	6.3	6.3	98.4
SIXTH IMPORTANT	6	1	1.6	1.6	100.0
	TOTAL	64	100.0	100.0	



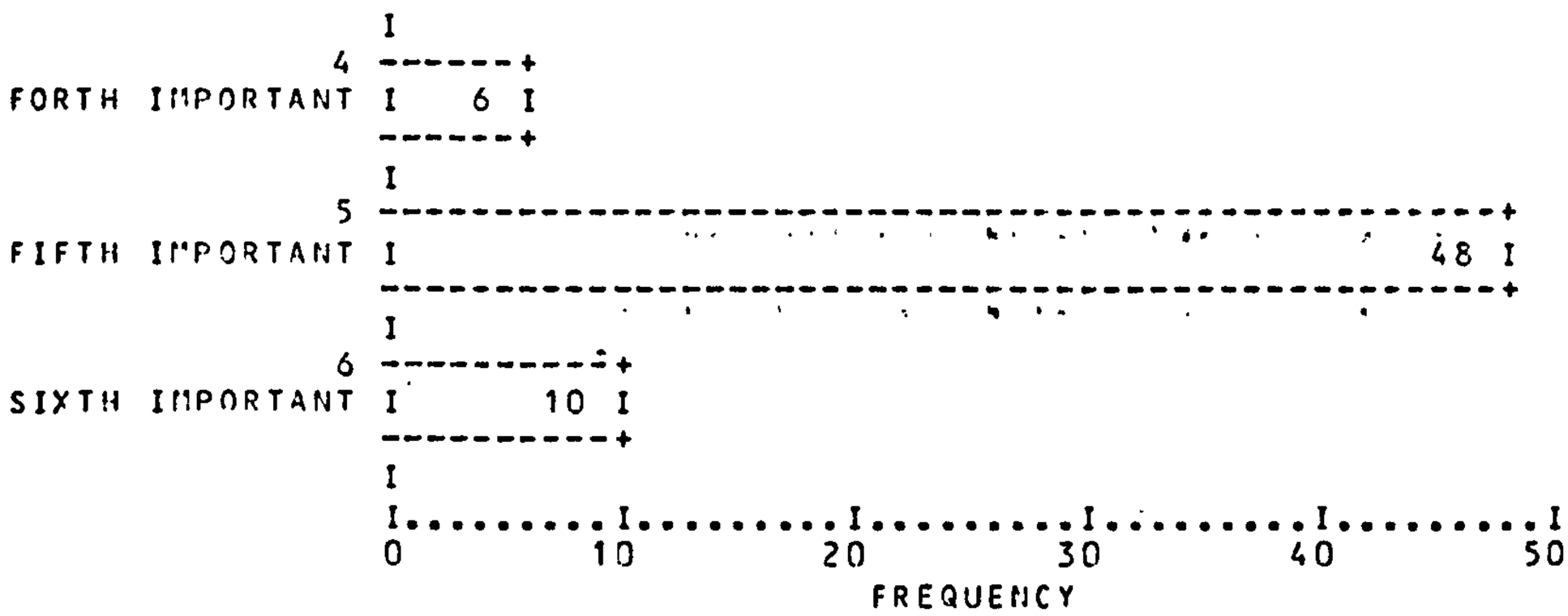
MEAN	3.969	STD ERR	.063	MEDIAN	4.000
MODE	4.000	STD DEV	.503	VARIANCE	.253
KURTOSIS	4.652	S E KURT	1.973	SKEWNESS	.708
S E SKEW	.299	RANGE	3.000	MINIMUM	3.000
MAXIMUM	6.000	SUM	254.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.10

RANKPTCO RANK OF P.T.IMPORT.FOR N.INVEST.CONT.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
FORTH IMPORTANT	4	6	9.4	9.4	9.4
FIFTH IMPORTANT	5	48	75.0	75.0	84.4
SIXTH IMPORTANT	6	10	15.6	15.6	100.0
	TOTAL	64	100.0	100.0	



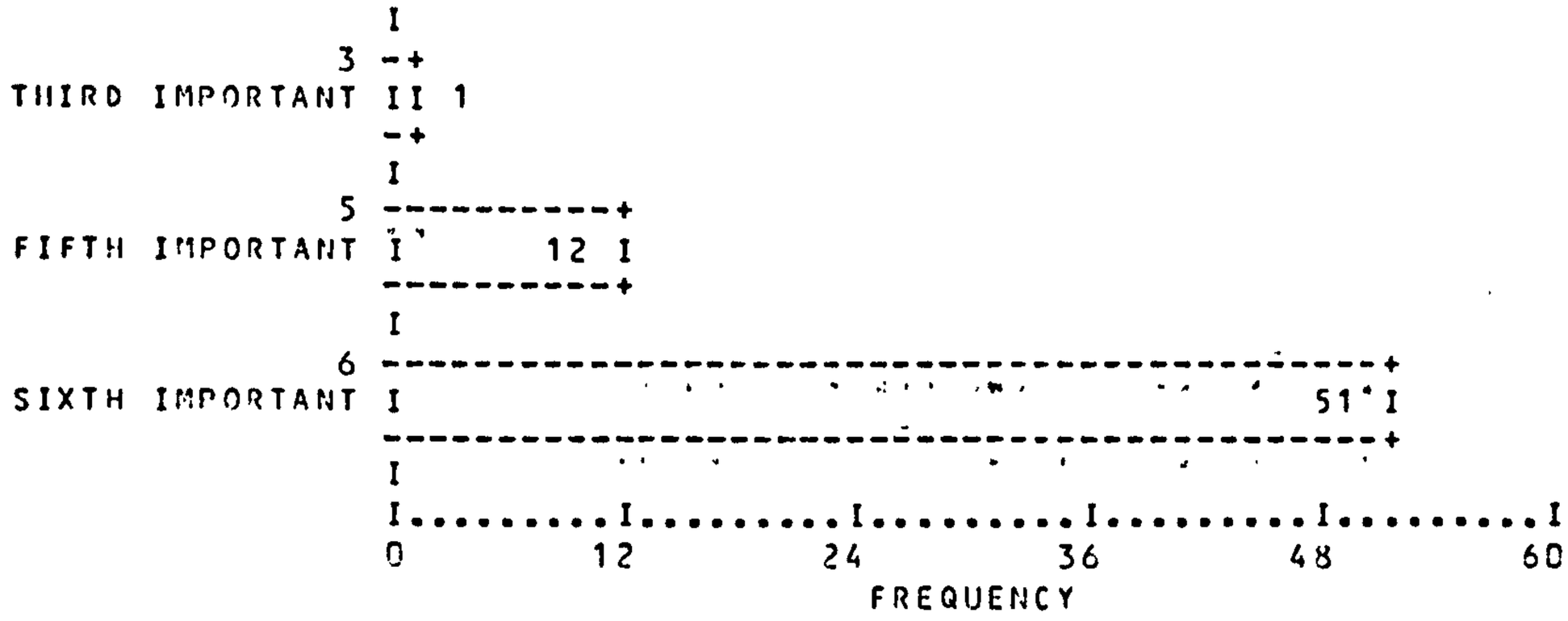
MEAN	5.063	STD ERR	.063	MEDIAN	5.000
MODE	5.000	STD DEV	.500	VARIANCE	.250
KURTOSIS	1.146	S E KURT	1.973	SKEWNESS	.135
S E SKEW	.299	RANGE	2.000	MINIMUM	4.000
MAXIMUM	6.000	SUM	324.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.11

RANKPLCO RANK OF P.L.IMPORT.FOR N.INVEST.CONT.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
THIRD IMPORTANT	3	1	1.6	1.6	1.6
FIFTH IMPORTANT	5	12	18.8	18.8	20.3
SIXTH IMPORTANT	6	51	79.7	79.7	100.0
	TOTAL	64	100.0	100.0	



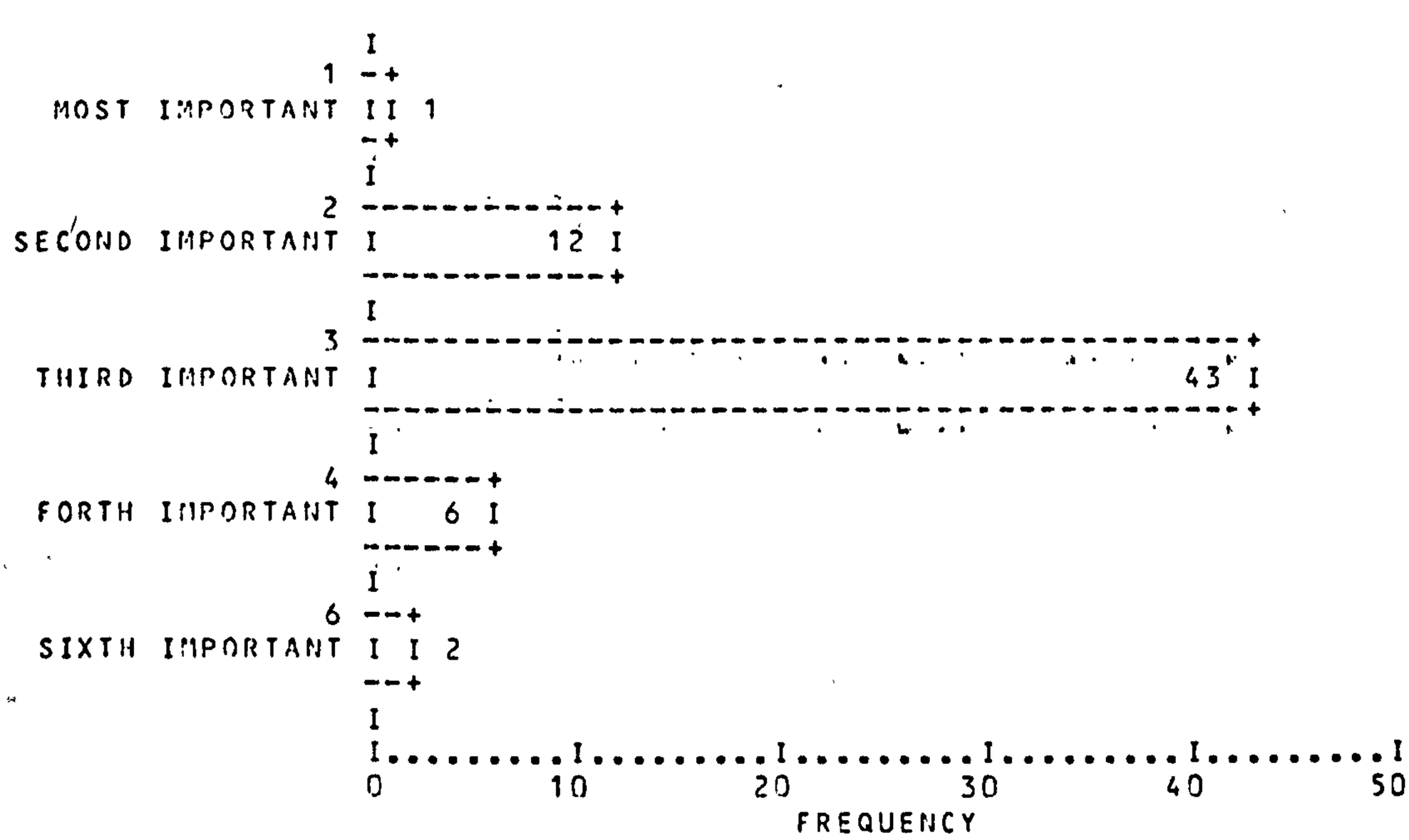
MEAN	5.766	STD ERR	.066	MEDIAN	6.000
MODE	6.000	STD DEV	.527	VARIANCE	.278
KURTOSIS	11.082	S E KURT	1.973	SKEWNESS	-2.901
S E SKEW	.299	RANGE	3.000	MINIMUM	3.000
MAXIMUM	6.000	SUM	369.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.12

RANKCSCO RANK OF C.S.IMPORT.FOR N.INVEST.CONT.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
MOST IMPORTANT	1	1	1.6	1.6	1.6
SECOND IMPORTANT	2	12	18.8	18.8	20.3
THIRD IMPORTANT	3	43	67.2	67.2	87.5
FORTH IMPORTANT	4	6	9.4	9.4	96.9
SIXTH IMPORTANT	6	2	3.1	3.1	100.0
	TOTAL	64	100.0	100.0	



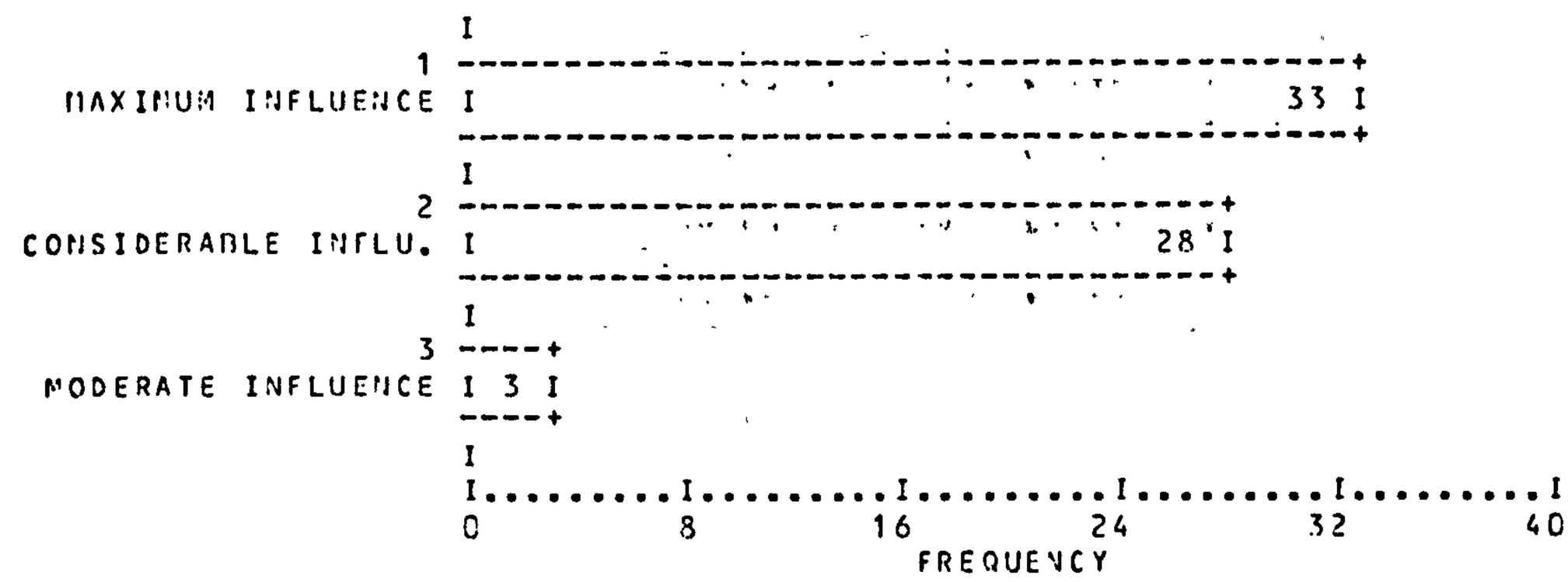
MEAN	2.969	STD ERR	.100	MEDIAN	3.000
MODE	3.000	STD DEV	.796	VARIANCE	.634
KURTOSIS	5.595	S E KURT	1.973	SKEWNESS	1.420
S E SKEW	.299	RANGE	5.000	MINIMUM	1.000
MAXIMUM	6.000	SUM	190.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.13

INFLBSPL DEGREE OF B.S.INFLU.IN N.INVEST.PLAN.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
MAXIMUM INFLUENCE	1	33	51.6	51.6	51.6
CONSIDERABLE INFLU.	2	28	43.8	43.8	95.3
MODERATE INFLUENCE	3	3	4.7	4.7	100.0
	TOTAL	64	100.0	100.0	



MEAN	1.531	STD ERR	.074	MEDIAN	1.000
MODE	1.000	STD DEV	.590	VARIANCE	.348
KURTOSIS	-.565	S E KURT	1.073	SKEWNESS	.593
S E SKEW	.299	RANGE	2.000	MINIMUM	1.000
MAXIMUM	3.000	SUM	98.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.14

INFLSAPL DEGREE OF SSAF.INFLU.IN N.INVEST.PLAN.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
MAXIMUM INFLUENCE	1	51	79.7	79.7	79.7
CONSIDERABLE INFLU.	2	13	20.3	20.3	100.0
	TOTAL	64	100.0	100.0	

```
                    I
                  1 ----------------------------------------+
MAXIMUM INFLUENCE I                                      51 I
                    ----------------------------------------+
                    I
                  2 -----------+
CONSIDERABLE INFLU. I       13 I
                    -----------+
                    I
                    I.........I.........I.........I.........I.........I.........I
                    0         12        24        36        48        60
                                      FREQUENCY
```

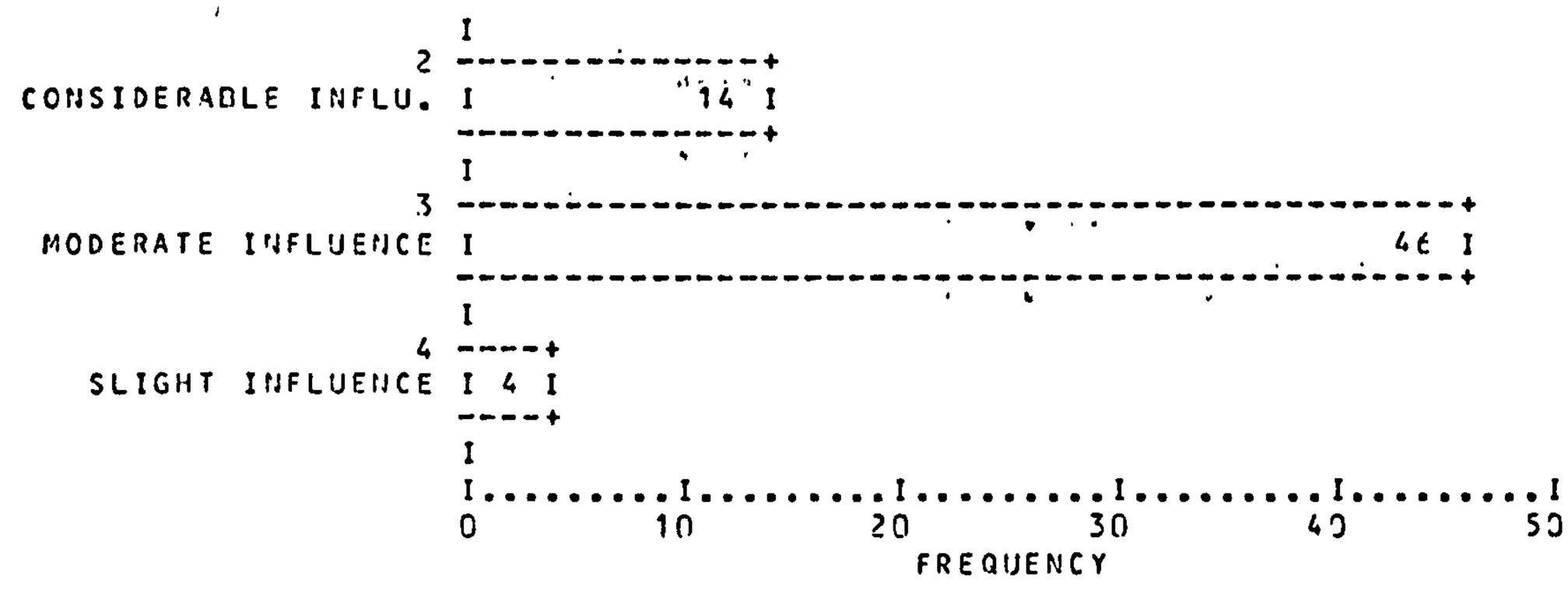
MEAN	1.203	STD ERR	.051	MEDIAN	1.000
MODE	1.000	STD DEV	.406	VARIANCE	.164
KURTOSIS	.293	S E KURT	1.973	SKEWNESS	1.511
S E SKEW	.299	RANGE	1.000	MINIMUM	1.000
MAXIMUM	2.000	SUM	77.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.15

INFLCOPL DEGREE OF C.O.INFLU.IN N.INVEST.PLAN.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
CONSIDERABLE INFLU.	2	14	21.9	21.9	21.9
MODERATE INFLUENCE	3	46	71.9	71.9	93.8
SLIGHT INFLUENCE	4	4	6.3	6.3	100.0
	TOTAL	64	100.0	100.0	



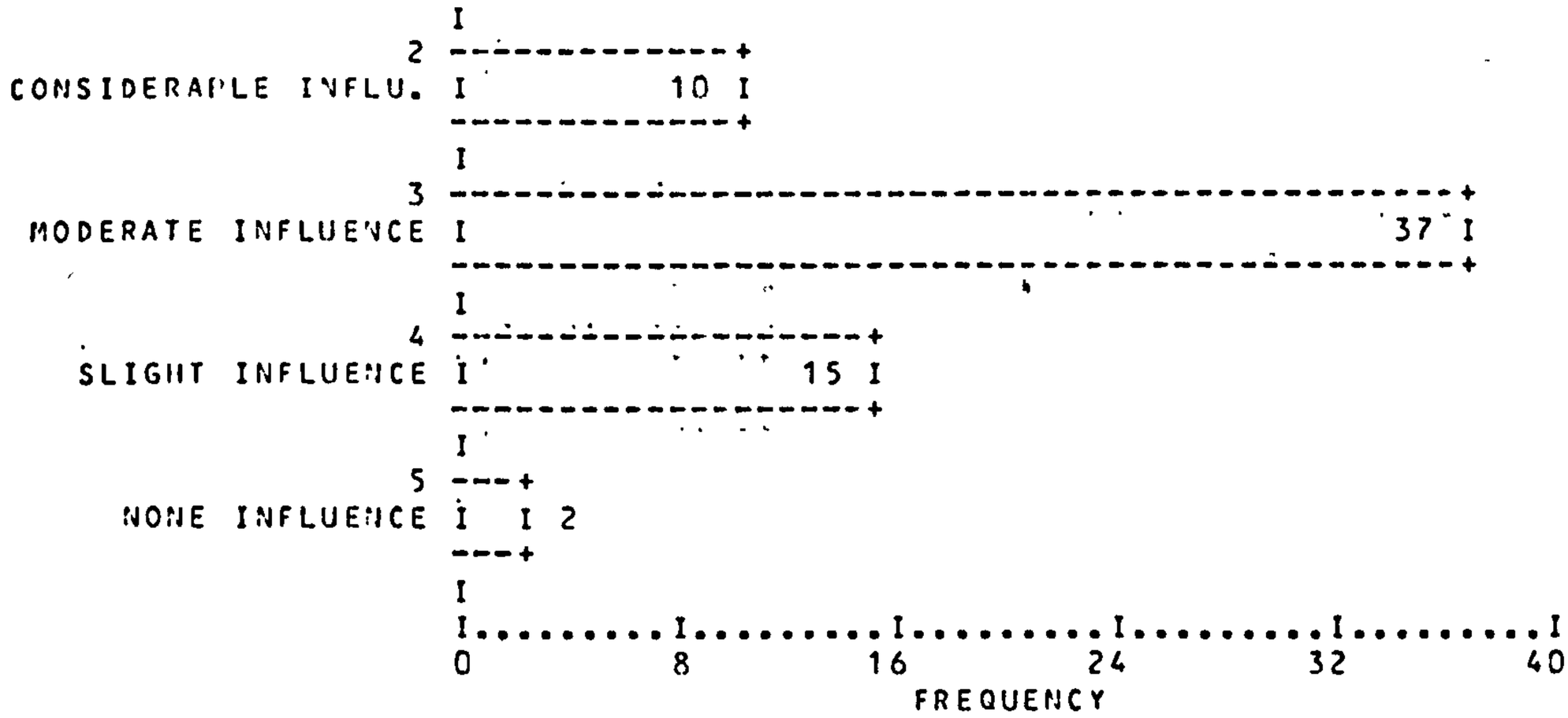
MEAN	2.844	STD ERR	.064	MEDIAN	3.000
MODE	3.000	STD DEV	.511	VARIANCE	.261
KURTOSIS	.512	S E KURT	1.973	SKEWNESS	-.252
S E SKEW	.299	RANGE	2.000	MINIMUM	2.000
MAXIMUM	4.000	SUM	182.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.16

INFLPTPL DEGREE OF P.T.INFLU.IN N.INVEST.PLAN.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
CONSIDERABLE INFLU.	2	10	15.6	15.6	15.6
MODERATE INFLUENCE	3	37	57.8	57.8	73.4
SLIGHT INFLUENCE	4	15	23.4	23.4	96.9
NONE INFLUENCE	5	2	3.1	3.1	100.0
	TOTAL	64	100.0	100.0	



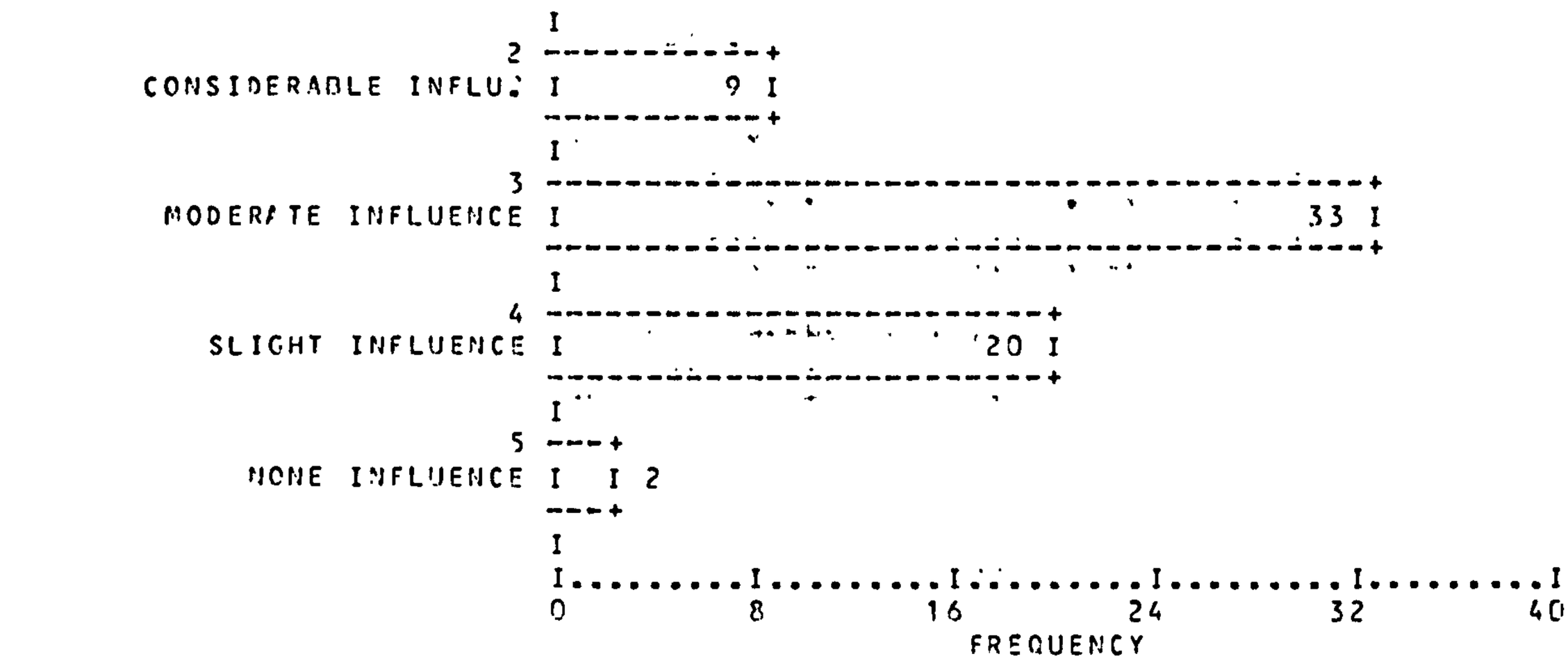
MEAN	3.141	STD ERR	.089	MEDIAN	3.000
MODE	3.000	STD DEV	.710	VARIANCE	.504
KURTOSIS	.225	S E KURT	1.973	SKEWNESS	.341
S E SKEW	.299	RANGE	3.000	MINIMUM	2.000
MAXIMUM	5.000	SUM	201.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.17

INFLPLPL DEGREE OF P.L.INFLU.IN N.INVEST.PLAN.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
CONSIDERABLE INFLU.	2	9	14.1	14.1	14.1
MODERATE INFLUENCE	3	33	51.6	51.6	65.6
SLIGHT INFLUENCE	4	20	31.3	31.3	96.9
NONE INFLUENCE	5	2	3.1	3.1	100.0
	TOTAL	64	100.0	100.0	



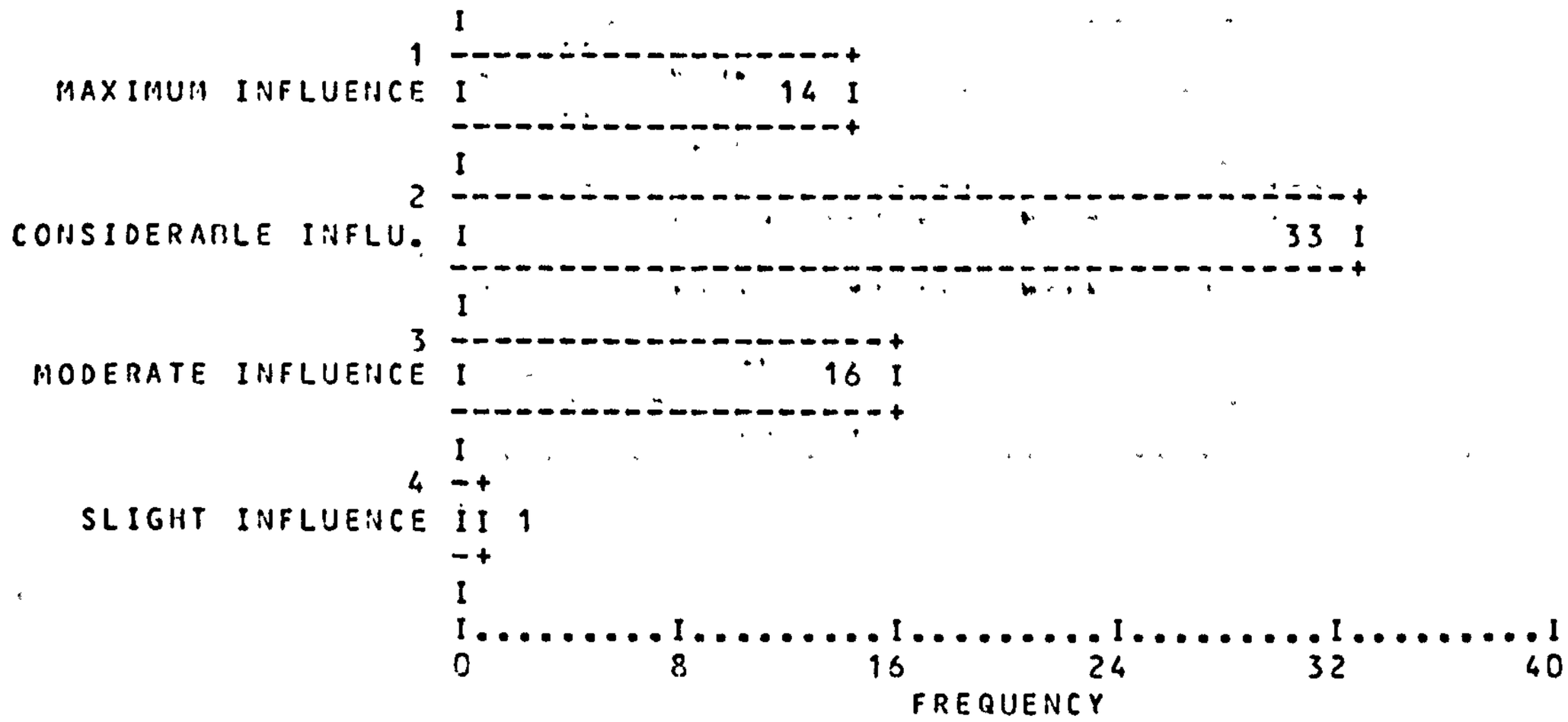
MEAN	3.234	STD ERR	.091	MEDIAN	3.000
MODE	3.000	STD DEV	.729	VARIANCE	.531
KURTOSIS	-.225	S E KURT	1.973	SKEWNESS	.111
S E SKEW	.299	RANGE	3.000	MINIMUM	2.000
MAXIMUM	5.000	SUM	207.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.18

INFLCSPL DEGREE OF C.S.INFLU.IN N.INVEST.PLAN.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
MAXIMUM INFLUENCE	1	14	21.9	21.9	21.9
CONSIDERABLE INFLU.	2	33	51.6	51.6	73.4
MODERATE INFLUENCE	3	16	25.0	25.0	98.4
SLIGHT INFLUENCE	4	1	1.6	1.6	100.0
	TOTAL	64	100.0	100.0	



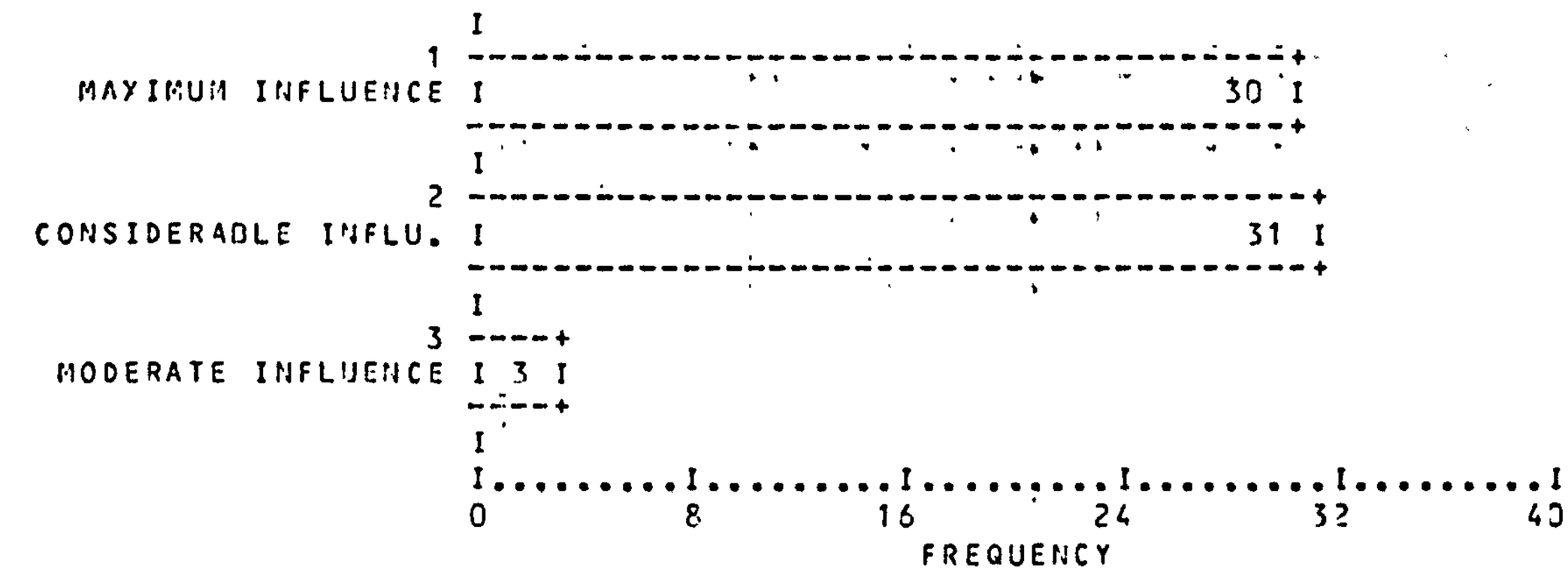
MEAN	2.063	STD ERR	.091	MEDIAN	2.000
MODE	2.000	STD DEV	.732	VARIANCE	.536
KURTOSIS	-.454	S E KURT	1.973	SKEWNESS	.153
S E SKEW	.299	RANGE	3.000	MINIMUM	1.000
MAXIMUM	4.000	SUM	132.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.19

INFLBSCO DEGREE OF B.S.INFLU.IN N.INVEST.CONT.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
MAXIMUM INFLUENCE	1	30	46.9	46.9	46.9
CONSIDERABLE INFLU.	2	31	48.4	48.4	95.3
MODERATE INFLUENCE	3	3	4.7	4.7	100.0
	TOTAL	64	100.0	100.0	



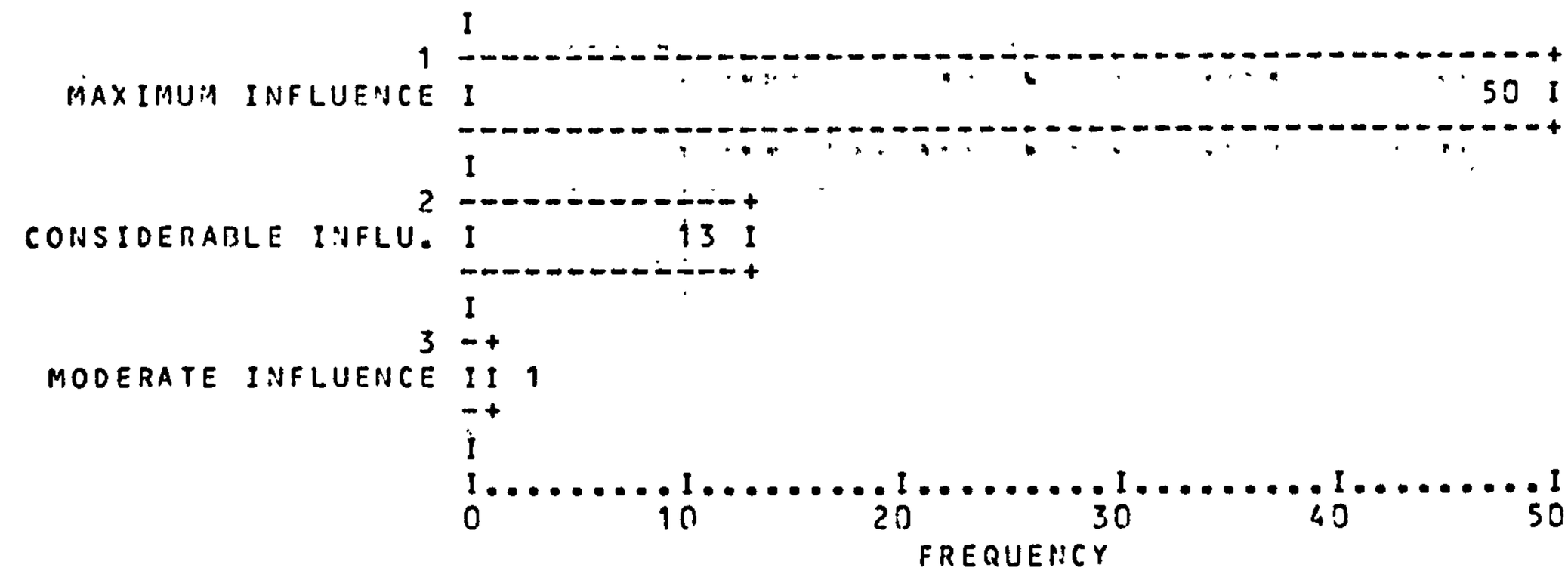
MEAN	1.578	STD ERR	.073	MEDIAN	2.000
MODE	2.000	STD DEV	.586	VARIANCE	.343
KURTOSIS	-.686	S E KURT	1.973	SKEWNESS	.420
S E SKEW	.299	RANGE	2.000	MINIMUM	1.000
MAXIMUM	3.000	SUM	101.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.20

INFLSACO DEGREE OF SSAF.INFLU.IN N.INVEST.CONT.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
MAXIMUM INFLUENCE	1	50	78.1	78.1	78.1
CONSIDERABLE INFLU.	2	13	20.3	20.3	98.4
MODERATE INFLUENCE	3	1	1.6	1.6	100.0
	TOTAL	64	100.0	100.0	



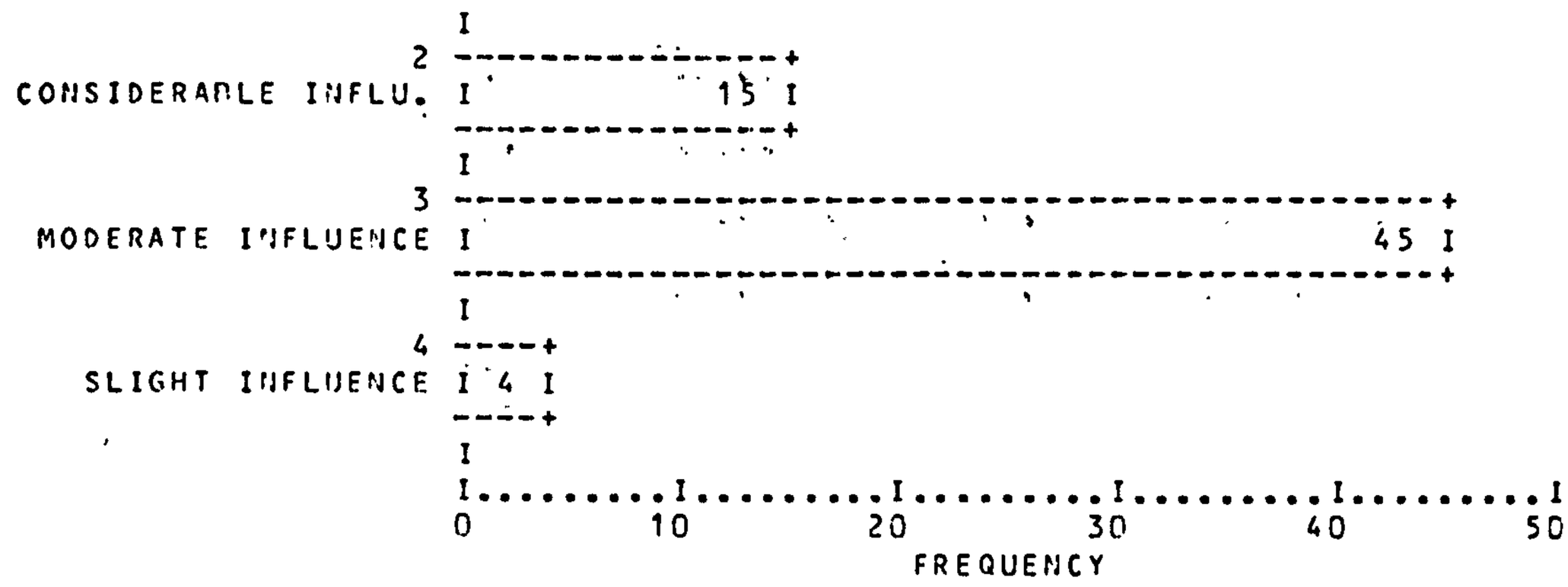
MEAN	1.234	STD ERR	.058	MEDIAN	1.000
MODE	1.000	STD DEV	.463	VARIANCE	.214
KURTOSIS	2.315	S E KURT	1.973	SKEWNESS	1.770
S E SKEW	.299	RANGE	2.000	MINIMUM	1.000
MAXIMUM	3.000	SUM	79.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.21

INFLCOCO DEGREE OF C.O.INFLU.IN N.INVEST.CONT.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
CONSIDERABLE INFLU.	2	15	23.4	23.4	23.4
MODERATE INFLUENCE	3	45	70.3	70.3	93.8
SLIGHT INFLUENCE	4	4	6.3	6.3	100.0
	TOTAL	64	100.0	100.0	



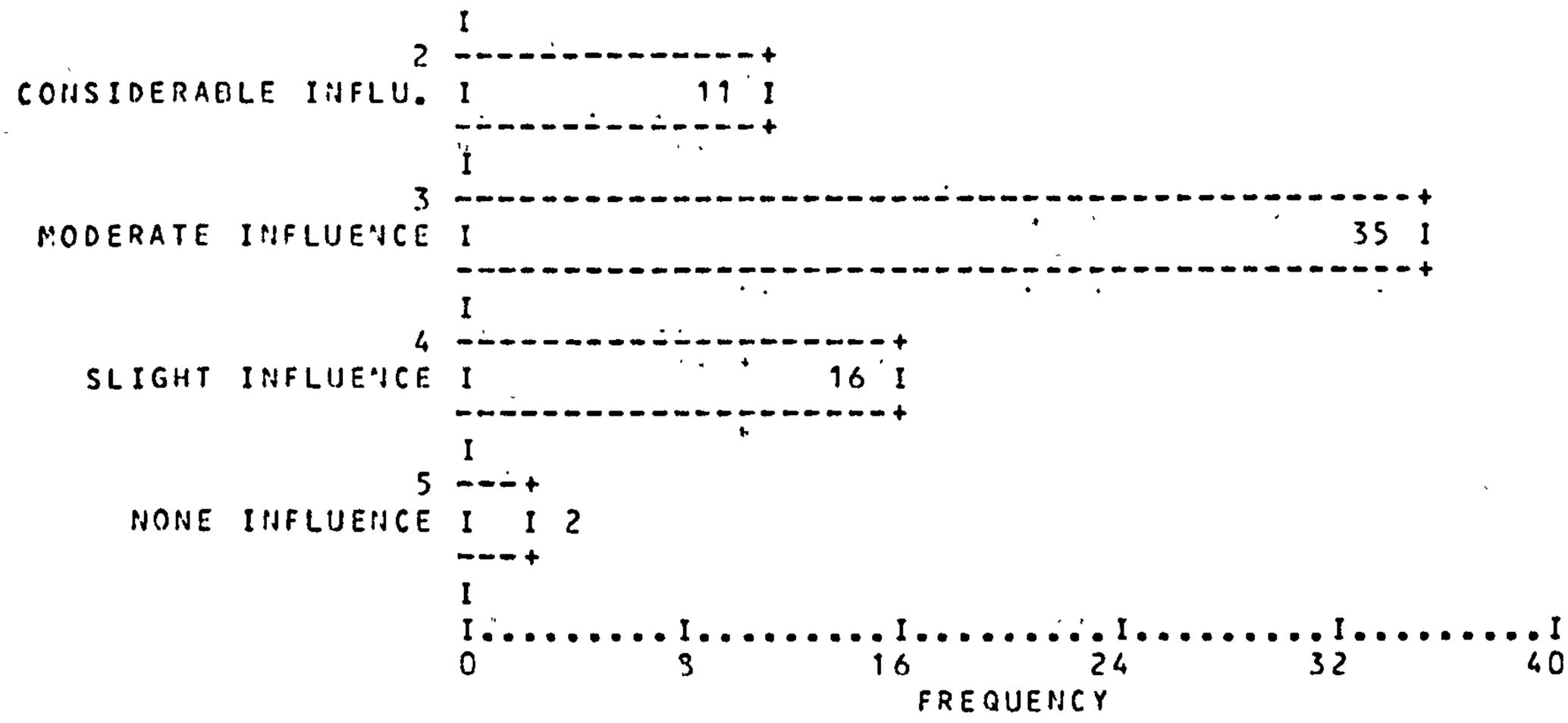
MEAN	2.328	STD ERR	.065	MEDIAN	3.000
MODE	3.000	STD DEV	.521	VARIANCE	.272
KURTOSIS	.317	S E KURT	1.973	SKEWNESS	-.215
S E SKEW	.299	RANGE	2.000	MINIMUM	2.000
MAXIMUM	4.000	SUM	181.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.22

INFLPTCO DEGREE OF P.T.INFLU.IN.N.INVEST.CONT.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
CONSIDERABLE INFLU.	2	11	17.2	17.2	17.2
MODERATE INFLUENCE	3	35	54.7	54.7	71.9
SLIGHT INFLUENCE	4	16	25.0	25.0	96.9
NONE INFLUENCE	5	2	3.1	3.1	100.0
	TOTAL	64	100.0	100.0	



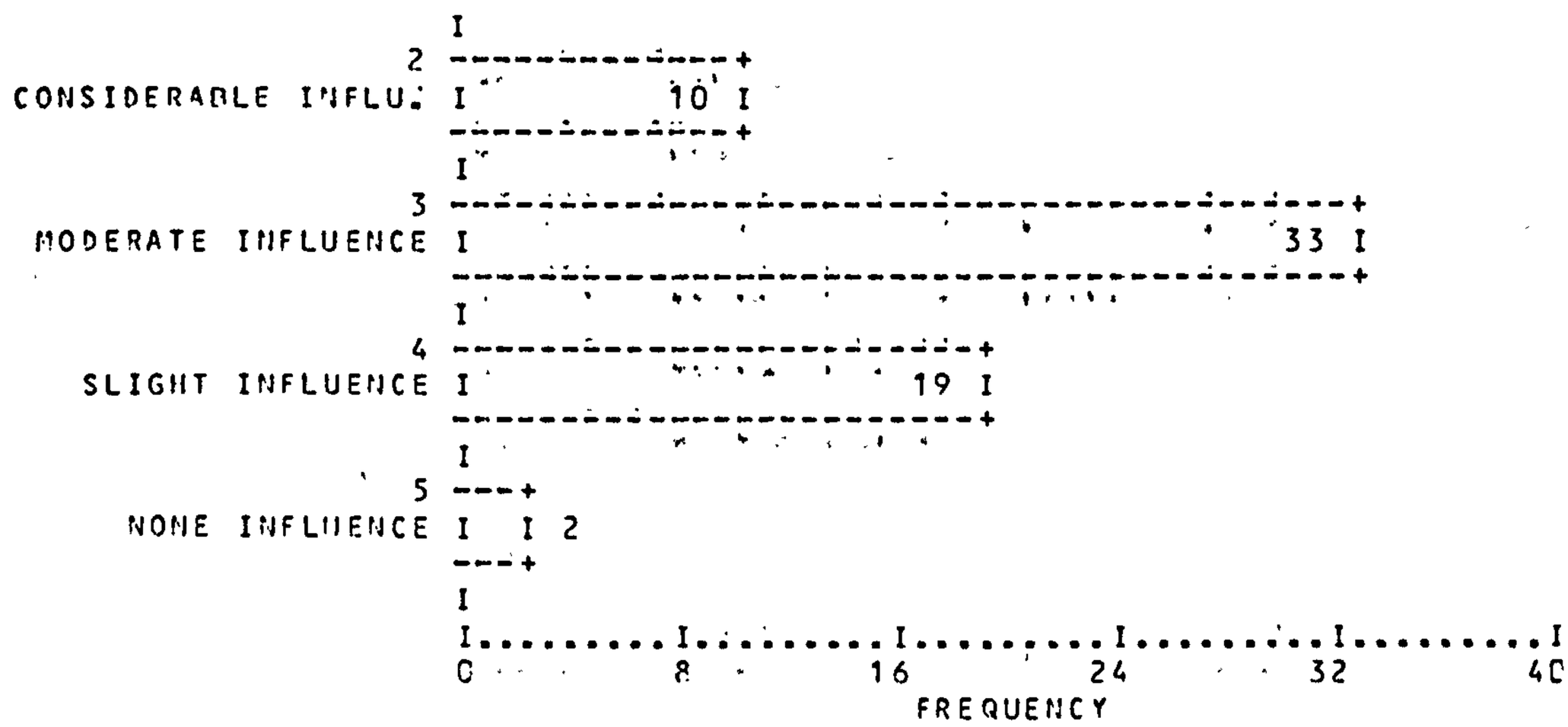
MEAN	3.141	STD ERR	.091	MEDIAN	3.000
MODE	3.000	STD DEV	.732	VARIANCE	.535
KURTOSIS	-.027	S E KURT	1.973	SKEWNESS	.276
S E SKEW	.299	RANGE	3.000	MINIMUM	2.000
MAXIMUM	5.000	SUM	201.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.23

INFLPLCO DEGREE OF P.L.INFLU.IN N.INVEST.CONT.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
CONSIDERABLE INFLU.	2	10	15.6	15.6	15.6
MODERATE INFLUENCE	3	33	51.6	51.6	67.2
SLIGHT INFLUENCE	4	19	29.7	29.7	96.9
NONE INFLUENCE	5	2	3.1	3.1	100.0
	TOTAL	64	100.0	100.0	



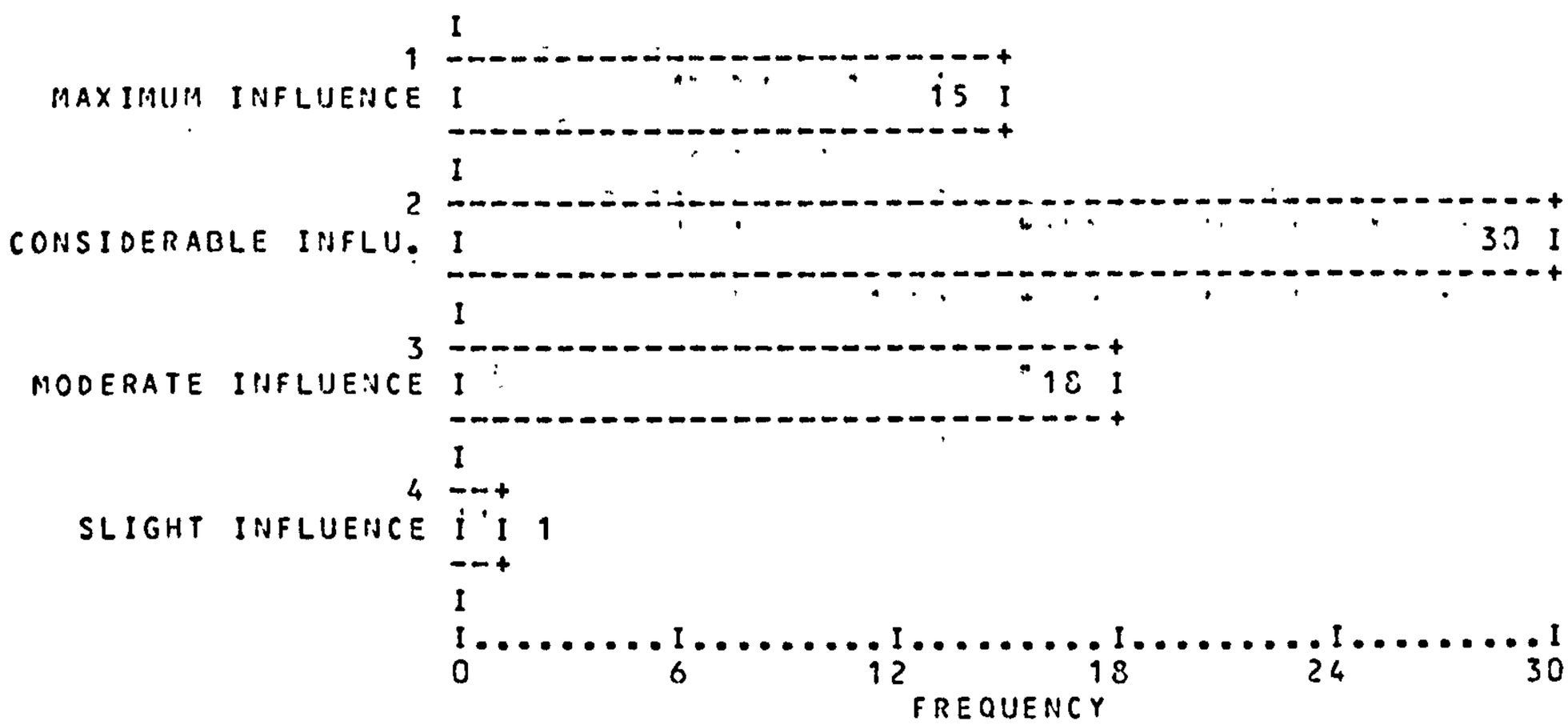
MEAN	3.203	STD ERR	.092	MEDIAN	3.000
MODE	3.000	STD DEV	.739	VARIANCE	.545
KURTOSIS	-.242	S E KURT	1.973	SKEWNESS	.143
S E SKEW	.299	RANGE	3.000	MINIMUM	2.000
MAXIMUM	5.000	SUM	205.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.24

INFLCSCO DEGREE OF C.S.INFLU.IN N.INVEST.CONT.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
MAXIMUM INFLUENCE	1	15	23.4	23.4	23.4
CONSIDERABLE INFLU.	2	30	46.9	46.9	70.3
MODERATE INFLUENCE	3	18	28.1	28.1	98.4
SLIGHT INFLUENCE	4	1	1.6	1.6	100.0
	TOTAL	64	100.0	100.0	



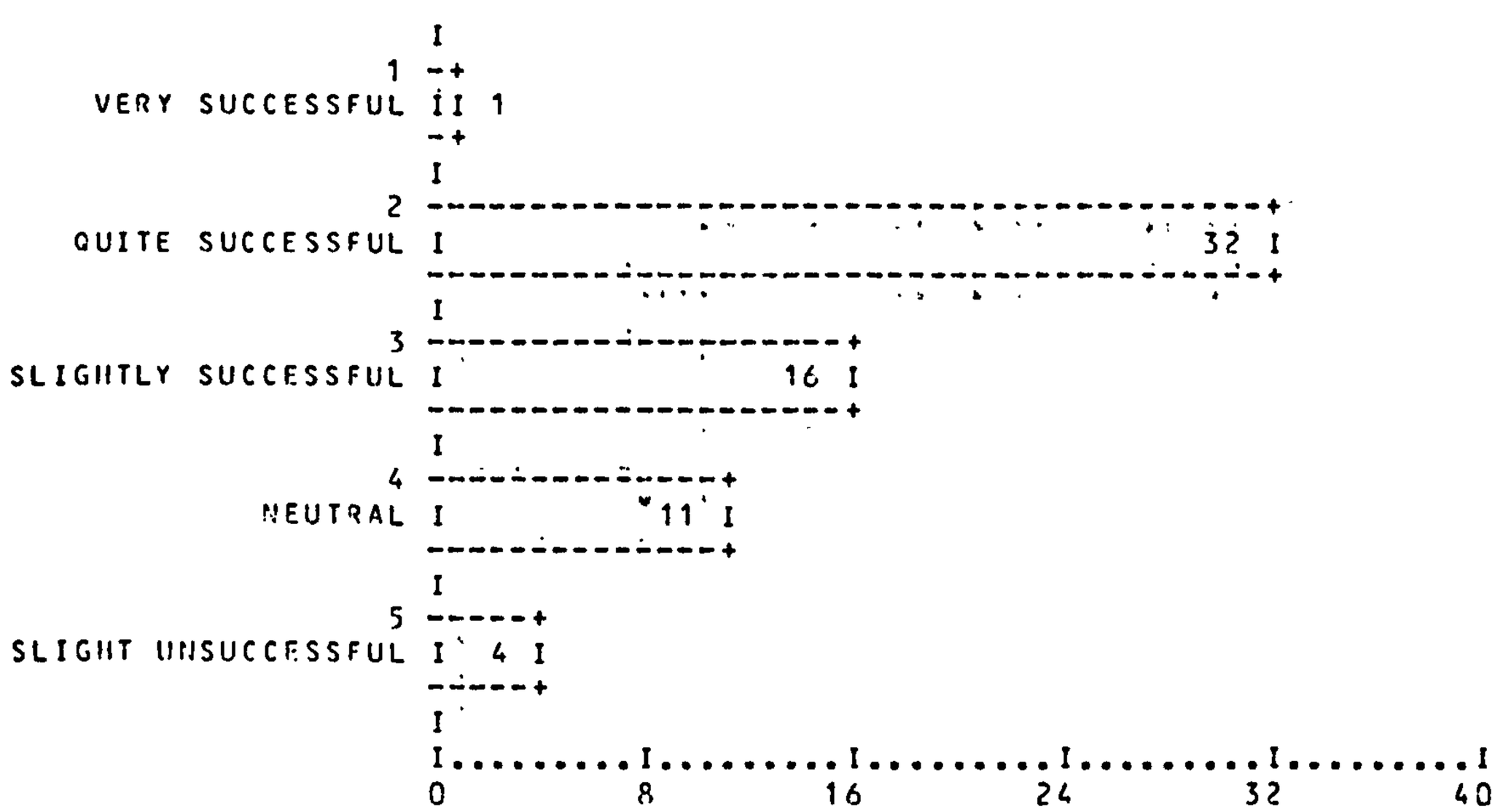
MEAN	2.078	STD ERR	.095	MEDIAN	2.000
MODE	2.000	STD DEV	.762	VARIANCE	.581
KURTOSIS	-.723	S E KURT	1.973	SKEWNESS	.088
S E SKEW	.299	RANGE	3.000	MINIMUM	1.000
MAXIMUM	4.000	SUM	133.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.25

PRELEVAN RELEVANCE OF INFO. FOR N.INVEST.PLAN.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
VERY SUCCESSFUL	1	1	1.6	1.6	1.6
QUITE SUCCESSFUL	2	32	50.0	50.0	51.6
SLIGHTLY SUCCESSFUL	3	16	25.0	25.0	76.6
NEUTRAL	4	11	17.2	17.2	93.8
SLIGHT UNSUCCESSFUL	5	4	6.3	6.3	100.0
	TOTAL	64	100.0	100.0	



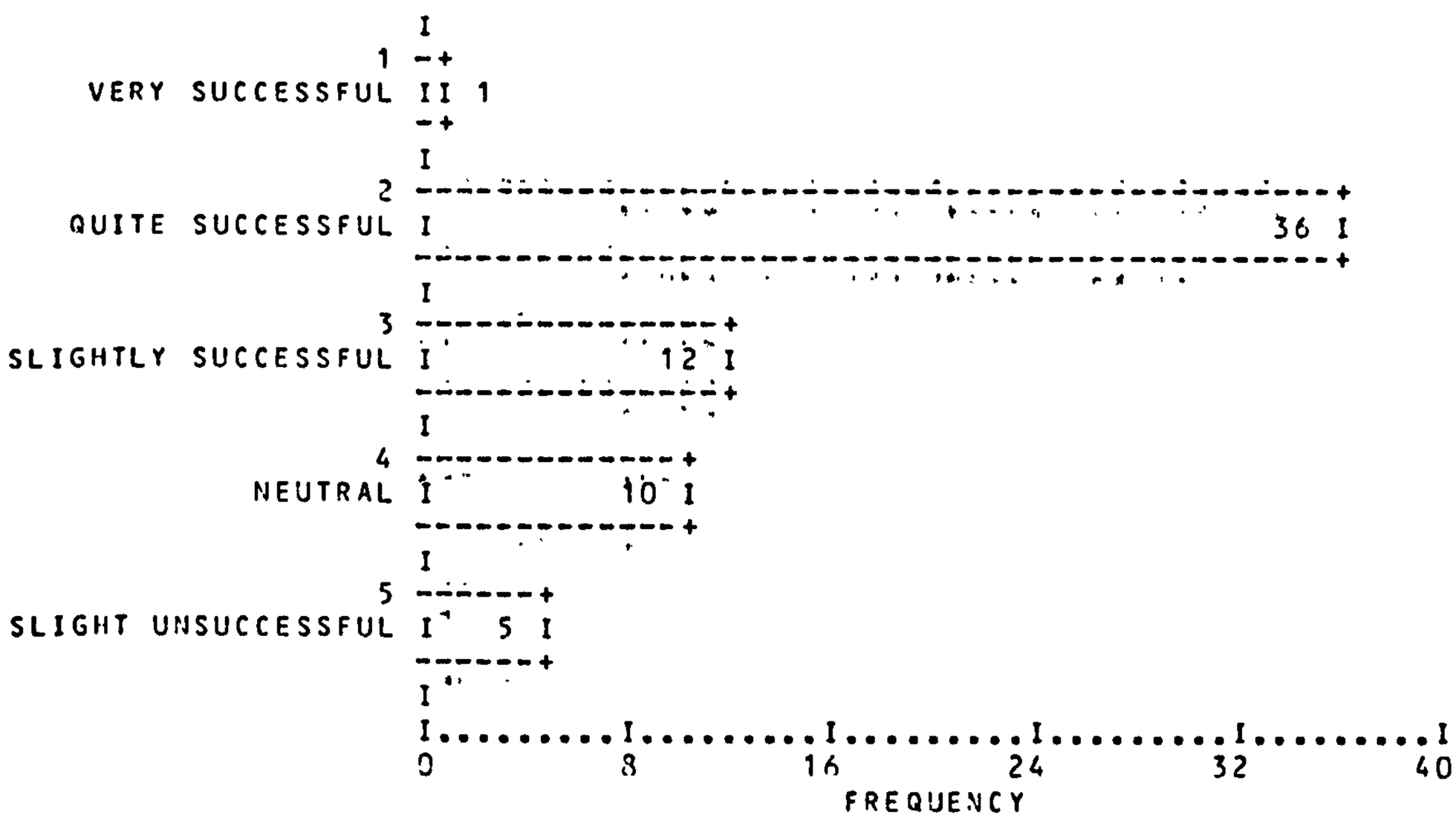
MEAN	2.766	STD ERR	.121	MEDIAN	2.000
MODE	2.000	STD DEV	.972	VARIANCE	.944
KURTOSIS	-.289	S E KURT	1.973	SKEWNESS	.815
S E SKEW	.299	RANGE	4.000	MINIMUM	1.000
MAXIMUM	5.000	SUM	177.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.26

PPREDVAL PREDICTIVE V.OF INFO. FOR N.INVEST.PLAN.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
VERY SUCCESSFUL	1	1	1.6	1.6	1.6
QUITE SUCCESSFUL	2	36	56.3	56.3	57.8
SLIGHTLY SUCCESSFUL	3	12	18.8	18.8	76.6
NEUTRAL	4	10	15.6	15.6	92.2
SLIGHT UNSUCCESSFUL	5	5	7.8	7.8	100.0
	TOTAL	64	100.0	100.0	



MEAN	2.719	STD ERR	.127	MEDIAN	2.000
MODE	2.000	STD DEV	1.015	VARIANCE	1.031
KURTOSIS	-.178	S E KURT	1.973	SKEWNESS	.974
S E SKEW	.299	RANGE	4.000	MINIMUM	1.000
MAXIMUM	5.000	SUM	174.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.27

PFEEDBAC FEEDBACK V. OF INFO. FOR N.INVEST.PLAN.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
VERY SUCCESSFUL	1	1	1.6	1.6	1.6
QUITE SUCCESSFUL	2	31	48.4	48.4	50.0
SLIGHTLY SUCCESSFUL	3	14	21.9	21.9	71.9
NEUTRAL	4	13	20.3	20.3	92.2
SLIGHT UNSUCCESSFUL	5	5	7.8	7.8	100.0
	TOTAL	64	100.0	100.0	

```
                     I
                   1 -+
     VERY SUCCESSFUL II 1
                     -+
                     I
                   2 ----------------------------------------+
    QUITE SUCCESSFUL I                                     31 I
                     ----------------------------------------+
                     I
                   3 -------------------+
SLIGHTLY SUCCESSFUL I                 14 I
                     -------------------+
                     I
                   4 -----------------+
             NEUTRAL I               13 I
                     -----------------+
                     I
                   5 -------+
SLIGHT UNSUCCESSFUL I    5 I
                     -------+
                     I
                     I.........I.........I.........I.........I.........I
                     0         8        16        24        32        40
                                          FREQUENCY
```

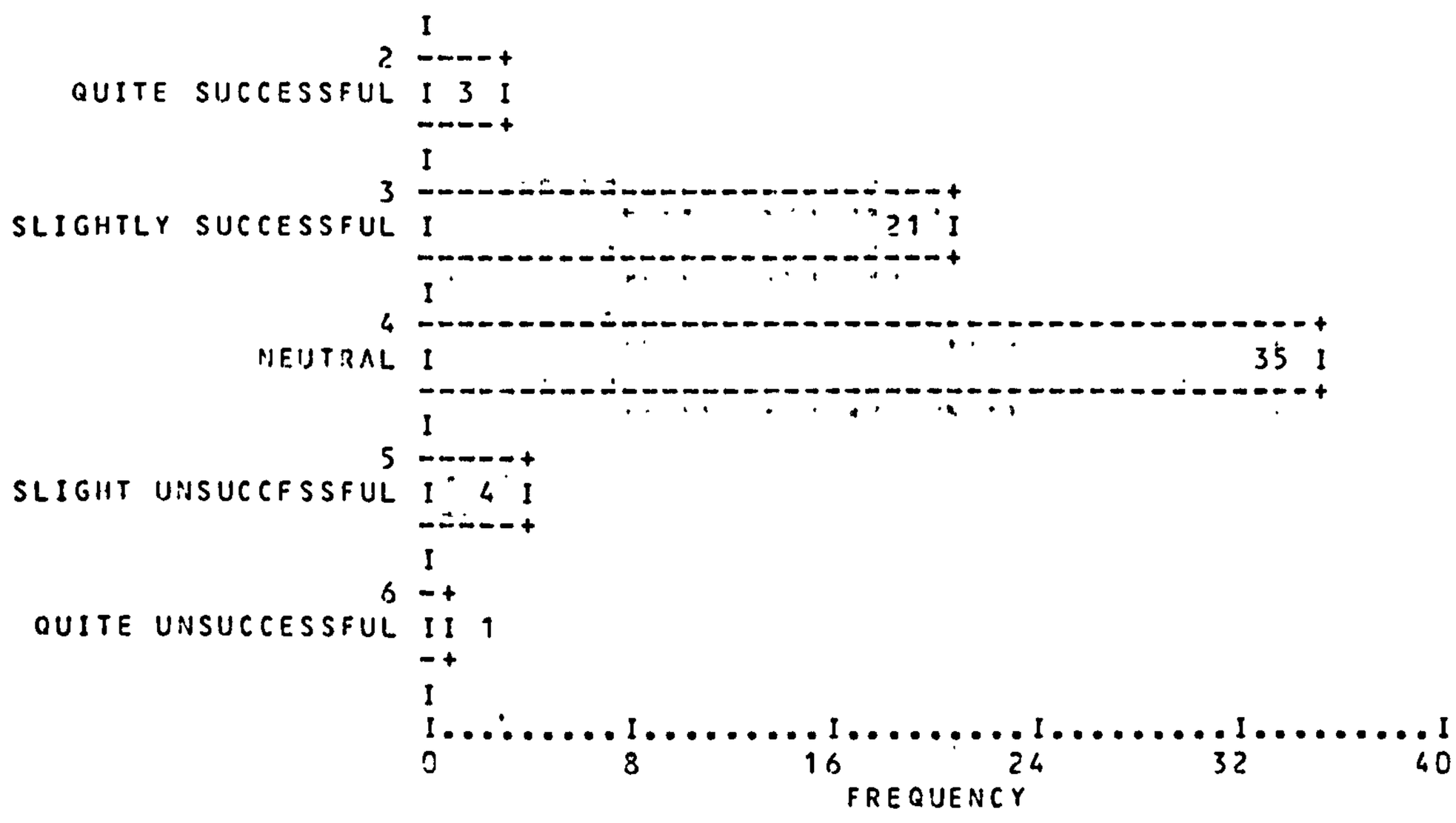
MEAN	2.844	STD ERR	.128	MEDIAN	2.500
MODE	2.000	STD DEV	1.027	VARIANCE	1.055
KURTOSIS	-.658	S E KURT	1.973	SKEWNESS	.687
S E SKEW	.299	RANGE	4.000	MINIMUM	1.000
MAXIMUM	5.000	SUM	182.000		

VALID CASES 64 MISSING CASES 0

TABLE S,8.28

PWELLTIM TIMELINESS OF INFO. FOR N.INVEST.PLAN.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
QUITE SUCCESSFUL	2	3	4.7	4.7	4.7
SLIGHTLY SUCCESSFUL	3	21	32.8	32.8	37.5
NEUTRAL	4	35	54.7	54.7	92.2
SLIGHT UNSUCCESSFUL	5	4	6.3	6.3	98.4
QUITE UNSUCCESSFUL	6	1	1.6	1.6	100.0
	TOTAL	64	100.0	100.0	



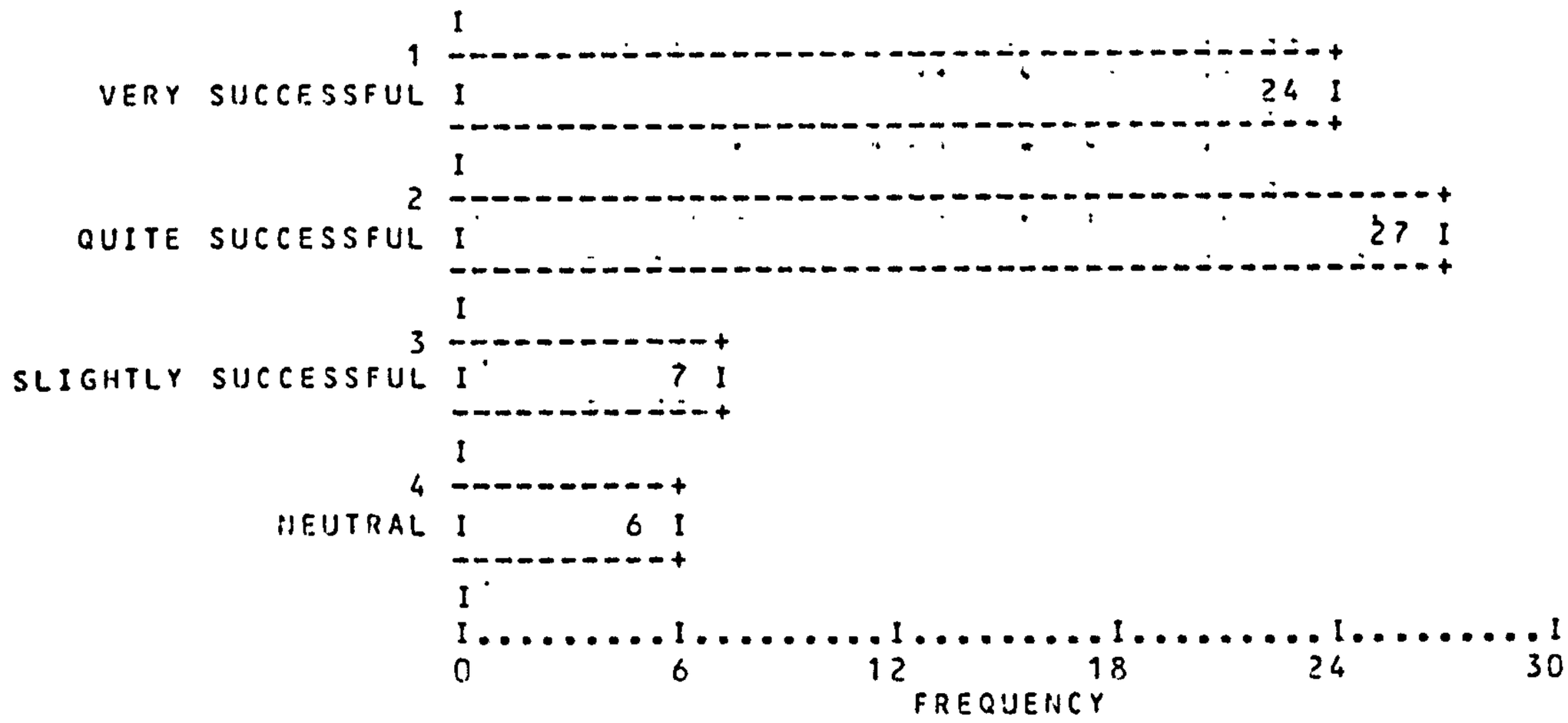
MEAN	3.672	STD ERR	.092	MEDIAN	4.000
MODE	4.000	STD DEV	.736	VARIANCE	.541
KURTOSIS	1.018	S E KURT	1.973	SKEWNESS	.117
S E SKEW	.299	RANGE	4.000	MINIMUM	2.000
MAXIMUM	6.000	SUM	235.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.29

PNECESSA NECESSITY OF INFO. FOR N.INVEST.PLANNING

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
VERY SUCCESSFUL	1	24	37.5	37.5	37.5
QUITE SUCCESSFUL	2	27	42.2	42.2	79.7
SLIGHTLY SUCCESSFUL	3	7	10.9	10.9	90.6
NEUTRAL	4	6	9.4	9.4	100.0
	TOTAL	64	100.0	100.0	



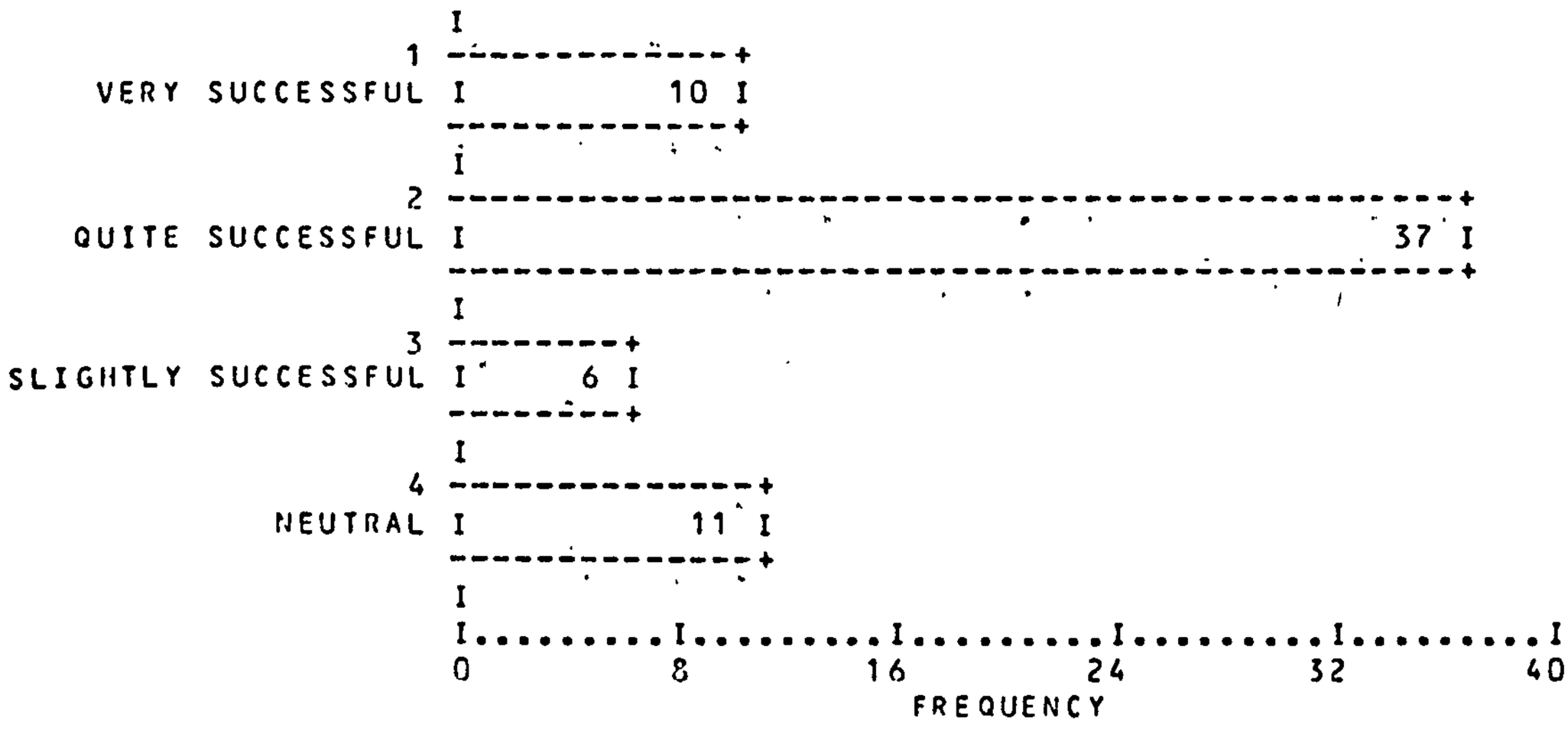
MEAN	1.922	STD ERR	.116	MEDIAN	2.000
MODE	2.000	STD DEV	.931	VARIANCE	.867
KURTOSIS	.074	S E KURT	1.973	SKEWNESS	.890
S E SKEW	.299	RANGE	3.000	MINIMUM	1.000
MAXIMUM	4.000	SUM	123.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.30

PSIMPLE SIMPLICITY OF INFO.FOR N.INVEST.PLANNING

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
VERY SUCCESSFUL	1	10	15.6	15.6	15.6
QUITE SUCCESSFUL	2	37	57.8	57.8	73.4
SLIGHTLY SUCCESSFUL	3	6	9.4	9.4	82.8
NEUTRAL	4	11	17.2	17.2	100.0
	TOTAL	64	100.0	100.0	



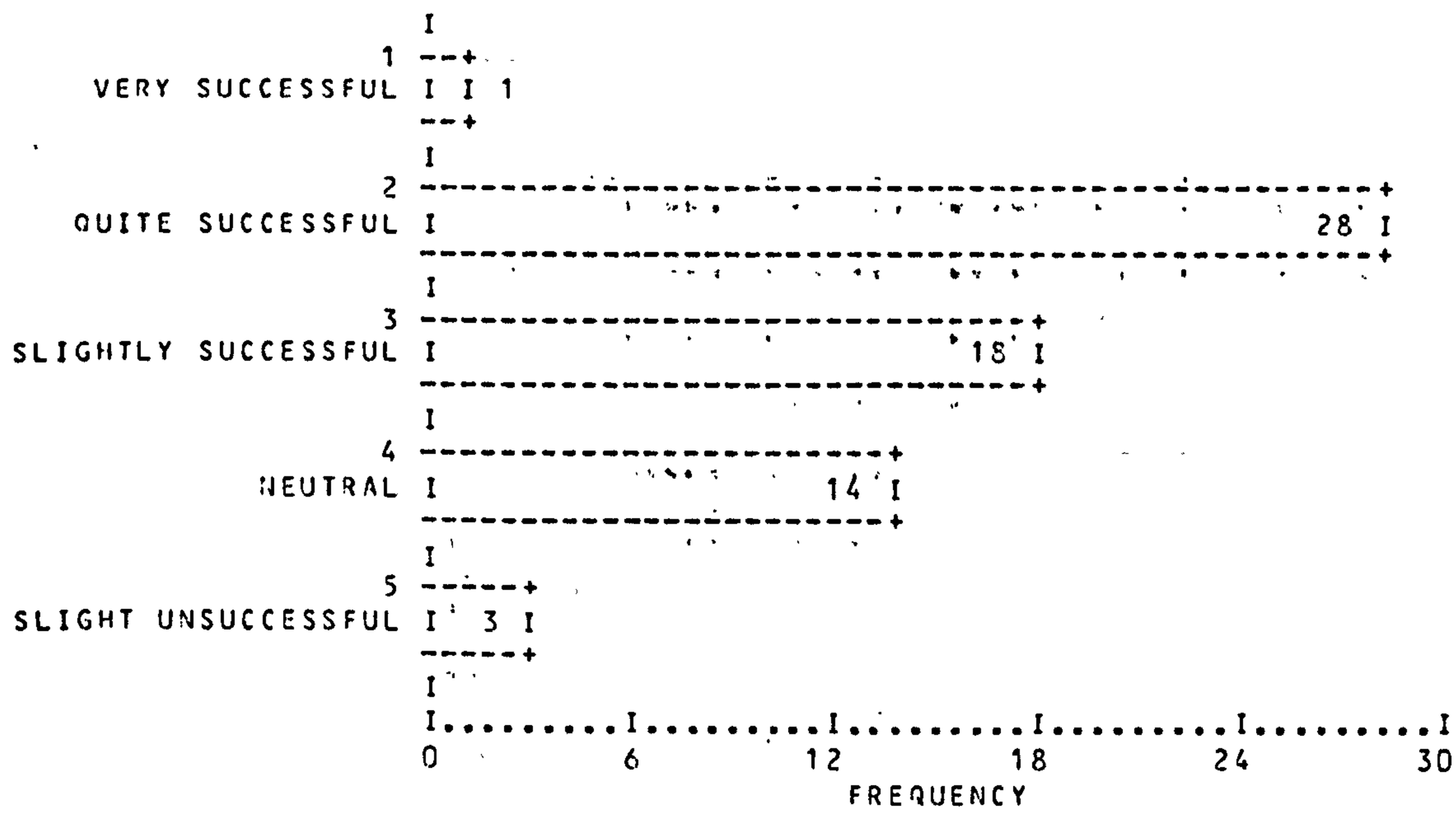
MEAN	2.281	STD ERR	.117	MEDIAN	2.000
MODE	2.000	STD DEV	.934	VARIANCE	.872
KURTOSIS	-.233	S E KURT	1.973	SKEWNESS	.729
S E SKEW	.299	RANGE	3.000	MINIMUM	1.000
MAXIMUM	4.000	SUM	146.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.31

PRELIABL RELIABILITY OF INFO.FOR N.INVEST.PLANING

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
VERY SUCCESSFUL	1	1	1.6	1.6	1.6
QUITE SUCCESSFUL	2	28	43.8	43.8	45.3
SLIGHTLY SUCCESSFUL	3	18	28.1	28.1	73.4
NEUTRAL	4	14	21.9	21.9	95.3
SLIGHT UNSUCCESSFUL	5	3	4.7	4.7	100.0
	TOTAL	64	100.0	100.0	



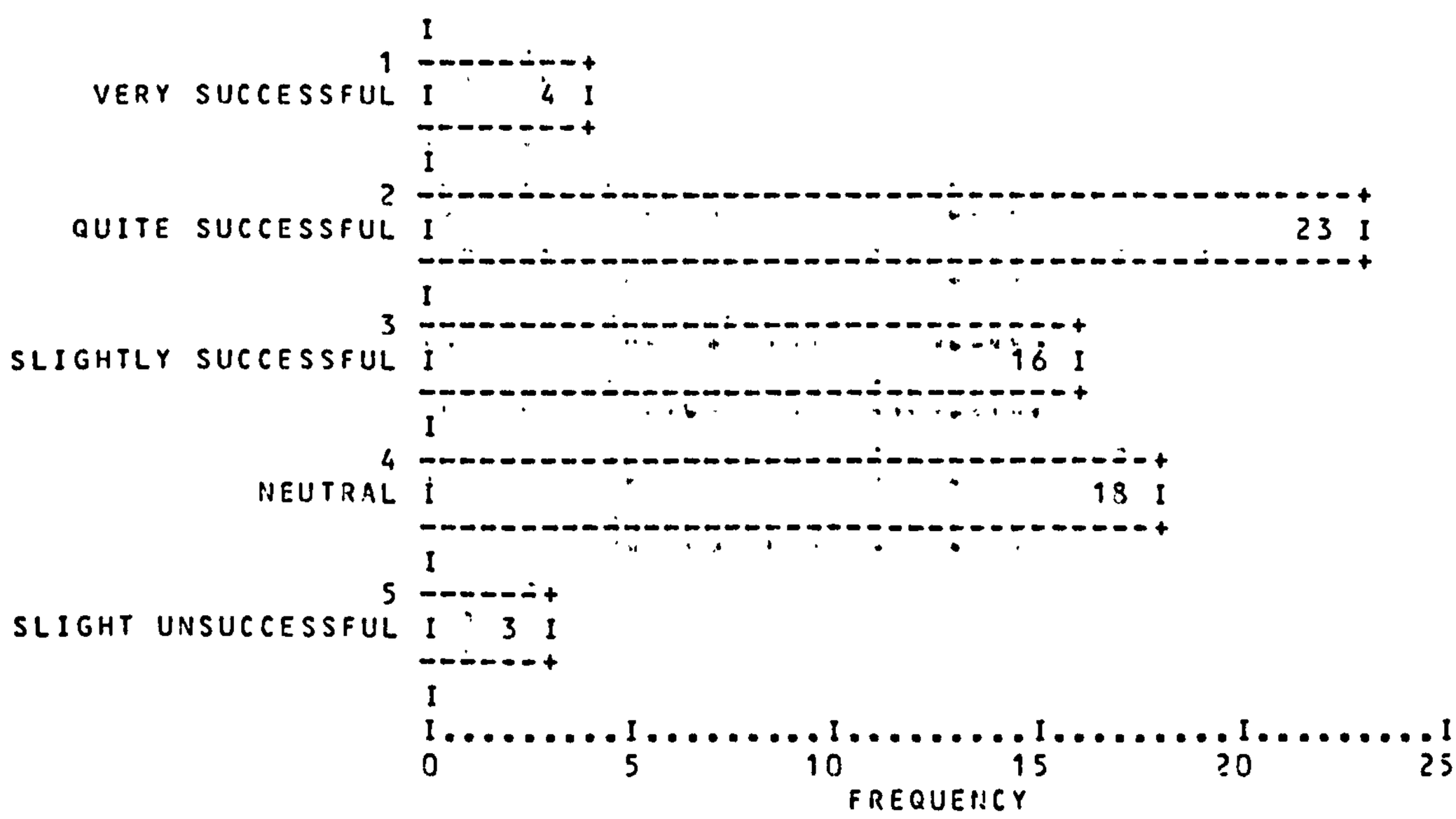
MEAN	2.844	STD ERR	.118	MEDIAN	3.000
MODE	2.000	STD DEV	.946	VARIANCE	.896
KURTOSIS	-.633	S E KURT	1.973	SKEWNESS	.555
S E SKEW	.299	RANGE	4.000	MINIMUM	1.000
MAXIMUM	5.000	SUM	182.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.32

PTRUSTY TRUST. OF INFO.FOR N.INVEST.PLANNING

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
VERY SUCCESSFUL	1	4	6.3	6.3	6.3
QUITE SUCCESSFUL	2	23	35.9	35.9	42.2
SLIGHTLY SUCCESSFUL	3	16	25.0	25.0	67.2
NEUTRAL	4	18	28.1	28.1	95.3
SLIGHT UNSUCCESSFUL	5	3	4.7	4.7	100.0
	TOTAL	64	100.0	100.0	



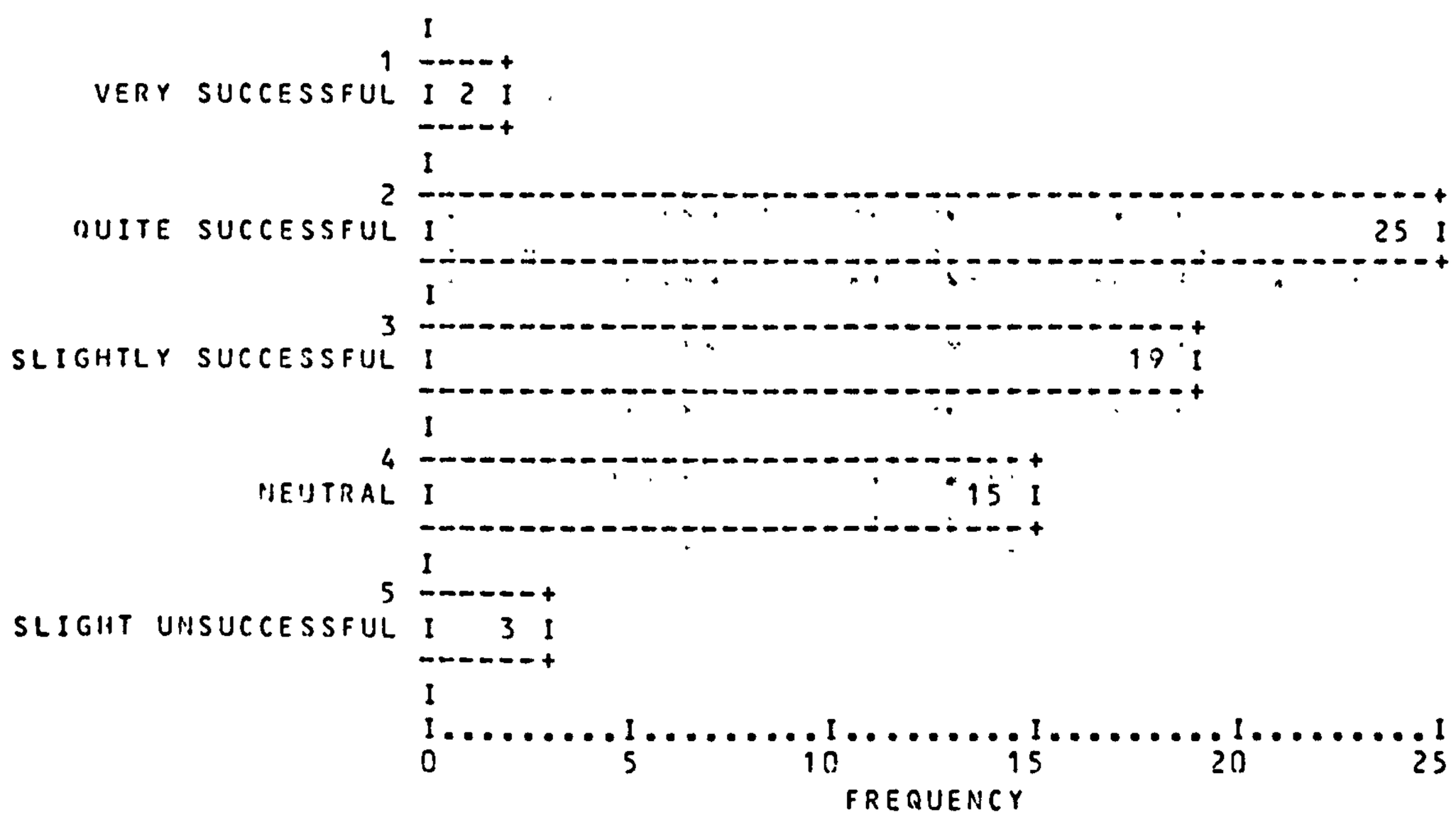
MEAN	2.891	STD ERR	.130	MEDIAN	3.000
MODE	2.000	STD DEV	1.041	VARIANCE	1.083
KURTOSIS	-.333	S E KURT	1.973	SKEWNESS	.138
S E SKEW	.299	RANGE	4.000	MINIMUM	1.000
MAXIMUM	5.000	SUM	185.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.33

PACCURAT ACCURACY OF INFO.FOR N.INVEST.PLANNING

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
VERY SUCCESSFUL	1	2	3.1	3.1	3.1
QUITE SUCCESSFUL	2	25	39.1	39.1	42.2
SLIGHTLY SUCCESSFUL	3	19	29.7	29.7	71.9
NEUTRAL	4	15	23.4	23.4	95.3
SLIGHT UNSUCCESSFUL	5	3	4.7	4.7	100.0
	TOTAL	64	100.0	100.0	



MEAN	2.375	STD ERR	.121	MEDIAN	3.000
MODE	2.000	STD DEV	.968	VARIANCE	.937
KURTOSIS	-.668	S E KURT	1.973	SKEWNESS	.366
S E SKEW	.299	RANGE	4.000	MINIMUM	1.000
MAXIMUM	5.000	SUM	184.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.34

PCONFIRM CONFIRM. OF INFO.FOR.N.INVEST.PLANNING

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
VERY SUCCESSFUL	1	3	4.7	4.7	4.7
QUITE SUCCESSFUL	2	21	32.8	32.8	37.5
SLIGHTLY SUCCESSFUL	3	22	34.4	34.4	71.9
NEUTRAL	4	15	23.4	23.4	95.3
SLIGHT UNSUCCESSFUL	5	2	3.1	3.1	98.4
QUITE UNSUCCESSFUL	6	1	1.6	1.6	100.0
	TOTAL	64	100.0	100.0	

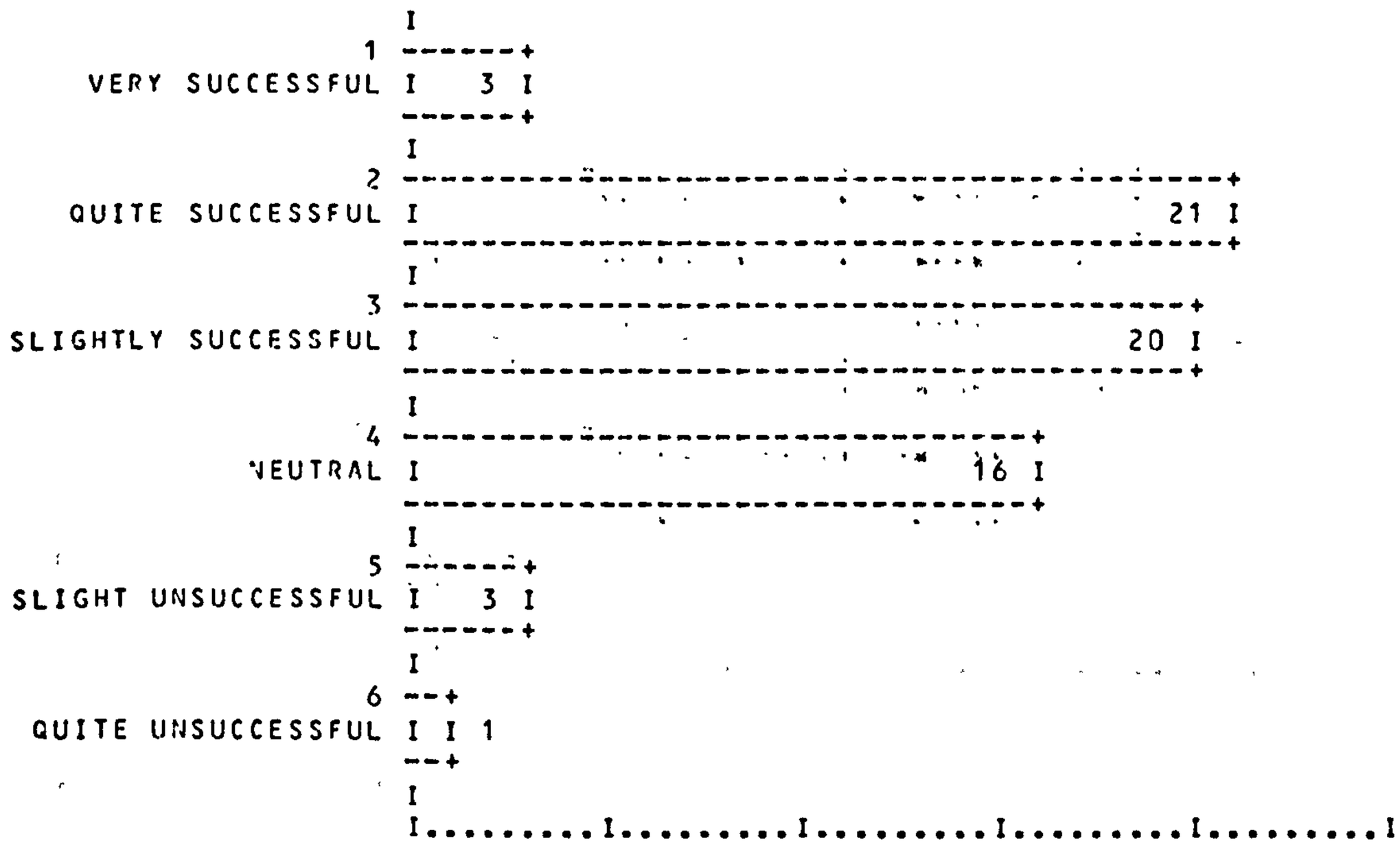
MEAN	2.922	STD ERR	.127	MEDIAN	3.000
MODE	3.000	STD DEV	1.013	VARIANCE	1.026
KURTOSIS	.229	S E KURT	1.973	SKEWNESS	.444
S E SKEW	.299	RANGE	5.000	MINIMUM	1.000
MAXIMUM	6.000	SUM	187.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.35

PCOMPLET COMPLETENESS OF INFO.FOR N.INVEST.PLAN.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
VERY SUCCESSFUL	1	3	4.7	4.7	4.7
QUITE SUCCESSFUL	2	21	32.8	32.8	37.5
SLIGHTLY SUCCESSFUL	3	20	31.3	31.3	68.8
NEUTRAL	4	16	25.0	25.0	93.8
SLIGHT UNSUCCESSFUL	5	3	4.7	4.7	98.4
QUITE UNSUCCESSFUL	6	1	1.6	1.6	100.0
	TOTAL	64	100.0	100.0	



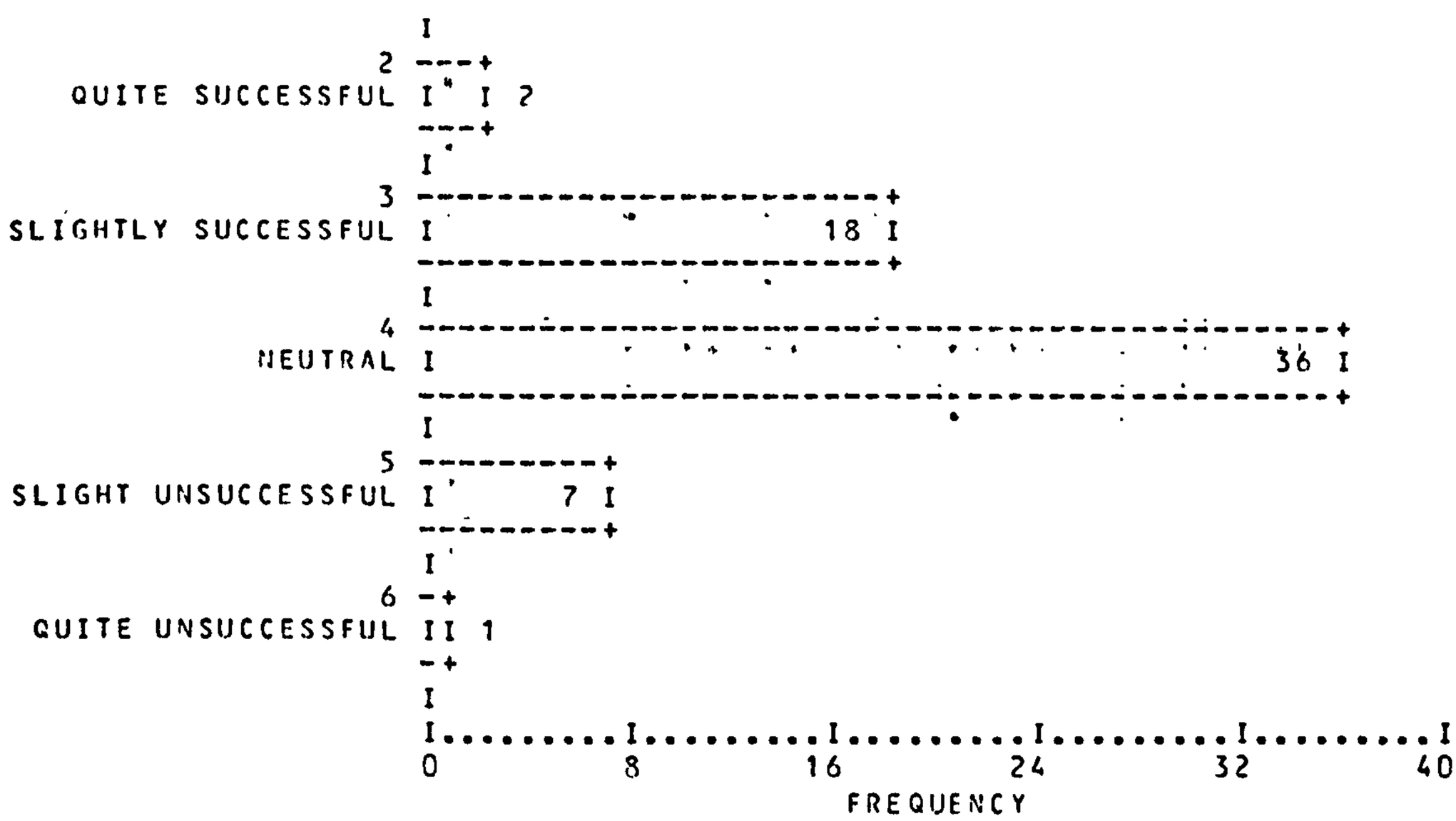
MEAN	2.969	STD ERR	.132	MEDIAN	3.000
MODE	2.000	STD DEV	1.054	VARIANCE	1.110
KURTOSIS	-.072	S E KURT	1.973	SKEWNESS	.400
S E SKEW	.299	RANGE	5.000	MINIMUM	1.000
MAXIMUM	6.000	SUM	190.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.36

PBIASED FREEDOM OF BIAS IN INFO.FOR N.IN.PLAN.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
QUITE SUCCESSFUL	2	2	3.1	3.1	3.1
SLIGHTLY SUCCESSFUL	3	18	28.1	28.1	31.3
NEUTRAL	4	36	56.3	56.3	87.5
SLIGHT UNSUCCESSFUL	5	7	10.9	10.9	98.4
QUITE UNSUCCESSFUL	6	1	1.6	1.6	100.0
	TOTAL	64	100.0	100.0	



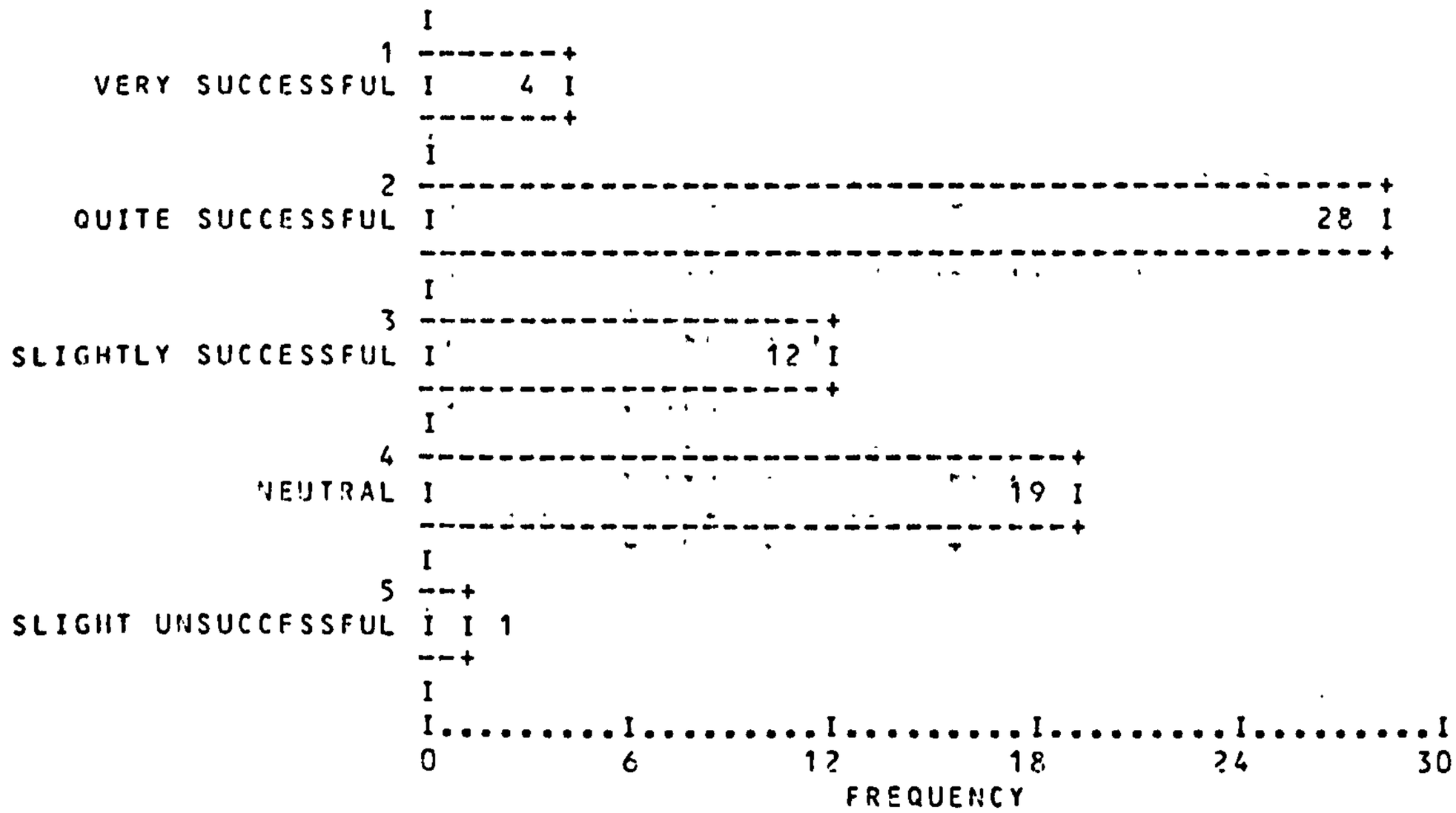
MEAN	3.797	STD ERR	.092	MEDIAN	4.000
MODE	4.000	STD DEV	.739	VARIANCE	.545
KURTOSIS	.749	S E KURT	1.973	SKEWNESS	.101
S E SKEW	.299	RANGE	4.000	MINIMUM	2.000
MAXIMUM	6.000	SUM	243.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.37

PCOMPARE COMPARABILITY OF INFO.FOR N.INVEST.PLAN.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
VERY SUCCESSFUL	1	4	6.3	6.3	6.3
QUITE SUCCESSFUL	2	28	43.8	43.8	50.0
SLIGHTLY SUCCESSFUL	3	12	18.8	18.8	68.8
NEUTRAL	4	19	29.7	29.7	98.4
SLIGHT UNSUCCESSFUL	5	1	1.6	1.6	100.0
	TOTAL	64	100.0	100.0	



MEAN	2.766	STD ERR	.125	MEDIAN	2.500
MODE	2.000	STD DEV	1.004	VARIANCE	1.008
KURTOSIS	-1.127	S E KURT	1.973	SKEWNESS	.202
S E SKEW	.299	RANGE	4.000	MINIMUM	1.000
MAXIMUM	5.000	SUM	177.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.38

PCONSIST CONSISTENCY OF INFO.FOR N.INVEST.PLAN.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
VERY SUCCESSFUL	1	8	12.5	12.5	12.5
QUITE SUCCESSFUL	2	27	42.2	42.2	54.7
SLIGHTLY SUCCESSFUL	3	14	21.9	21.9	76.6
NEUTRAL	4	13	20.3	20.3	96.9
SLIGHT UNSUCCESSFUL	5	2	3.1	3.1	100.0
	TOTAL	64	100.0	100.0	

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                    I
                  1 -------------+
     VERY SUCCESSFUL I          8 I
                    ---------------+
                    I
                  2 ----------------------------------------------+
    QUITE SUCCESSFUL I                                         27 I
                    ----------------------------------------------+
                    I
                  3 -----------------------+
SLIGHTLY SUCCESSFUL I                   14 I
                    -----------------------+
                    I
                  4 ----------------------+
            NEUTRAL I                  13 I
                    ----------------------+
                    I
                  5 ---+
SLIGHT UNSUCCESSFUL I  I 2
                    ---+
                    I
                    I.........I.........I.........I.........I.........I
                    0         6        12        18        24        30
                                     FREQUENCY
```

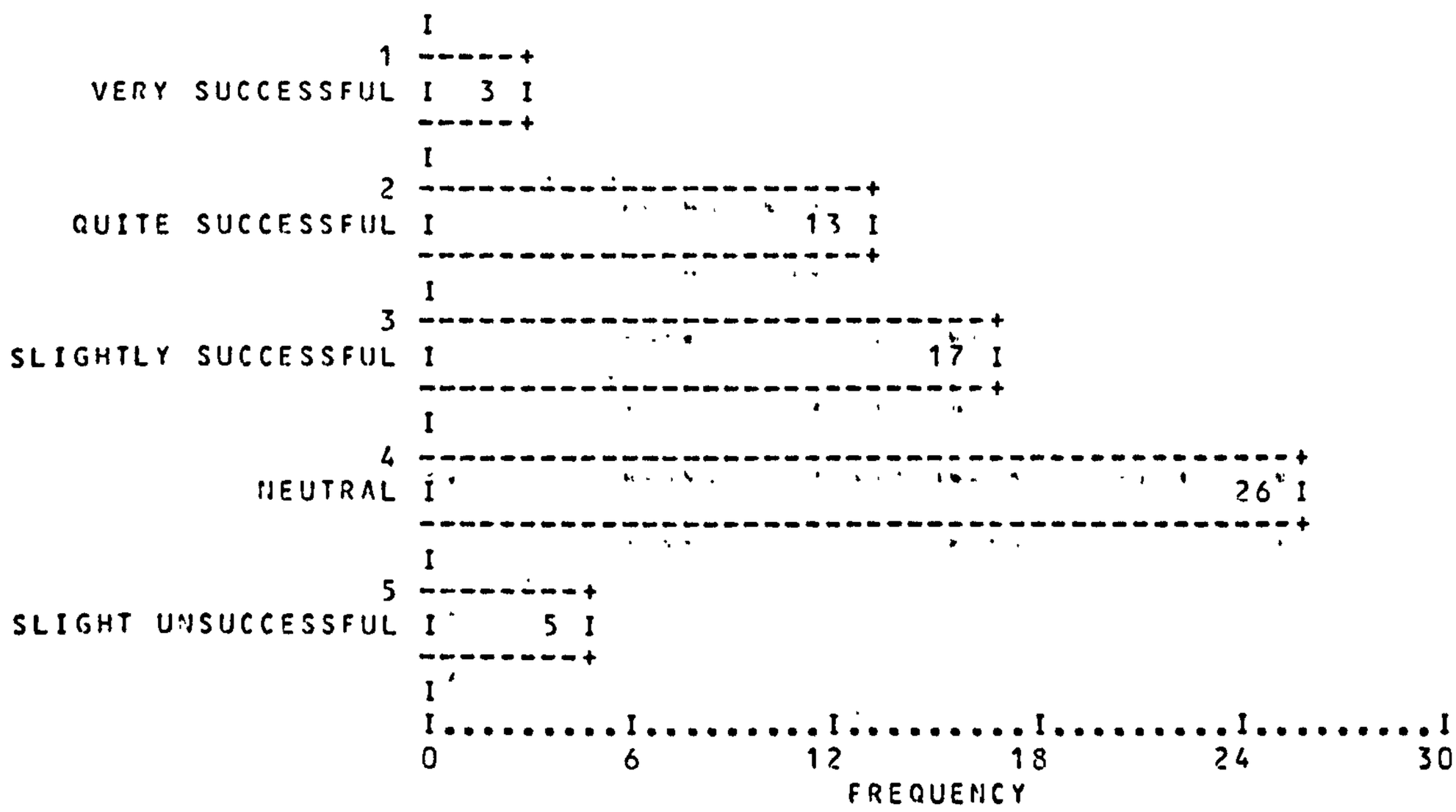
MEAN	2.594	STD ERR	.131	MEDIAN	2.000
MODE	2.000	STD DEV	1.050	VARIANCE	1.102
KURTOSIS	-.659	S E KURT	1.973	SKEWNESS	.381
S E SKEW	.299	RANGE	4.000	MINIMUM	1.000
MAXIMUM	5.000	SUM	166.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.39

PBENCOST BENEFIT&COST OF INFO.FOR N.INVEST.PLAN.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
VERY SUCCESSFUL	1	3	4.7	4.7	4.7
QUITE SUCCESSFUL	2	13	20.3	20.3	25.0
SLIGHTLY SUCCESSFUL	3	17	26.6	26.6	51.6
NEUTRAL	4	26	40.6	40.6	92.2
SLIGHT UNSUCCESSFUL	5	5	7.8	7.8	100.0
	TOTAL	64	100.0	100.0	



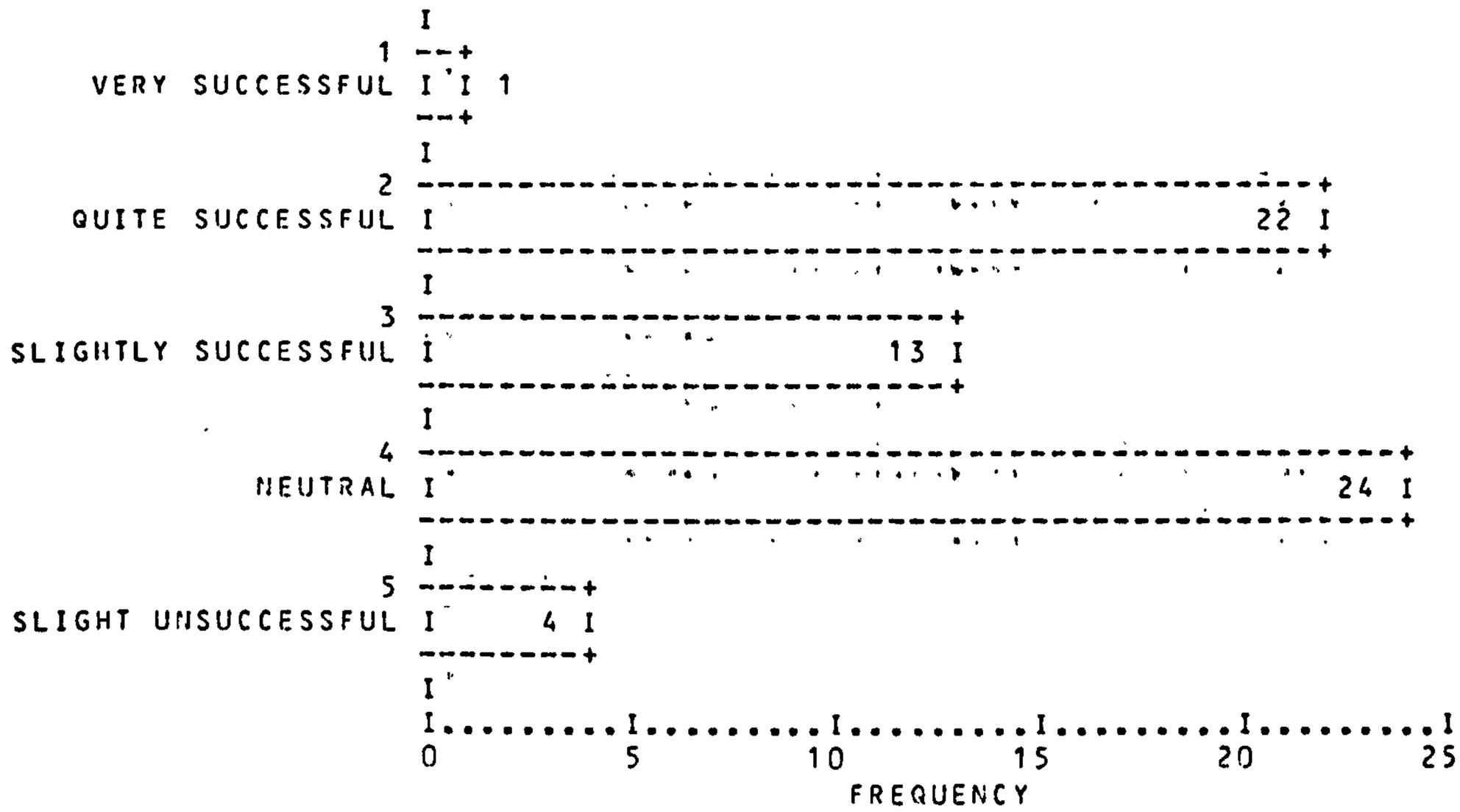
MEAN	3.266	STD ERR	.128	MEDIAN	3.000
MODE	4.000	STD DEV	1.027	VARIANCE	1.055
KURTOSIS	-.557	S E KURT	1.973	SKEWNESS	-.381
S E SKEW	.299	RANGE	4.000	MINIMUM	1.000
MAXIMUM	5.000	SUM	209.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.40

PMATERIA MATERIALITY OF INFO.FOR N.INVEST.PLAN.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
VERY SUCCESSFUL	1	1	1.6	1.6	1.6
QUITE SUCCESSFUL	2	22	34.4	34.4	35.9
SLIGHTLY SUCCESSFUL	3	13	20.3	20.3	56.3
NEUTRAL	4	24	37.5	37.5	93.8
SLIGHT UNSUCCESSFUL	5	4	6.3	6.3	100.0
	TOTAL	64	100.0	100.0	



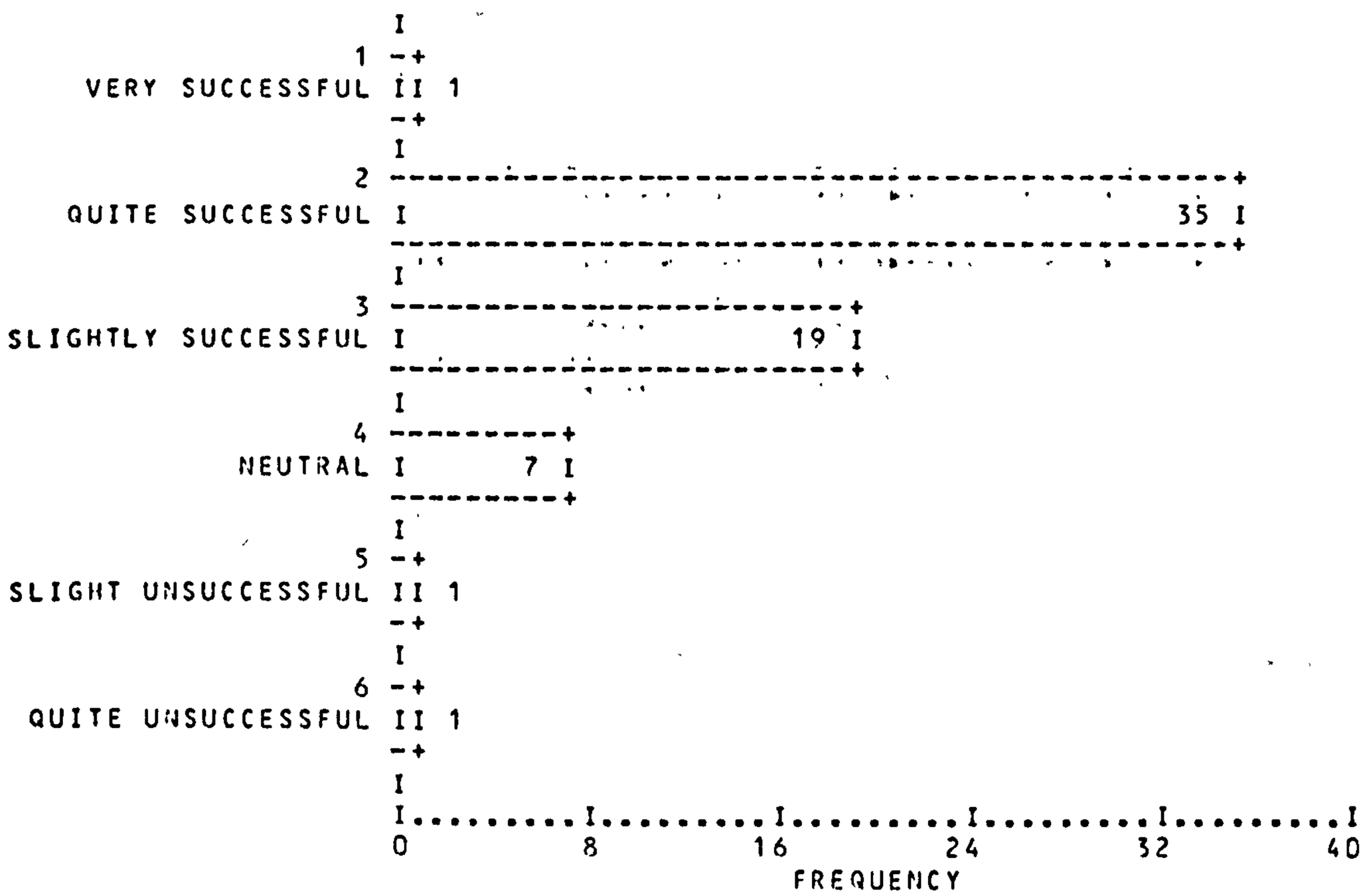
MEAN	3.125	STD ERR	.127	MEDIAN	3.000
MODE	4.000	STD DEV	1.016	VARIANCE	1.032
KURTOSIS	-1.194	S E KURT	1.973	SKEWNESS	.023
S E SKEW	.299	RANGE	4.000	MINIMUM	1.000
MAXIMUM	5.000	SUM	200.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.41

CRELEVAN RELEVANCE OF INFO.FOR N.INVEST.CONTROL

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
VERY SUCCESSFUL	1	1	1.6	1.6	1.6
QUITE SUCCESSFUL	2	35	54.7	54.7	56.3
SLIGHTLY SUCCESSFUL	3	19	29.7	29.7	85.9
NEUTRAL	4	7	10.9	10.9	96.9
SLIGHT UNSUCCESSFUL	5	1	1.6	1.6	98.4
QUITE UNSUCCESSFUL	6	1	1.6	1.6	100.0
	TOTAL	64	100.0	100.0	



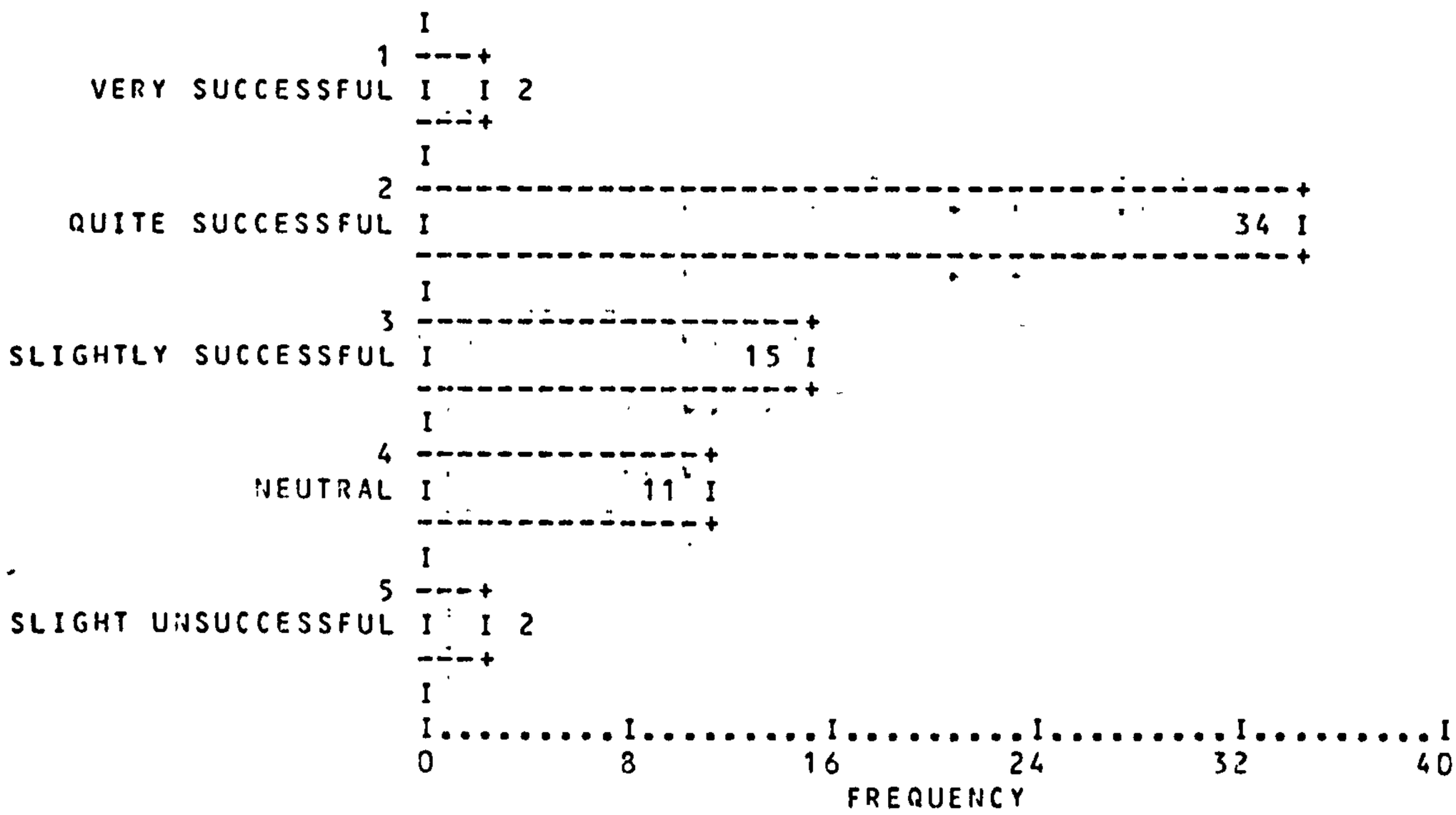
MEAN	2.609	STD ERR	.111	MEDIAN	2.000
MODE	2.000	STD DEV	.884	VARIANCE	.781
KURTOSIS	2.654	S E KURT	1.973	SKEWNESS	1.435
S E SKEW	.299	RANGE	5.000	MINIMUM	1.000
MAXIMUM	6.000	SUM	167.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.42

CPREDVAL PREDICTIVE V.OF INFO.FOR N.INVEST.CONT.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
VERY SUCCESSFUL	1	2	3.1	3.1	3.1
QUITE SUCCESSFUL	2	34	53.1	53.1	56.3
SLIGHTLY SUCCESSFUL	3	15	23.4	23.4	79.7
NEUTRAL	4	11	17.2	17.2	96.9
SLIGHT UNSUCCESSFUL	5	2	3.1	3.1	100.0
	TOTAL	64	100.0	100.0	



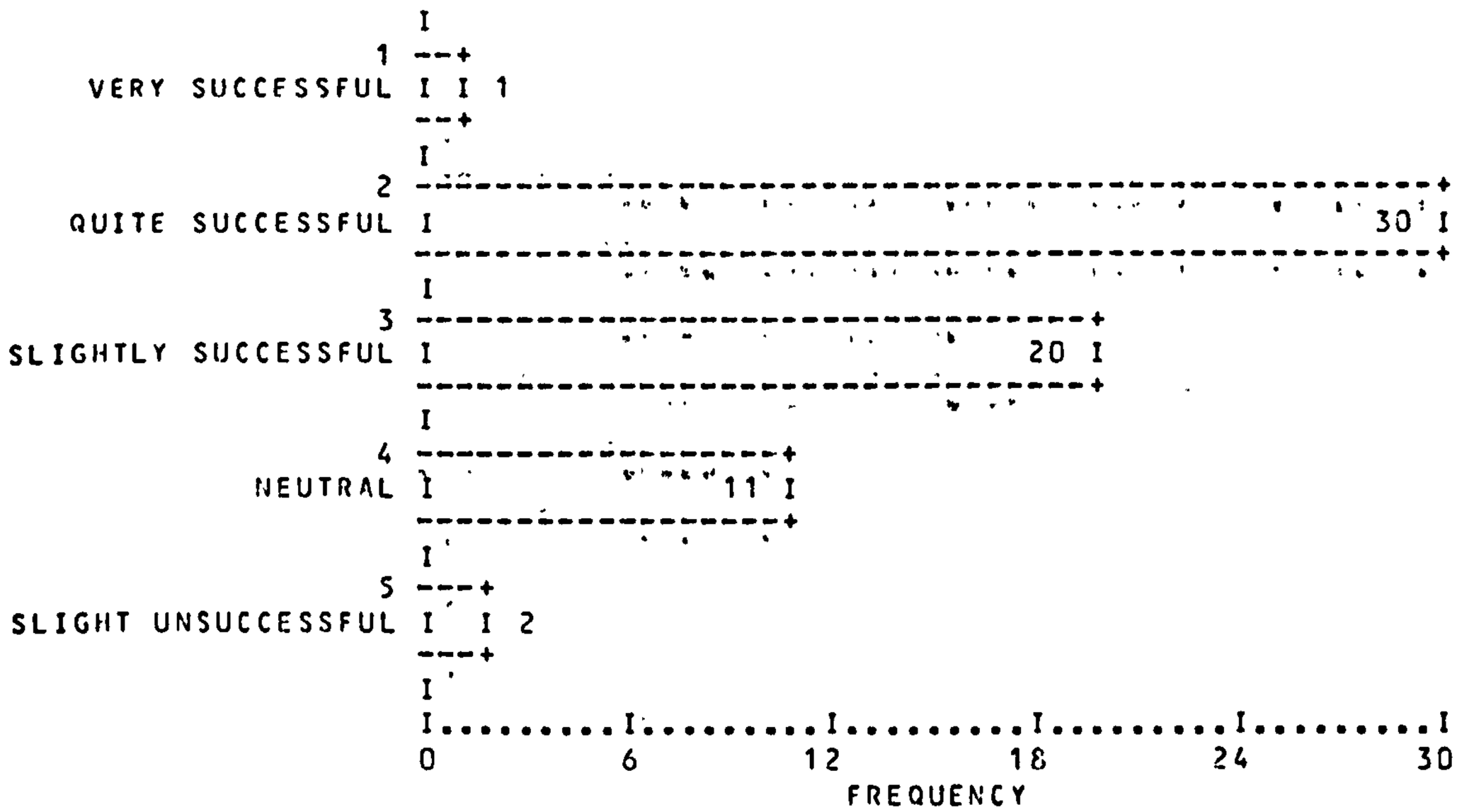
MEAN	2.641	STD ERR	.114	MEDIAN	2.000
MODE	2.000	STD DEV	.915	VARIANCE	.837
KURTOSIS	-.158	S E KURT	1.973	SKEWNESS	.788
S E SKEW	.299	RANGE	4.000	MINIMUM	1.000
MAXIMUM	5.000	SUM	169.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.43

CFEEDPAC FEEDBACK V.OF INFO.FOR N.INVEST.CONTROL

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
VERY SUCCESSFUL	1	1	1.6	1.6	1.6
QUITE SUCCESSFUL	2	30	46.9	46.9	48.4
SLIGHTLY SUCCESSFUL	3	20	31.3	31.3	79.7
NEUTRAL	4	11	17.2	17.2	96.9
SLIGHT UNSUCCESSFUL	5	2	3.1	3.1	100.0
	TOTAL	64	100.0	100.0	



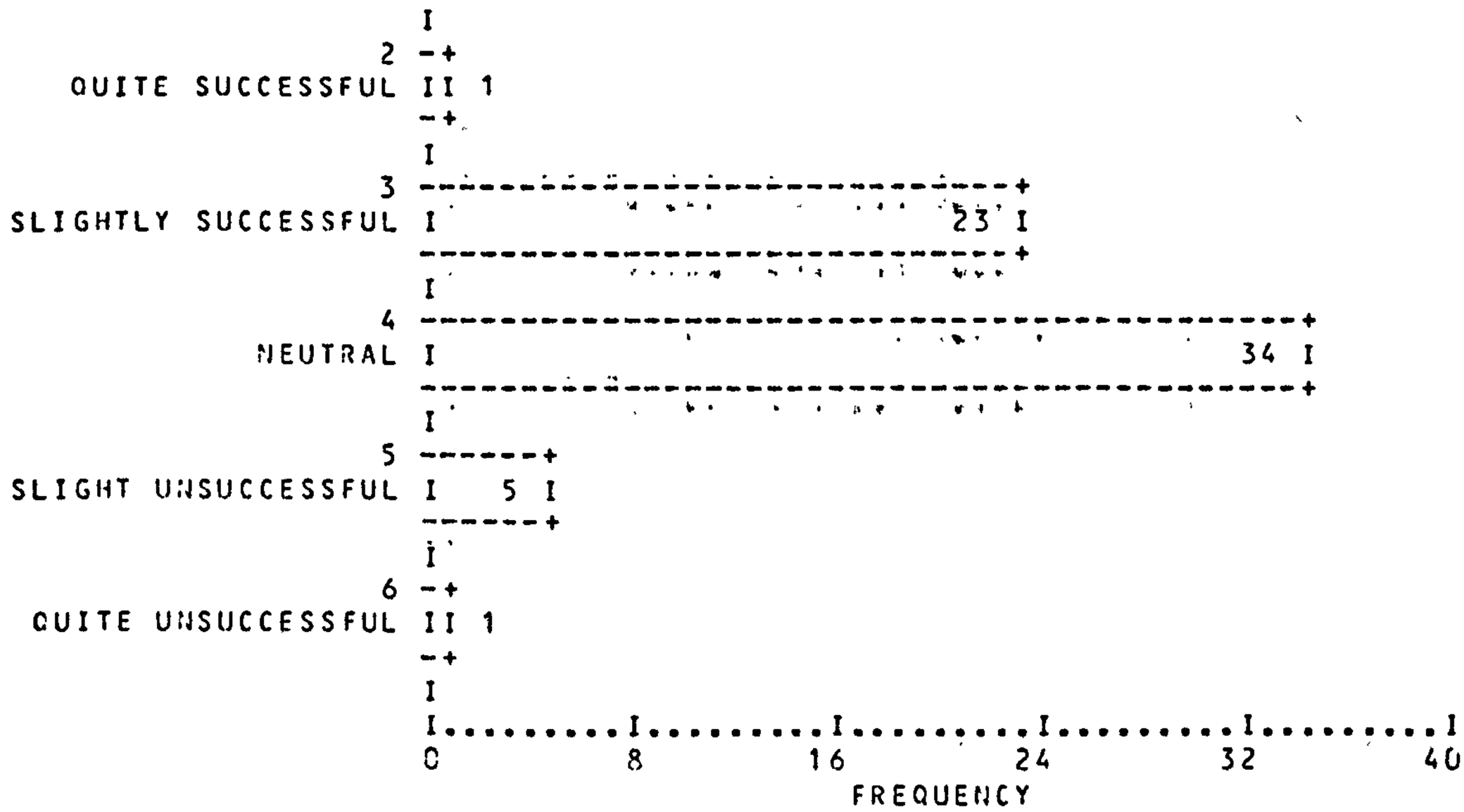
MEAN	2.734	STD ERR	.110	MEDIAN	3.000
MODE	2.000	STD DEV	.877	VARIANCE	.770
KURTOSIS	-.236	S E KURT	1.973	SKEWNESS	.700
S E SKEW	.299	RANGE	4.000	MINIMUM	1.000
MAXIMUM	5.000	SUM	175.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.44

CWELLTIM TIMELINESS OF INFO.FOR N.INVEST.CONTROL

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
QUITE SUCCESSFUL	2	1	1.6	1.6	1.6
SLIGHTLY SUCCESSFUL	3	23	35.9	35.9	37.5
NEUTRAL	4	34	53.1	53.1	90.6
SLIGHT UNSUCCESSFUL	5	5	7.8	7.8	98.4
QUITE UNSUCCESSFUL	6	1	1.6	1.6	100.0
	TOTAL	64	100.0	100.0	



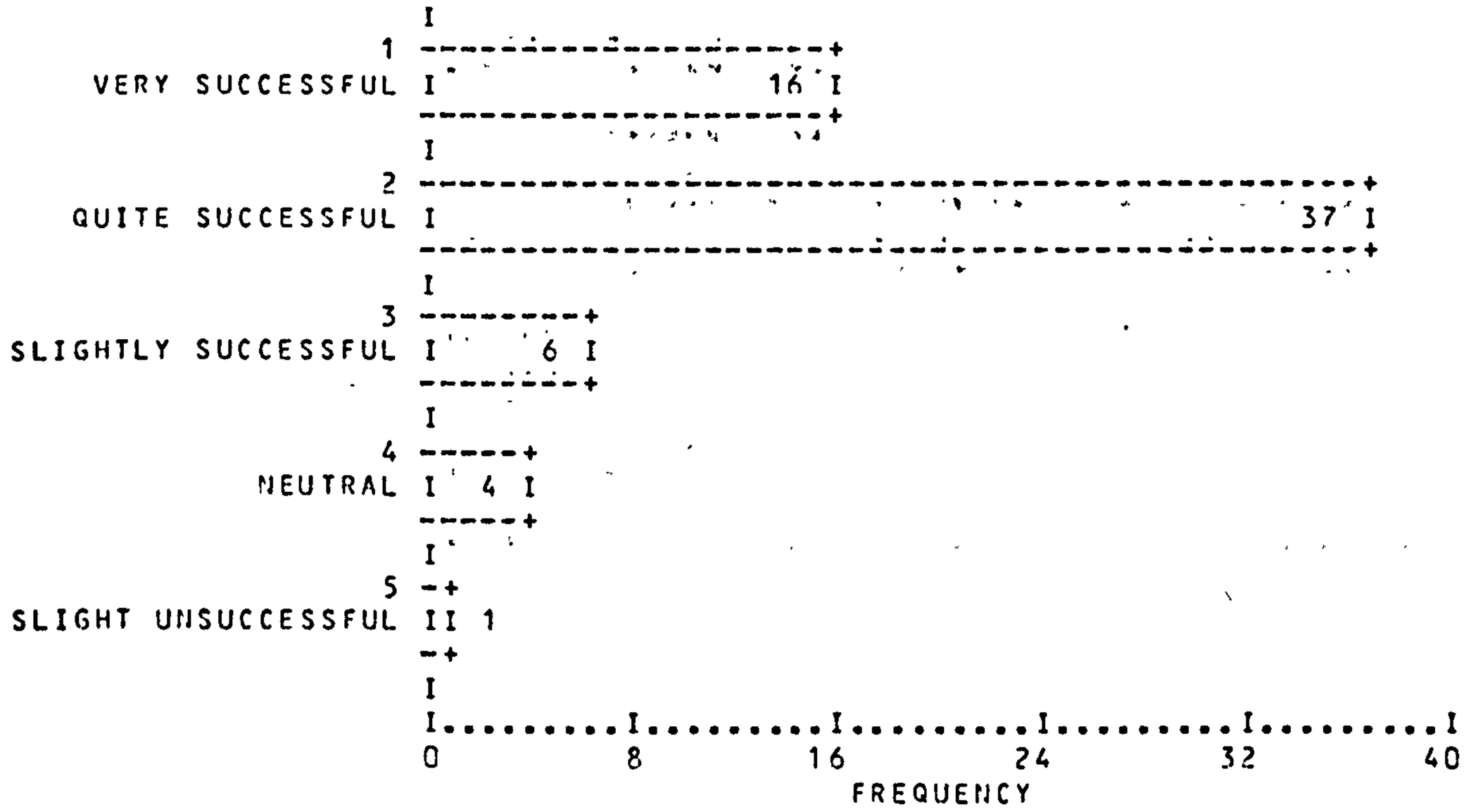
MEAN	3.719	STD ERR	.088	MEDIAN	4.000
MODE	4.000	STD DEV	.701	VARIANCE	.491
KURTOSIS	.880	S E KURT	1.973	SKEWNESS	.454
S E SKEW	.299	RANGE	4.000	MINIMUM	2.000
MAXIMUM	6.000	SUM	238.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.45

CNECESSA NECESSITY OF INFO.FOR N.INVEST.CONTROL

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
VERY SUCCESSFUL	1	16	25.0	25.0	25.0
QUITE SUCCESSFUL	2	37	57.8	57.8	82.8
SLIGHTLY SUCCESSFUL	3	6	9.4	9.4	92.2
NEUTRAL	4	4	6.3	6.3	98.4
SLIGHT UNSUCCESSFUL	5	1	1.6	1.6	100.0
	TOTAL	64	100.0	100.0	



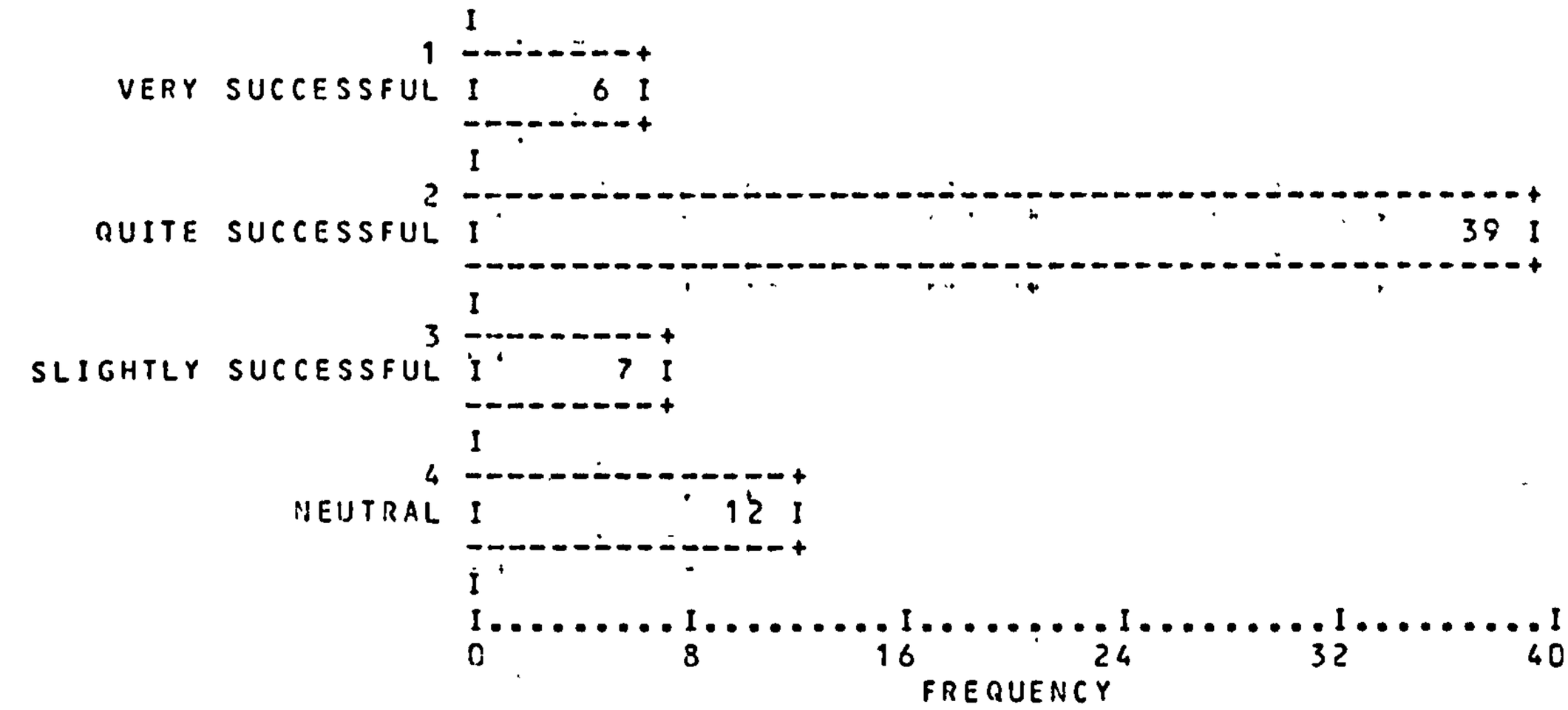
MEAN	2.016	STD ERR	.108	MEDIAN	2.000
MODE	2.000	STD DEV	.864	VARIANCE	.746
KURTOSIS	2.000	S E KURT	1.973	SKEWNESS	1.191
S E SKEW	.299	RANGE	4.000	MINIMUM	1.000
MAXIMUM	5.000	SUM	129.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.46

CSIMPLE SIMPLICITY OF INFO.FOR N.INVEST.CONTROL

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
VERY SUCCESSFUL	1	6	9.4	9.4	9.4
QUITE SUCCESSFUL	2	39	60.9	60.9	70.3
SLIGHTLY SUCCESSFUL	3	7	10.9	10.9	81.3
NEUTRAL	4	12	18.8	18.8	100.0
	TOTAL	64	100.0	100.0	



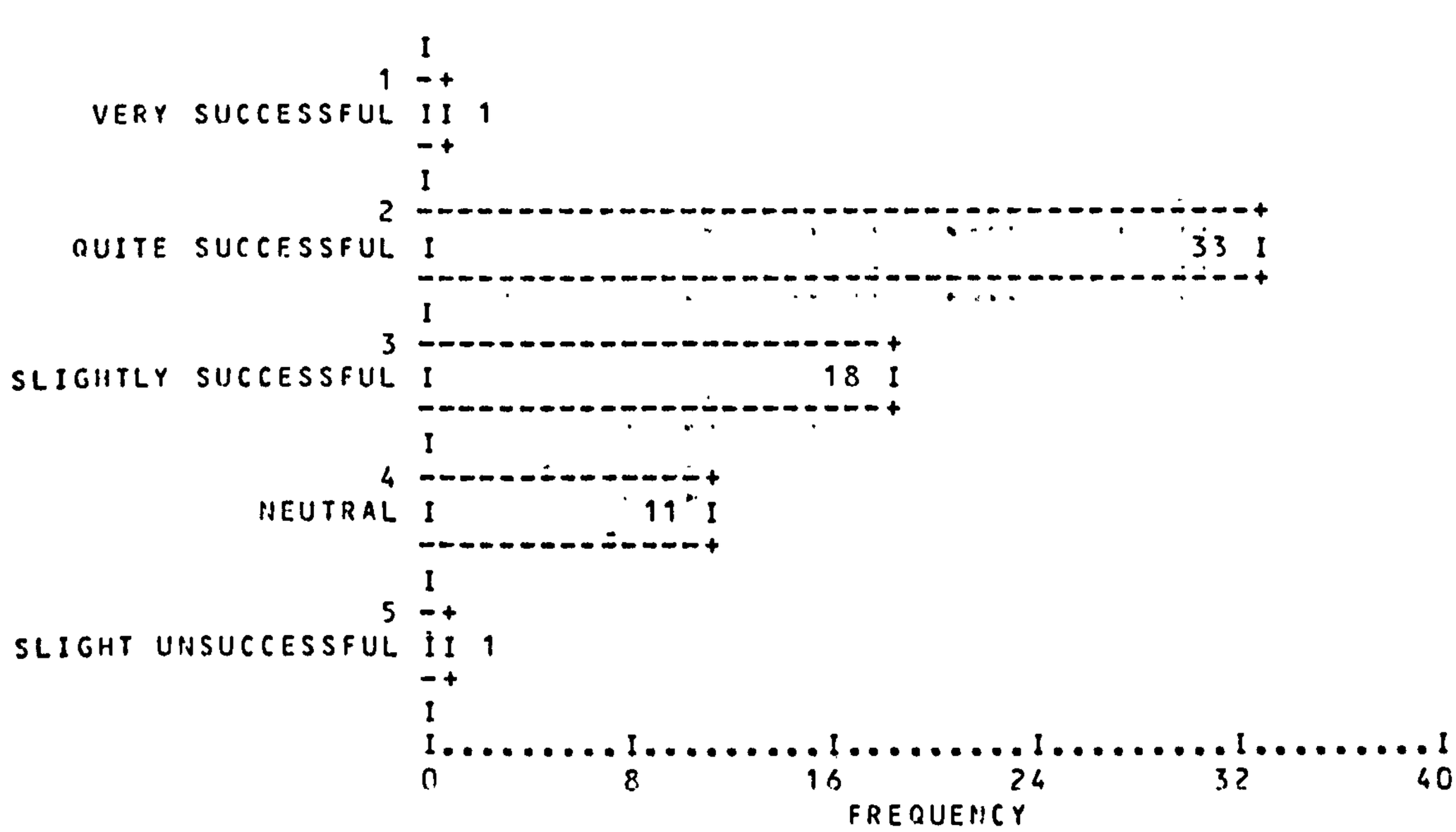
MEAN	2.391	STD ERR	.113	MEDIAN	2.000
MODE	2.000	STD DEV	.902	VARIANCE	.813
KURTOSIS	-.381	S E KURT	1.973	SKEWNESS	.741
S E SKEW	.299	RANGE	3.000	MINIMUM	1.000
MAXIMUM	4.000	SUM	153.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.47

CRELIABL RELIABILITY OF INFO.FOR N.INVEST.CONTROL

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
VERY SUCCESSFUL	1	1	1.6	1.6	1.6
QUITE SUCCESSFUL	2	33	51.6	51.6	53.1
SLIGHTLY SUCCESSFUL	3	18	28.1	28.1	81.3
NEUTRAL	4	11	17.2	17.2	98.4
SLIGHT UNSUCCESSFUL	5	1	1.6	1.6	100.0
	TOTAL	64	100.0	100.0	



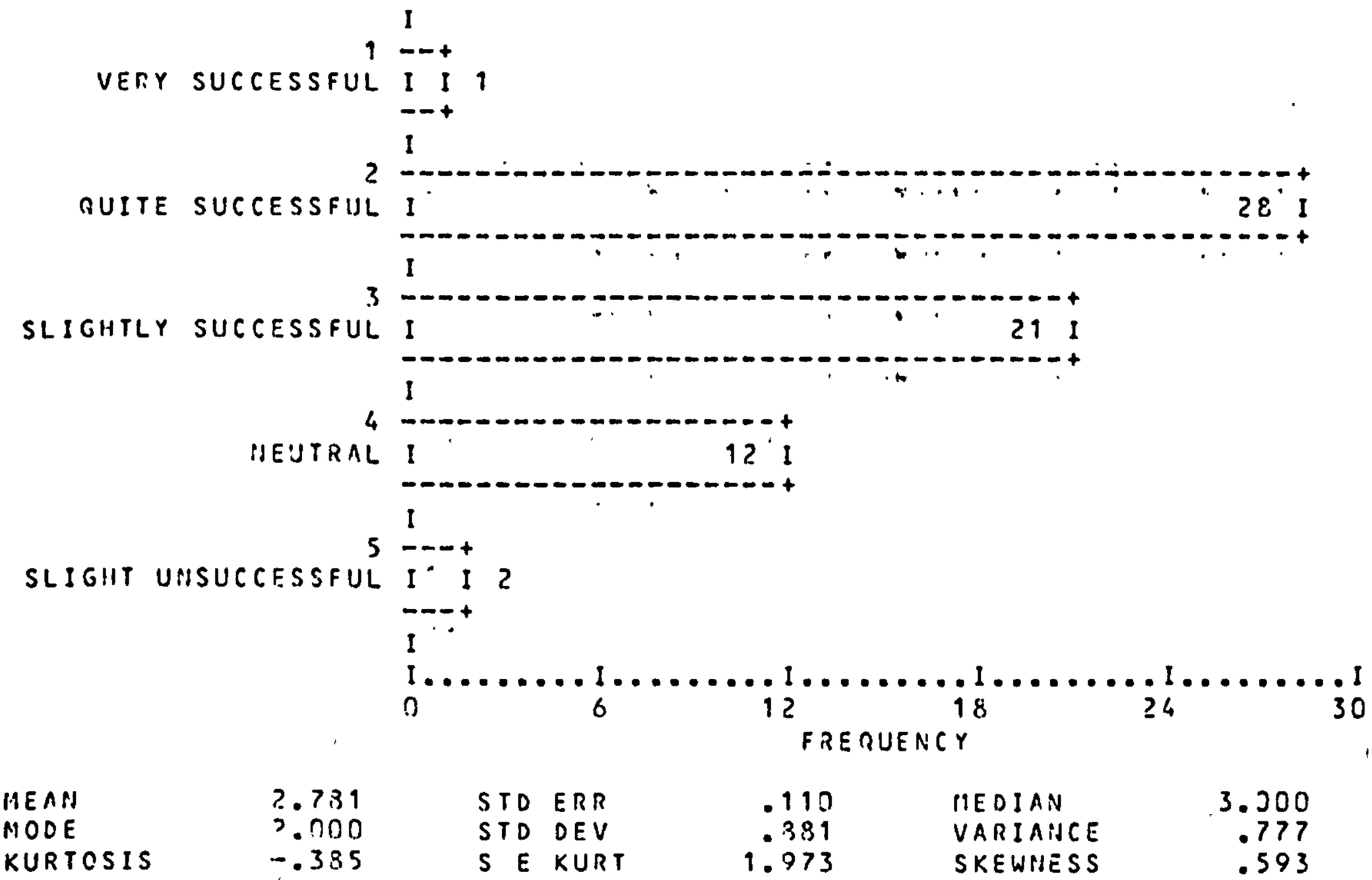
MEAN	2.656	STD ERR	.105	MEDIAN	2.000
MODE	2.000	STD DEV	.840	VARIANCE	.705
KURTOSIS	-.343	S E KURT	1.973	SKEWNESS	.731
S E SKEW	.299	RANGE	4.000	MINIMUM	1.000
MAXIMUM	5.000	SUM	170.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.48

CTRUSTY TRUST.OF INFO.FOR N.INVEST.CONTROL

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
VERY SUCCESSFUL	1	1	1.6	1.6	1.6
QUITE SUCCESSFUL	2	28	43.8	43.8	45.3
SLIGHTLY SUCCESSFUL	3	21	32.8	32.8	78.1
NEUTRAL	4	12	18.8	18.8	96.9
SLIGHT UNSUCCESSFUL	5	2	3.1	3.1	100.0
	TOTAL	64	100.0	100.0	



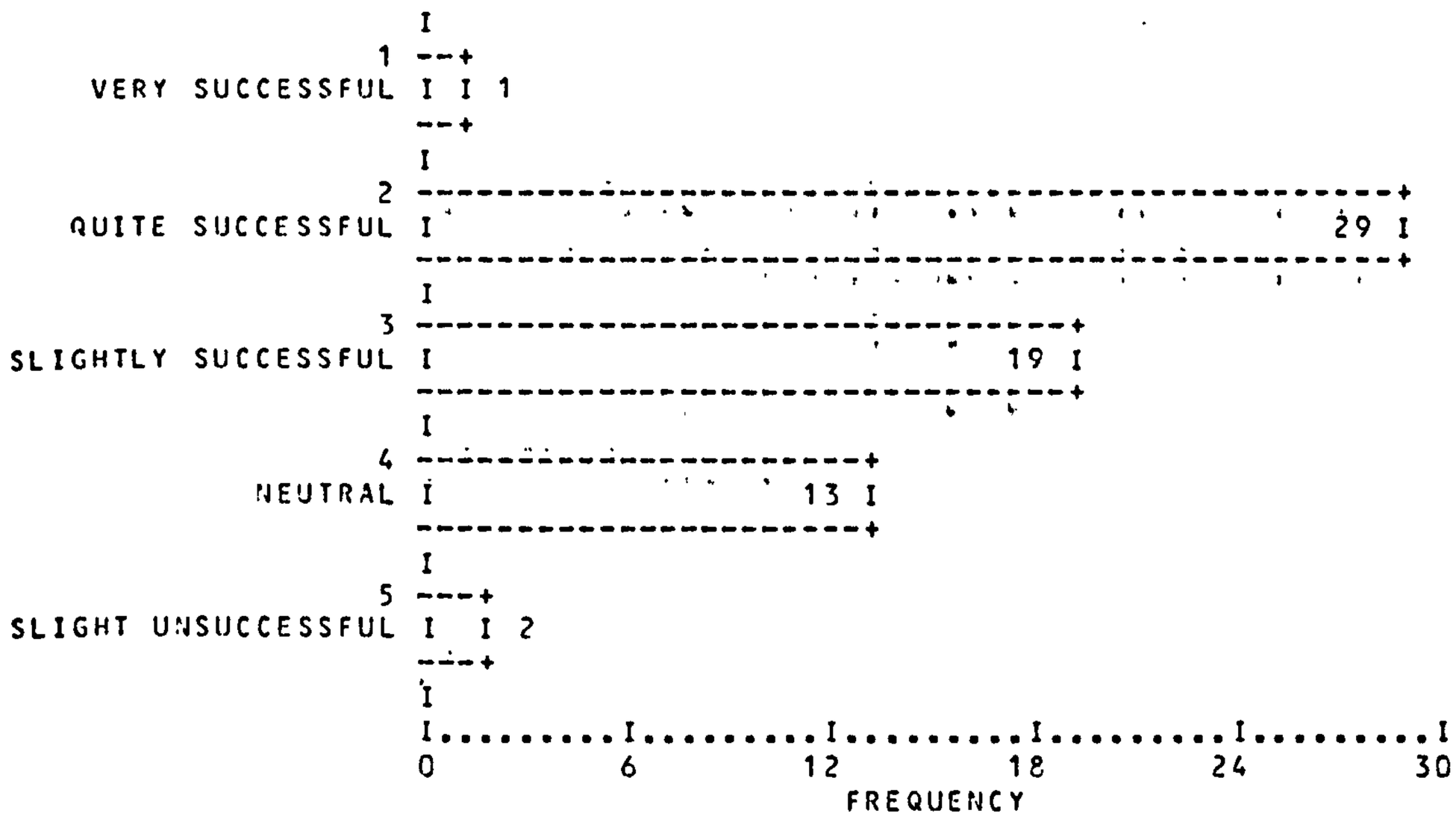
MEAN	2.781	STD ERR	.110	MEDIAN	3.000
MODE	3.000	STD DEV	.881	VARIANCE	.777
KURTOSIS	-.385	S E KURT	1.973	SKEWNESS	.593
S E SKEW	.299	RANGE	4.000	MINIMUM	1.000
MAXIMUM	5.000	SUM	178.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.49

CACCURAT ACCURACY OF INFO.FOR N.INVEST.CONTROL

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
VERY SUCCESSFUL	1	1	1.6	1.6	1.6
QUITE SUCCESSFUL	2	29	45.3	45.3	46.9
SLIGHTLY SUCCESSFUL	3	19	29.7	29.7	76.6
NEUTRAL	4	13	20.3	20.3	96.9
SLIGHT UNSUCCESSFUL	5	2	3.1	3.1	100.0
	TOTAL	64	100.0	100.0	



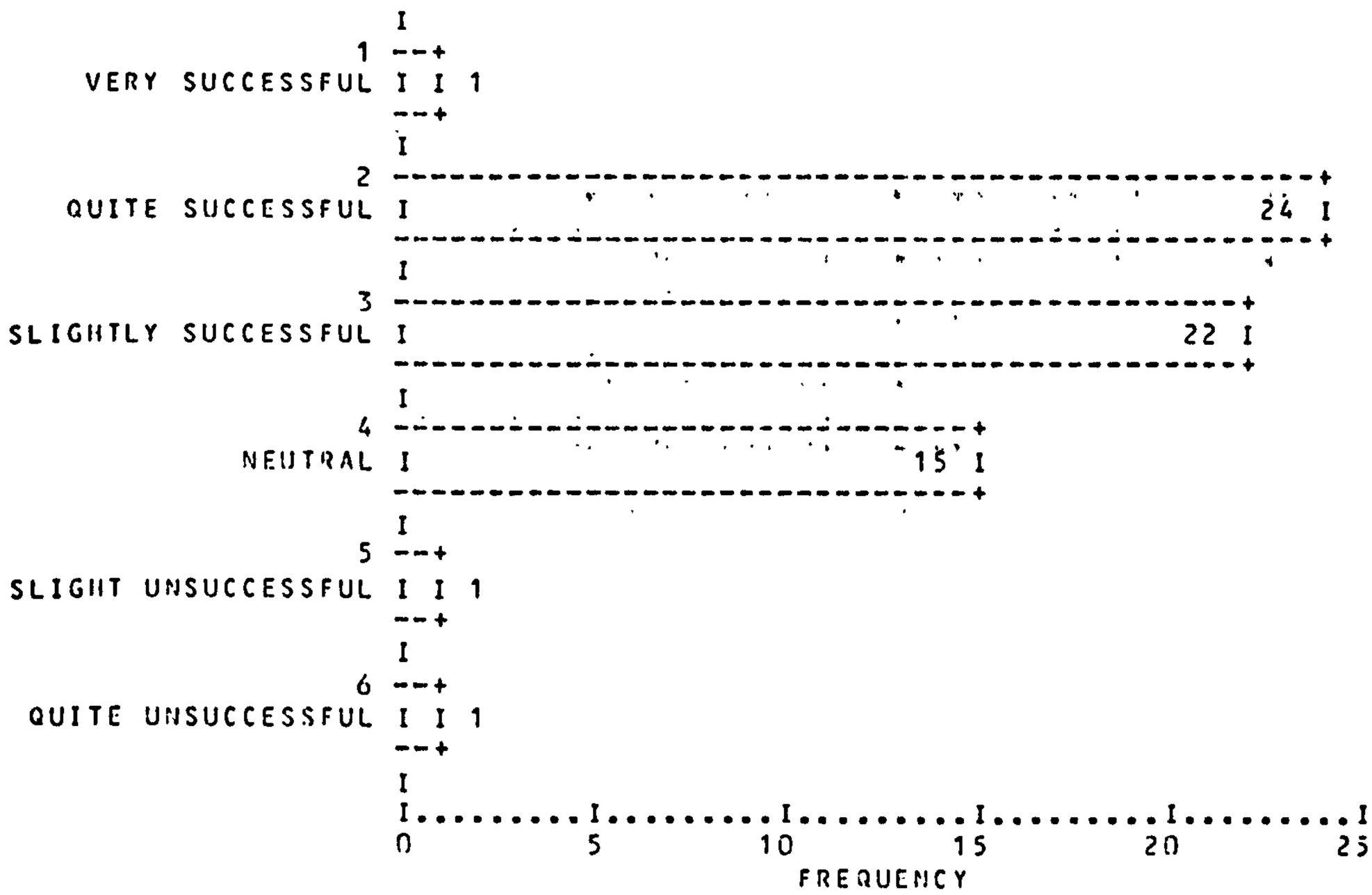
MEAN	2.731	STD ERR	.112	MEDIAN	3.000
MODE	2.000	STD DEV	.899	VARIANCE	.809
KURTOSIS	-.529	S E KURT	1.973	SKEWNESS	.588
S E SKEW	.299	RANGE	4.000	MINIMUM	1.000
MAXIMUM	5.000	SUM	173.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.50

CCONFIRM CONFIRM.OF INFO.FOR N.INVEST.CONTROL

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
VERY SUCCESSFUL	1	1	1.6	1.6	1.6
QUITE SUCCESSFUL	2	24	37.5	37.5	39.1
SLIGHTLY SUCCESSFUL	3	22	34.4	34.4	73.4
NEUTRAL	4	15	23.4	23.4	96.9
SLIGHT UNSUCCESSFUL	5	1	1.6	1.6	98.4
QUITE UNSUCCESSFUL	6	1	1.6	1.6	100.0
	TOTAL	64	100.0	100.0	



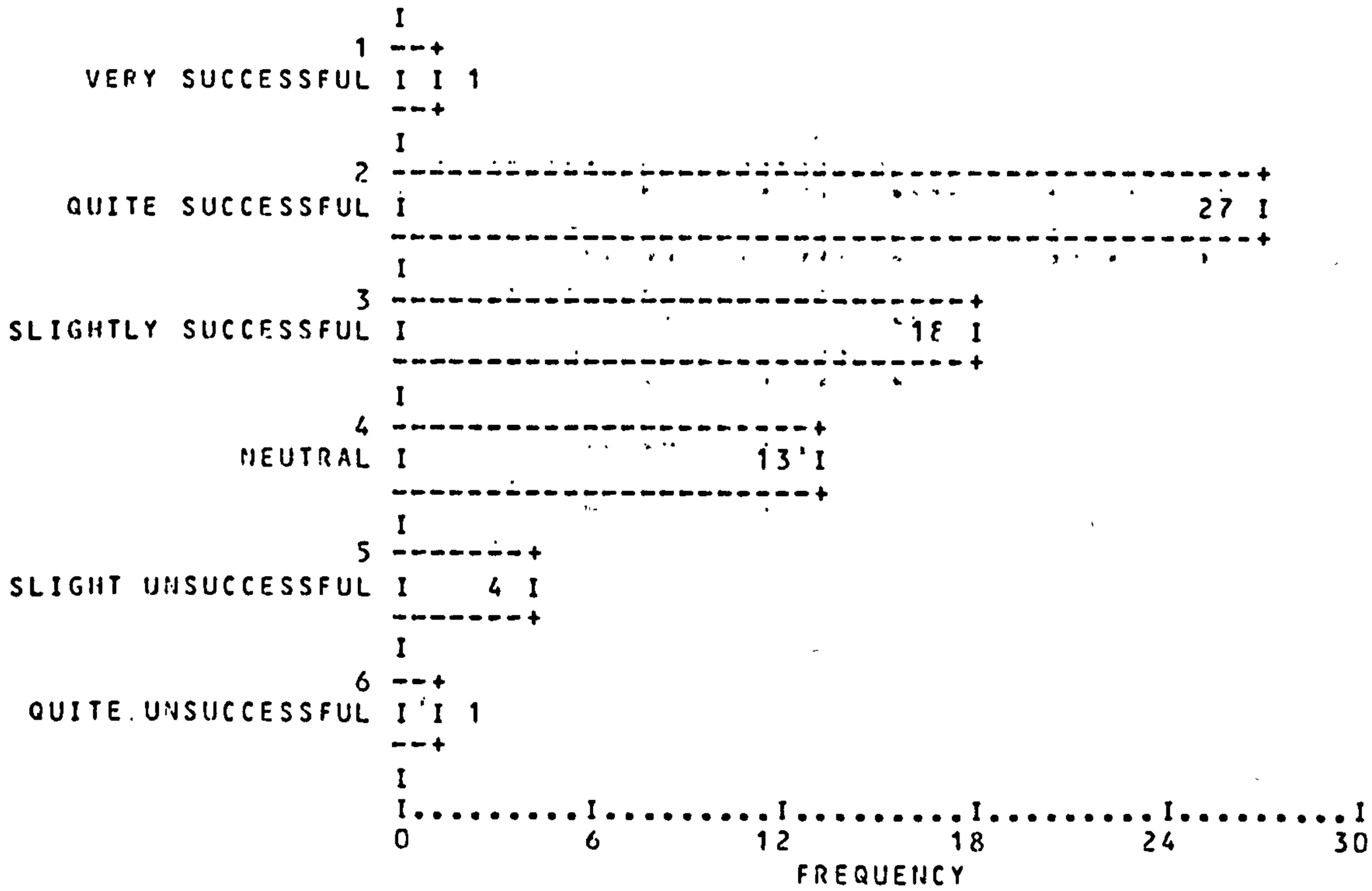
MEAN	2.906	STD ERR	.117	MEDIAN	3.000
MODE	2.000	STD DEV	.938	VARIANCE	.880
KURTOSIS	.497	S E KURT	1.973	SKEWNESS	.668
S E SKEW	.299	RANGE	5.000	MINIMUM	1.000
MAXIMUM	6.000	SUM	186.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.51

CCOMPLET COMPLETENESS OF INFO.FOR N.INVEST.CONT.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
VERY SUCCESSFUL	1	1	1.6	1.6	1.6
QUITE SUCCESSFUL	2	27	42.2	42.2	43.8
SLIGHTLY SUCCESSFUL	3	18	28.1	28.1	71.9
NEUTRAL	4	13	20.3	20.3	92.2
SLIGHT UNSUCCESSFUL	5	4	6.3	6.3	98.4
QUITE UNSUCCESSFUL	6	1	1.6	1.6	100.0
	TOTAL	64	100.0	100.0	



MEAN	2.922	STD ERR	.130	MEDIAN	3.000
MODE	2.000	STD DEV	1.044	VARIANCE	1.089
KURTOSIS	.018	S E KURT	1.973	SKEWNESS	.766
S E SKEW	.299	RANGE	5.000	MINIMUM	1.000
MAXIMUM	6.000	SUM	187.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.52

CBIASED FREEDOM OF BIAS OF INFO.FOR N.IN.CONTROL

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
QUITE SUCCESSFUL	2	3	4.7	4.7	4.7
SLIGHTLY SUCCESSFUL	3	17	26.6	26.6	31.3
NEUTRAL	4	38	59.4	59.4	90.6
SLIGHT UNSUCCESSFUL	5	5	7.8	7.3	98.4
QUITE UNSUCCESSFUL	6	1	1.6	1.6	100.0
	TOTAL	64	100.0	100.0	

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                    I
                  2 ----+
   QUITE SUCCESSFUL I 3 I
                    ----+
                    I
                  3 ---------------------+
SLIGHTLY SUCCESSFUL I                 17 I
                    ---------------------+
                    I
                  4 ------------------------------------------------------+
             NEUTRAL I                                                 38 I
                    ------------------------------------------------------+
                    I
                  5 -------+
SLIGHT UNSUCCESSFUL I    5 I
                    -------+
                    I
                  6 -+
 QUITE UNSUCCESSFUL II 1
                    -+
                    I
                    I.........I.........I.........I.........I.........I.........I
                    0         8        16        24        32        40
                                      FREQUENCY
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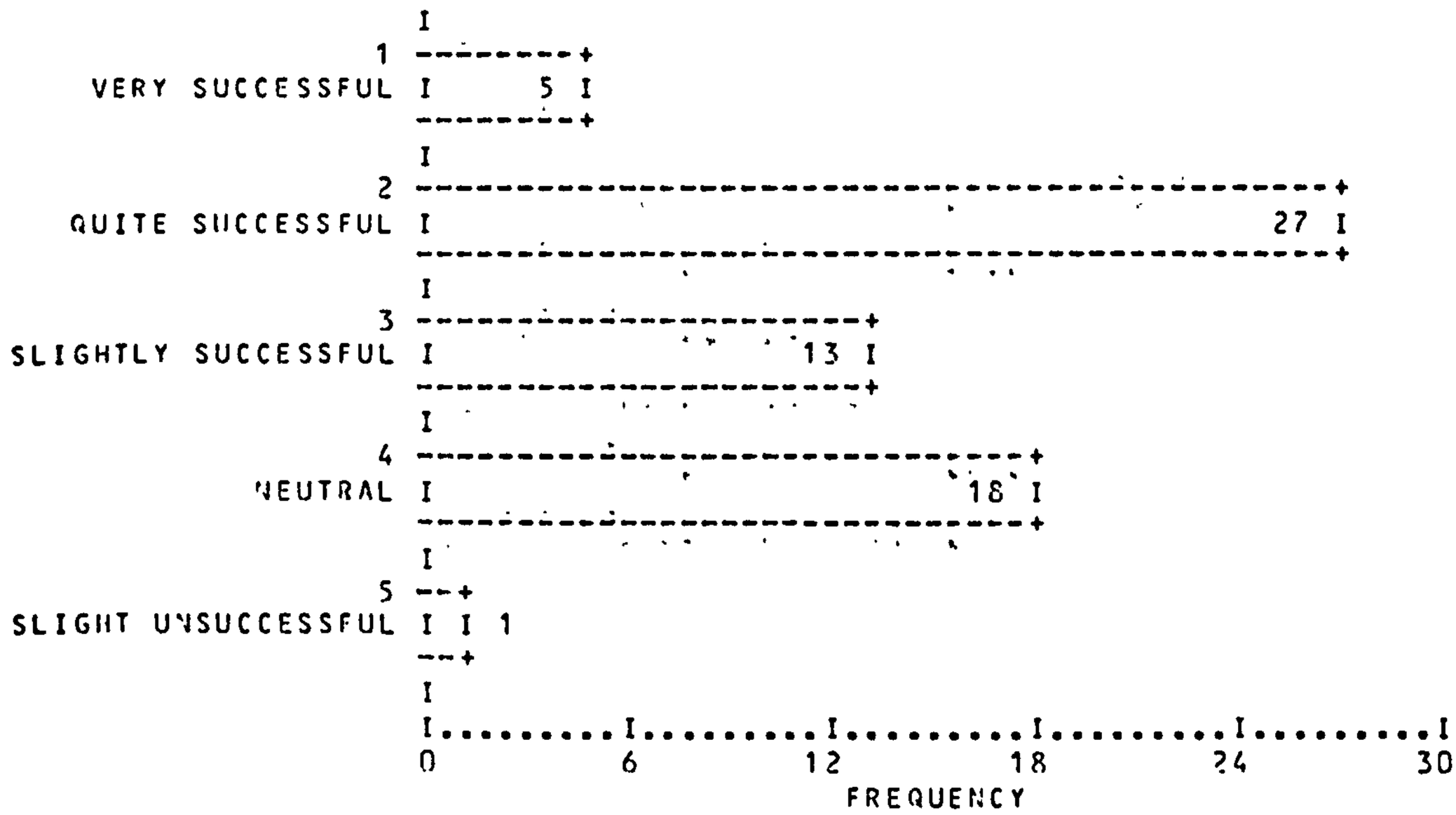
MEAN	3.750	STD ERR	.092	MEDIAN	4.000
MODE	4.000	STD DEV	.735	VARIANCE	.540
KURTOSIS	1.138	S E KURT	1.973	SKEWNESS	-.062
S E SKEW	.299	RANGE	4.000	MINIMUM	2.000
MAXIMUM	6.000	SUM	240.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.53

CCOMPARE COMPARABILITY OF INFO. FOR N. INVEST. CONT.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
VERY SUCCESSFUL	1	5	7.8	7.8	7.8
QUITE SUCCESSFUL	2	27	42.2	42.2	50.0
SLIGHTLY SUCCESSFUL	3	13	20.3	20.3	70.3
NEUTRAL	4	18	28.1	28.1	98.4
SLIGHT UNSUCCESSFUL	5	1	1.6	1.6	100.0
	TOTAL	64	100.0	100.0	



MEAN	2.734	STD ERR	.126	MEDIAN	2.500
MODE	2.000	STD DEV	1.012	VARIANCE	1.024
KURTOSIS	-1.054	S E KURT	1.973	SKEWNESS	.183
S E SKEW	.299	RANGE	4.000	MINIMUM	1.000
MAXIMUM	5.000	SUM	175.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.54

CCONSIST CONSISTENCY OF INFO.FOR N.INVEST.CONTROL

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
VERY SUCCESSFUL	1	5	7.8	7.8	7.8
QUITE SUCCESSFUL	2	30	46.9	46.9	54.7
SLIGHTLY SUCCESSFUL	3	15	23.4	23.4	78.1
NEUTRAL	4	12	18.8	18.8	96.9
SLIGHT UNSUCCESSFUL	5	2	3.1	3.1	100.0
	TOTAL	64	100.0	100.0	

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                    I
                  1 ---------+
     VERY SUCCESSFUL I      5 I
                    ---------+
                    I
                  2 ----------------------------------------------------+
    QUITE SUCCESSFUL I                                                30 I
                    ----------------------------------------------------+
                    I
                  3 ---------------------------+
SLIGHTLY SUCCESSFUL I                       15 I
                    ---------------------------+
                    I
                  4 ---------------------+
            NEUTRAL I                 12 I
                    ---------------------+
                    I
                  5 ---+
SLIGHT UNSUCCESSFUL I  I 2
                    ---+
                    I
                    I.........I.........I.........I.........I.........I.........I
                    0         6        12        18        24        30
                                      FREQUENCY
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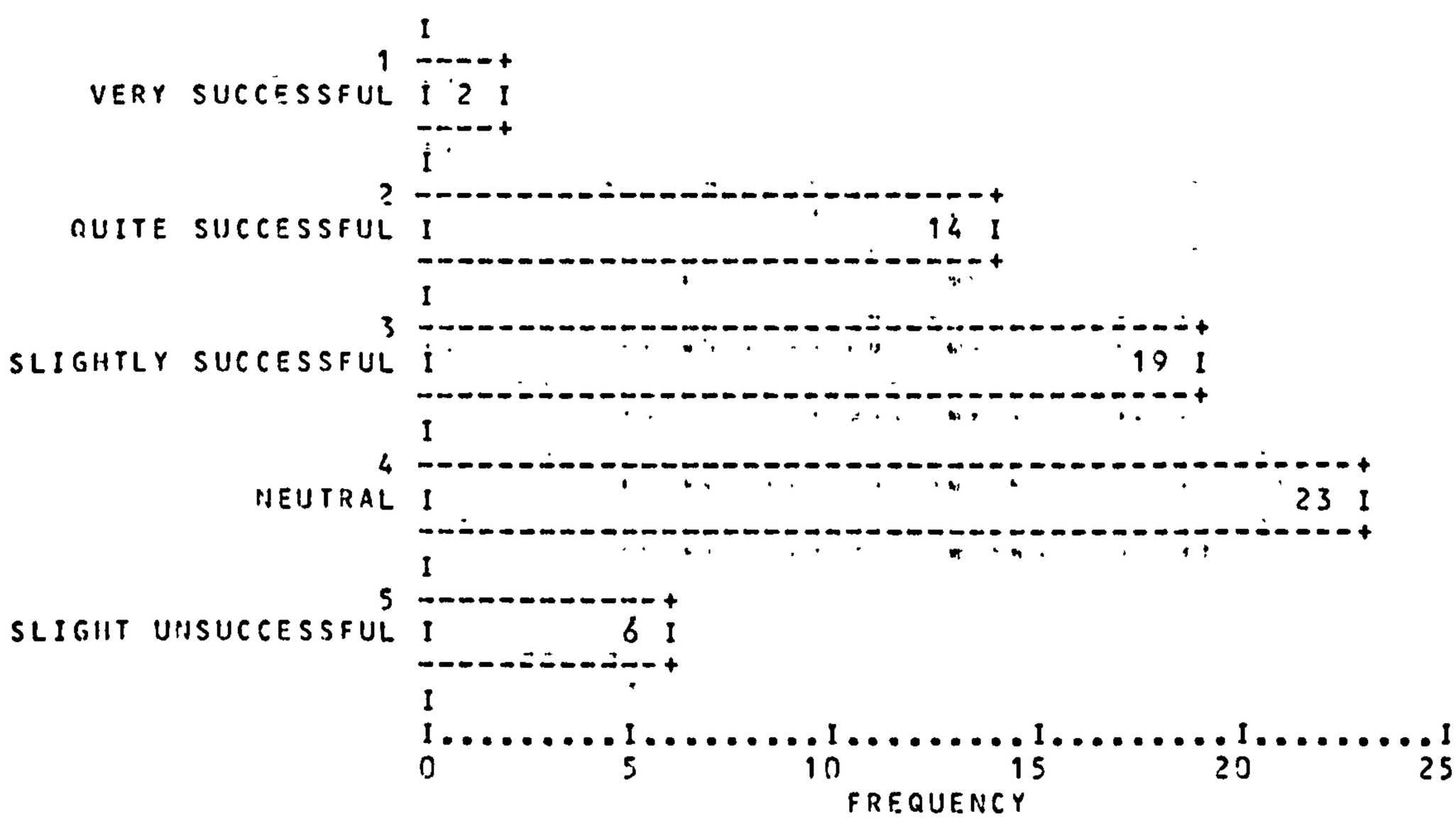
MEAN	2.625	STD ERR	.123	MEDIAN	2.000
MODE	2.000	STD DEV	.984	VARIANCE	.968
KURTOSIS	-.424	S E KURT	1.973	SKEWNESS	.516
S E SKEW	.299	RANGE	4.000	MINIMUM	1.000
MAXIMUM	5.000	SUM	168.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.55

CBENCOST BENEFIT:COST OF INFO.FOR N.INVEST.CONT.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
VERY SUCCESSFUL	1	2	3.1	3.1	3.1
QUITE SUCCESSFUL	2	14	21.9	21.9	25.0
SLIGHTLY SUCCESSFUL	3	19	29.7	29.7	54.7
NEUTRAL	4	23	35.9	35.9	90.6
SLIGHT UNSUCCESSFUL	5	6	9.4	9.4	100.0
	TOTAL	64	100.0	100.0	



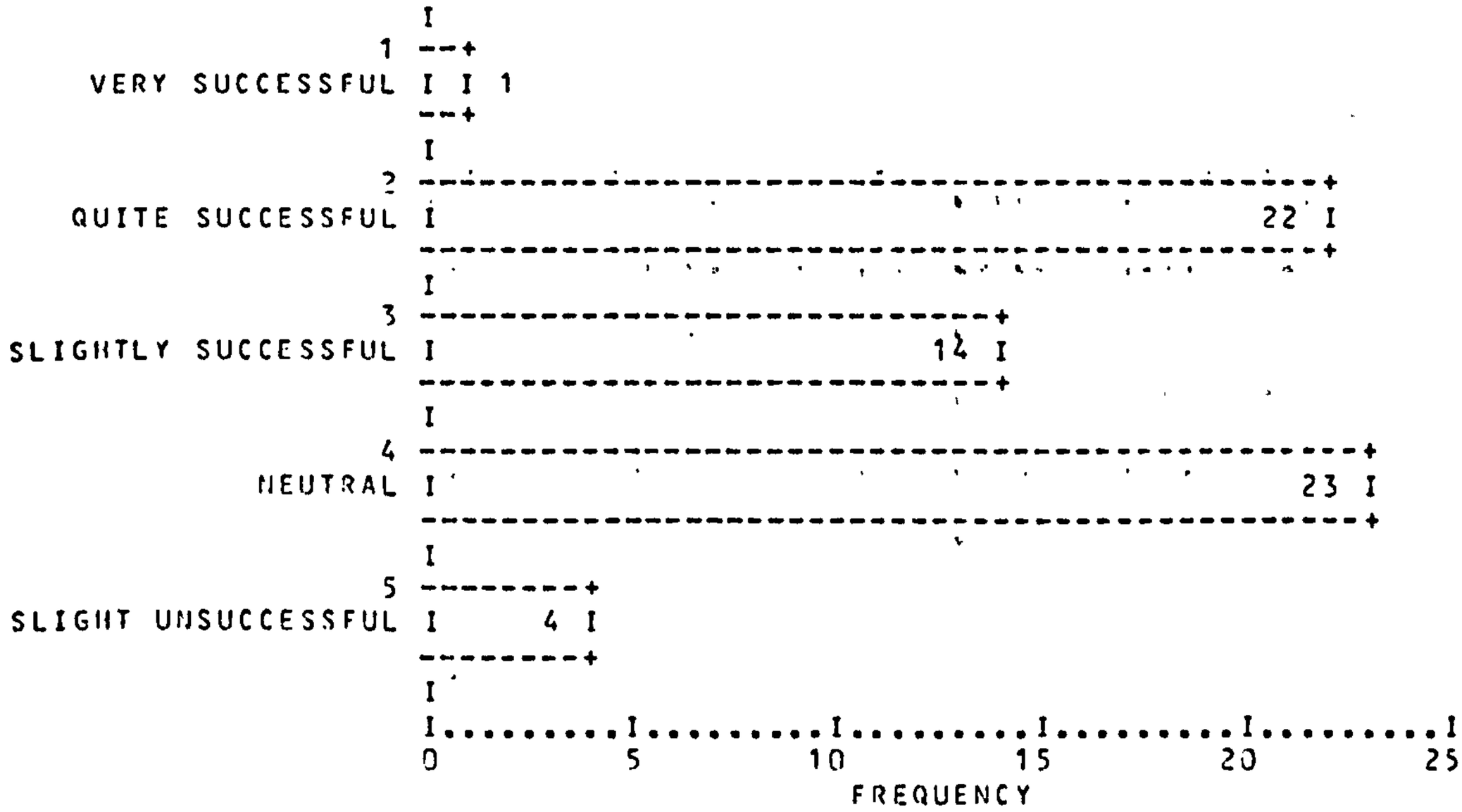
MEAN	3.266	STD ERR	.126	MEDIAN	3.000
MODE	4.000	STD DEV	1.012	VARIANCE	1.024
KURTOSIS	-.654	S E KURT	1.273	SKEWNESS	-.183
S E SKEW	.299	RANGE	4.000	MINIMUM	1.000
MAXIMUM	5.000	SUM	209.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.56

CMATERIA MATERIALITY OF INFO.FOR N.INVEST.CONTROL

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
VERY SUCCESSFUL	1	1	1.6	1.6	1.6
QUITE SUCCESSFUL	2	22	34.4	34.4	35.9
SLIGHTLY SUCCESSFUL	3	14	21.9	21.9	57.8
NEUTRAL	4	23	35.9	35.9	93.8
SLIGHT UNSUCCESSFUL	5	4	6.3	6.3	100.0
	TOTAL	64	100.0	100.0	



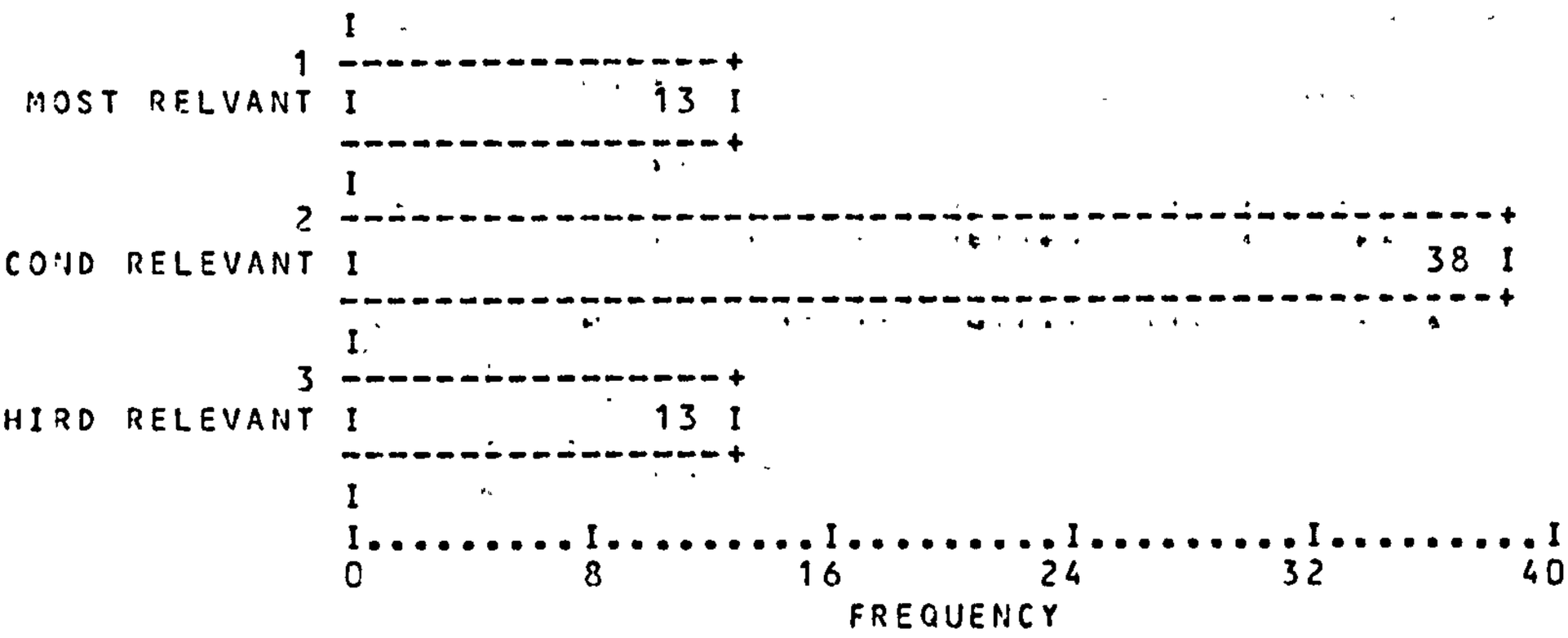
MEAN	3.109	STD ERR	.126	MEDIAN	3.000
MODE	4.000	STD DEV	1.010	VARIANCE	1.020
KURTOSIS	-1.155	S E KURT	1.273	SKEWNESS	.061
S E SKEW	.299	RANGE	4.000	MINIMUM	1.000
MAXIMUM	5.000	SUM	199.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.57

RELVHSPL RANK OF B.S.RELEVAV.FOR N.INVEST.PLAN.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
MOST RELVANT	1	13	20.3	20.3	20.3
SECOND RELEVANT	2	38	59.4	59.4	79.7
THIRD RELEVANT	3	13	20.3	20.3	100.0
	TOTAL	64	100.0	100.0	



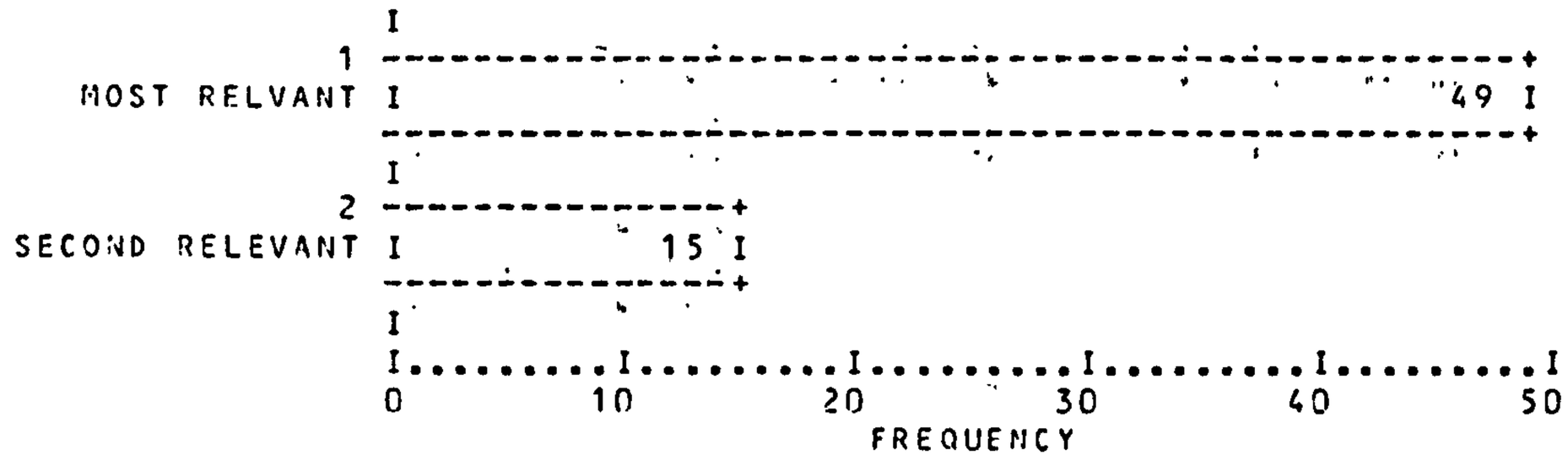
MEAN	2.000	STD ERR	.080	MEDIAN	2.000
MODE	2.000	STD DEV	.642	VARIANCE	.413
KURTOSIS	-.483	S E KURT	1.973	SKEWNESS	0.0
S E SKEW	.299	RANGE	2.000	MINIMUM	1.000
MAXIMUM	3.000	SUM	128.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.58

RELVSAPL RANK OF SSAF.RELEVAN.FOR N.INVEST.PLAN.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
MOST RELVANT	1	49	76.6	76.6	76.6
SECOND RELEVANT	2	15	23.4	23.4	100.0
	TOTAL	64	100.0	100.0	



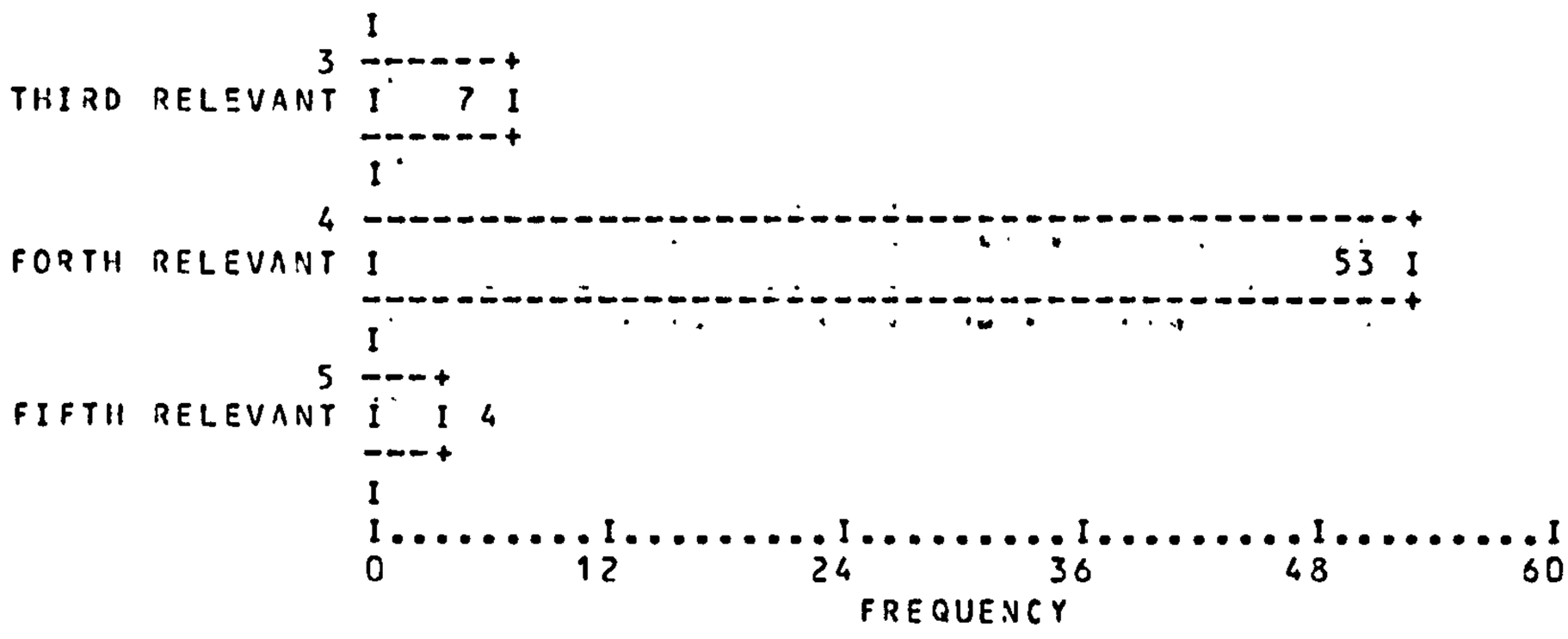
MEAN	1.234	STD ERR	.053	MEDIAN	1.000
MODE	1.000	STD DEV	.427	VARIANCE	.182
KURTOSIS	-.363	S E KURT	1.973	SKEWNESS	1.284
S E SKEW	.299	RANGE	1.000	MINIMUM	1.000
MAXIMUM	2.000	SUM	79.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.59

RELVCOPL RANK OF C.O.RELEVAN.FOR N.INVEST.PLAN.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
THIRD RELEVANT	3	7	10.9	10.9	10.9
FORTH RELEVANT	4	53	82.8	82.8	93.8
FIFTH RELEVANT	5	4	6.3	6.3	100.0
	TOTAL	64	100.0	100.0	



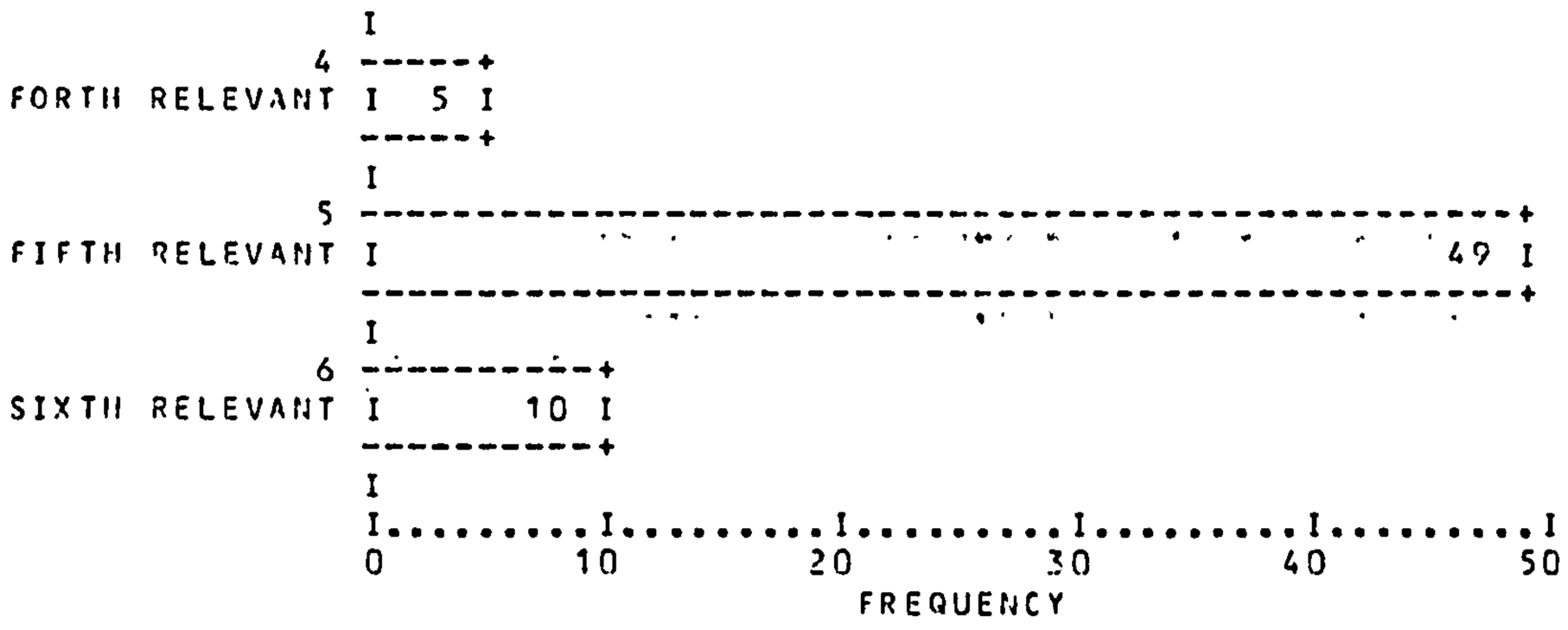
MEAN	3.953	STD ERR	.052	MEDIAN	4.000
MODE	4.000	STD DEV	.415	VARIANCE	.172
KURTOSIS	3.070	S E KURT	1.973	SKEWNESS	-.336
S E SKEW	.299	RANGE	2.000	MINIMUM	3.000
MAXIMUM	5.000	SUM	253.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.60

RELVPTPL RANK OF P.T.RELEVAN.FOR N.INVEST.PLAN.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
FORTH RELEVANT	4	5	7.8	7.8	7.8
FIFTH RELEVANT	5	49	76.6	76.6	84.4
SIXTH RELEVANT	6	10	15.6	15.6	100.0
	TOTAL	64	100.0	100.0	



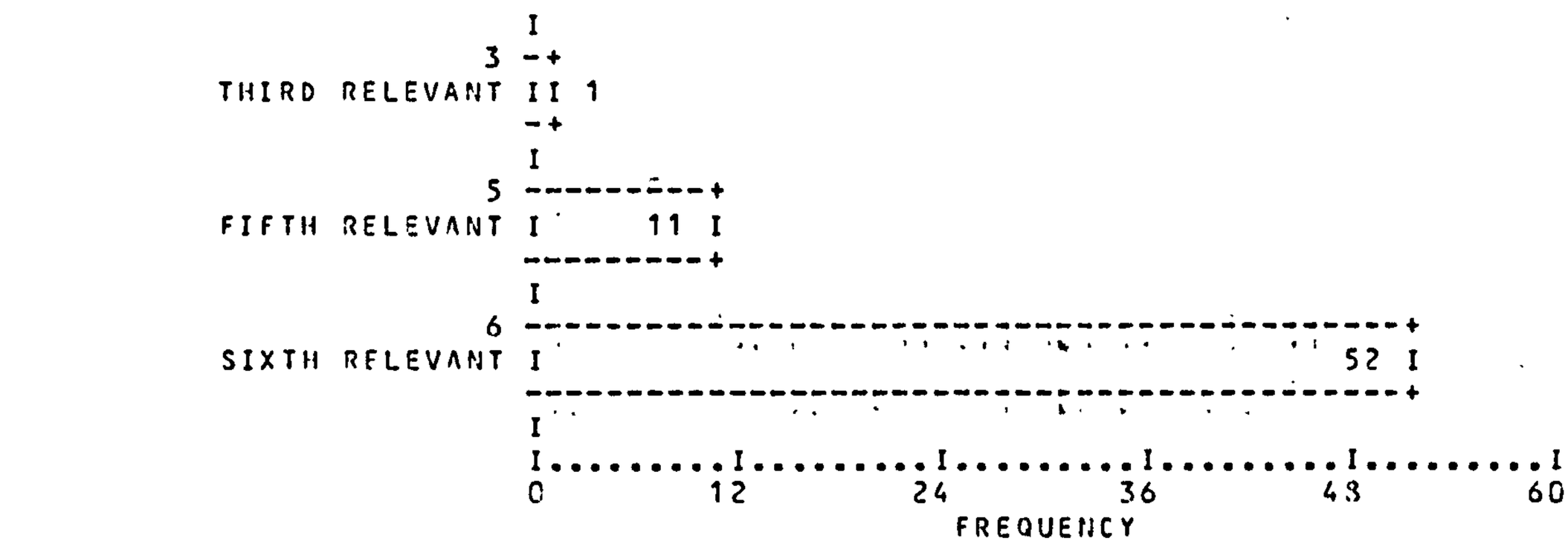
MEAN	5.078	STD ERR	.060	MEDIAN	5.000
MODE	5.000	STD DEV	.482	VARIANCE	.232
KURTOSIS	1.391	S E KURT	1.973	SKEWNESS	.227
S E SKEW	.299	RANGE	2.000	MINIMUM	4.000
MAXIMUM	6.000	SUM	325.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.61

RELVPLPL RANK OF P.L.RELEVAN.FOR N.INVEST.PLAN.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
THIRD RELEVANT	3	1	1.6	1.6	1.6
FIFTH RELEVANT	5	11	17.2	17.2	18.8
SIXTH RELEVANT	6	52	81.3	31.3	100.0
	TOTAL	64	100.0	100.0	



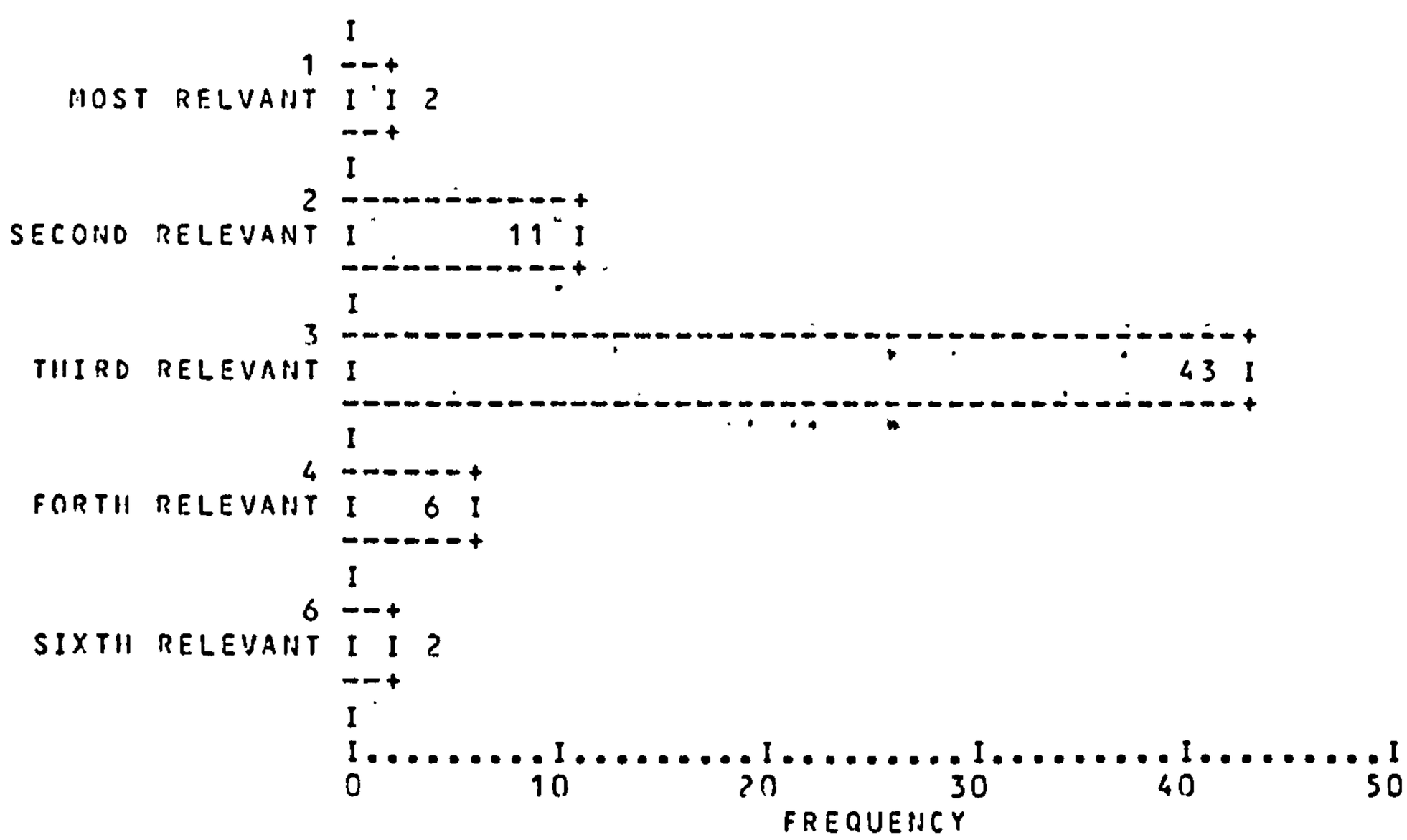
MEAN	5.781	STD ERR	.065	MEDIAN	6.000
MODE	6.000	STD DEV	.519	VARIANCE	.269
KURTOSIS	12.324	S E KURT	1.973	SKEWNESS	-3.081
S E SKEW	.299	RANGE	3.000	MINIMUM	3.000
MAXIMUM	6.000	SUM	370.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.62

RELVCSPL RANK OF C.S.RELEVAN.FOR N.INVEST.PLAN.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
MOST RELVANT	1	2	3.1	3.1	3.1
SECOND RELEVANT	2	11	17.2	17.2	20.3
THIRD RELEVANT	3	43	67.2	67.2	87.5
FORTH RELEVANT	4	6	9.4	9.4	96.9
SIXTH RELEVANT	6	2	3.1	3.1	100.0
	TOTAL	64	100.0	100.0	



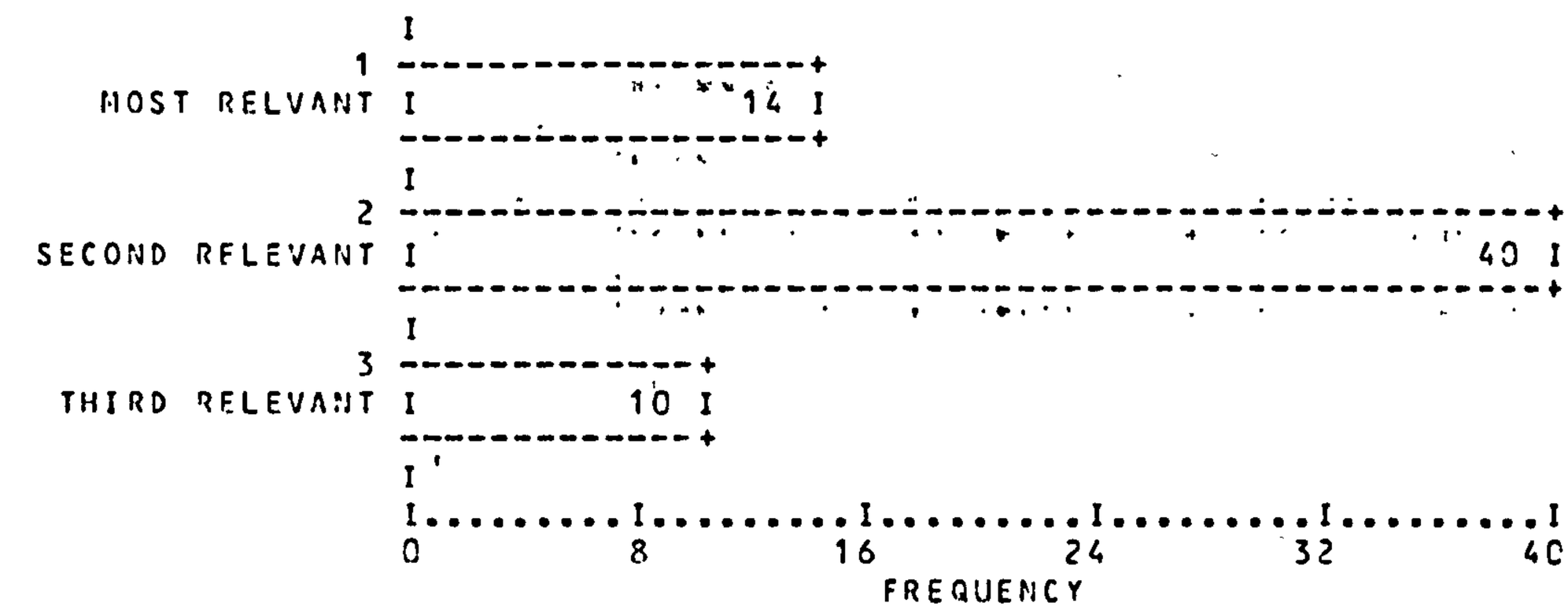
MEAN	2.953	STD ERR	.103	MEDIAN	3.000
MODE	3.000	STD DEV	.825	VARIANCE	.680
KURTOSIS	5.066	S E KURT	1.973	SKEWNESS	1.140
S E SKEW	.299	RANGE	5.000	MINIMUM	1.000
MAXIMUM	6.000	SUM	189.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.63

RELVBSCO RANK OF B.S.RELEVAN.FOR N.INVEST.CONT.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
MOST RELVANT	1	14	21.9	21.9	21.9
SECOND RELEVANT	2	40	62.5	62.5	84.4
THIRD RELEVANT	3	10	15.6	15.6	100.0
	TOTAL	64	100.0	100.0	



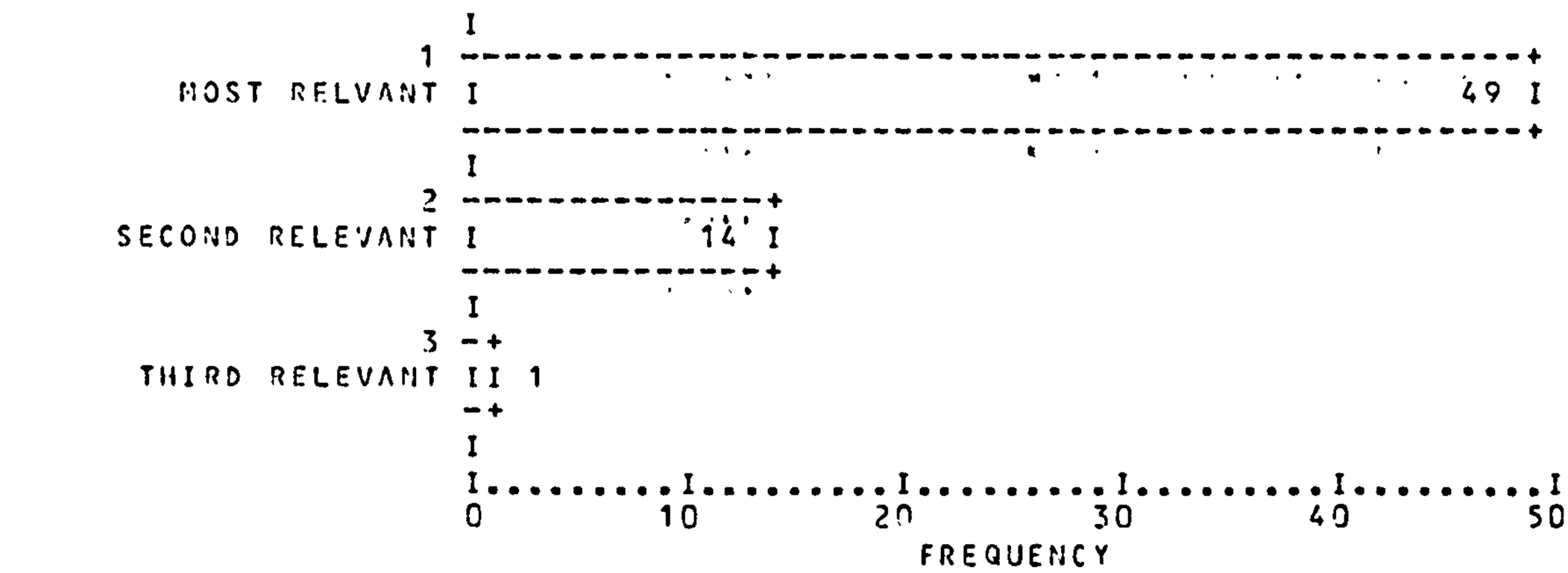
MEAN	1.938	STD ERR	.077	MEDIAN	2.000
MODE	2.000	STD DEV	.614	VARIANCE	.377
KURTOSIS	-.254	S E KURT	1.973	SKEWNESS	.033
S E SKEW	.299	RANGE	2.000	MINIMUM	1.000
MAXIMUM	3.000	SUM	124.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.64

RELVSACO RANK OF SSAF.RELEVAN.FOR N.INVEST.CONT.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
MOST RELVANT	1	49	76.6	76.6	76.6
SECOND RELEVANT	2	14	21.9	21.9	98.4
THIRD RELEVANT	3	1	1.6	1.6	100.0
	TOTAL	64	100.0	100.0	



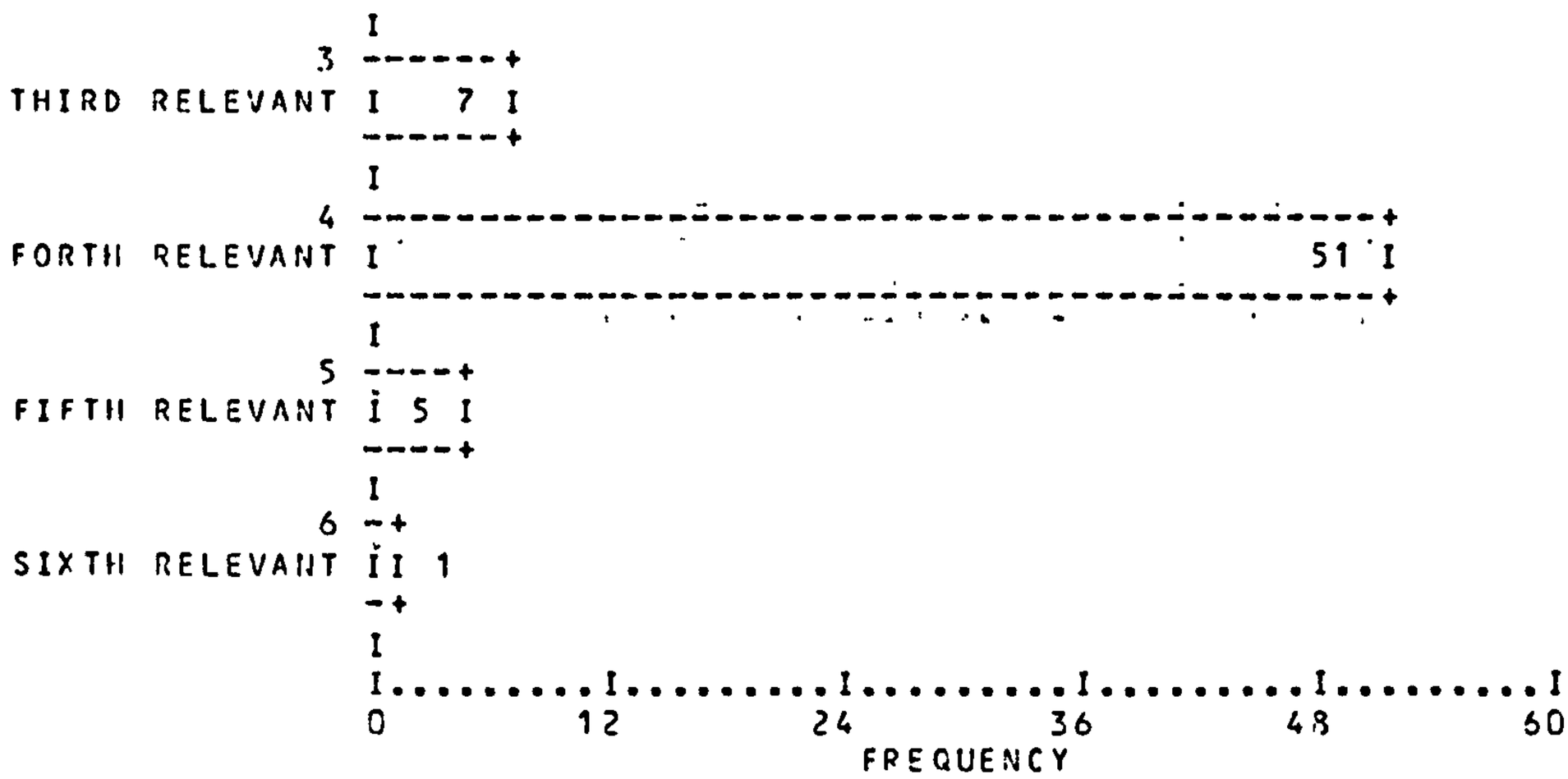
MEAN	1.250	STD ERR	.059	MEDIAN	1.000
MODE	1.000	STD DEV	.471	VARIANCE	.222
KURTOSIS	1.301	S E KURT	1.973	SKEWNESS	1.642
S E SKEW	.299	RANGE	2.000	MINIMUM	1.000
MAXIMUM	3.000	SUM	80.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.65

RELVCOCO RANK OF C.O.RELEVAN.FOR N.INVEST.CONT.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
THIRD RELEVANT	3	7	10.9	10.9	10.9
FORTH RELEVANT	4	51	79.7	79.7	90.6
FIFTH RELEVANT	5	5	7.8	7.8	98.4
SIXTH RELEVANT	6	1	1.6	1.6	100.0
	TOTAL	64	100.0	100.0	



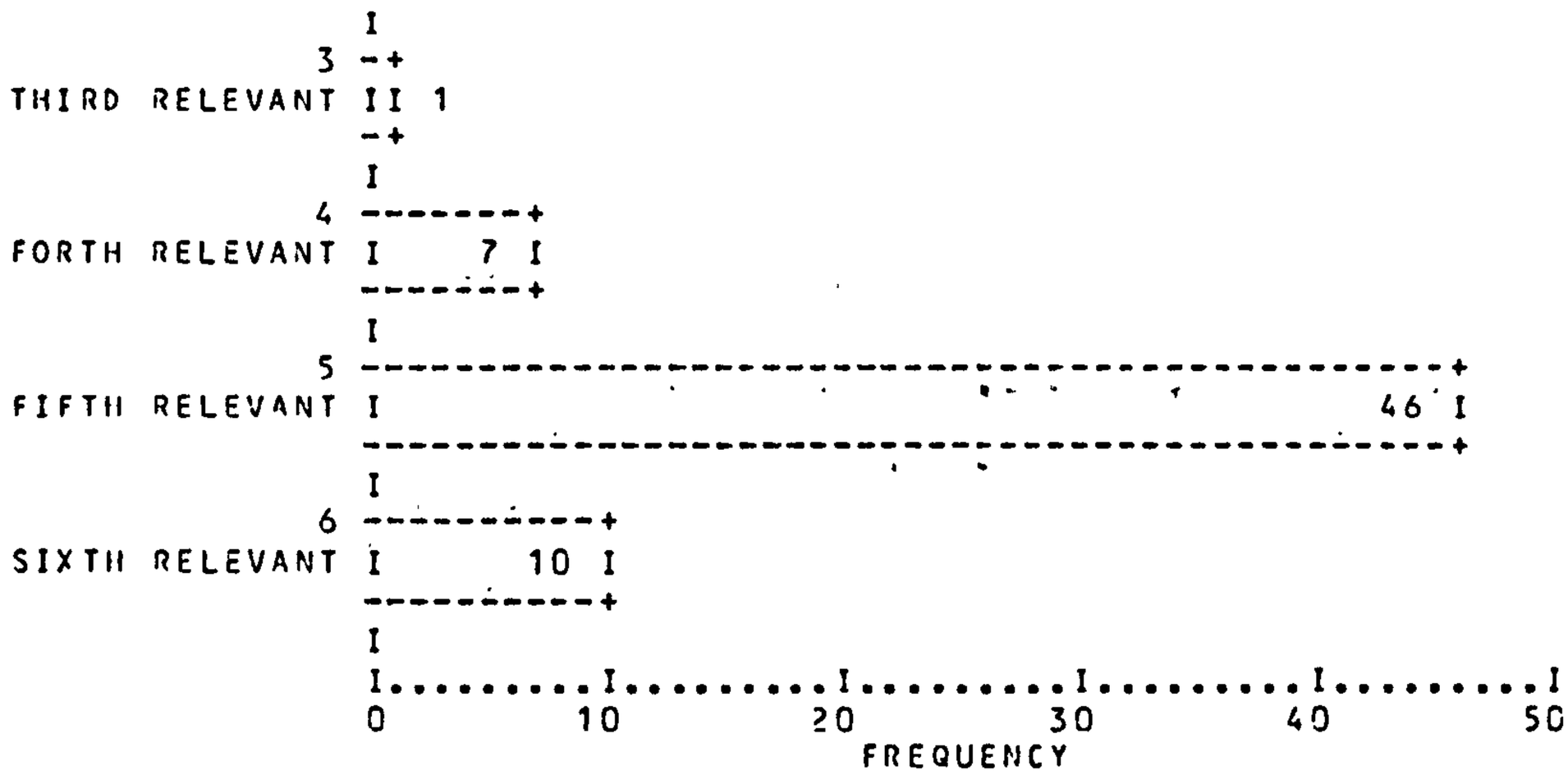
MEAN	4.000	STD ERR	.063	MEDIAN	4.000
MODE	4.000	STD DEV	.504	VARIANCE	.254
KURTOSIS	4.431	S E KURT	1.973	SKEWNESS	.768
S E SKEW	.299	RANGE	3.000	MINIMUM	3.000
MAXIMUM	6.000	SUM	256.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.66

RELVPTCO RANK OF P.T.RELEVAN.FOR N.INVEST.CONT.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
THIRD RELEVANT	3	1	1.6	1.6	1.6
FORTH RELEVANT	4	7	10.9	10.9	12.5
FIFTH RELEVANT	5	46	71.9	71.9	84.4
SIXTH RELEVANT	6	10	15.6	15.6	100.0
	TOTAL	64	100.0	100.0	



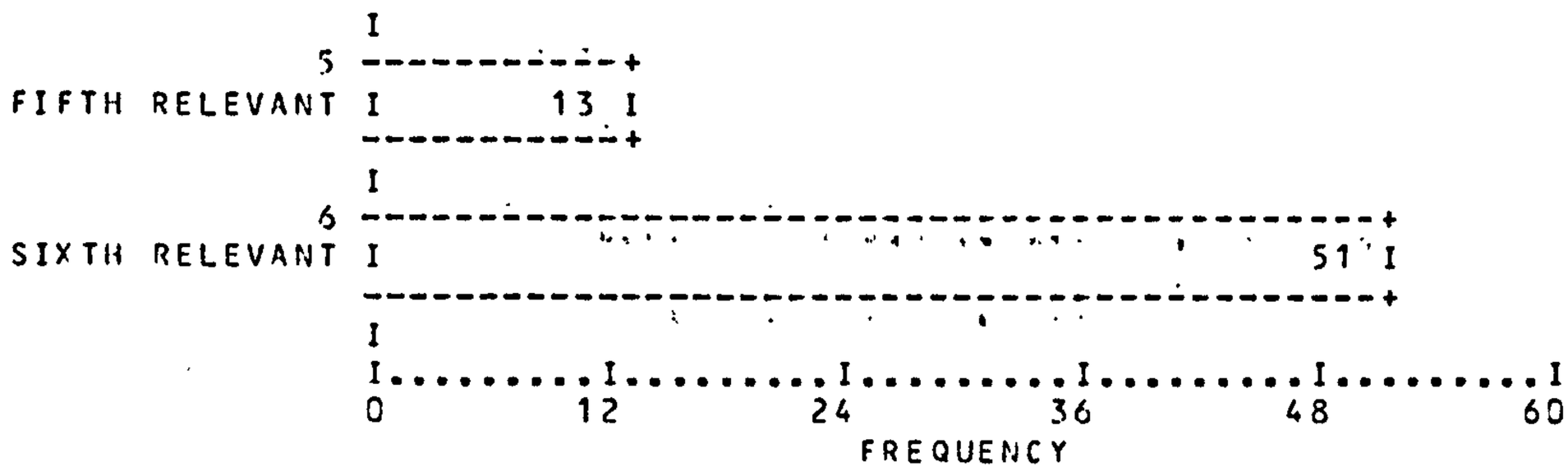
MEAN	5.016	STD ERR	.072	MEDIAN	5.000
MODE	5.000	STD DEV	.577	VARIANCE	.333
KURTOSIS	2.099	S E KURT	1.973	SKEWNESS	-.510
S E SKEW	.299	RANGE	3.000	MINIMUM	3.000
MAXIMUM	6.000	SUM	321.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.67

RELVPLCO RANK OF P.L.RELEVAN.FOR N.INVEST.CONT.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
FIFTH RELEVANT	5	13	20.3	20.3	20.3
SIXTH RELEVANT	6	51	79.7	79.7	100.0
	TOTAL	64	100.0	100.0	



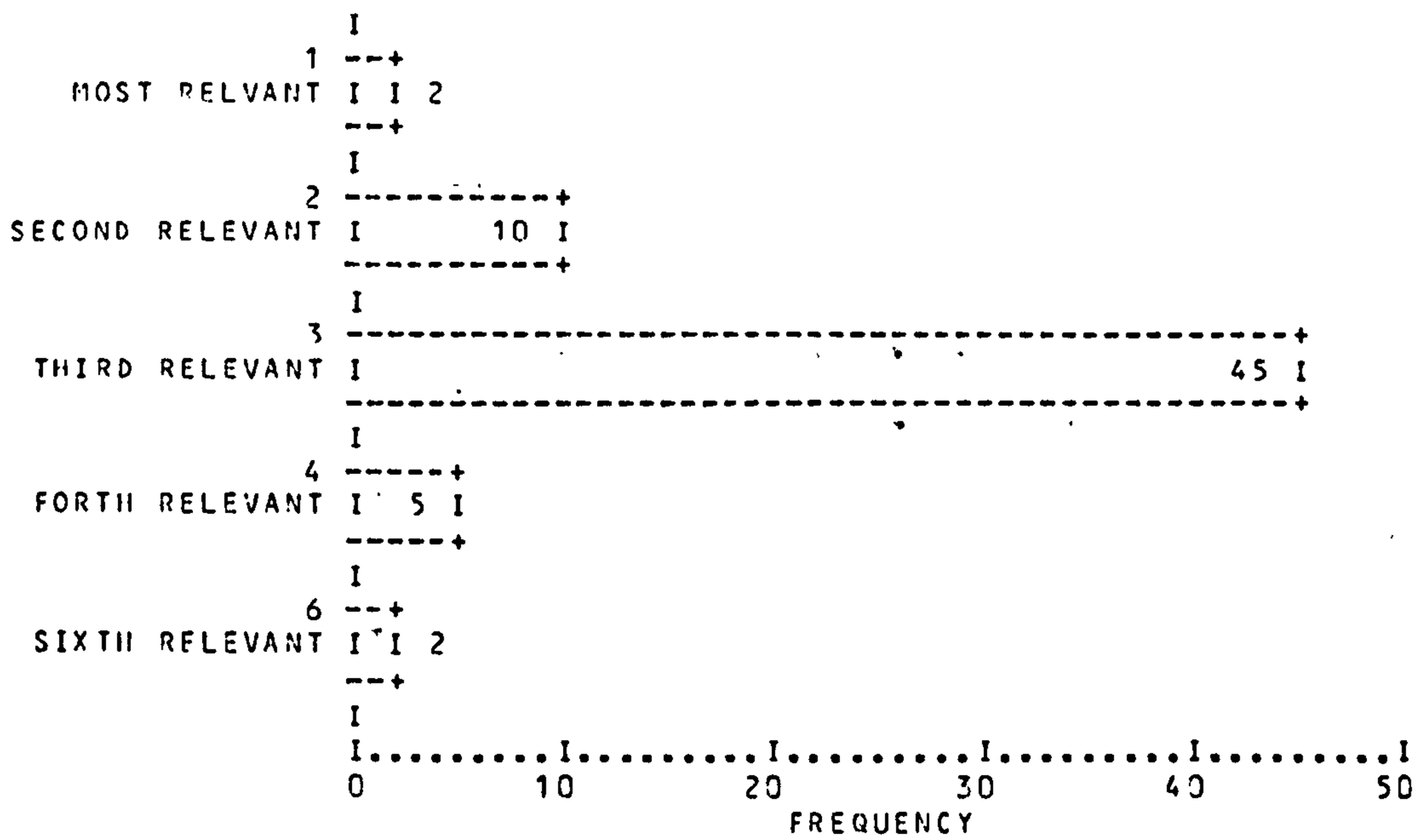
MEAN	5.797	STD ERR	.051	MEDIAN	6.000
MODE	6.000	STD DEV	.406	VARIANCE	.164
KURTOSIS	.293	S E KURT	1.973	SKEWNESS	-1.511
S E SKEW	.299	RANGE	1.000	MINIMUM	5.000
MAXIMUM	6.000	SUM	371.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.68

RELVCSCO RANK OF C.S.RELEVAN.FOR N.INVEST.CONT.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
MOST RELVANT	1	2	3.1	3.1	3.1
SECOND RELEVANT	2	10	15.6	15.6	18.8
THIRD RELEVANT	3	45	70.3	70.3	89.1
FORTH RELEVANT	4	5	7.8	7.8	96.9
SIXTH RELEVANT	6	2	3.1	3.1	100.0
	TOTAL	64	100.0	100.0	



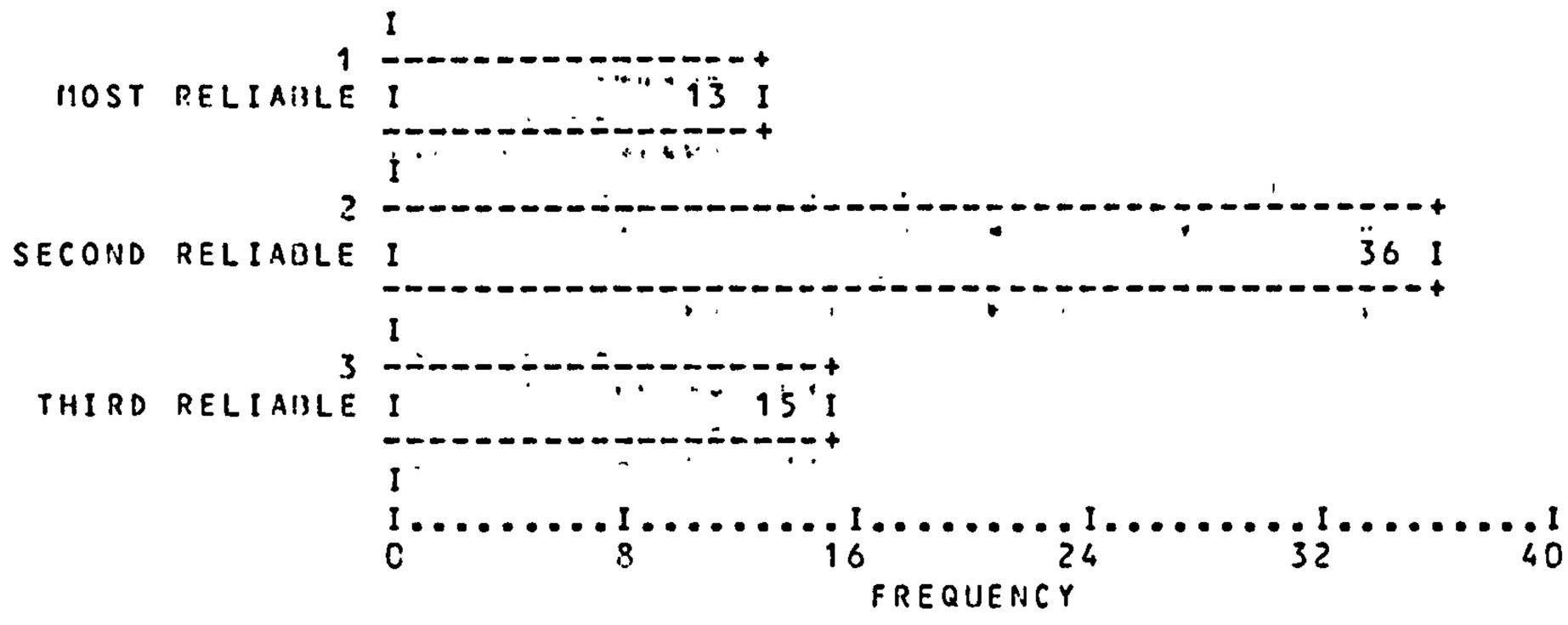
MEAN	2.953	STD ERR	.101	MEDIAN	3.000
MODE	3.000	STD DEV	.805	VARIANCE	.649
KURTOSIS	5.806	S E KURT	1.973	SKEWNESS	1.216
S E SKEW	.299	RANGE	5.000	MINIMUM	1.000
MAXIMUM	6.000	SUM	189.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.69

RELIBSPL RANK OF B.S.RELIABL.FOR N.INVEST.PLAN.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
MOST RELIABLE	1	13	20.3	20.3	20.3
SECOND RELIABLE	2	36	56.3	56.3	76.6
THIRD RELIABLE	3	15	23.4	23.4	100.0
	TOTAL	64	100.0	100.0	



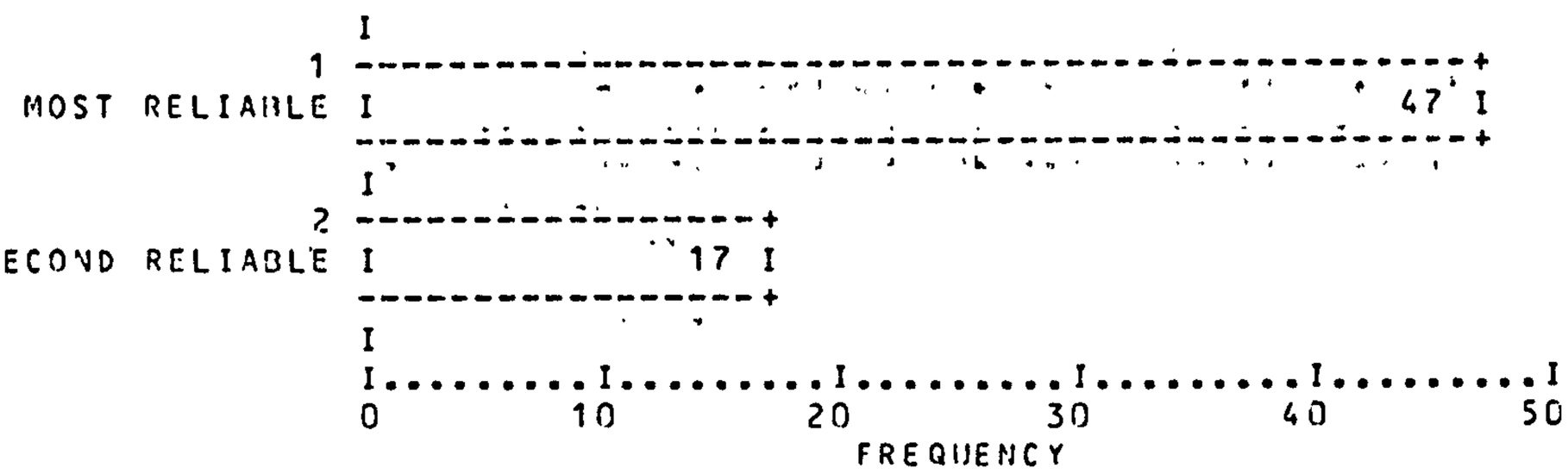
MEAN	2.031	STD ERR	.083	MEDIAN	2.000
MODE	2.000	STD DEV	.666	VARIANCE	.443
KURTOSIS	-.670	S E KURT	1.973	SKEWNESS	-.034
S E SKEW	.299	RANGE	2.000	MINIMUM	1.000
MAXIMUM	3.000	SUM	130.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.70

RELISAPL RANK OF SSAF.RELIABL.FOR N.INVEST.PLAN.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
MOST RELIABLE	1	47	73.4	73.4	73.4
SECOND RELIABLE	2	17	26.6	26.6	100.0
	TOTAL	64	100.0	100.0	



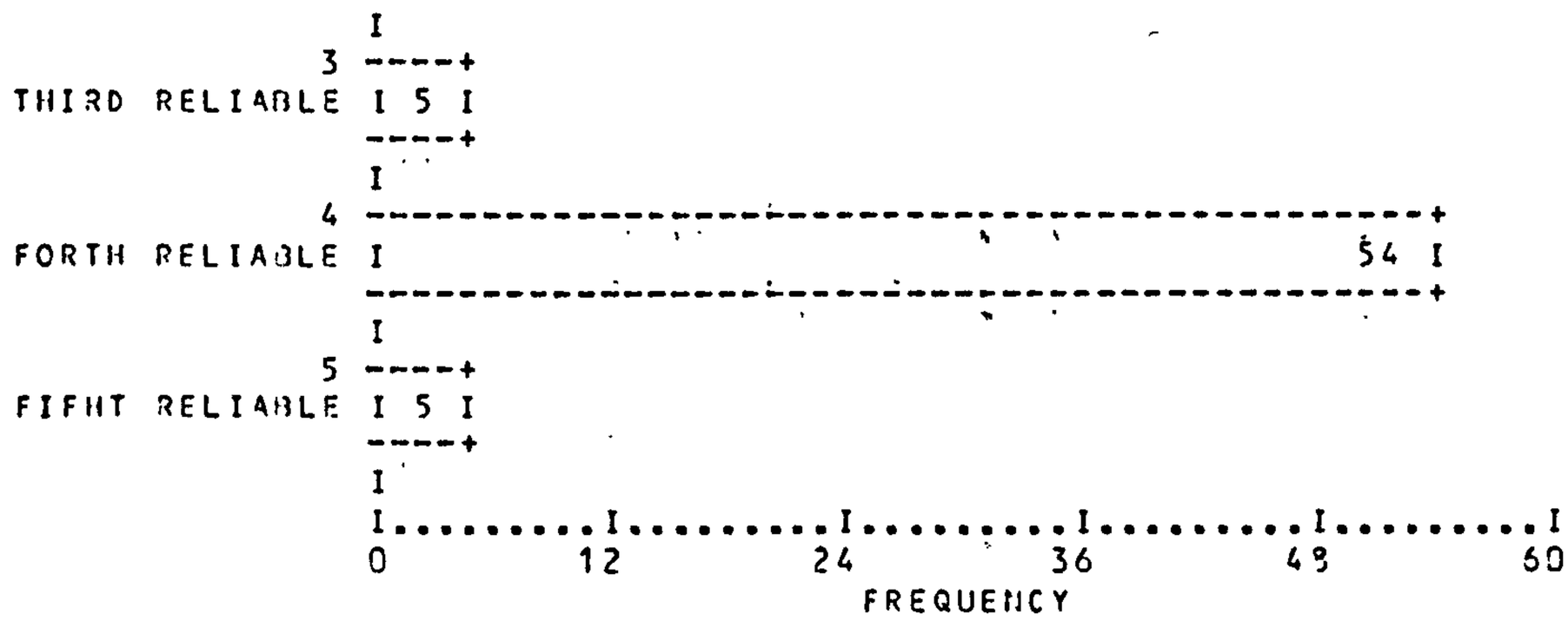
MEAN	1.266	STD ERR	.056	MEDIAN	1.000
MODE	1.000	STD DEV	.445	VARIANCE	.198
KURTOSIS	-.846	S E KURT	1.973	SKEWNESS	1.087
S E SKEW	.299	RANGE	1.000	MINIMUM	1.000
MAXIMUM	2.000	SUM	81.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.71

RELICOPL RANK OF C.O.RELIABL.FOR N.INVEST.PLAN.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
THIRD RELIABLE	3	5	7.8	7.8	7.8
FORTH RELIABLE	4	54	84.4	84.4	92.2
FIFHT RELIABLE	5	5	7.8	7.8	100.0
	TOTAL	64	100.0	100.0	



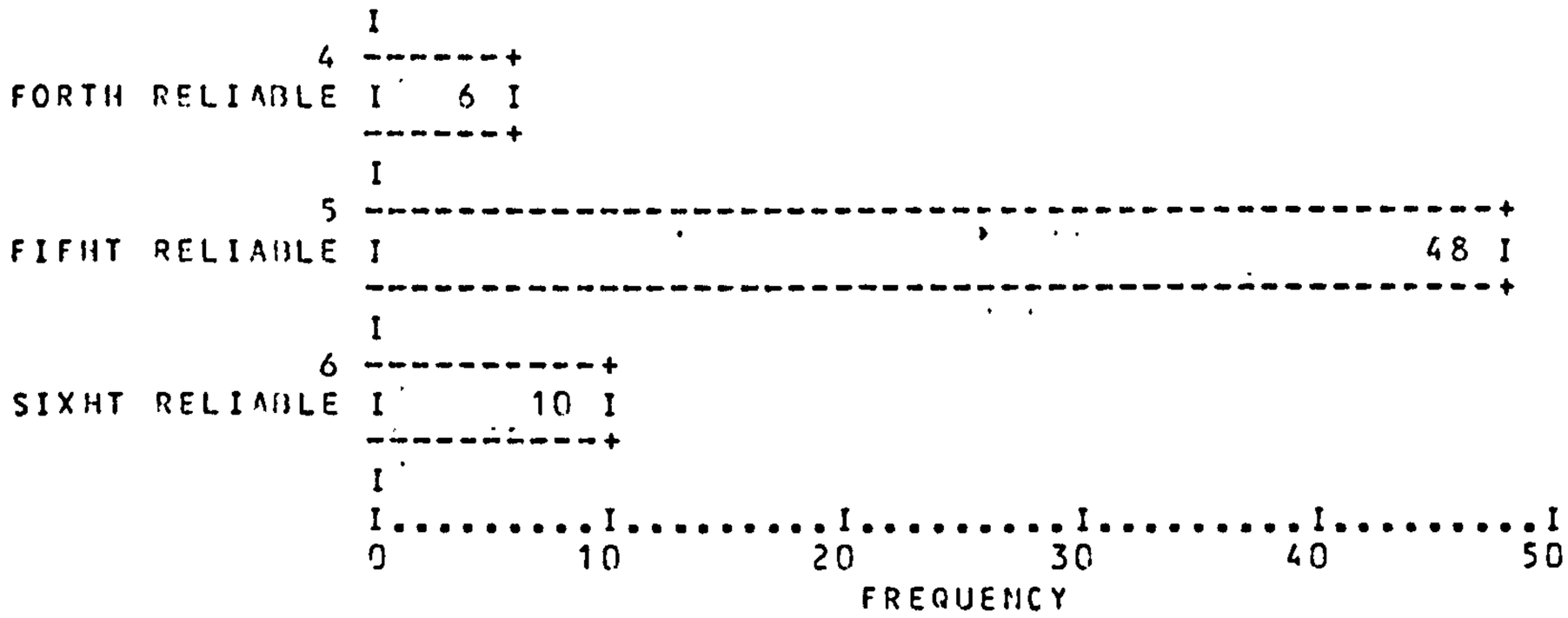
MEAN	4.000	STD ERR	.050	MEDIAN	4.000
MODE	4.000	STD DEV	.398	VARIANCE	.159
KURTOSIS	3.781	S E KURT	1.973	SKEWNESS	0.0
S E SKEW	.299	RANGE	2.000	MINIMUM	3.000
MAXIMUM	5.000	SUM	256.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.72

RELIPTPL RANK OF P.T.RELIABL.FOR N.INVEST.PLAN.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
FORTH RELIABLE	4	6	9.4	9.4	9.4
FIFHT RELIABLE	5	48	75.0	75.0	84.4
SIXHT RELIABLE	6	10	15.6	15.6	100.0
	TOTAL	64	100.0	100.0	



MEAN	5.063	STD ERR	.063	MEDIAN	5.000
MODE	5.000	STD DEV	.500	VARIANCE	.250
KURTOSIS	1.146	S E KURT	1.973	SKEWNESS	.135
S E SKEW	.299	RANGE	2.000	MINIMUM	4.000
MAXIMUM	6.000	SUM	324.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.73

RELIPLPL RANK OF P.L.RELIABL.FOR N.INVEST.PLAN.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
THIRD RELIABLE	3	1	1.6	1.6	1.6
FIFHT RELIABLE	5	11	17.2	17.2	18.8
SIXHT RELIABLE	6	52	81.3	81.3	100.0
	TOTAL	64	100.0	100.0	

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                    I
              3  -+
THIRD RELIABLE  II 1
                  -+
                  I
              5  ---------+
FIFHT RELIABLE  I      11 I
                  ---------+
                  I
              6  ----------------------------------------+
SIXHT RELIABLE  I                                     52 I
                  ----------------------------------------+
                  I
                  I.........I.........I.........I.........I.........I
                  0         12        24        36        48        60
                                   FREQUENCY
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MEAN	5.781	STD ERR	.065	MEDIAN	6.000
MODE	6.000	STD DEV	.519	VARIANCE	.269
KURTOSIS	12.324	S E KURT	1.973	SKEWNESS	-3.081
S E SKEW	.299	RANGE	3.000	MINIMUM	3.000
MAXIMUM	6.000	SUM	370.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.74

RELICSPL RANK OF C.S.RELIABL.FOR N.INVEST.PLAN.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
MOST RELIABLE	1	4	6.3	6.3	6.3
SECOND RELIABLE	2	11	17.2	17.2	23.4
THIRD RELIABLE	3	43	67.2	67.2	90.6
FORTH RELIABLE	4	4	6.3	6.3	96.9
SIXHT RELIABLE	6	2	3.1	3.1	100.0
	TOTAL	64	100.0	100.0	

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                  I
                1 ----+
  MOST RELIABLE I 4 I
                ----+
                  I
                2 -----------+
SECOND RELIABLE I        11 I
                -----------+
                  I
                3 ----------------------------------------+
 THIRD RELIABLE I                                       43 I
                ----------------------------------------+
                  I
                4 ----+
 FORTH RELIABLE I 4 I
                ----+
                  I
                6 --+
 SIXHT RELIABLE I I 2
                --+
                  I
                  I.........I.........I.........I.........I.........I
                  0         10        20        30        40        50
                                    FREQUENCY
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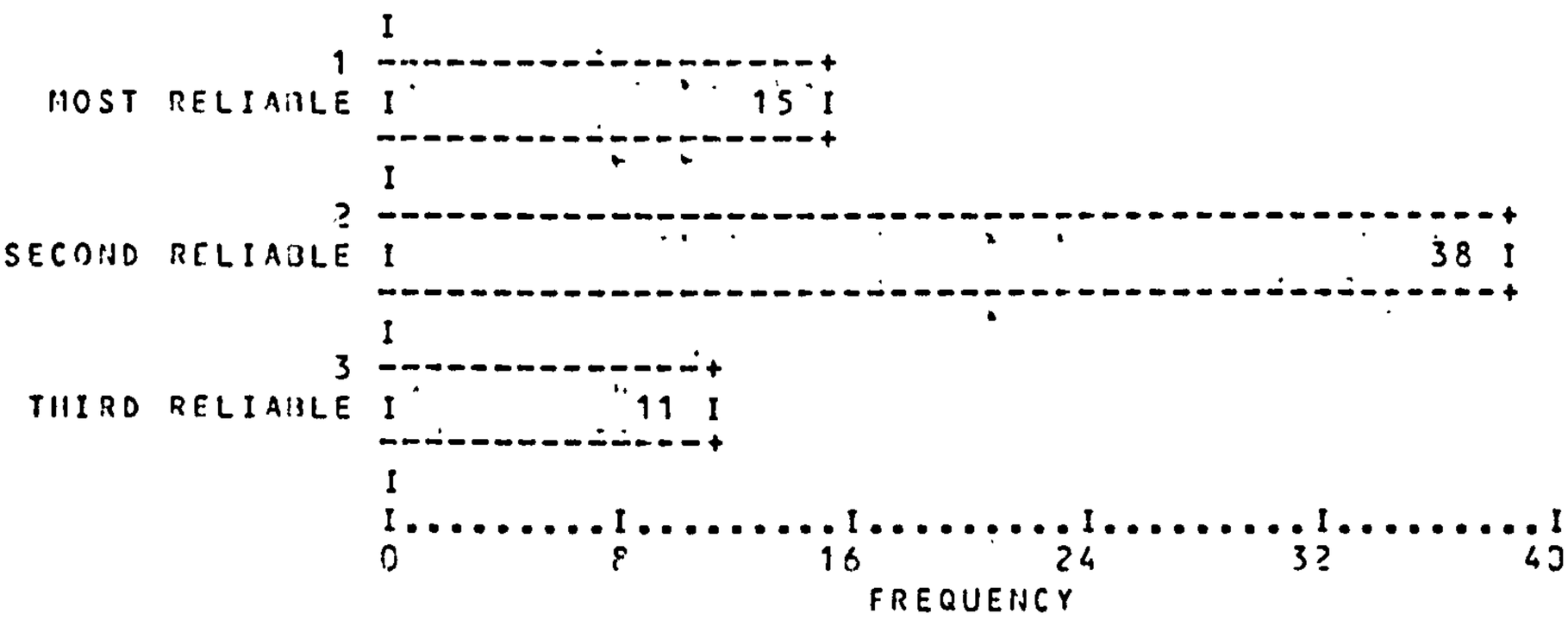
MEAN	2.859	STD ERR	.109	MEDIAN	3.000
MODE	3.000	STD DEV	.870	VARIANCE	.758
KURTOSIS	4.612	S E KURT	1.973	SKEWNESS	.877
S E SKEW	.299	RANGE	5.000	MINIMUM	1.000
MAXIMUM	6.000	SUM	183.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.75

RELIBSCO RANK OF B.S.RELIABL.FOR N.INVEST.CONT.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
MOST RELIABLE	1	15	23.4	23.4	23.4
SECOND RELIABLE	2	38	59.4	59.4	82.8
THIRD RELIABLE	3	11	17.2	17.2	100.0
	TOTAL	64	100.0	100.0	



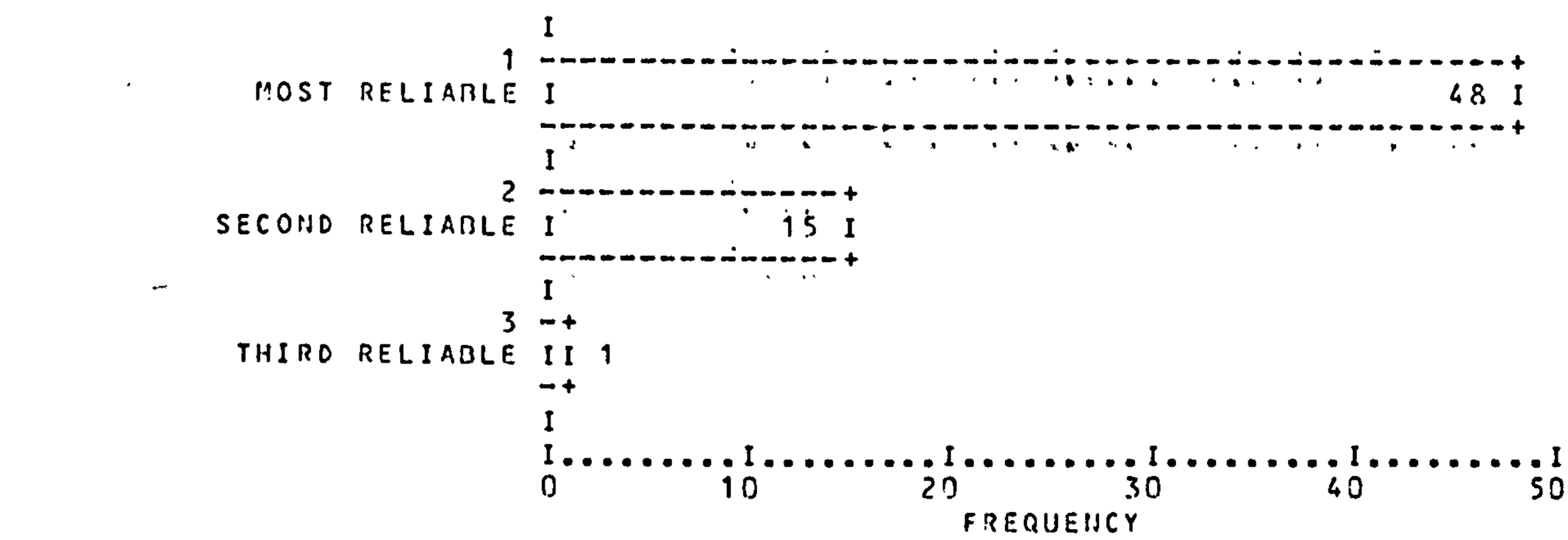
MEAN	1.938	STD ERR	.080	MEDIAN	2.000
MODE	2.000	STD DEV	.639	VARIANCE	.409
KURTOSIS	-.472	S E KURT	1.973	SKEWNESS	.053
S E SKEW	.299	RANGE	2.000	MINIMUM	1.000
MAXIMUM	3.000	SUM	124.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.76

RELISACO RANK OF SSAF.RELIABL.FOR N.INVEST.CONT.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
MOST RELIABLE	1	48	75.0	75.0	75.0
SECOND RELIABLE	2	15	23.4	23.4	98.4
THIRD RELIABLE	3	1	1.6	1.6	100.0
	TOTAL	64	100.0	100.0	



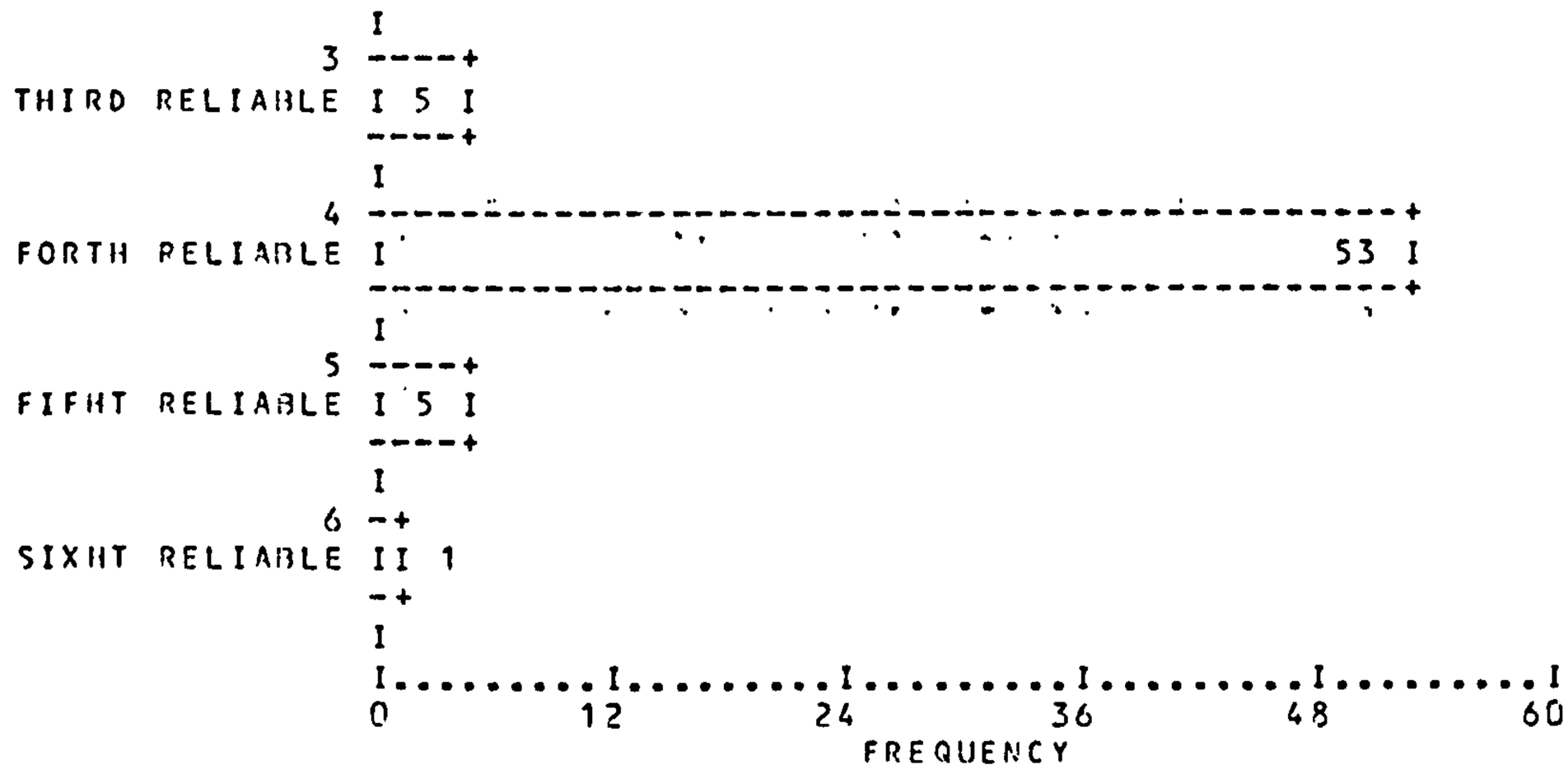
MEAN	1.266	STD ERR	.060	MEDIAN	1.000
MODE	1.000	STD DEV	.479	VARIANCE	.230
KURTOSIS	1.360	S E KURT	1.973	SKEWNESS	1.525
S E SKEW	.299	RANGE	2.000	MINIMUM	1.000
MAXIMUM	3.000	SUM	81.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.77

RELICOCO RANK OF C.O.RELIABL.FOR N.INVEST.CONT.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
THIRD RELIABLE	3	5	7.8	7.8	7.8
FORTH RELIABLE	4	53	82.8	82.8	90.6
FIFHT RELIABLE	5	5	7.8	7.8	98.4
SIXHT RELIABLE	6	1	1.6	1.6	100.0
	TOTAL	64	100.0	100.0	



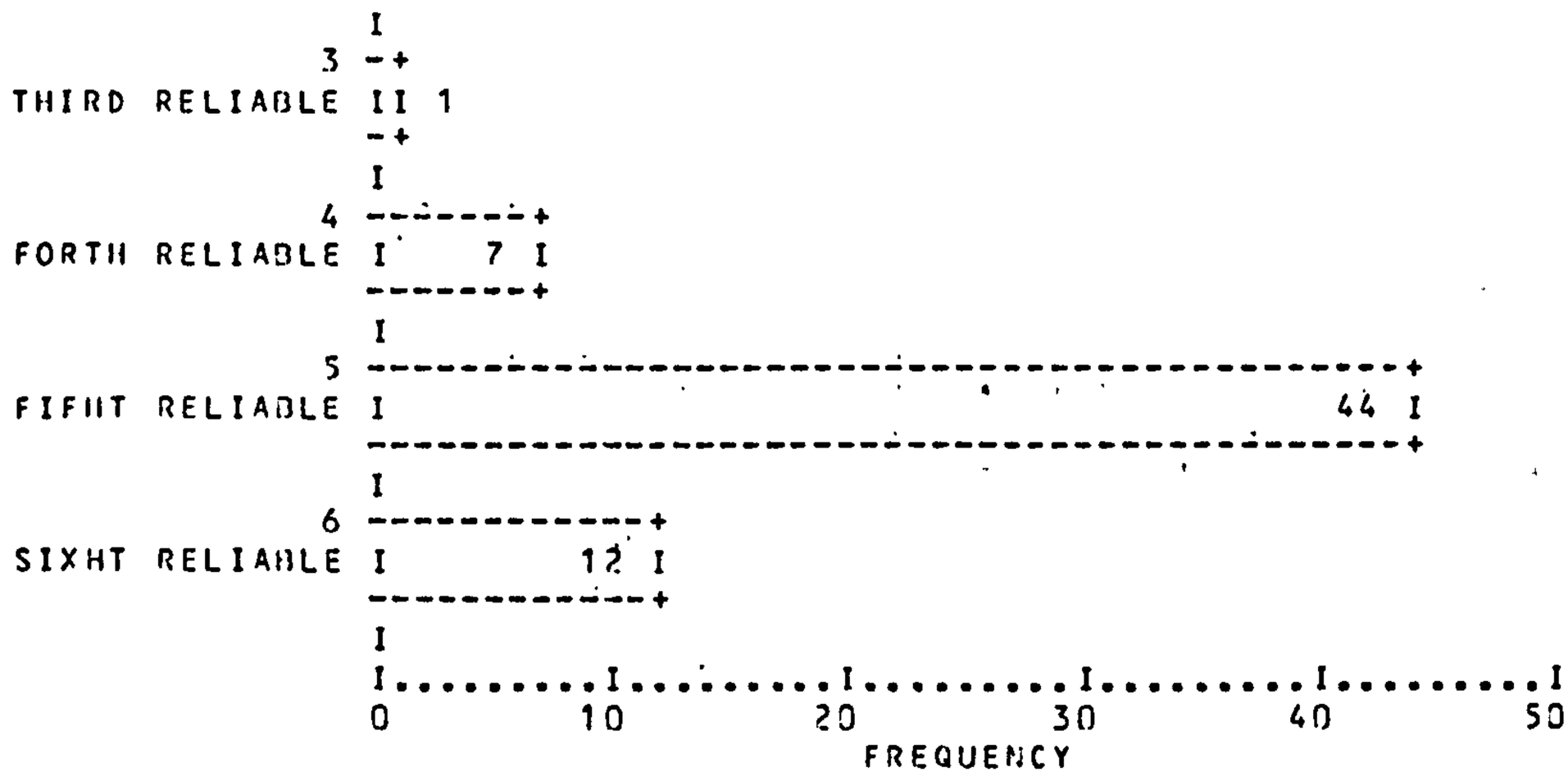
MEAN	4.031	STD ERR	.059	MEDIAN	4.000
MODE	4.000	STD DEV	.470	VARIANCE	.221
KURTOSIS	5.799	S E KURT	1.973	SKEWNESS	1.054
S E SKEW	.299	RANGE	3.000	MINIMUM	3.000
MAXIMUM	6.000	SUM	258.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.78

RELIPTCO RANK OF P.T.RELIABL.FOR N.INVEST.CONT.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
THIRD RELIABLE	3	1	1.6	1.6	1.6
FORTH RELIABLE	4	7	10.9	10.9	12.5
FIFHT RELIABLE	5	44	68.8	68.8	81.3
SIXHT RELIABLE	6	12	18.8	18.8	100.0
	TOTAL	64	100.0	100.0	



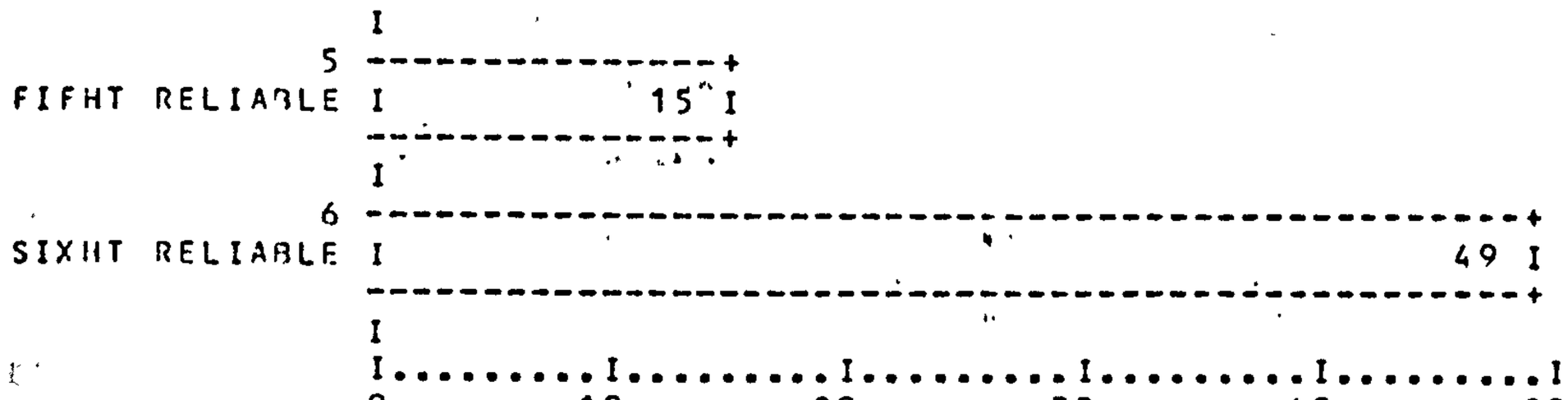
MEAN	5.047	STD ERR	.075	MEDIAN	5.000
MODE	5.000	STD DEV	.602	VARIANCE	.363
KURTOSIS	1.608	S E KURT	1.973	SKEWNESS	-.466
S E SKEW	.299	RANGE	3.000	MINIMUM	3.000
MAXIMUM	6.000	SUM	323.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.79

RELIPLCO RANK OF P.L.RELIABL.FOR N.INVEST.CONT.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
FIFHT RELIABLE	5	15	23.4	23.4	23.4
SIXHT RELIABLE	6	49	76.6	76.6	100.0
	TOTAL	64	100.0	100.0	



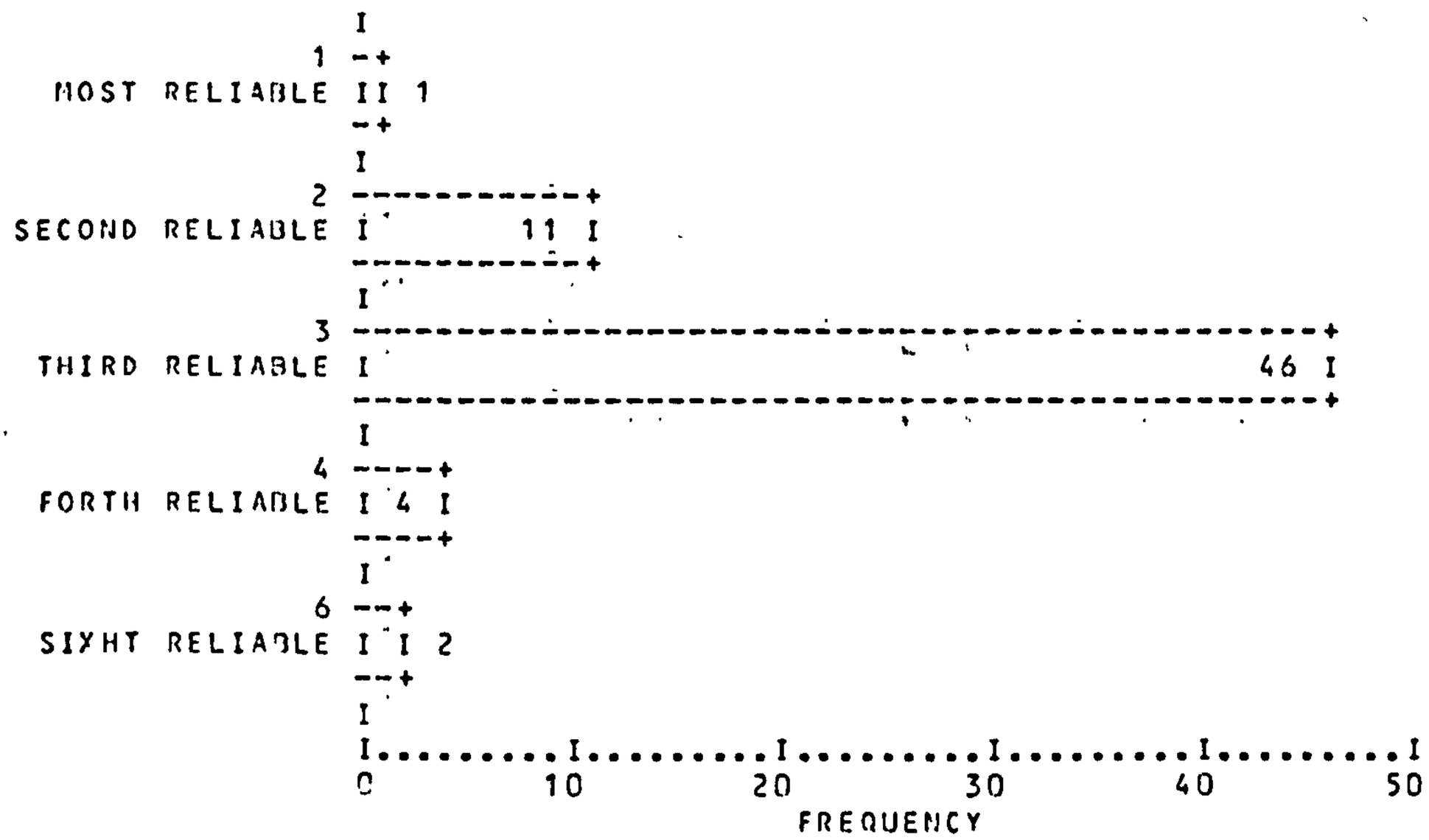
MEAN	5.766	STD ERR	.053	MEDIAN	6.000
MODE	6.000	STD DEV	.427	VARIANCE	.182
KURTOSIS	-.363	S E KURT	1.973	SKEWNESS	-1.284
S E SKEW	.299	RANGE	1.000	MINIMUM	5.000
MAXIMUM	6.000	SUM	369.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.80

RELICSCO RANK OF C.S.RELIABL.FOR N.INVEST.CONT.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
MOST RELIABLE	1	1	1.6	1.6	1.6
SECOND RELIABLE	2	11	17.2	17.2	18.8
THIRD RELIABLE	3	46	71.9	71.9	90.6
FORTH RELIABLE	4	4	6.3	6.3	96.9
SIXHT RELIABLE	6	2	3.1	3.1	100.0
	TOTAL	64	100.0	100.0	



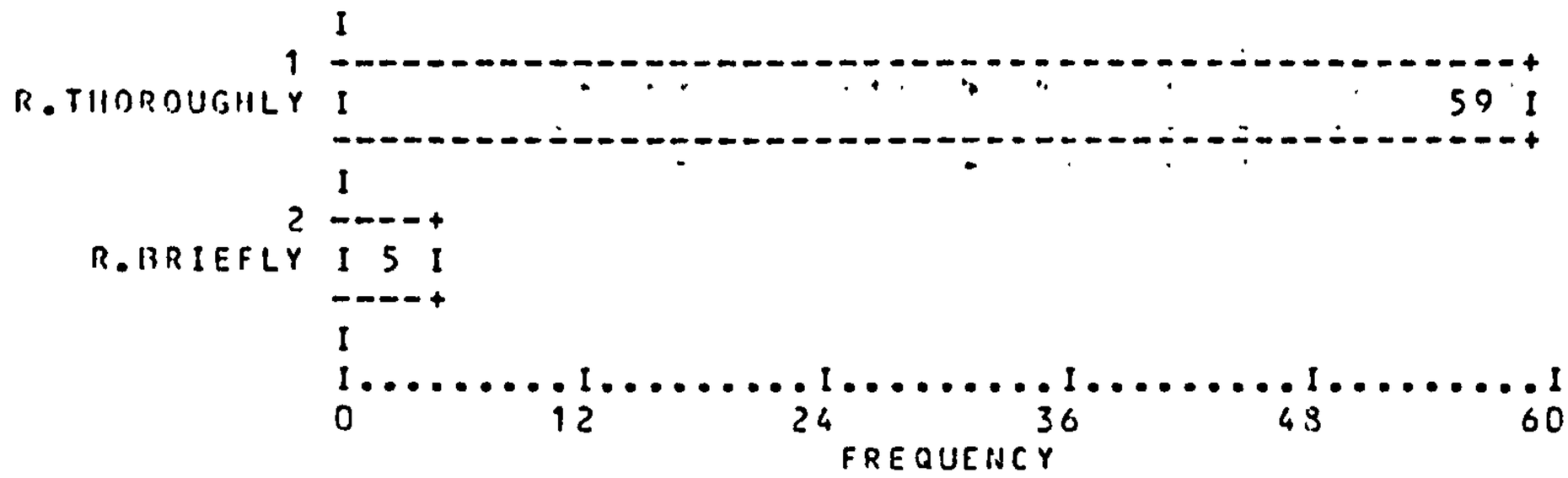
MEAN	2.953	STD ERR	.096	MEDIAN	3.000
MODE	3.000	STD DEV	.765	VARIANCE	.585
KURTOSIS	7.094	S E KURT	1.973	SKEWNESS	1.618
S E SKEW	.299	RANGE	5.000	MINIMUM	1.000
MAXIMUM	6.000	SUM	189.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.81

READHASH READING PATTERN OF THE BALANCE SHEET

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
R.THOROUGHLY	1	59	92.2	92.2	92.2
R.BRIEFLY	2	5	7.8	7.8	100.0
	TOTAL	64	100.0	100.0	



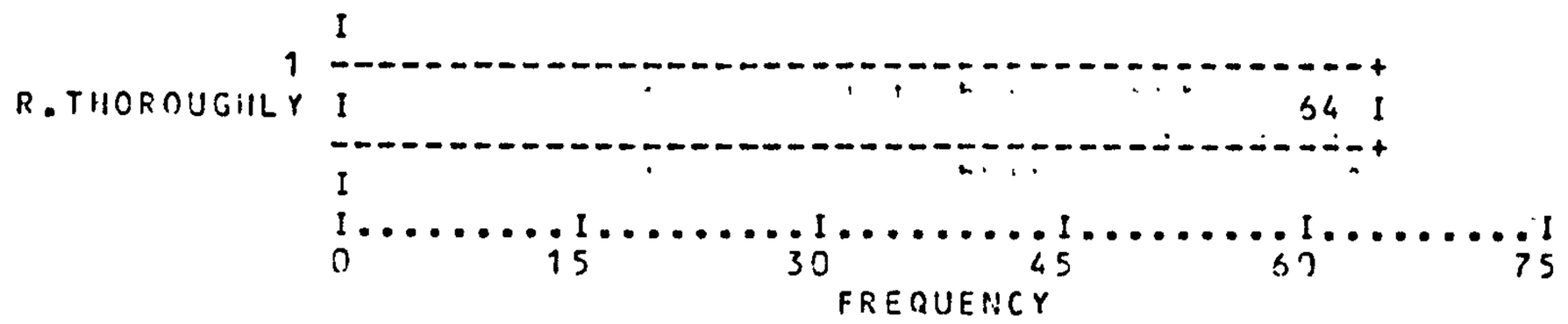
MEAN	1.078	STD ERR	.034	MEDIAN	1.000
MODE	1.000	STD DEV	.270	VARIANCE	.073
KURTOSIS	8.637	S E KURT	1.973	SKEWNESS	3.220
S E SKEW	.299	RANGE	1.000	MINIMUM	1.000
MAXIMUM	2.000	SUM	69.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.82

READSSAF READING PATTERN OF THE S.S.A.FUNDS

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
R.THOROUGHLY	1	64	100.0	100.0	100.0
	TOTAL	64	100.0	100.0	



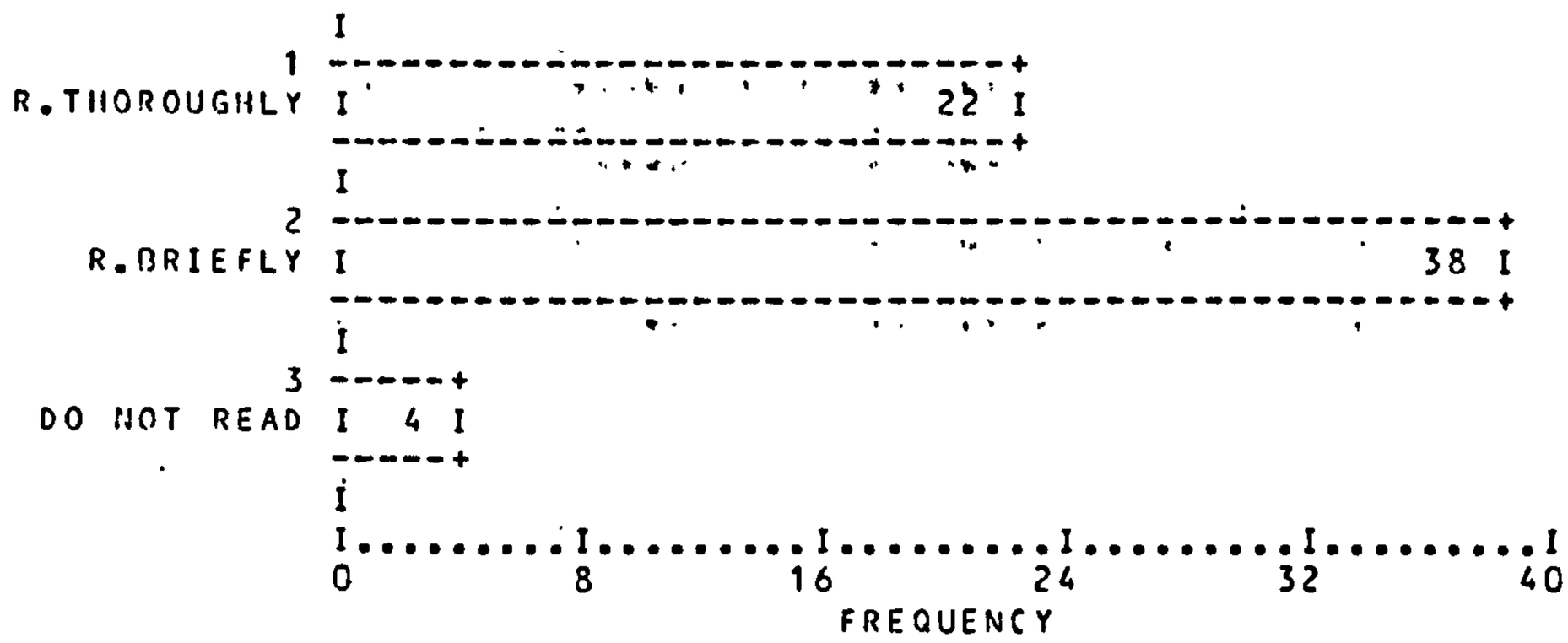
MEAN	1.000	STD ERR	0.0	MEDIAN	1.000
MODE	1.000	STD DEV	0.0	VARIANCE	0.0
RANGE	0.0	MINIMUM	1.000	MAXIMUM	1.000
SUM	64.000				

VALID CASES 64 MISSING CASES 0

TABLE S.8.83

READCOST READING PATTERN OF THE C.P. ACCOUNT

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
R.THOROUGHLY	1	22	34.4	34.4	34.4
R.BRIEFLY	2	38	59.4	59.4	93.8
DO NOT READ	3	4	6.3	6.3	100.0
	TOTAL	64	100.0	100.0	



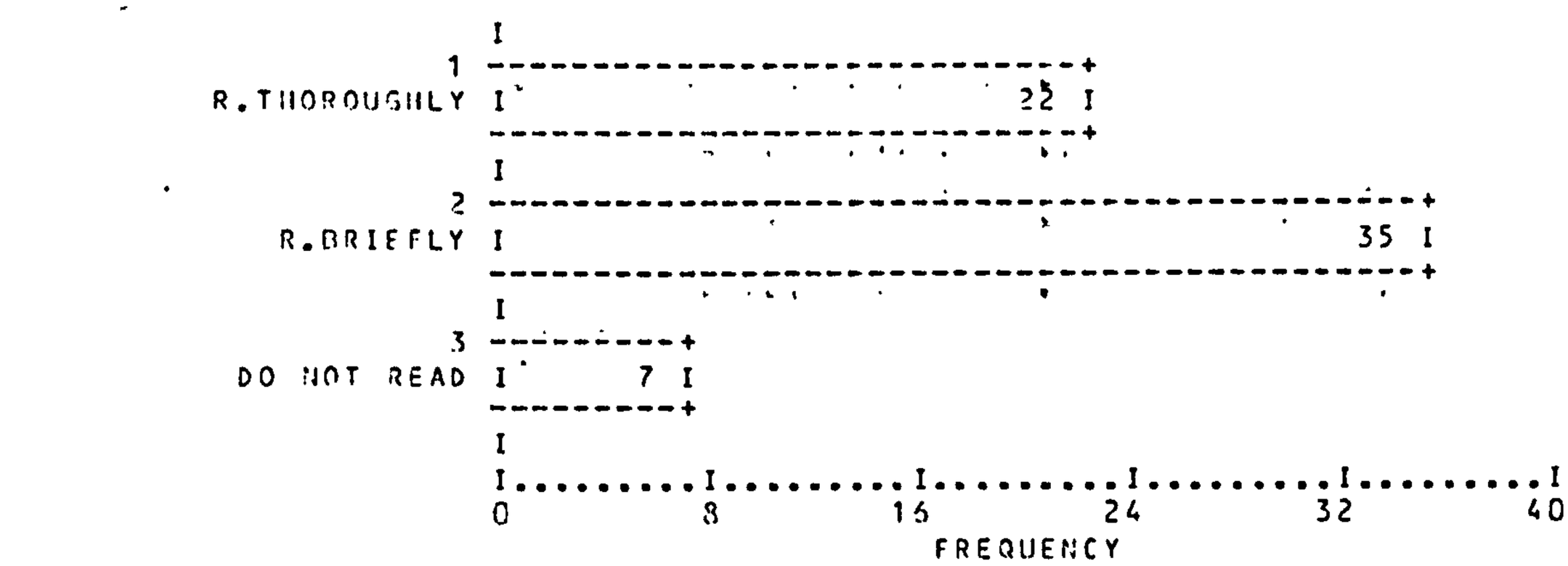
MEAN	1.719	STD ERR	.072	MEDIAN	2.000
MODE	2.000	STD DEV	.576	VARIANCE	.332
KURTOSIS	-.479	S E KURT	1.973	SKEWNESS	.093
S E SKEW	.299	RANGE	2.000	MINIMUM	1.000
MAXIMUM	3.000	SUM	110.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.84

READPRTR READING PATTERN OF THE PRODUCT.&TRAD.AC.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
R.THOROUGHLY	1	22	34.4	34.4	34.4
R.BRIEFLY	2	35	54.7	54.7	89.1
DO NOT READ	3	7	10.9	10.9	100.0
	TOTAL	64	100.0	100.0	



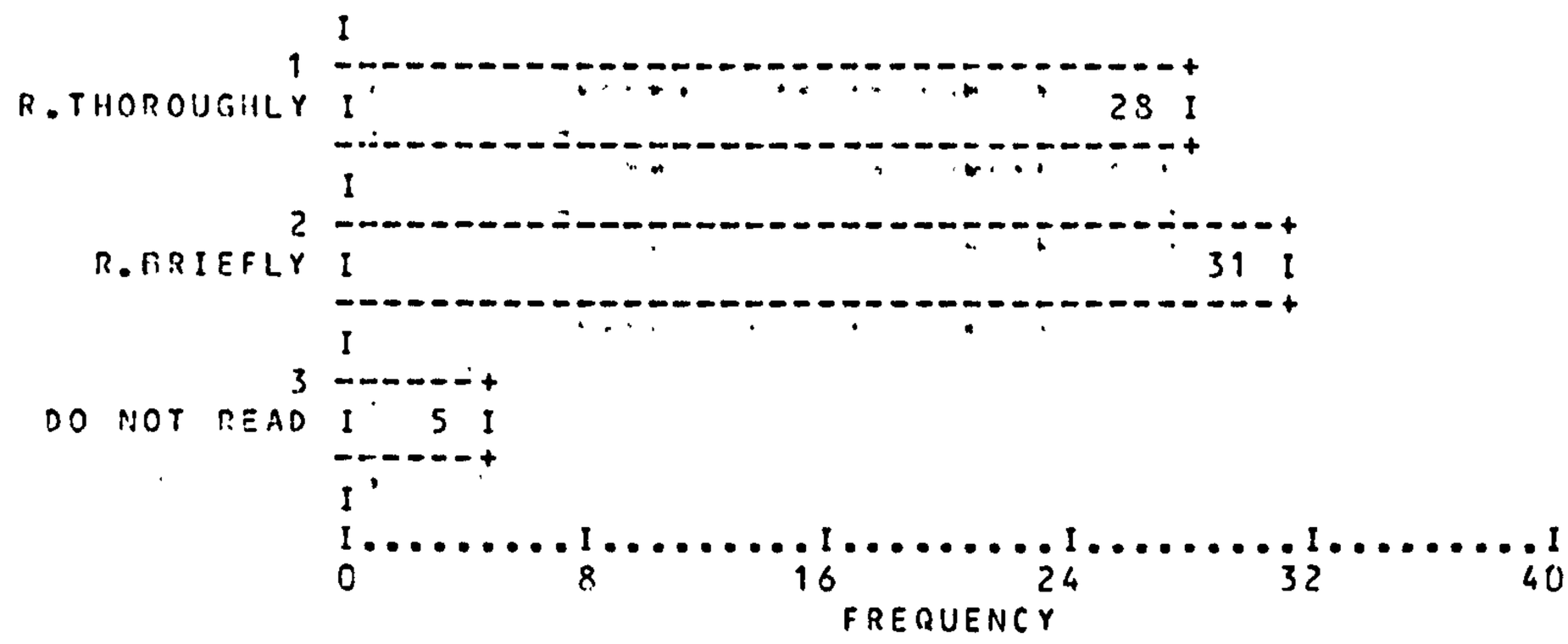
MEAN	1.766	STD ERR	.080	MEDIAN	2.000
MODE	2.000	STD DEV	.636	VARIANCE	.405
KURTOSIS	-.596	S E KURT	1.973	SKEWNESS	.238
S E SKEW	.299	RANGE	2.000	MINIMUM	1.000
MAXIMUM	3.000	SUM	113.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.85

READPRLO READING PATTERN OF THE P.&L.ACCOUNT

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
R.THOROUGHLY	1	28	43.8	43.8	43.8
R.BRIEFLY	2	31	48.4	48.4	92.2
DO NOT READ	3	5	7.8	7.8	100.0
	TOTAL	64	100.0	100.0	



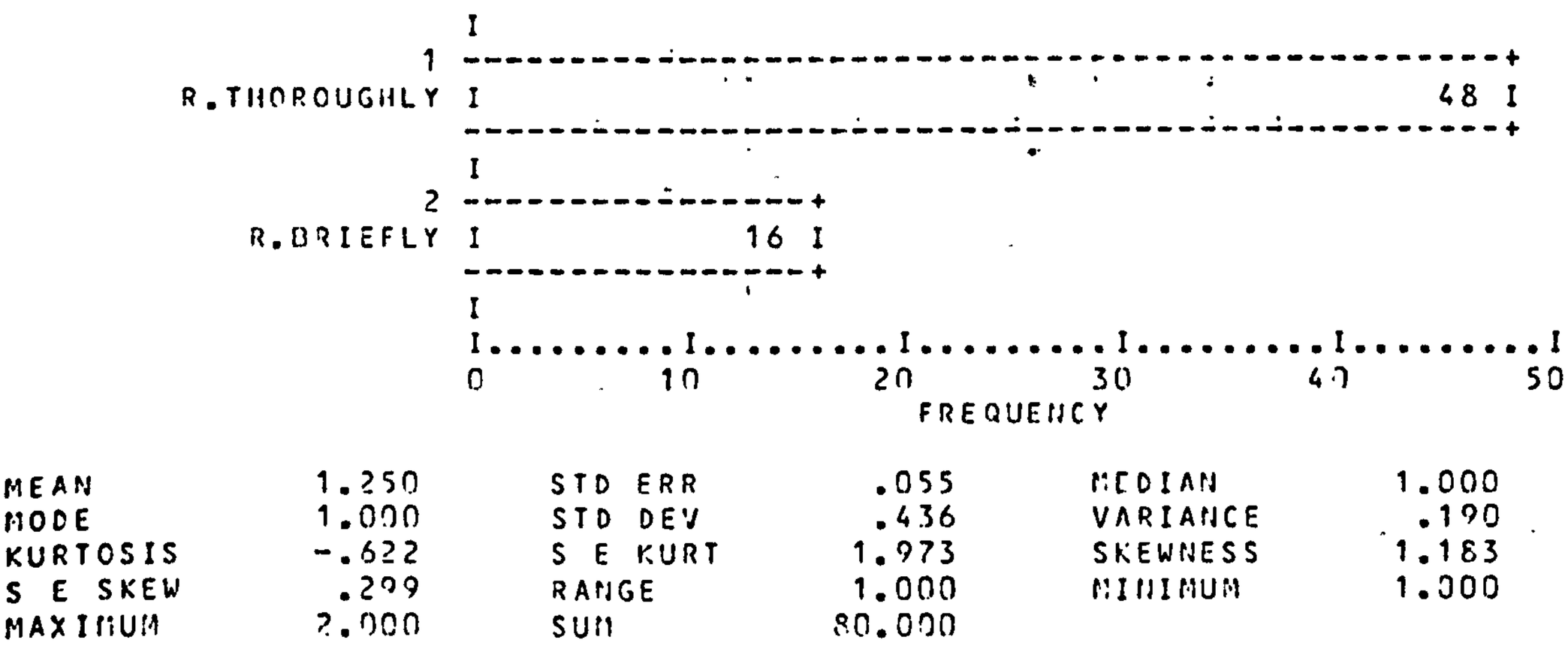
MEAN	1.641	STD ERR	.078	MEDIAN	2.000
MODE	2.000	STD DEV	.627	VARIANCE	.393
KURTOSIS	-.622	S E KURT	1.973	SKEWNESS	.442
S E SKEW	.299	RANGE	2.000	MINIMUM	1.000
MAXIMUM	3.000	SUM	105.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.86

READCAST READING PATTERN OF THE CASH STATEMENT

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
R.THOROUGHLY	1	48	75.0	75.0	75.0
R.BRIEFLY	2	16	25.0	25.0	100.0
	TOTAL	64	100.0	100.0	



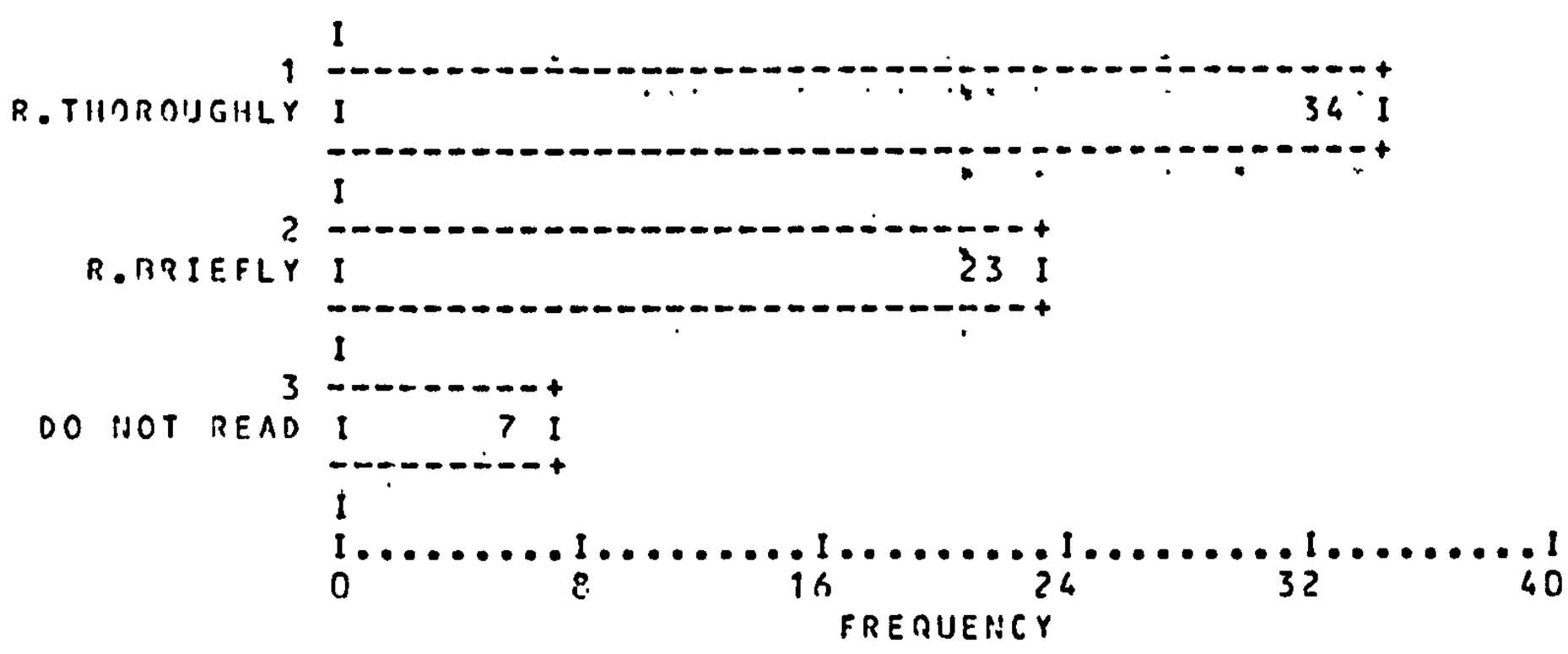
MEAN	1.250	STD ERR	.055	MEDIAN	1.000
MODE	1.000	STD DEV	.436	VARIANCE	.190
KURTOSIS	-.622	S E KURT	1.973	SKEWNESS	1.183
S E SKEW	.299	RANGE	1.000	MINIMUM	1.000
MAXIMUM	2.000	SUM	80.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.87

READQUDU READING PATTERN OF THE QUANT. BUDGET

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
R.THOROUGHLY	1	34	53.1	53.1	53.1
R.BRIEFLY	2	23	35.9	35.9	89.1
DO NOT READ	3	7	10.9	10.9	100.0
	TOTAL	64	100.0	100.0	



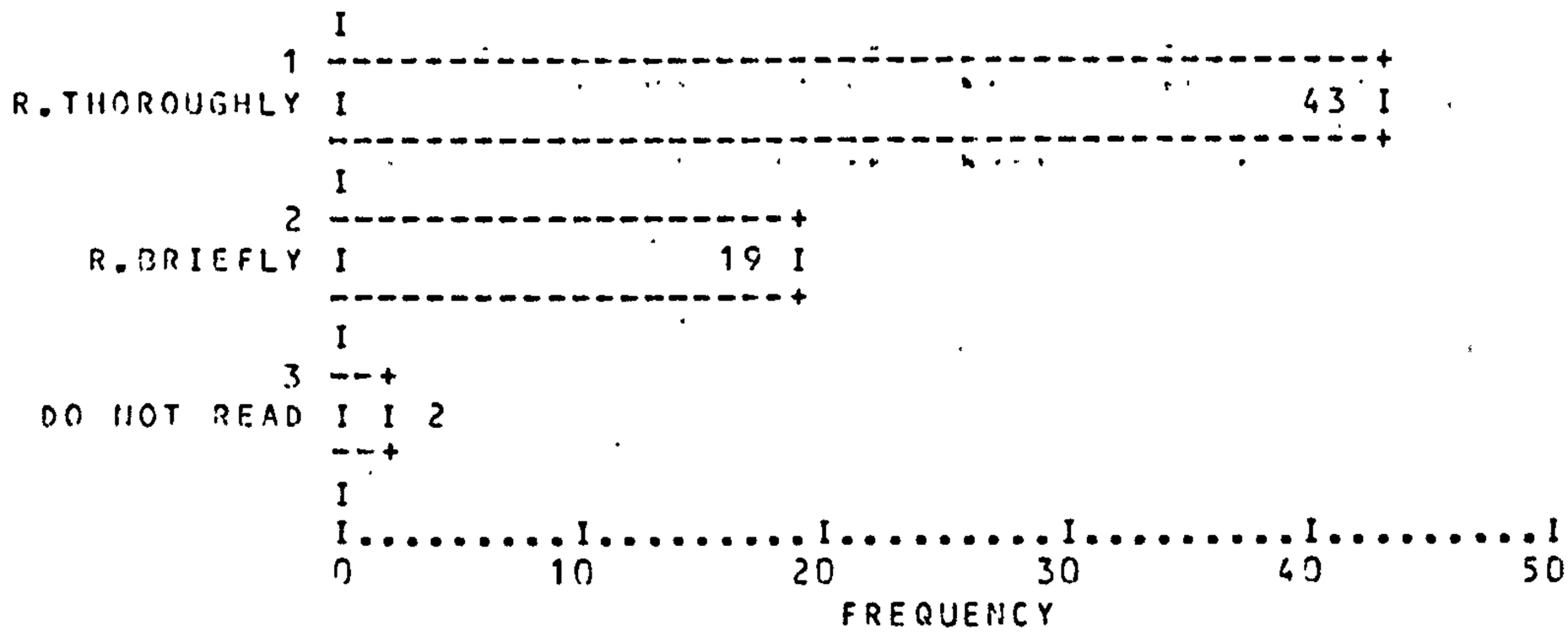
MEAN	1.578	STD ERR	.086	MEDIAN	1.000
MODE	1.000	STD DEV	.686	VARIANCE	.470
KURTOSIS	-.529	S E KURT	1.973	SKEWNESS	.777
S E SKEW	.299	RANGE	2.000	MINIMUM	1.000
MAXIMUM	3.000	SUM	101.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.88

READFIBU READING PATTERN OF THE FINANCIAL BUDGET

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
R.THOROUGHLY	1	43	67.2	67.2	67.2
R.BRIEFLY	2	19	29.7	29.7	96.9
DO NOT READ	3	2	3.1	3.1	100.0
	TOTAL	64	100.0	100.0	



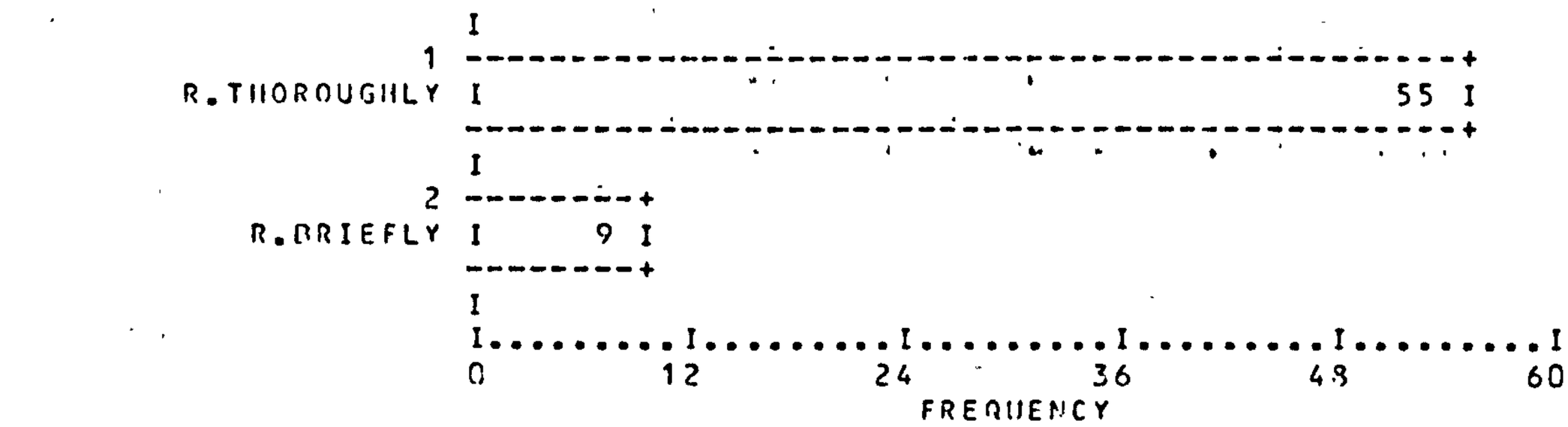
MEAN	1.359	STD ERR	.068	MEDIAN	1.000
MODE	1.000	STD DEV	.545	VARIANCE	.297
KURTOSIS	.436	S E KURT	1.973	SKEWNESS	1.195
S E SKEW	.299	RANGE	2.000	MINIMUM	1.000
MAXIMUM	3.000	SUM	87.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.89

READCABU READING PATTERN OF THE CASH BUDGET

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
R.THOROUGHLY	1	55	85.9	85.9	85.9
R.BRIEFLY	2	9	14.1	14.1	100.0
	TOTAL	64	100.0	100.0	



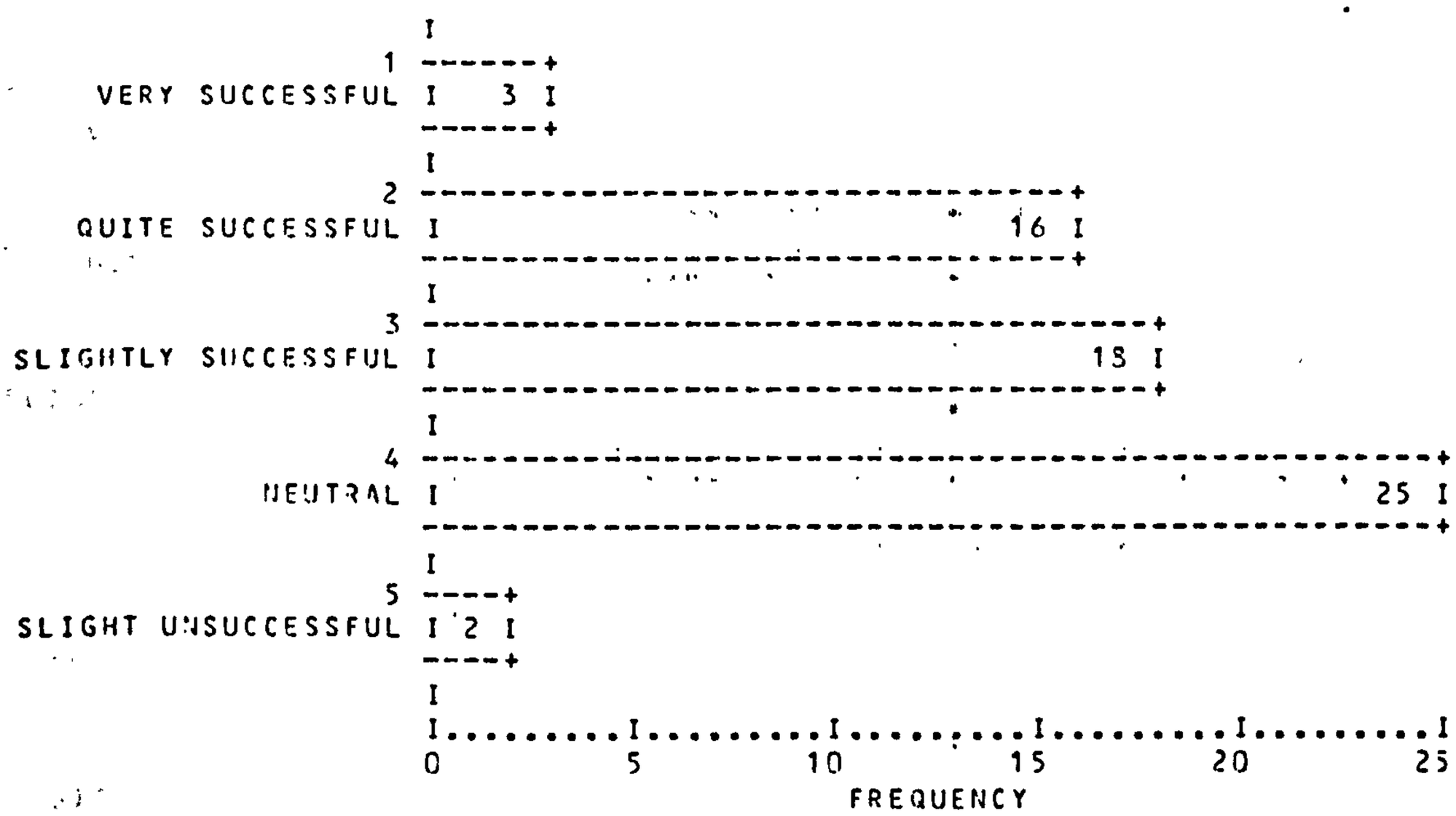
MEAN	1.141	STD ERR	.044	MEDIAN	1.000
MODE	1.000	STD DEV	.350	VARIANCE	.123
KURTOSIS	2.563	S E KURT	1.973	SKEWNESS	2.118
S E SKEW	.299	RANGE	1.000	MINIMUM	1.000
MAXIMUM	2.000	SUM	73.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.90

CATRCAIN INFO.TO ANALYSE CAPITAL TRANSFER&INVEST.

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
VERY SUCCESSFUL	1	3	4.7	4.7	4.7
QUITE SUCCESSFUL	2	16	25.0	25.0	29.7
SLIGHTLY SUCCESSFUL	3	18	28.1	28.1	57.8
NEUTRAL	4	25	39.1	39.1	96.9
SLIGHT UNSUCCESSFUL	5	2	3.1	3.1	100.0
	TOTAL	64	100.0	100.0	



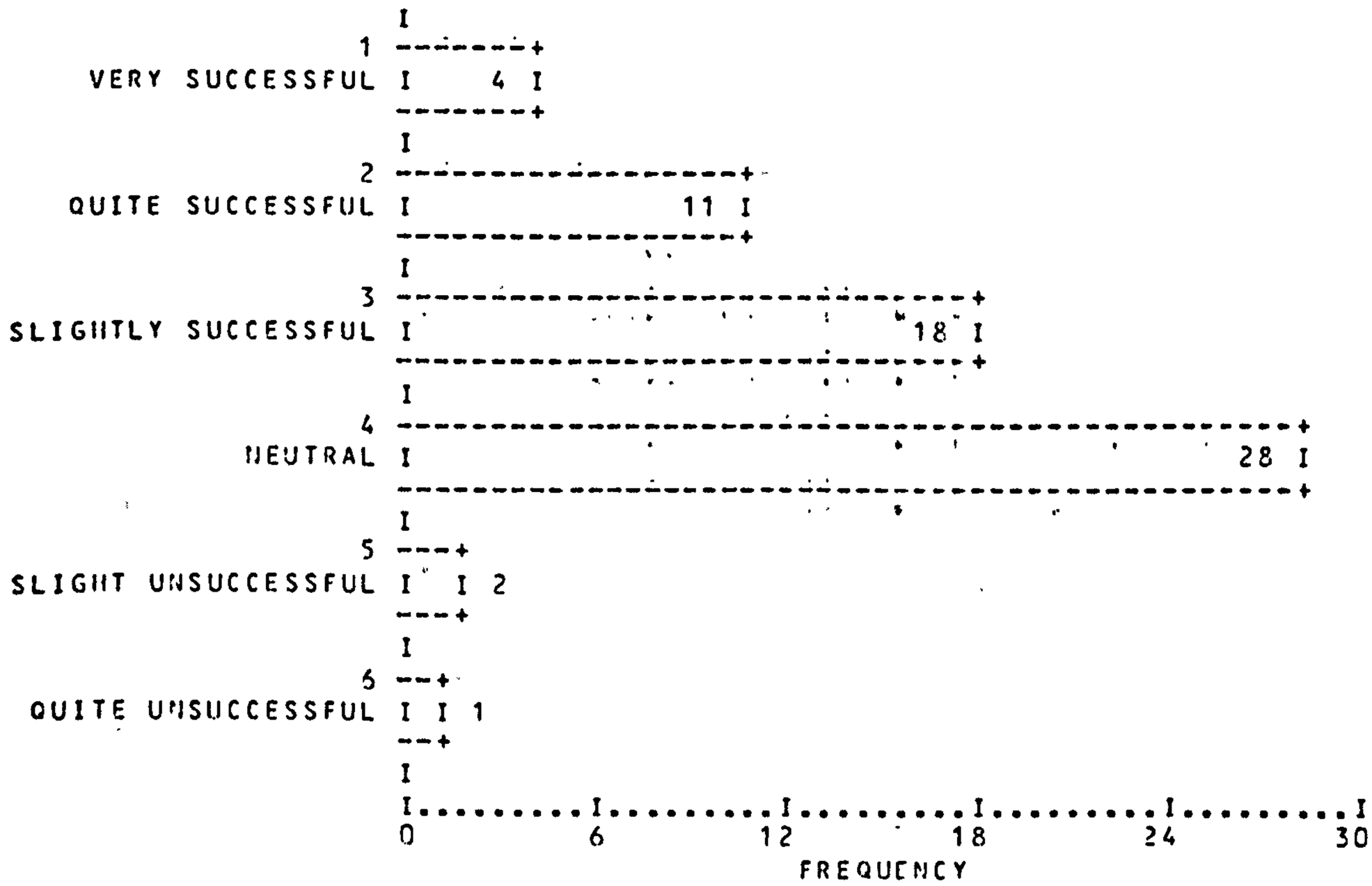
MEAN	3.109	STD ERR	.122	MEDIAN	3.000
MODE	4.000	STD DEV	.978	VARIANCE	.956
KURTOSIS	-.763	S E KURT	1.973	SKEWNESS	-.330
S E SKEW	.299	RANGE	4.000	MINIMUM	1.000
MAXIMUM	5.000	SUM	199.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.91

PRIPGCFO INFO.TO ANALYSE PROJECTS IN PROGRESS

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
VERY SUCCESSFUL	1	4	6.3	6.3	6.3
QUITE SUCCESSFUL	2	11	17.2	17.2	23.4
SLIGHTLY SUCCESSFUL	3	18	28.1	28.1	51.6
NEUTRAL	4	28	43.8	43.8	95.3
SLIGHT UNSUCCESSFUL	5	2	3.1	3.1	98.4
QUITE UNSUCCESSFUL	6	1	1.6	1.6	100.0
	TOTAL	64	100.0	100.0	



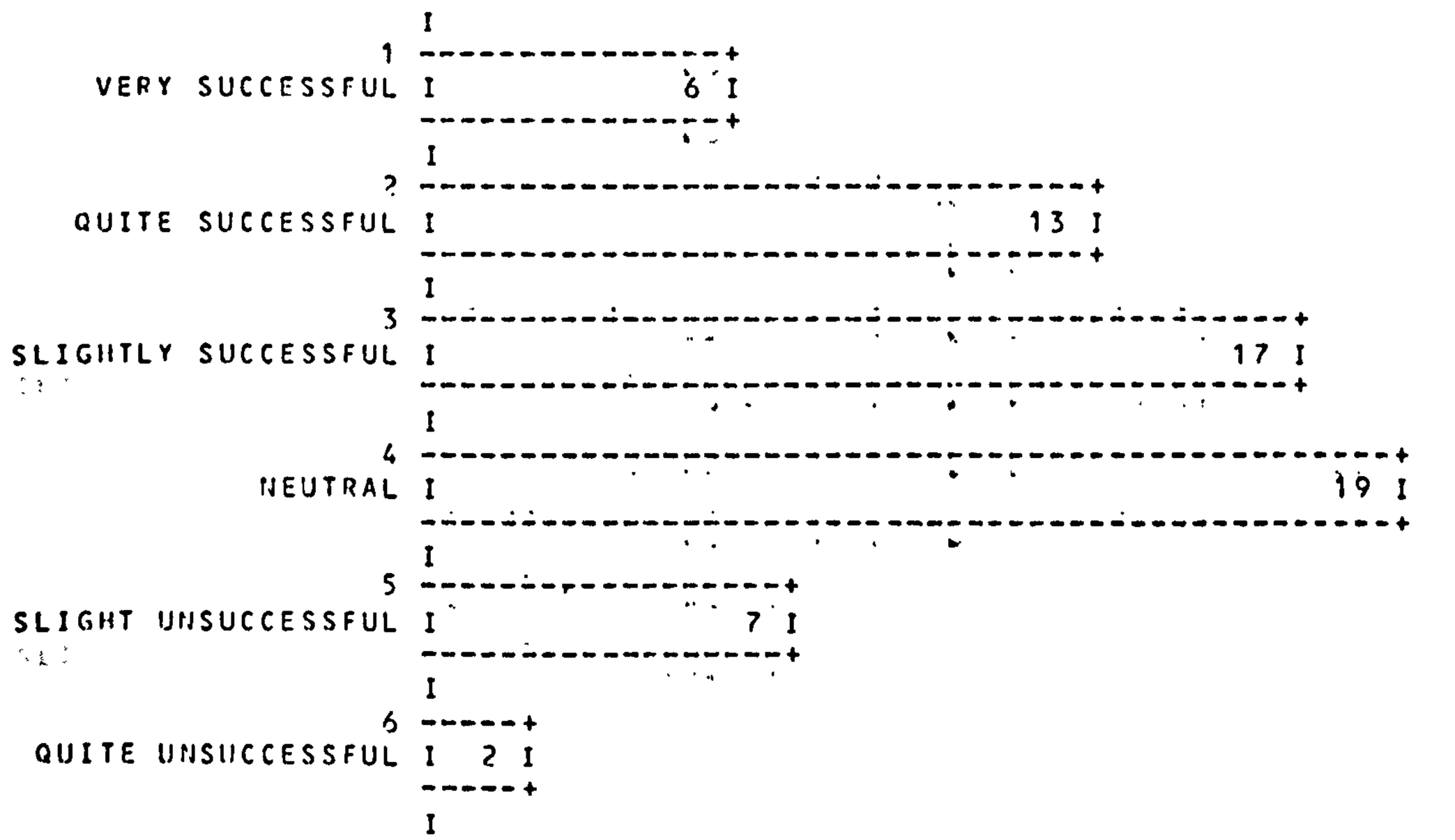
MEAN	3.250	STD ERR	.130	MEDIAN	3.000
MODE	4.000	STD DEV	1.039	VARIANCE	1.079
KURTOSIS	.062	S E KURT	1.973	SKEWNESS	-.351
S E SKEW	.299	RANGE	5.000	MINIMUM	1.000
MAXIMUM	6.000	SUM	208.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.92

INFIEXFI INFO.TO ANALYSE INTERNAL&EXTERNAL FUNDS

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
VERY SUCCESSFUL	1	6	9.4	9.4	9.4
QUITE SUCCESSFUL	2	13	20.3	20.3	29.7
SLIGHTLY SUCCESSFUL	3	17	26.6	26.6	56.3
NEUTRAL	4	19	29.7	29.7	85.9
SLIGHT UNSUCCESSFUL	5	7	10.9	10.9	96.9
QUITE UNSUCCESSFUL	6	2	3.1	3.1	100.0
	TOTAL	64	100.0	100.0	



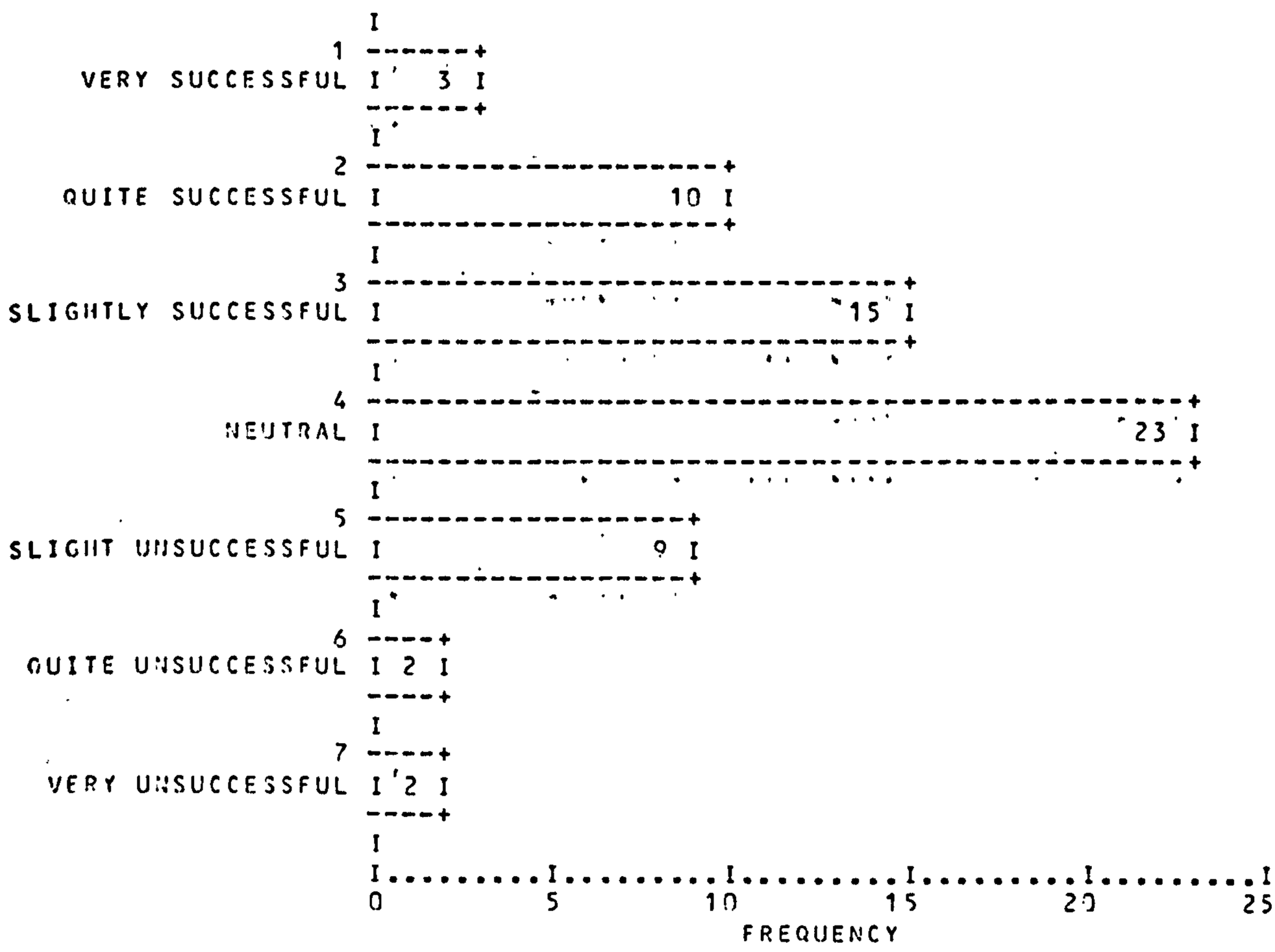
MEAN	3.219	STD ERR	.157	MEDIAN	3.000
MODE	4.000	STD DEV	1.253	VARIANCE	1.570
KURTOSIS	-.519	S E KURT	1.973	SKEWNESS	.020
S E SKEW	.299	RANGE	5.000	MINIMUM	1.000
MAXIMUM	6.000	SUM	206.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.93

LOSAFOSA INFO.TO ANALYSE LOCAL&FOREIGN FUNDS

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
VERY SUCCESSFUL	1	3	4.7	4.7	4.7
QUITE SUCCESSFUL	2	10	15.6	15.6	20.3
SLIGHTLY SUCCESSFUL	3	15	23.4	23.4	43.8
NEUTRAL	4	23	35.9	35.9	79.7
SLIGHT UNSUCCESSFUL	5	9	14.1	14.1	93.8
QUITE UNSUCCESSFUL	6	2	3.1	3.1	96.9
VERY UNSUCCESSFUL	7	2	3.1	3.1	100.0
	TOTAL	64	100.0	100.0	



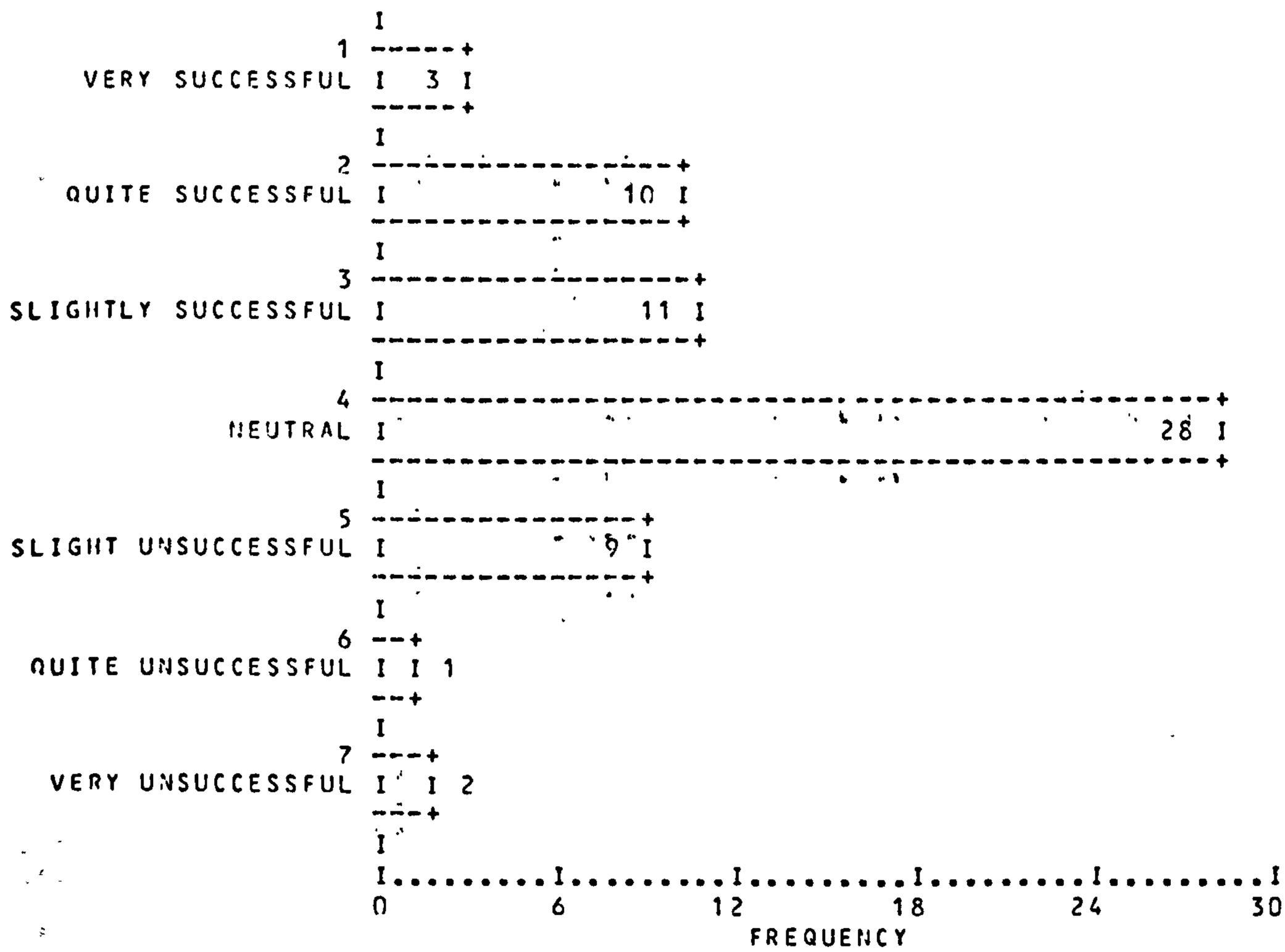
MEAN	3.609	STD ERR	.163	MEDIAN	4.000
MODE	4.000	STD DEV	1.305	VARIANCE	1.702
KURTOSIS	.299	S E KURT	1.973	SKEWNESS	.240
S E SKEW	.299	RANGE	6.000	MINIMUM	1.000
MAXIMUM	7.000	SUM	231.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.94

CHLIQRES INFO.TO ANALYSE LIQUID RESOURCES

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
VERY SUCCESSFUL	1	3	4.7	4.7	4.7
QUITE SUCCESSFUL	2	10	15.6	15.6	20.3
SLIGHTLY SUCCESSFUL	3	11	17.2	17.2	37.5
NEUTRAL	4	28	43.8	43.8	81.3
SLIGHT UNSUCCESSFUL	5	9	14.1	14.1	95.3
QUITE UNSUCCESSFUL	6	1	1.6	1.6	96.9
VERY UNSUCCESSFUL	7	2	3.1	3.1	100.0
	TOTAL	64	100.0	100.0	



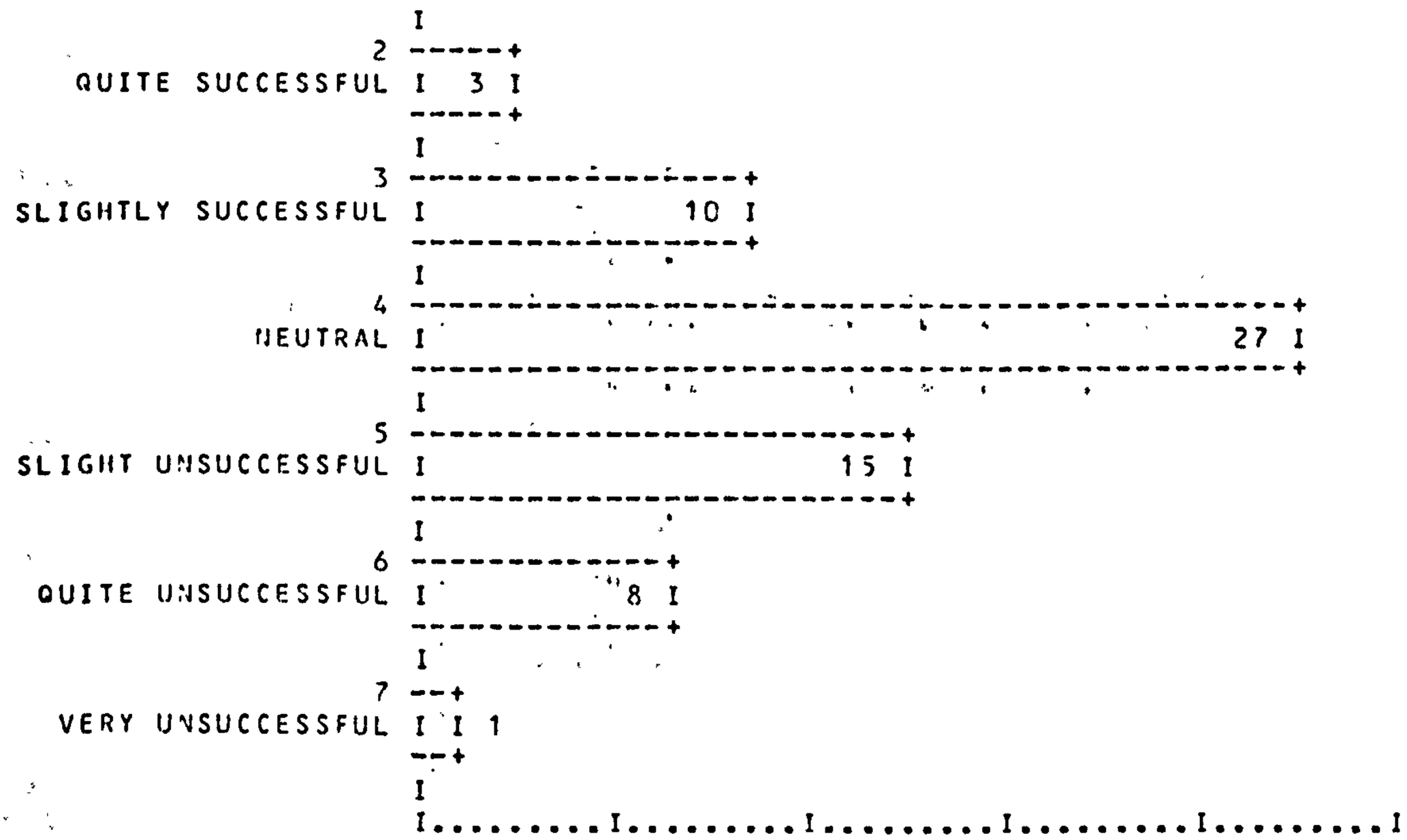
MEAN	3.641	STD ERR	.158	MEDIAN	4.000
MODE	4.000	STD DEV	1.264	VARIANCE	1.599
KURTOSIS	.519	S E KURT	1.973	SKEWNESS	.086
S E SKEW	.299	RANGE	6.000	MINIMUM	1.000
MAXIMUM	7.000	SUM	233.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.95

BUDGINVE INFO.TO ANALISE BUDGETED INVESTMENT

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
QUITE SUCCESSFUL	2	3	4.7	4.7	4.7
SLIGHTLY SUCCESSFUL	3	10	15.6	15.6	20.3
NEUTRAL	4	27	42.2	42.2	62.5
SLIGHT UNSUCCESSFUL	5	15	23.4	23.4	85.9
QUITE UNSUCCESSFUL	6	8	12.5	12.5	98.4
VERY UNSUCCESSFUL	7	1	1.6	1.6	100.0
	TOTAL	64	100.0	100.0	



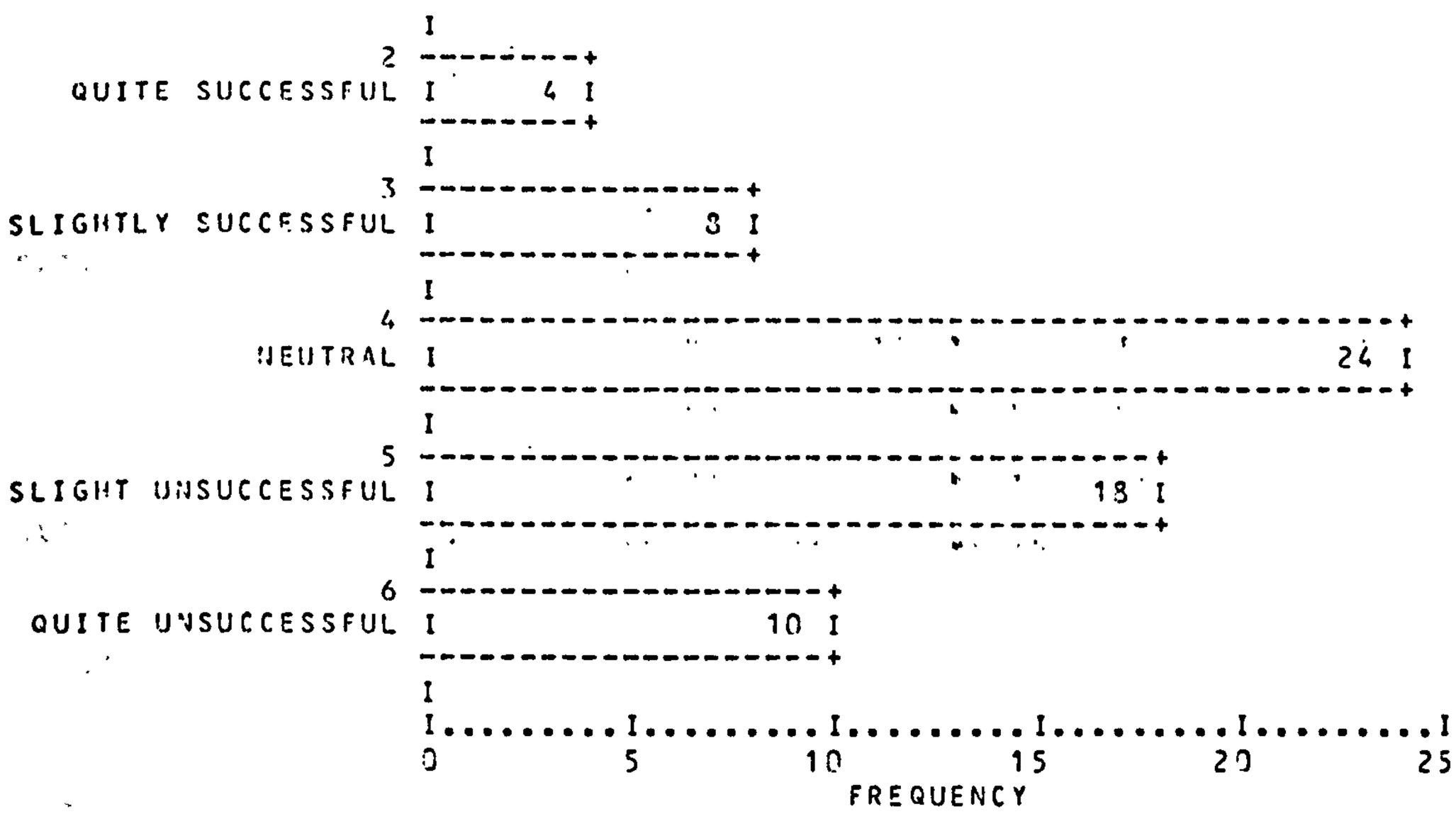
MEAN	4.281	STD ERR	.134	MEDIAN	4.000
MODE	4.000	STD DEV	1.076	VARIANCE	1.158
KURTOSIS	-.064	S E KURT	1.973	SKEWNESS	.119
S E SKEW	.299	RANGE	5.000	MINIMUM	2.000
MAXIMUM	7.000	SUM	274.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.96

FINRESOU INFO.TO ANALISE FINANCIAL RESOURCES

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
QUITE SUCCESSFUL	2	4	6.3	6.3	6.3
SLIGHTLY SUCCESSFUL	3	8	12.5	12.5	18.8
NEUTRAL	4	24	37.5	37.5	56.3
SLIGHT UNSUCCESSFUL	5	18	28.1	28.1	84.4
QUITE UNSUCCESSFUL	6	10	15.6	15.6	100.0
	TOTAL	64	100.0	100.0	



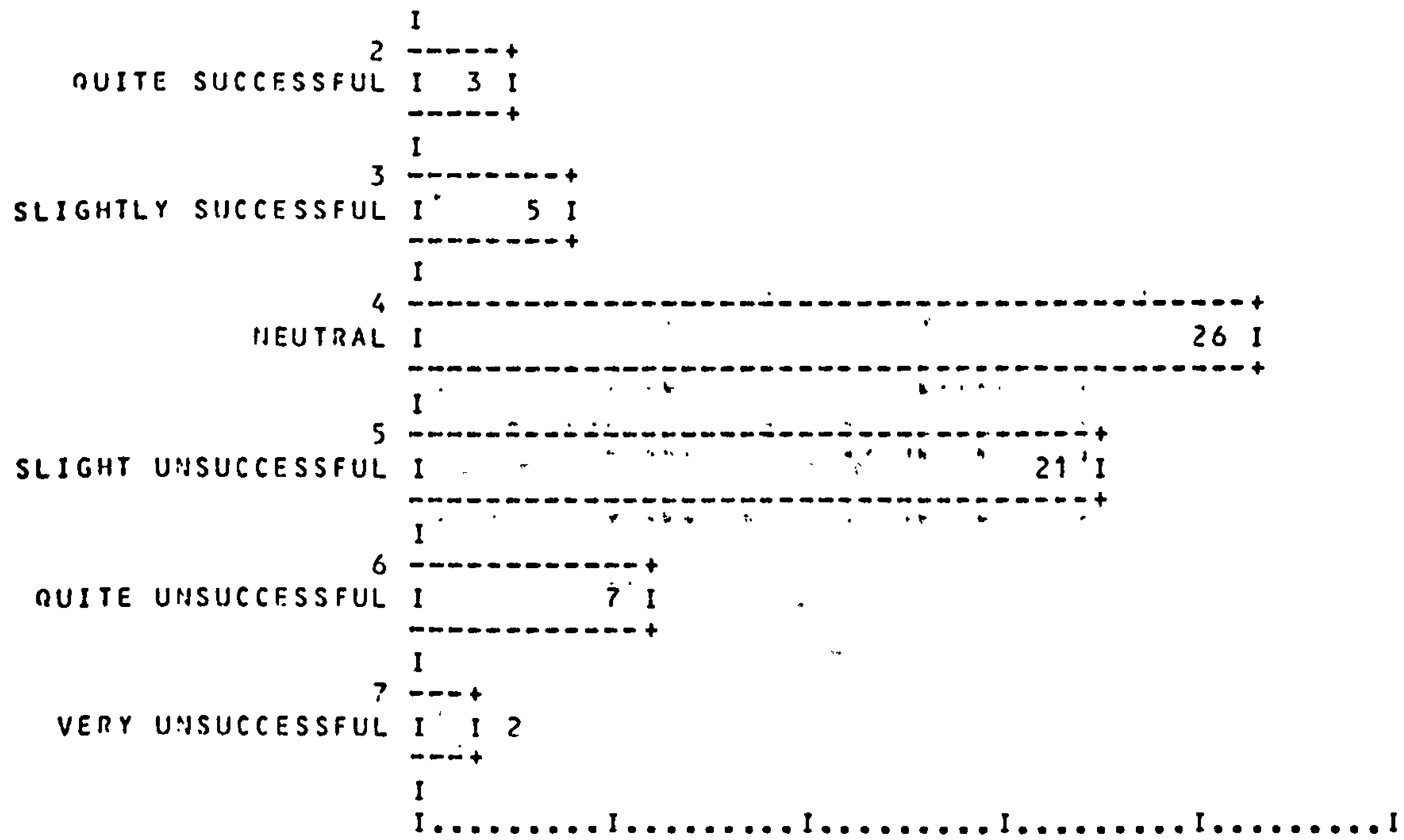
MEAN	4.344	STD ERR	.136	MEDIAN	4.000
MODE	4.000	STD DEV	1.087	VARIANCE	1.182
KURTOSIS	-.326	S E KURT	1.973	SKEWNESS	-.273
S E SKEW	.299	RANGE	4.000	MINIMUM	2.000
MAXIMUM	6.000	SUM	278.000		

VALID CASES 64 MISSING CASES 0

TABLE S.8.97

METHPAYM INFO.TO ANALISE METHODS PAYMENT

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
QUITE SUCCESSFUL	2	3	4.7	4.7	4.7
SLIGHTLY SUCCESSFUL	3	5	7.8	7.8	12.5
NEUTRAL	4	26	40.6	40.6	53.1
SLIGHT UNSUCCESSFUL	5	21	32.8	32.8	85.9
QUITE UNSUCCESSFUL	6	7	10.9	10.9	96.9
VERY UNSUCCESSFUL	7	2	3.1	3.1	100.0
	TOTAL	64	100.0	100.0	



MEAN	4.469	STD ERR	.132	MEDIAN	4.000
MODE	4.000	STD DEV	1.054	VARIANCE	1.110
KURTOSIS	.510	S E KURT	1.973	SKEWNESS	-.041
S E SKEW	.299	RANGE	5.000	MINIMUM	2.000
MAXIMUM	7.000	SUM	286.000		

VALID CASES 64 MISSING CASES 0

CHAPTER NINE

Chapter Nine

Primary Investigation of the Egyptian Unified Accounting System: Inferential Empirical Findings

9.1 Introduction

9.2 The decisions involved in choosing a method of analysis:
- 9.2.1 The correlation analysis as a method for analysing data
- 9.2.2 Parametric or Non-Parametric measures of association
- 9.2.3 Spearman or Kendall's tau rank correlation coefficient
- 9.2.4 Kendall's tau a or b or c

9.3 Analysis of hypotheses: structural characteristics' relationships
- 9.3.1 Hypotheses concerning the relationship between objectives and the qualitative characteristics of the provided information:
  - 9.3.1.1 Analysis of hypothesis one
  - 9.3.1.2 Analysis of hypothesis two
  - 9.3.1.3 Analysis of hypothesis three
- 9.3.2 Hypothesis concerning the relationship between objectives and the elements of the different financial statements:
  - 9.3.2.1 Analysis of hypothesis four
- 9.3.3 Hypotheses concerning the relationship between objectives and the financial reporting:
  - 9.3.3.1 Analysis of hypothesis five
  - 9.3.3.2 Analysis of hypothesis six
- 9.3.4 Conclusions and discussion

9.4 Analysis of hypotheses: structural characteristics' interrelationships
9.4.1 Hypotheses concerning the interrelationships between objectives:
9.4.1.1 Analysis of hypothesis seven
9.4.1.2 Analysis of hypothesis eight
9.4.1.3 Analysis of hypothesis nine
9.4.1.4 Conclusion
9.4.2 Hypotheses concerning the interrelationships between the qualitative characteristics:
9.4.2.1 Analysis of hypothesis ten
9.4.2.2 Analysis of hypothesis eleven
9.4.2.3 Conclusion
9.4.3 Hypotheses concerning the interrelationships between measurement criteria:
9.4.3.1 Analysis of hypothesis twelve
9.4.4 Hypotheses concerning the interrelationships between financial reporting:
9.4.4.1 Analysis of hypothesis thirteen
9.4.4.2 Analysis of hypothesis fourteen
9.4.4.3 Conclusion
9.4.5 Conclusions and discussion

9.5 Analysis of hypotheses: the effects of the background factors:
9.5.1 Analysis of hypothesis fifteen
9.5.2 Analysis of hypothesis sixteen
9.5.3 Analysis of hypothesis seventeen
9.5.4 Analysis of hypothesis eighteen
9.5.5 Conclusions and discussion

9.6 Analysis of hypotheses: controlling for the effects of some background factors:
9.6.1 Analysis of hypothesis nineteen: controlling for the effect of the respondents' qualifications
9.6.2 Analysis of hypothesis twenty: controlling for the effect of the study of the system
9.6.3 Conclusions and discussion

9.7 Conclusion

Chapter Nine

Primary Investigation of the Egyptian Unified Accounting System: Inferential Empirical Findings

9.1 Introduction

In the previous chapter the author presented the descriptive empirical findings of the primary investigation of the Egyptian unified accounting system. It has been noticed that the system does work but it suffers from some problems which affect the usefulness of the provided information. In this chapter, the author is going to present the last stage of the primary investigation of the system by discussing the inferential empirical findings (primary investigation - inferential empirical findings).

The decisions involved in choosing a method of analysis will be discussed. A brief introduction to the correlation analysis as a general method for analysing data will be presented. In the presentation of a correlation analysis, the first decision is to choose either parametric or non-parametric measures of association for the set of variables. After making this choice, the second decision is to select an appropriate correlation coefficient as there are many of them. Even if we have selected the appropriate coefficient, there is still a decision to make concerning the choice of the appropriate form of this coefficient. For instance, in the Kendall rank correlation coefficient, there are three forms: Kendall's tau-a, Kendall tau-b, and Kendall tau-c.

In summary, in this chapter we are chiefly concerned with testing the hypotheses formulated in order to test the

validity of the suggested model for evaluating the Egyptian unified accounting system and to uncover any relationship which may exist between its structural components.

We are going to test four groups of hypotheses:

The first group concerns the structural characteristics' relationships. These hypotheses test the relationships, if any, which exist between the respondents' satisfaction with the structural characteristics. For instance, the relationship between the objectives and the qualitative characteristics of the provided information according to the system and the relationship between objectives and the financial reporting.

The second group relates to the structural characteristics' interrelationships. These hypotheses test the relationships, if any, which exist between the respondents' satisfaction with the components of each of the structural characteristics. For instance, the interrelationships between the qualitative characteristics of the provided information according to the system, and the interrelationships between the financial reports.

The third group concerns studying of the effects of the background factors. In these hypotheses, we shall study the effects of the respondents' qualifications, the respondents' managerial position, the respondents' categories (type of used courses) of studying the Egyptian unified accounting system, and the respondents' working sector in the National Investment Bank.

The fourth group relates to controlling for the effects of some of the background factors. In these hypotheses, we shall control for (hold constant) the effects of the repondents' qualifications and the respondents' categories of studying the system on some of the studied relationships, namely, the relationship between objectives and the qualitiative characteristics of the provided information.

9.2 The decisions involved in choosing a method of analysis:

9.2.1 The correlation analysis as a method for analysing data

"In many research situations, the strength and nature of the dependence of variables is of central concern. Indexes that attempt to quantify the relationship between variables in a cross classification are called measures of association. No single measure adequately summarises all possible types of association" (1).

"Both regression and correlation analysis form part of the study of association between variables. In regression analysis we are concerned with deriving an exact mathematical relationship which attempts to explain the dependence of one set of numerical quantities on another, and in correlation analysis we provide a measure of the degree of dependence between the two sets" (2). Emory stated that "The major difference between correlation and regression analysis is in our objectives... In correlation, our interest centres on measuring the association between variables. With regression, our interest is in predicting one variable from our knowledge of other variables" (3). A further useful distinction has been made by Kendall and Stuart "We may be interested either in the interdependence between a number (not necessary all) of our variables or in the dependence of one or more variables upon others... The study of interdependence leads to the theory of correlation, while the study of dependence leads to the theory of regression" (4).

In summary, our interest in correlation analysis centres on measuring the association between variables by studying the degree of dependence or interdependence between them. But in regression analysis our interest centres on explaining the dependence of one or more variables upon others with the purpose of predicting one variable from our knowledge of other variables.

In our research, we are interested in measuring the degree of dependence or interdependence between variables. In other words, we shall deal only with correlation because of its more direct relationship to the analysis of our research results. But the correlation analysis is affected by the level of measurement of our data and the distribution which underlies them. This issue will be discussed in the next section.

9.2.2 Parametric or Non-Parametric measures of association

"A parametric statistical test is a test whose model specifies certain conditions (for instance, the observations must be drawn from normally distributed populations and the variables involved must have been measured in at least an interval scale) about the parameters of the population from which the research sample was drawn" (5).

"A non-parametric statistical test is a test whose model does not specify conditions about the parameters of the population from which the sample was drawn... These tests are often called 'distribution-free', one of their primary merits being that they do not assume that the scores under analysis were drawn from a population distributed in a certain way... Alternatively, many of these tests are identified as 'ranking tests', and this title suggests their other principal merit: non-parametric techniques may be used with scores which are not exact in any numerical sense, but which in effect are simple ranks" (6).

It is necessary to employ some rationale for choosing among parametric and non-parametric tests. The level of measurement achieved in the research and the statistical distribution are two important criteria which should be considered in the choice of a statistical test. If we consider these two criteria in our research, we shall find that most of the collected data through the questionnaire is

measured in the ordinal level and it does not follow the normal distribution in most of the cases. Therefore, we shall use the non-parametric tests of association because of its more direct relationship to our research data. But there are many non-parametric measures of association and this creates another problem of choice. We shall deal with this problem in the next section.

9.2.3 Spearman or Kendall's tau rank correlation coefficient:

"When data are at least ordinal measurements we have the choice of two rank order correlation methods, both of which possess a power efficiency of about .9 when compared with parametric measures. Neither requires the assumption of a bivariate normal distribution" (7).

"The Spearman coefficient is somewhat easier to compute, and has the further advantage of being linearly related to the coefficient of concordance. However, the Kendall coefficient has the advantages of being generalisable to a partial correlation coefficient and of having a sampling distribution which is practically indistinguishable from a normal distribution for sample sizes small as 9" (8).

By using computer facilities, the first advantage of Spearman coefficient is meaningless and because we are not going to use the coefficient of concordance in our research, the second advantage is also meaningless. In our research, we are going to use partial correlation coefficient to eliminate the effects of some variables. Therefore, Kendall's tau is the appropriate correlation coefficient to be used in our research as it has the advantage of being generalisable to a partial correlation. But there are different forms of Kendall's tau coefficient and this creates another problem of choice. This problem will be discussed in the next section.

9.2.4 Kendall's tau a or b or c

"Several measures of association for a Table of two ordered variables are based on the comparison of the values of both variables for all possible pairs of cases or observations. A pair of cases is concordant (P) if the values of both variables for one case are higher (or both are lower) than the corresponding values for the other case. The pair is discordant (Q) if the value of one variable for a case is larger than the corresponding value for the other case, and the direction is reversed for the second variable. When the two cases have identical values on one or on both variables, they are tied" (9).

"The simplest measure involves subtracting Q from P and dividing by the total number of pairs. If there are no pairs with ties, this measure (Kendall's tau-a) is in the range from -1 to +1. If there are ties, the range of possible values is narrower; the actual range depends on the number of ties. Since all observations within the same row are tied, so also are those in the same column, and the resulting tau-a measures are difficult to interpret. A measure that attempts to normalise P-Q by considering ties on each variable in a pair separately but not ties on both variables in a pair is tau-b. If no marginal frequency is 0, tau-b can attain +1 or -1 only for a square table. A measure that can attain, or nearly attain, +1 or -1 for any R (rows) xC (columns) table is tau-c" (10).

The criteria for choosing among Kendall's tau a or b or c depends on the following:

- If there are no pairs with ties, we can use Kendall's tau-a;
- If there are pairs with ties, we can use both Kendall's tau-b and c having taken into consideration that Kendall's tau-b can attain +1 or -1 only for square table (if no marginal frequency is 0) and Kendall's tau-c can attain, or nearly attain, +1 or -1 for any RxC table.

In most of the cases in our research, there are pairs with ties in different RxC tables. Therefore, we are going to use Kendall's tau-c.

In this section we have discussed the different decisions involved in choosing a method of analysis.

9.3 Analysis of hypotheses: structural characteristics' relationships

9.3.1 Hypothesis concerning the relationship between objectives and the qualitative characteristics of the provided information:

9.3.1.1 Analysis of hypothesis one

The first hypothesis reads as follows:

> "There is a positive relationship between the respondents' satisfaction with the objectives - planning and control purposes - and their views of the qualitative characteristics of the provided information."

As mentioned before, Kendall's tau-c is used to measure the association between the two variables because the level of measurement is ordinal. The results are presented in two groups of Tables (in the supplement to this chapter):

The first group (Tables from S.9.1 to S.9.16) presents the relationship between the respondents' satisfaction with planning objectives and their views of the qualitative characteristics of the provided information for planning purpose.

The second group (Tables from S.9.17 to S.9.32) presents the relationship between the two variables concerning controlling purpose.

In addition, the results are shown in Summary Table 9.1, extracted from the previous Tables (Tables S.9.1 to S.9.32). From these Tables, the following results can be concluded:

A As to planning purpose, the highest row total percentage (46.9%) is located in the neutral area. Meanwhile, for control purpose, the highest row total percentage (43.8%) is located in the slightly successful area. In other words, a slightly higher rating was given for control purpose.
Concerning the qualitative characteristics of the provided information, the highest column total percentages are located in the neutral, slightly successful, and quite successful areas for both planning and control purposes.

B The results demonstrated that there is a positive and statistically significant (at .05 level of significance - one tail test) relationship between the respondents' satisfaction with the objectives - planning and control purposes - and their views of the qualitative characteristics of the provided information.

C As to planning purpose, the highest three correlation coefficients are with relevance (.57747), reliability (.53646), and feedback value (.51302). And the lowest three coefficients are with benefit and cost of information (.27474), comparability (.21094), and necessity (.18229).

TABLE 9.1: Correlation coefficient of the scales measuring the respondents' satisfaction with the objectives (planning and control) and their views of the qualitative characteristics of the provided information according to the system.

Qualitative Characteristics / Objectives	Relevance	Predictive value	Feedback value	Timeliness	Necessity	Simplicity	Reliability	Trustworthiness	Accuracy	Conformity	Completeness	Freedom of bias	Comparability	Consistency	Benefits compared with costs	Materiality
Planinflo	.57747	.45768	.51302	.38216	.18229	.28451	.53646	.42839	.35677	.44271	.43958	.30534	.21094	.36068	.27474	.29883
	(.0000)	(.0000)	(.0000)	(.0000)	(.0299)	(.0011)	(.0000)	(.0000)	(.0001)	(.0000)	(.0000)	(.0005)	(.0153)	(.0001)	(.0027)	(.0012)
Continfo	.58716	.43396	.55664	.33936	.23254	.25716	.53955	.32715	.32166	.42969	.50598	.30151	.17822	.32593	.33325	.24536
	(.0000)	(.0000)	(.0000)	(.0001)	(.0039)	(.0025)	(.0000)	(.0002)	(.0002)	(.0000)	(.0000)	(.0002)	(.0276)	(.0002)	(.0002)	(.0043)

*Significance levels are presented in parentheses

Concerning control purposes, the highest three correlation coefficients are with relevance (.58716), feedback value of information (.55664), and reliability (.53955). And the lowest three are with simplicity (.25716), necessity (.23254), and comparability (.17822).

In other words, for both planning and controlling purposes, the highest correlation coefficients are achieved with the two main qualitative characteristics; relevance and reliability.

In summary, the correlation coefficients presented in the previous Tables are large enough for the acceptance of the hypothesis of a positive relationship between the respondents' satisfaction with objectives and the qualitative characteristics of the provided information. In other words, hypothesis one is accepted.

9.3.1.2 Analysis of hypothesis two

The second hypothesis reads as follows:

> "There is a positive relationship between the respondents' views of the ranking of importance of the different financial statements for serving the purposes of national investment planning and control and their views of the ranking of relevance and reliability of these statements for the same two purposes."

The results of using Kendall's tau-c as a measure of association are presented in four groups of Tables (in the supplement to this chapter):

The first groups (Tables from S.9.33 to S.9.38) presents the relationship between the respondents views of the ranking of importance of the statements for planning purpose and their views of the ranking of relevance of the statements for the same purpose.

The second group (Tables from S.9.39 to S.9.44) presents the relationship between the respondents' views of the ranking of importance of the statements for planning purpose and their views of ranking of reliability of the statements for the same purpose.

The third group (Tables from S.9.45 to S.9.50) presents the relationship between the respondents' views of the ranking of importance of the statements for control purpose and their views of the ranking of relevance of the statements for the same purpose.

The fourth group (Tables from S.9.51 to S.9.56) presents the relationship between the respondents' views of the ranking of importance of the statements for control purpose and their views of the ranking of reliability of the statements for the same purpose.

Table 9.2 presents a comparison of the precentages of agreement among the respondents concerning ranking of importance, relevance, and reliability for both planning and controlling purposes. In addition, the results are summarised in four Tables (Tables from 9.3 to 9.6), extracted from the previous Tables (from S.9.33 to S.9.56). From these Tables, the following can be noticed:

A The results demonstrated some measures of agreement. It can be seen from Table 9.2 that: 70.3% of the respondents considered the statement of sources and applications of funds as the most important and the most relevant statement for planning purpose, and 68.8% of them considered it as the most important and the most reliable statement for the same purpose. For control purpose, 75% of the respondents considered it the most important and most relevant statement, and 71.9% of them considered it the most important and most reliable statement.

TABLE 9.2: Percentages of agreement among respondents concerning ranking of importance, relevance, and reliability of the different financial statements for serving planning and controlling purposes.

Financial Statements	Planning and Control	Most		Second		Third		Fourth		Fifth		Sixth	
		Important & relevant %	Important & reliable %	Important & relevant %	Important & reliable %	Important & relevant %	Important & reliable %	Important & relevant %	Important & reliable %	Important & relevant %	Important & reliable %	Important & relevant %	Important & reliable %
The balance sheet	Planning	17.2	15.6	50.0	46.9	20.3	18.8	-	-	-	-	-	-
	Control	17.2	15.6	56.3	53.1	12.5	14.1	-	-	-	-	-	-
Statement of sources and applications of funds	Planning	70.3	68.8	20.3	20.3	-	-	-	-	-	-	-	-
	Control	75.0	71.9	15.6	14.1	1.6	1.6	-	-	-	-	-	-
The current operations account	Planning	-	-	-	-	10.9	7.8	76.6	75.0	4.7	4.7	-	-
	Control	-	-	-	-	7.8	7.8	71.9	75.0	3.1	3.1	1.6	1.6
The production and trading account	Planning	-	-	-	-	-	-	6.3	6.3	67.2	64.1	6.3	4.7
	Control	-	-	-	-	-	-	6.3	6.3	60.9	59.4	7.8	9.4
The profit and loss account	Planning	-	-	-	-	1.6	1.6	-	-	7.8	6.3	76.6	75.0
	Control	-	-	-	-	-	-	-	-	10.9	12.5	71.9	70.3
The cash flow statement	Planning	3.1	3.1	15.6	14.1	59.4	57.8	9.4	5.3	-	-	3.1	3.1
	Control	1.6	1.6	14.1	15.6	64.1	65.6	6.3	6.3	-	-	3.1	3.1

TABLE 9.3: Correlation coefficients of the respondents' views of the ranking of importance of the financial statements for planning purpose and their views of the ranking of relevance of the statements for the same purpose.

Ranking of relevance / Ranking of importance	Source of application of funds statement	The balance sheet	The cash flow statement	The current operation account	The production and trading account	The profit and loss account
Statement of sources and applications of funds	.55078 (.0000)					
The balance sheet		.73755 (.0000)				
The cash flow statement			.58289 (.0000)			
The current operation account				.39404 (.0000)		
The production and trading account					.30176 (.0000)	
The profit and loss account						.21240 (.0000)

* Significance levels are presented in parentheses.

TABLE 9.4: Correlation coefficients of the respondents' views of the ranking of importance of the financial statements for planning purpose and their views of the ranking of reliability of the statements for the same purpose.

Ranking of reliability / Ranking of importance	Source and application of funds statement	The balance sheet	The cash flow statement	The current operation account	The production and trading account	The profit and loss account
Statement of sources and applications of funds	.59570 (.0000)					
The balance sheet		.60059 (.0000)				
The cash flow statement			.48767 (.0000)			
The current operation account				.31860 (.0000)		
The production and trading account					.25854 (.0001)	
The profit and loss account						.16626 (.0006)

*Significance levels are presented in parentheses.

TABLE 9.5: Correlation coefficients of the respondents' views of the ranking of importance of the financial statements for control purpose and their views of the ranking of relevance of the statements for the same purpose.

Ranking of relevance / Ranking of importance	Source and application of funds statements	The balance sheet	The cash flow statement	The current operation account	The production and trading account	The profit and loss account
Statement of sources and applications of funds	.43066 (.0000)					
The balance sheet		.63062 (.0000)				
The cash flow statement			.51331 (.0000)			
The current operation account				.28060 (.0000)		
The production and trading account					.31787 (.0000)	
The profit and loss account						.33984 (.0000)

* Significance levels are presented in parentheses

TABLE 9.6: Correlation coefficients of the respondents' views of the ranking of importance of the financial statements for control purpose and their views of the ranking of reliability of the statements for the same purpose.

Ranking of reliability / Ranking importance	Source and application of funds statement	The balance sheet	The cash flow statement	The current operation account	The production and trading account	The profit and loss account
Statement of sources and applications of funds	.37645 (.0000)					
The balance sheet		.61450 (.0000)				
The cash flow statement			.51575 (.0000)			
The current operation account				.28841 (.0000)		
The production and trading account					.34570 (.0000)	
The profit and loss account						.37598 (.0000)

* Significance levels are presented in parentheses.

According to the percentages of agreement, it can be noticed that the respondents considered the statement of sources and applications of funds as the most important, relevant, and reliable statement for both planning and control purposes, the balance sheet as the second most important, relevant, and reliable statement, for both purposes; the cash flow statement as the third most important, relevant, and reliable statement for both purposes; the current operations account as the fourth most important, relevant, and reliable statement for both purposes; the production and trading account as the fifth most important, relevant, and reliable statement for both purposes, and the profit and loss account as the sixth most important, relevant, and reliable statement for both purposes. It can also be noticed that a slightly higher rating is given for control purpose than for planning purpose in the first three statements.

B The results demonstrated that there is a positive and statistically significant (at .05 level of significance - one tail test) relationship between the respondents' views of the ranking of importance of the different financial statements for serving the purposes of national investment planning and control and their views of the ranking of relevance and reliability of these statements for the same two purposes.

C As to the planning purpose, the highest six correlation coefficients are achieved in the relationship between the ranking of importance of the balance sheet and its ranking of relevance (.73755), and its ranking of reliability (.60059), and between the ranking of importance of the statement of sources and applications of funds and its ranking of relevance (.55078), and its ranking of reliability (.59580), and between the ranking of importance of the cash flow statement and its ranking of relevance (.58289), and its ranking of reliability (.48767).

Concerning the control purpose, the highest six correlation coefficients are achieved in the relationships in the same three statements. And this confirms the higher priority which was given to these three statements for serving the purposes of planning and control.

In summary, the correlation coefficients presented in the previous Tables are large enough for the acceptance of the hypothesis of a positive relationship between the ranking of importance, relevance, and reliability. In other words, hypothesis two is accepted.

9.3.1.3 Analysis of hypothesis three

The third hypothesis reads as follows:

> "There is a positive relationship between the respondents' views of the degree of influence of the different financial statements on national investment planning and control and their views of the ranking of relevance and reliability of these statements for the same two purposes."

The results of using Kendall's tau-c as a measure of association are presented in four groups of Tables (in the supplement to this chapter):
The first group (Tables from S.9.57 to S.9.62) presents the relationship between the respondents' views of the degree of influence of the different financial statements on national investment planning and their views of the ranking of relevance of the statements for the same purpose.
The second group (Tables from S.9.63 to S.9.68) presents the relationship between the respondents' views of the degree of influence of the different financial statements on national investment planning and their views of the ranking of reliability of the statements for the same purpose.

The third group (Tables from S.9.69 to S.9.74) presents the relationship between the respondents' views of the degree of influence of the different financial statements on national investment control and their views of the ranking of relevance of the statements for the same purpose.
The fourth group (Tables from S.9.75 to S.9.80) presents the relationship between the repondents' views of the degree of influence of the different financial statements on national investment control and their views of the ranking of reliability of the statements for the same purpose.

Table 9.7 presents a comparison of the percentages of agreement among respondents concerning the degree of influence, relevance, reliability of the different financial statements for serving both national investment planning and control. In addition, the results are summarised in four Tables (from 9.8 to 9.11), extracted from the previous Tables (from S.9.57 to S.9.80). The figures presented in the Tables reveal the following:

A The results demonstrated some measures of agreement. It can be seen from Table 9.7 that: 62.5% of the respondents considered that the statement of sources and applications of funds has a maximum influence on national investment planning and is the most relevant statement for this purpose, and 64.1% of them considered that it has a maximum influence and is the most reliable statement for planning purpose. For control purpose, 64.1% of the respondents considered that it has a maximum influence and is the most relevant statement for this purpose, and 60.9% of them considered that it has maximum influence and is the most reliable statement.

TABLE 9.7: Percentages of agreement among respondents concerning the degree of influence, ranking of relevance, and reliability of the different financial statements for serving planning and control purposes.

Financial statements	P & C	%	Degree of influence & rank of relevance	%	Degree of influence and ranking of reliability
The balance sheet	Planning Control	34.4 32.8	Maximum influ & second relevant Considerable infl & second relevant	32.8 32.8	Maximum influ & second reliable Considerable infl & second reliable
Statement of sources and applications of funds	Planning Control	62.5 64.1	Maximum infl & most relevant Maximum infl & most relevant	64.1 60.9	Maximum infl & most reliable Maximum infl & most reliable
The current operation account	Planning Control	59.4 57.8	Moderate infl & fourth relevant Moderate infl & fourth relevant	60.9 59.4	Moderate infl & fourth reliable Moderate infl & fourth reliable
The production and trading account	Planning Control	45.3 39.1	Moderate infl & fifth relevant Moderate infl & fifth relevant	45.3 35.9	Moderate infl & fifth reliable Moderate infl & fifth reliable
The profit and loss account	Planning Control	45.3 42.2	Moderate infl & sixth relevant Moderate infl & sixth relevant	45.3 40.6	Moderate infl & sixth reliable Moderate infl & sixth reliable
The cash flow account	Planning Control	39.1 34.4	Considerable infl & third relevant Considerable infl & third relevant	39.1 35.9	Considerable infl & third reliable Considerable infl & third reliable

TABLE 9.8: Correlation coefficients of the respondents' views of the degree of influence of the different financial statements on national investment planning and their views of the ranking of relevance of the statements for the same purpose.

Ranking of relevance / Degree of influence	Statement of sources and applications of funds	The balance sheet	The cash flow statement	The current operation account	The production and trading account	The profit and loss account
Statement of sources and applications of funds	.05957 (.2440)					
The balance sheet		.45044 (.0000)				
The cash flow statement			.26888 (.0008)			
The current operation account				.10107 (.0599)		
The production and trading account					-.05127 (.2680)	
The profit and loss account						.15015 (.0267)

* Significance levels are presented in parentheses.

TABLE 9.9: Correlation coefficients of the respondents' views of the degree of influence of the different financial statements on national investment planning and their views of the ranking of reliability of the statements for the same purpose.

Ranking of reliability / Degree of influence	Statement of sources and applications of funds	The balance sheet	The cash flow statement	The current operation account	The production and trading account	The profit and loss account
Statement of sources and applications of funds	.22168 (.0067)					
The balance sheet		.44312 (.0000)				
The cash flow statement			.22070 (.0048)			
The current operation account				.12085 (.0266)		
The production and trading account					-.01025 (.4519)	
The profit and loss account						.15015 (.0267)

* Significance levels are presented in parentheses

TABLE 9.10: Correlation coefficients of the respondents' views of the degree of influence of the different financial statements on national investment control and their views of the ranking of relevance of the statements for the same purpose.

Ranking of relevance / Degree of influence	Statement of sources and applications of funds	The balance sheet	The cash flow statement	The current operation account	The production and trading account	The profit and loss account
Statement of sources and applications of funds	.13916 (.0182)					
The balance sheet		.35962 (.0001)				
The cash flow statement			.26888 (.0007)			
The current operation account				.18311 (.0048)		
The production and trading account					-.12500 (.0588)	
The profit and loss account						.24805 (.0101)

* Significance levels are presented in parentheses.

TABLE 9.11: Correlation coefficients of the respondents' views of the degree of influence of the different financial statements on national investment control and their views of the ranking of reliability of the statements for the same purpose.

Ranking of reliability / Degree of influence	Statement of sources and applications of funds	The balance sheet	The cash flow statement	The current operation account	The production and trading account	The profit and loss account
Statement of sources and applications of funds	.08423 (.1076)					
The balance sheet		.42700 (.0000)				
The cash flow statement			.26953 (.0005)			
The current operation account				.16040 (.0077)		
The production and trading account					-.07617 (.1783)	
The profit and loss account						.21875 (.0259)

* Significance levels are presented in parentheses.

According to the percentages of agreement, the respondents considered that the statement of sources and applications of funds has maximum influence on both national investment planning and control, and the most relevant, and reliable statement for the same two purposes. They considered that the balance sheet has maximum influence on planning purpose and considerable influence on control purpose, but they considered it the second relevant and reliable statement for the same two purposes. They considered that the cash flow statement has a considerable influence on both national investment planning and control, but they considered it the thrid relevant and reliable statement for the same two purposes. In other words, these three statements were considered the most influential, relevant, reliable, and important statements having taken into consideration the previous results.

B The results demonstrated that there is a positive and statistically significant (at .05 level of significance - one tail test) relationship between the respondents' views of the degree of influence of the different financial statements and their views of the ranking of relevance and reliability of these statements for the purposes of national investment planning and control with the exception of seven relationships (among the twenty four studied relationships) which are not statistically significant and four relationships (among the non-significant relationships) are negative.

C In order to reach a decision about this hypothesis, the following factors have been considered:

- The negative relationships (four cases concerned with the production and trading account) are not statistically significant.

- The low correlation coefficients (three cases which are: .05957, .10107, and .08423) are also not statistically significant.
- The high correlation coefficients (cases concerned with the balance sheet) are highly statistically significant.

The above factors and the previous mentioned high percentage of agreement among respondents concerning this relationship lead to the acceptance of the hypothesis of a positive relationship existing between the degree of influence of the different financial statements on national investment planning and control and their ranking of relevance and reliability. In other words, hypothesis three is accepted.

9.3.2 Hypothesis concerning the relationship between objectives and the elements of the different financial statements

9.3.2.1 Analysis of hypothesis four

The fourth hypothesis reads as follows:

> "There is a positive relationship between the respondents' satisfaction with the objectives - planning and control - and their views of the effectiveness of the standardised accounting definitions of the elements of the different financial statements as a mean of increasing accounting communication to them."

The results of using Kendall's tau-c as a measure of association are presented in Tables 9.12 and 9.13. The first Table presents the relationship between the two variables concerning planning purpose and second Table presents the relationship concerning control purpose.

TABLE 9.12

CROSSTABULATION OF
PLANINFO PROVIDE INFO.FOR PLAN.N.INVESTMENT BY INFOCOMM STANDARDIZED DEFIN.INCREASED ACC.COMM.

PLANINFO	INFOCOMM: STRONGLY AGREE (1)	QUITE AGREE (2)	NEUTRAL (3)	ROW TOTAL
2 QUITE SUCCESS.	3 37.5 18.8 4.7	4 50.0 12.5 6.3	1 12.5 6.3 1.6	8 12.5
3 SLIGHTLYSUCCESS.	5 23.8 31.3 7.8	10 47.6 31.3 15.6	6 28.6 37.5 9.4	21 32.8
4 NEUTRAL	7 23.3 43.8 10.9	16 53.3 50.0 25.0	7 23.3 43.8 10.9	30 46.9
5 SLIGHTLYUNSUCCES	1 20.0 6.3 1.6	2 40.0 6.3 3.1	2 40.0 12.5 3.1	5 7.8
COLUMN TOTAL	16 25.0	32 50.0	16 25.0	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.07910	0.2305

NUMBER OF MISSING OBSERVATIONS = 0

TABLE 9.13

CROSSTABULATION OF

CONTINFO PROVIDE INFO.FOR CONT.N.INVESTMENT BY INFOCOMM STANDARDIZED DEFIN.INCREASED ACC.COMM.

CONTINFO	COUNT / ROW PCT / COL PCT / TOT PCT	INFOCOMM STRONGLY AGREE 1	QUITE AGREE 2	NEUTRAL 3	ROW TOTAL
QUITE SUCCESS.	2	4 40.0 25.0 6.3	5 50.0 15.6 7.8	1 10.0 6.3 1.6	10 15.6
SLIGHTLYSUCCESS.	3	6 21.4 37.5 9.4	16 57.1 50.0 25.0	6 21.4 37.5 9.4	28 43.8
NEUTRAL	4	3 14.3 18.8 4.7	10 47.6 31.3 15.6	8 38.1 50.0 12.5	21 32.8
SLIGHTLYUNSUCCES	5	3 75.0 18.8 4.7	1 25.0 3.1 1.6		4 6.3
QUITE UNSUCCES	6			1 100.0 6.3 1.6	1 1.6
COLUMN TOTAL		16 25.0	32 50.0	16 25.0	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.12305	0.1232

NUMBER OF MISSING OBSERVATIONS = 0

From these Tables, the following results can be summarised:

A The results demonstrated some measures of agreement 25% of the respondents rated the information usefulness for planning purpose at the neutral level and at the same time they quite agreed that the standardised definitions increased the effectiveness of accounting communication to them (Table 9.12). Also 25% of the respondents rated the information usefulness for control purpose at the slightly successful level and at the same time they quite agreed that the standardised definitions increased accounting communication (Table 9.13). Again, a slightly higher rating is given for control purpose but with a low percentage of agreement.

B The results demonstrated that there is a weak positive but not statistically significant (at .05 level of significance - one tail test) relationship between the respondents' satisfaction with the objectives and their views of the effectiveness of the standardised definitions on accounting communication.

The above results reveal that the hypothesis of a positive relationship between the respondents' satisfaction with the objectives - planning and control - and their views of the effectiveness of standardised definitions on accounting communication can not be accepted. In other words, hypothesis four is rejected.

9.3.3 Hypotheses concerning the relationship between objectives and financial reporting

9.3.3.1 Analysis of hypothesis five

The fifth hypothesis reads as follows:

> "There is a positive relationship between the respondents views of the ranking of importance of the different financial statements for the purposes of national investment planning and control and their pattern of reading of these statements."

The results of the crosstabulation of the ranking of importance by the pattern of reading are presented in two groups of Tables (in the supplement to this chapter):
The first group (Tables from S.9.81 to S.9.86) presents the crosstabulation of the ranking of importance of the different financial statements for the purpose of national investment planning by the pattern of reading of these statements.
The second group (Tables S.9.87 to S.9.92) presents the crosstabulation of the ranking of importance of the different financial statements for the purpose of national investment control by the pattern of reading of these statements.

Table 9.14, extracted from the previous Tables (from S.9.81 to S.9.92), presents a comparison of the percentages of agreement among respondents concerning their views of the ranking of importance and their pattern of reading for the purposes of national investment planning and control.

The results presented in Table 9.14 demonstrated some measures of agreement. It can be seen that: 73.4% of the respondents considered the statement of sources and applications of funds as the most important financial statement for the purpose of national investment planning and they read it thoroughly. For control purpose, 79.7% of them considered this statement as the most important financial statement and they read it thoroughly.

According to the percentages of agreement, the respondents considered the statement of sources and applications of funds, the balance sheet, and the cash flow statement as the three most important financial statements and they read them thoroughly. On the other hand, they read briefly the other three statements having taken into consideration that these statements are less important.

When the relationship between these two variables was studied, Kendall's tau-c was not used as a measure of association between them because there were a tremendous number of observations with ties especially in the pattern of reading. For instance, all the respondents read thoroughly the statement of sources and applications of funds and the correlation coefficients cannot be computed. Meanwhile the high percentages of agreement among respondents (Table 9.14) lead to the acceptance of the hypothesis of a positive relationship existing between the ranking of importance of the different financial statements for the purposes of national investment planning and control and their pattern of reading. In other words, hypothesis five is accepted.

TABLE 9.14: Percentages of agreement among respondents concerning the ranking of importance of the different financial statements and their pattern of reading.

Financial statements	P & C	%	Ranking of importance & Pattern of reading
The balance sheet	Planning Control	51.6 60.9	Most important & read thoroughly Most important & read thoroughly
Statement of sources and applications of funds	Planning Control	73.4 79.7	Most important & read thoroughly Most important & read thoroughly
The current operation account	Planning Control	46.9 50.0	Fourth important & read briefly Fourth important and read briefly
The production and trading account	Planning Control	46.9 46.9	Fifth important and read briefly Fifth important and read briefly
The profit and loss account	Planning Control	43.8 42.2	Sixth important and read briefly Sixth important and read briefly
The cash flow statement	Planning Control	48.4 48.4	Third important and read thoroughly Third important and read thoroughly

9.3.3.2 Analysis of hypothesis six

The sixth hypothesis reads as follows:

> "There is a positive relationship between the respondents' views of the degree of influence of the different financial statements on national investment planning and control and their pattern of reading of these statements."

The results of the crosstabulation of the degree of influence by the pattern of reading are presented in two groups of Tables (in the supplement to this chapter):
The first group (Tables from S.9.93 to S.9.98) presents the crosstabulation of the degree of influence of the different financial statements on national investment planning by the pattern of reading of these statements.
The second group (Tables from S.9.99 to S.9.104) presents the crosstabulation of the degree of influence of the different financial statements on national investment control by the pattern of reading of these statements.

Table 9.15, extracted from the previous Tables (from S.9.93 to S.9.104), presents a comparison of the percentages of agreement among respondents concerning their views of the degree of influence and their pattern of reading of the different financial statements for the purposes of national investment planning and control.

The results demonstrated some measures of agreement. It can be seen from Table 9.15 that: 79.7% of the respondents considered that the statement of sources and applications of funds has a maximum influence on national investment planning and they read it thoroughly. For control purposes, 78.1% of them considered that it has a maximum influence and they read it thoroughly.

TABLE 9.15: Percentages of agreement among respondents concerning the degree of influence of the different financial statements and their pattern of reading.

Financial statements	P & C	%	Degree of influence & pattern of reading
The balance sheet	Planning Control	50.0 45.3	Maximum influence and read thoroughly Maximum influence and read thoroughly
Statement of sources and applications of funds	Planning Control	79.7 78.1	Maximum influence and read thoroughly Maximum influence and read thoroughly
The current operation account	Planning Control	45.3 42.2	Moderate influence and read briefly Moderate influence and read briefly
The production and trading account	Planning Control	31.3 31.3	Moderate influence and read briefly Moderate influence and read briefly
The profit and loss account	Planning Control	26.6 26.6	Moderate influence and read thoroughly Moderate influence and read thoroughly
The cash flow statement	Planning Control	34.4 32.8	Considerable influence and read thoroughly Considerable influence and read thoroughly

According to the percentages of agreement, the respondents considered that both the statement of sources and applications of funds and the balance sheet have maximum influence on both national investment planning and control, and they read them thoroughly. Also, they read thoroughly the cash flow statement and they considered that it has considerable influence on both planning and control. In other words, they read thoroughly the most influential statements. On the other hand, they read briefly the other statements (except the profit and loss account because they read it thoroughly) having taken into consideration that these statements have moderate influences on both national investment planning and control.

When the relationship between these two variables was studied, Kendall's tau-c was not used as a measure of association between them because there were a tremendous number of observations with ties and the correlation coefficients can not be computed in some cases. Meanwhile, the high percentages of agreement among respondents (Table 9.15) lead to the acceptance of the hypothesis of a positive relationship existing between the degree of influence of the different financial statements on national investment planning and control and the pattern of reading them. In other words, hypothesis six is accepted.

9.3.4 Conclusions and discussion

The main objective of testing this group of hypotheses is to shed some light on the relationships which may exist between the structural characteristics of the suggested model for evaluating the Egyptian unified accounting system. If there are relationships between the structural components, this will indicate the validity of the approach used in this research. The six hypotheses discussed and analysed in this section resulted in the acceptance of the following:

A Positive relationships existing between the respondents' views of the objectives and their views of the qualitative characteristics of the provided information according to the unified accounting system (hypotheses from one to three).

B Positive relationships not existing between the repondents' views of the objectives and their views of the effectiveness of standardised accounting definitions of the elements of the different financial statements as a mean of increasing accounting communication to them (hypothesis four).

C Positive relationships existing between the respondents' views of the objectives and their pattern of reading of the financial statements (hypothesis five and six).

These results uncovered the relationships existing between the different structural characteristics with the exception of one case among the six studied cases. Reasons for this exception are believed to be that the respondents' evaluation of the usefulness of the information provided for serving national investment planning and control (objectives) lies in the area between neutral and slightly successful. However, the majority of the respondents quite agreed that the standardised definitions of the elements of the different financial statements increased the effectiveness of

accounting communication. The gap between the respondents' satisfaction with the objectives (neutral or slightly successful) and their satisfaction with the effectiveness of standardised accounting definitions of the elements of financial statements (quite successful) resulted in the rejection of the positive relationship between their views of the two variables (hypothesis four).

Meanwhile, the results demonstrated that there are positive relationships existing between the different structural characteristics (hypotheses from one to six with the exception of hypothesis four). Having taken into consideration the above justification for the reasons of rejecting hypothsis four, these results show very clearly the validity of the approach used in this research which is based on using the structural characteristics for evaluating the Egyptian unified accounting system.

A question which may be asked is what are the benefits of these relationships? The answer to this question is quite clear, these relationships can be used for the purpose of providing a treatment of the problems of the Egyptian unified accounting system (the third process of the suggested model). For instance, the relationship existing between objectives (planning and control) and the qualitative characteritics of the provided information according to the system can be used for the purpose of building an index of disclosure instrumental for evaluating the quality of the financial disclosure according to the system in achieving its objectives by evaluating the different qualitative characteristics. In addition, we have noticed that the majority of the respondents read thoroughly the most important and influential financial statements (the statement of sources and applications of funds, the balance sheet, and the cash flow statement) and they read briefly the less important and influential statements. The factors which affect the pattern of reading (like the respondents' qualifications) must be considered in the treatment process.

In this section the relationships existing between the structural characteristics have been tested. In the next section, we are going to test the interrelationships between the components of some of the structural characteristics.

9.4 Analysis of hypotheses: structural characteristics' interrelationships

9.4.1 Hypotheses concerning the interrelationships between objectives

9.4.1.1 Analysis of hypthesis seven

The seventh hypothesis reads as follows:

> "There is a positive relationship between the respondents' satisfaction with the provided information for planning purpose and their satisfaction with the provided information for controlling purpose."

The results of using Kendall's tau-c as measure of association are presented in Table 9.16. The figures in the table reveal the following:

A The results demonstrated some measures of agreement. 9.4% of the respondents rated the information usefulness for both planning and controlling national investment as quite successful, 20.3% of them considered it as slightly successful, 20.3% of them considered it as neutral and, finally, 3.1% of them considered it as slightly unsuccessful. In other words, most of the respondents (20.3 + 20.3 = 40.6%) rated this information in the range from neutral to slightly successful.

TABLE 9.16

CROSSTABULATION OF

PLANINFO PROVIDE INFO.FOR PLAN.N.INVESTMENT BY CONTINFO PROVIDE INFO.FOR CONT.N.INVESTMENT

PLANINFO	CONTINFO	2 QUITE SUCCESS.	3 SLIGHTLY SUCCESS.	4 NEUTRAL	5 SLIGHTLY UNSUCCES	6 QUITE UNSUCCES	ROW TOTAL
2 QUITE SUCCESS.	COUNT	6	1	1			8
	ROW PCT	75.0	12.5	12.5			12.5
	COL PCT	60.0	3.6	4.8			
	TOT PCT	9.4	1.6	1.6			
3 SLIGHTLYSUCCESS.	COUNT	3	13	5			21
	ROW PCT	14.3	61.9	23.8			32.8
	COL PCT	30.0	46.4	23.8			
	TOT PCT	4.7	20.3	7.8			
4 NEUTRAL	COUNT	1	14	13	2		30
	ROW PCT	3.3	46.7	43.3	6.7		46.9
	COL PCT	10.0	50.0	61.9	50.0		
	TOT PCT	1.6	21.9	20.3	3.1		
5 SLIGHTLYUNSUCCES	COUNT			2	2	1	5
	ROW PCT			40.0	40.0	20.0	7.8
	COL PCT			9.5	50.0	100.0	
	TOT PCT			3.1	3.1	1.6	
COLUMN TOTAL		10 15.6	28 43.8	21 32.8	4 6.3	1 1.6	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.46745	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

B The results demonstrated that there is a positive and statistically significant (at .05 level of significance - one tail test) relationship between the respondents' satisfaction with the usefulness of the provided information for planning national investment and their satisfaction at its usefulness for controlling national investment.

In summary, the correlation coefficient presented in Table 9.16 is large enough for acceptance of the hypothesis of a relationship between the respondents' satisfaction with the two main objectives: planning and control. In other words, hypothesis seven is accepted.

9.4.1.2 Analysis of hypothesis eight

The eighth hypothesis reads as follows:

> "There is a positive relationship between the respondents' views of the ranking of importance of the different financial statements for serving the purpose of national investment planning and their views of this ranking for serving national investment control."

The results of using Kendall's tau-c as a measure of association are presented in Tables from S.9.105 to S.9.110 (in the supplement to this chapter).

Table 9.17 presents the percentage of agreement among respondents concerning ranking of importance of the statements for serving planning and controlling purposes. In addition, the results are summarised in Table 9.18, extracted from the previous Tables (from S.9.105 to S.9.110). The figures in these Tables reveal the following:

A The results demonstrated some measures of agreement. It can be seen from Table 9.17 that: 67.2% of the

TABLE 9.17: Percentage of agreement among respondents concerning ranking of importance of the different financial statements for serving planning and controlling purposes.

Financial statements	Planning and control	Most Important %	Second Important %	Third Important %	Fourth Important %	Fifth Important %	Sixth Important %
The balance sheet	Planning Control	12.5 12.5	46.9 46.9	15.6 15.6	- -	- -	- -
Statement of sources and application of funds	Planning Control	67.2 67.2	10.9 10.9	- -	- -	- -	- -
The current operation account	Planning Control	- -	- -	9.4 9.4	73.4 73.4	6.3 6.3	- -
The production and trading account	Planning Control	- -	- -	- -	7.8 7.8	71.9 71.9	10.9 10.9
The profit and loss account	Planning Control	- -	- -	1.6 1.6	- -	12.5 12.5	79.7 79.7
The cash flow statement	Planning Control	1.6 1.6	14.1 14.1	56.3 56.3	7.8 7.8	- -	3.1 3.1

TABLE 9.18: Correlation coefficients of the respondents' views of the ranking of importance of the financial statements for serving planning purpose and their views of this ranking for serving control purpose.

Ranking of importance (control) / Ranking of importance (planning)	Statement of sources and applications of funds	The balance sheet	The cash flow statement	The current operation account	The production and trading account	The profit and loss account
Statement of sources and applications of funds	.25928 (.0001)					
The balance sheet		.52515 (.0000)				
The cash flow statement			.51697 (.0000)			
The current operation account				.38086 (.0000)		
The production and trading account					.45923 (.0000)	
The profit and loss account						.34497 (.0000)

* Significance levels are presented in parentheses.

respondents considered the statement of sources and applications of funds as the most important statement for serving both planning and control purposes; 46.9% of them considered the balance sheet as the second most important statement for serving the same two purposes; 56.3% of the respondents considered the cash flow statement as the third most important statement for serving the same two purposes; 73.4% of them considered the current operations account as the fourth most important statement for serving the same two purposes; 71.9% of them considered the production and trading account as the fifth most important statement for serving the same two purposes, and 79.7% of them considered the profit and loss account as the sixth most important statement for serving the same two purposes. In other words, most of the respondents agreed in their ranking of importance of the different financial statement for serving both national investment planning and control.

B The results demonstrated that there is a positive and statistically significant (at .05 level of significance - one tail test) relationship between the respondents'views of the ranking of importance of the different financial statements for serving the purpose of national investment planning and their views of this ranking for serving national investment control.

In summary, the correlation coefficients presented in the previous Tables are large enough for the acceptance of hypothesis eight.

9.4.1.3 Analysis of hypothesis nine

This hypothesis reads as follows:

> "There is a positive relationship between the respondents' views of the degree of influence of the different financial statements on national investment planning and their views of the statements' influence on national investment control."

The results of using Kendall's tau-c as a measure of association are presented in Tables from S.9.111 to S.9.116 (in the supplement to this chapter).

Table 9.19 presents the percentages of agreement among respondents concerning the degree of influence of the statements on national investment planning and control. In addition, the results are summarised in Table 9.20, extracted from the previous Tables (from S.9.111 to S.9.116). From these Tables, the following can be noticed:

A The results demonstrated some measures of agreement. It can be seen from Table 9.19 that: 71.9% of the respondents considered that the statement of sources and applications of funds has a maximum influence on both national investment planning and control, 43.8% of them considered that the balance sheet has a maximum influence on both purposes, 42.2% of them considered that the cash flow statement has a considerable influence on both purposes, 67.2% of them considered that the current operations account has a moderate influence on both purposes, 51.6% of them considered that the production and trading account has a moderate influence on both purposes and, finally, 45.3% of them considered that the profit and loss account has a moderate influence on both purposes. In other words,

TABLE 9.19: Percentages of agreement among respondents concerning the degree of influence of the different financial statements on national investment planning and control

Financial statements	Planning and Control	Maximum influence %	Considerable influence %	Moderate influence %	Slight influence %	None influence %
The balance sheet	Planning Control	43.8 43.8	40.6 40.8	3.1 3.1	- -	- -
Statement of sources and applications of funds	Planning Control	71.9 71.9	12.5 12.5	- -	- -	- -
The current operation account	Planning Control	- -	18.8 18.8	67.2 67.2	6.3 6.3	- -
The production and trading account	Planning Control	- -	14.1 14.1	51.6 51.6	21.9 21.9	3.1 3.1
The profit and loss account	Planning Control	- -	12.5 12.5	45.3 45.3	26.6 26.6	3.1 3.1
The cash flow statement	Planning Control	20.3 20.3	42.2 42.2	21.9 21.9	1.6 1.6	- -

TABLE 9.20: Correlation coefficients of the respondents' views of the degree of influence of the different financial statements on national investment planning and their views of the influence of these statements on national investment control.

Degree of influence on control / Degree of influence on planning	Statement of sources and applications of funds	The balance sheet	The cash flow statement	The current operation account	The production and trading account	The profit and loss account
Statement of sources and applications of funds	.38965 (.0000)					
The balance sheet		.61597 (.0000)				
The cash flow statement			.71094 (.0000)			
The current operation account				.54932 (.0000)		
The production and trading account					.70182 (.0000)	
The profit and loss account						.70052 (.0000)

* Significance levels are presented in parentheses

most of the respondents agreed in their views of the degree of influence of the different financial statements on both national investment planning and control.

B The results demonstrated that there is a positive and statistically significant (at .05 level of significance - one tail test) relationship between the respondents' views of the degree of influence of the different financial statements on national investment planning and their views of the statements' influence on national investment control.

In summary, the correlation coefficients presented in the previous Tables are large enough for the acceptance of hypothesis nine.

9.4.1.4 Conclusion

The hypotheses (seven, eight and nine) discussed and analysed in this section resulted in the acceptance of the following:

A Positive relationship existing between the respondents' satisfaction with the usefulness of the provided information for planning national investment (main objective) and their satisfaction at its usefulness for controlling national investment (main objective).

B Positive relationship existing between the respondents' views of the ranking of importance of the different financial statements for serving the purpose of national investment planning and their views of this ranking for serving national investment control.

C Positive relationship existing between the respondents' views of the degree of influence of the different financial statements on national investment planning and their views of the statements' influence on national investment control.

These results uncover the interrelationships existing between the components (planning and control) of the first structural characteristic (objectives).

9.4.2 Hypotheses concerning the interrelationships between qualitiative characteristics

9.4.2.1 Analysis of hypothesis ten

This hypothesis reads as follows:

> "There are positive relationships between the different scales measuring the qualitative characteristics of the provided information according to the system."

The results of using Kendall's tau-c as measure of association are presented in Tables from 9.21 to 9.22. The first Table presents the relationships between the different scales measuring the qualitative characteristics of the provided information useful for planning national investment. The second Table presents these relationships for controlling national investment. The figures in these Tables reveal the following:

A For planning purpose, there are positive and statistically significant (at .05 level of significance - one tail test) relationships between the different scales measuring the qualitative characteristics of the provided information with the exception of six relationships which are positive but not statistically significant (six cases among one hundred and twenty studied cases). These relationships are:

- The relationship between the predictive value and necessity;
- The relationship between the feedback value and comparability;

TABLE 9.21: Correlation coefficients of the scales measuring the qualitative characteristics of the provided information useful for planning national investment.

Qualitative Characteristics	Relevance	Predictive value	Feedback value	Timeliness	Necessity	Simplicity	Reliability	Trustworthiness	Accuracy	Conformity	Completeness	Freedom of bias	Comparability	Consistency	Benefits compared with costs	Materiality
Relevance	- -															
Predictive value	.65735 (.0000)	- -														
Feedback value	.60486 (.0000)	.47302 (.0000)	- -													
Timeliness	.40161 (.0000)	.34180 (.0000)	.32532 (.0001)	- -												
Necessity	.17057 (.0387)	.11263 (.1157)	.19466 (.0227)	.21875 (.0097)	- -											
Simplicity	.34635 (.0001)	.19401 (.0156)	.27083 (.0013)	.23503 (.0043)	.24740 (.0040)	- -										
Reliability	.65491 (.0000)	.51331 (.0000)	.45959 (.0000)	.39978 (.0000)	.30729 (.0009)	.30013 (.0007)	- -									
Trustworthiness	.40100 (.0000)	.36072 (.0000)	.39551 (.0000)	.24292 (.0034)	.33008 (.0005)	.34505 (.0002)	.49072 (.0000)	- -								
Accuracy	.38209 (.0000)	.37415 (.0000)	.32776 (.0002)	.28625 (.0007)	.26432 (.0039)	.35938 (.0001)	.48157 (.0000)	.63416 (.0000)	- -							
Conformity	.47913 (.0000)	.47119 (.0000)	.39917 (.0000)	.29968 (.0004)	.18424 (.0324)	.30924 (.0006)	.49683 (.0000)	.50354 (.0000)	.55054 (.0000)	- -						
Completeness	.55969 (.0000)	.48279 (.0000)	.46265 (.0000)	.34607 (.0001)	.17188 (.0431)	.29427 (.0011)	.56885 (.0000)	.43701 (.0000)	.43945 (.0000)	.68613 (.0000)	- -					
Freedom of bias	.39490 (.0000)	.37537 (.0000)	.24109 (.0029)	.46326 (.0000)	.17122 (.0333)	.20703 (.0103)	.45959 (.0000)	.32837 (.0001)	.41199 (.0000)	.33691 (.0001)	.37598 (.0000)	- -				
Comparability	.18433 (.0217)	.18311 (.0197)	.10986 (.1160)	.21507 (.0086)	.21224 (.0153)	.21419 (.0113)	.27466 (.0015)	.19470 (.0196)	.26489 (.0024)	.15320 (.0520	.11047 (.1214)	.25208 (.0021)	- -			
Consistency	.39307 (.0000)	.35400 (.0000)	.32104 (.0003)	.33447 (.0001)	.19076 (.0274)	.35221 (.0001)	.46631 (.0000)	.40649 (.0000)	.55176 (.0000)	.36316 (.0001)	.30457 (.0007)	.45227 (.0000)	.49988 (.0000)	- -		
Benefits compared with costs	.34729 (.0001)	.19775 (.0140)	.34180 (.0001)	.28687 (.0007)	.19010 (.0279)	.20833 (.0143)	.37048 (.0000)	.33020 (.0003)	.30762 (.0006)	.27954 (.0017)	.34851 (.0001)	.31616 (.0002)	.13611 (.0737)	.40466 (.0000)	- -	
Materiality	.36194 (.0000)	.28015 (.0009)	.33813 (.0001)	.30579 (.0003)	.19596 (.0239)	.27148 (.0021)	.39734 (.0000)	.33997 (.0002)	.29419 (.0009)	.35706 (.0001)	.41077 (.0000)	.33875 (.0001)	.09033 (.1671)	.34058 (.0002)	.47668 (.0000)	- -

* Significance levels are presented in parenthesis

TABLE 9.22: Correlation coefficients of the scales measuring the qualitiative characteristics of the provided information useful for controlling national investment.

Qualitative Characteristics	Relevance	Predictive value	Feedback value	Timeliness	Necessity	Simplicity	Reliability	Trustworthiness	Accuracy	Conformity	Completeness	Freedom of bias	Comparability	Consistency	Benefits compared with costs	Materiality
Relevance	-															
Predictive value	.53528 (.0000)	-														
Feedback value	.51697 (.0000)	.41016 (.0000)	-													
Timeliness	.36621 (.0000)	.31860 (.0001)	.24536 (.0025)	-												
Necessity	.28625 (.0003)	.18982 (.0129)	.19897 (.0108)	.22766 (.0032)	-											
Simplicity	.29622 (.0004)	.11263 (.1038)	.29297 (.0006)	.24935 (.0023)	.37044 (.0000)	-										
Reliability	.58044 (.0000)	.42114 (.0000)	.38696 (.0000)	.36926 (.0000)	.23315 (.0031)	.24805 (.0028)	-									
Trustworthiness	.26733 (0012)	.16541 (.0324)	.24109 (.0041)	.14282 (.0523)	.18677 (.0162)	.19531 (.0165)	.34973 (.0000)	-								
Accuracy	.32104 (.0001)	.22217 (.0065)	.23926 (.0043)	.18921 (.0157)	.21484 (.0069)	.25456 (.0027)	.38574 (.0000)	.65552 (.0000)	-							
Conformity	.45059 (.0000)	.35583 (.0000)	.38330 (0000)	.26733 (.0013)	.25452 (.0020)	.31315 (.0004)	.46875 (.0000)	.51331 (.0000)	.51514 (.0000)	-						
Completeness	.54258 (.0000)	.36865 (.0000)	.46875 (.0000)	.32766 (.0001)	.24231 (.0030)	.34505 (.0001)	.60642 (.0000)	.43579 (.0000)	.44536 (.0000)	.57246 (.0000)	-					
Freedom of bias	.28625 (.0003)	.26367 (.0009)	.16113 (.0229)	.43152 (.0000)	.11841 (.0743)	.18945 (.0138)	.37598 (.0000)	.24902 (.0019)	.31799 (.0001)	.25208 (.0019)	.29297 (.0004)	-				
Comparability	.18738 (.0179)	.11475 (.1026)	.13489 (.0716)	.19043 (.0162)	.19836 (.0123)	.25195 (.0033)	.27283 (.0013)	.10193 (.1361)	.18372 (.0238)	.19266 (.0203)	.16357 (.0407)	.31433 (.0002)	-			
Consistency	.35950 (.0000)	.24170 (.0035)	.26733 (.0017)	.34790 (.0000)	.21851 (.0062)	.29167 (.0007)	.43396 (.0000)	.26603 (.0021)	.33203 (.0002)	.40710 (.0000)	.33997 (.0001)	.43030 (.0000)	.56335 (.0000)	-		
Benefits compared with costs	.33691 (.0001)	.20569 (.0124)	.28442 (.0012)	.30273 (.0004)	.12756 (.0767)	.25586 (.0032)	.36194 (.0000)	.28259 (.0013)	.33386 (.0002)	.35400 (.0001)	.42175 (.0000)	.30396 (.0003)	.20142 (.0170)	.41321 (.0000)	-	
Materiality	.33508 (.0001)	.19836 (.0146)	.29297 (.0008)	.33203 (.0001)	.17883 (.0219)	.27669 (.0015)	.33997 (.0001)	.20691 (.0133)	.20203 (.0151)	.38208 (.0000)	.38330 (.0000)	.32471 (.0001)	.15747 (.0475)	.33752 (.0002)	.46936 (.0000)	-

* Significance levels are presented in parentheses.

- The relationship between conformity and comparability;
- The relationship between completeness and comparability;
- The relationship between comparability and benefits compared with costs;
- The relationship between comparability and materiality.

B For control purpose, there are positive and statistically significant (at .05 level of significance - one tail test) relationships between the different scales measuring the qualitative characteristics of the provided information with the exception of seven relationships which are positive but not statistically significant (seven cases among one hundred and twenty studied cases). These relationships are:
- The relationship between predictive value and simplicity;
- The relationship between predictive value and comparability;
- The relationship between feedback value and comparability;
- the relationship between timeliness and trustworthiness;
- the relationship between necessity and freedom of bias;
- The relationship between necessity and benefits compared with costs;
- The relationship between trustworthiness and comparability.

In summary, the correlation coefficients presented in Tables 9.21 and 9.22 are large enough for the acceptance of the hypothesis of relationships between the different scales measuring the qualitative characteristics of the provided information according to the system. In other words, hypothesis ten is accepted.

9.4.2.2 Analysis of hypothesis eleven

This hypothesis reads as follows:

> "There is a positive relationship between the ranking of relevance of the different financial statements for serving the purposes of national investment planning and control and the ranking of reliability of these statements for serving the same two purposes."

The results of using Kendall's tau-c as a measure of association are presented in two groups of Tables (in the supplement to this chapter):
The first group (Tables from S.9.117 to S.9.122) presents the relationship between the ranking of relevance and the ranking of reliability for serving planning national investment.
The second group (Tables from S.9.123 to S.9.128) presents the relationship for serving controlling national investment.

Table 9.23 presents a comparison of the percentages of agreement among respondents concerning the ranking of relevance and reliability for serving planning and controlling purposes. In addition, the results are summarised in two Tables (from 9.24 to 9.25), extracted from the previous Tables (from S.9.117 to S.9.128). From these Tables, the following results can be noticed:

A The results demonstrated some measures of agreement. It can be seen from Table 9.23 that: 71.9% of the respondents considered the statement of sources and applications of funds as the most relevant and reliable statements for serving both national investment planning and control.
According to the highest percentages of agreement, we can notice that the respondents considered the statements of sources and applications of funds as the most relevant and reliable statement for serving both

TABLE 9.23: Percentages of agreement among respondents concerning ranking of relevance and reliability of the different financial statements for serving planning and controlling purposes.

Financial Statements	Planning and Control	Most relevant and reliable %	Second relev. and reliable %	Third relev. and reliable %	Fourth relev. and reliable %	Fifth relev. and reliable %	Sixth relev. and reliable %
The balance sheet	Planning	18.8	53.1	18.8	-	-	-
	Control	18.8	54.7	14.1	-	-	-
Statement of sources and applications of funds	Planning	71.9	21.9	-	-	-	-
	Control	71.9	18.8	1.6	-	-	-
The current operation account	Planning	-	-	7.8	81.3	6.3	-
	Control	-	-	7.8	78.1	6.3	1.6
The production and trading account	Planning	-	-	-	7.8	73.4	14.1
	Control	-	-	1.6	9.4	67.2	15.6
The profit and loss account	Planning	-	-	1.6	-	15.6	79.7
	Control	-	-	-	-	20.3	76.6
The cash flow statement	Planning	3.1	15.6	62.5	6.3	-	3.1
	Control	1.6	14.1	70.3	6.3	-	3.1

TABLE 9.24: Correlation coefficients of the respondents' views of the ranking of relevance of the different financial statements for serving planning purpose and their views of the ranking of reliability of these statements for the same purpose.

Ranking of reliability / Ranking of relevance	Statement of sources and applications of funds	The balance sheet	The cash flow statement	The current operation account	The production and trading account	The profit and loss account
Statement of sources and applications of funds	.62598 (.0000)					
The balance sheet		.75586 (.0000)				
The cash flow statement			.52429 (.0000)			
The current operation account				.36841 (.0000)		
The production and trading account					.52881 (.0000)	
The profit and loss account						.41895 (.0000)

* Significance levels are presented in parentheses

TABLE 9.25: Correlation coefficients of the respondents' views of the ranking of relevance of the different financial statements for serving control purpose and their views of the ranking of reliability of these statements for the same purpose.

Ranking of reliability / Ranking of relevance	Statement of sources and applications of funds	The balance sheet	The cash flow statement	The current operation account	The production and trading account	The profit and loss account
Statement of sources and applications of funds	.44604 (.0000)					
The balance sheet		.67603 (.0000)				
The cash flow statement			.49622 (.0000)			
The current operation account				.35938 (.0000)		
The production and trading account					.54948 (.0000)	
The profit and loss account						.62207 (.0000)

* Significance levels are presented in parentheses

national investment planning and control, the balance sheet as the second most reliable and relevant statement for both purposes, the cash flow statement as the third most relevant and reliable statement for both purposes, the current operations account as the fourth most relevant and reliable statement for both purposes, the production and trading account as the fifth most relevant and reliable statement for both purposes, and finally the profit and loss account as the sixth statement for both purposes.

B The results demonstrated that there is a positive and statistically significant (at .05 level of significance - one tail test) relationship between the ranking of relevance of the different financial statements for serving the purposes of national investment planning and control and the ranking of reliability of these statements for serving the same two purposes.

In summary, the correlation coefficients presented in the previous Tables are large enough for the acceptance of the hypothesis of a relationship between the two main qualitative characteristics: ranking of relevance and reliability. In other words, hypothesis eleven is accepted.

9.4.2.3 Conclusion

The hypotheses (ten and eleven) discussed in this section resulted in the acceptance of the following:

A Positive relationships rexisting between the different scales measuring the qualitative characteristics of the provided information.

B Positive relationship existing between the two main qualitative characteristics: relevance and reliability.

These results uncover the interrelationships existing between the components of the second structural characteristic.

9.4.3 Hypotheses concerning the interrelationship between measurement criteria

9.4.3.1 Analysis of hypothesis twelve

This hypothesis reads as follows:

> "There is a positive relationship between the respondents' views of the importance of current value accounting information and their monetary value estimates of this information."

The results of using Kendall's tau-c as a measure of association are presented in Table 9.26.

The results in the Table demonstrated that there is a negative and statistically significant (at .05 level of significance - one tail test) relationship between the respondents' views of the importance of current value accounting information and their monetary value estimates of this information. In other words, hypothesis twelve is rejected.

In fact the above results are strange and unexpected. The reason for this comment is that if a respondent evaluated the current value accounting information as relatively more important than others, it is expected that his monetary value estimate of this information would also be evaluated higher than other respondents' estimates. The reasons of contradiction between this logic and the results may be the following:

A Some respondents exaggerated their monetary value estimates of current value accounting information because they considered the higher level of payment to a consultative organisation on a commercial basis especially as most of these consultative organisations are foreign agencies.

TABLE 9.26

CROSSTABULATION OF

IMCVINFO IMPORTANCE OF CURRENT VALUE INFO. BY MACVINFO MONETARY VALUE OF CURRENT VALUE INFO.

IMCVINFO	MACVINFO 0	10000	20000	50000	100000	1000000	2000000	ROW TOTAL
1 VERY IMPORTANT	1 2.6 8.3 1.6	2 5.3 100.0 3.1	1 2.6 16.7 1.6	26 68.4 81.3 40.6	8 21.1 88.9 12.5			38 59.4
2 IMPORTANT	5 29.4 41.7 7.8		4 23.5 66.7 6.3	6 35.3 18.8 9.4	1 5.9 11.1 1.6	1 5.9 100.0 1.6		17 26.6
3 MODERATELY IMPOR	6 85.7 50.0 9.4		1 14.3 16.7 1.6					7 10.9
5 UNIMPORTANT	2 100.0 100.0 3.1							2 3.1
COLUMN TOTAL	2 3.1	12 18.8	2 3.1	6 9.4	32 50.0	9 14.1	1 1.6	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	-0.46680	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

B Some respondents minimised their monetary value estimates of current value accounting information because they suspected that the research is conducted by a consultative organisation which will take the responsibility of collecting and compiling the current value accounting information. Therefore, these respondents tried to offer the minimum amount of money.

C The respondents used different bases for establishing their monetary value estimates of current value accounting information.

Nothing can be done concerning the first and second reason. But we could hold constant the effect of using different bases for establishing monetary value estimates on the relationship between the respondents' views of the importance of current value accounting information and their monetary value estimates of this information. "Statistically, this problem may be attacked by methods of partial correlation. In partial correlation, the effects of variation by a third variable (different bases for establishing the monetary value estimtes) upon the relationship between two variables (importance of current value accounting information and its monetary value) are eliminated" (11).

After eliminating the influence of the third variable (different bases for establishing the monetary value estimates), the results did not change and there is still a negative relationship between the importance and the monetary value of current value accounting information (the correlation coefficient is -0.38272). As mentioned before, these results are strange and unexpected. Therefore, the author is not going to conduct further test on these results. Accordingly, our intention to study the relationship between the monetary value estimates and the bases for establishing them was excluded.

9.4.4 Hypotheses concerning the interrelationships between financial reporting

9.4.4.1 Analysis of hypothesis thirteen

This hypothesis reads as follows:

> "There is a positive relationship between the respondents' satisfaction with the usefulness of the provided information in the statement of sources and applications of funds and their satisfaction of the provided information in Form No 6: the quantitative and financial analysis of the capital applications at the investment project level".

The results of using Kendall's tau-c as a measure of association are presented in Table 9.27. From this Table, we can notice that there is a positive and statistically significant (at .05 level of significance - one tail test) relationship between the respondent's satisfaction with both statements.

The above results lead to the acceptance of the hypothesis of a relationship existing between the two variables. In other words, hypothesis thirteen is accepted.

9.4.4.2 Analysis of hypothesis fourteen

This hypothesis concerns the relationship, if any, which exists between the respondents' satisfaction with the usefulness of the provided information in the statement of sources and applications of funds and their satisfaction with the usefulness of the provided information in Form No 6/A: the time distribution of the costs of capital applications. It reads as follows:

TABLE 9.27: Correlation coefficients of the scales measuring the respondents' satisfaction with the usefulness of the provided information in Form No 6 and the statement of sources and applications of funds.

Form No 6 / Statement of sources and applications of funds	Information to analyse the budgeted cost of each investment project.	Information to explain financial resources of the capital application (local and foreign).	Information to explain methods of payment of each source of financing.
Information to make distinction between capital transfer and capital investment.	.31616 (.0004)	.24780 (.0048)	.20264 (.0159)
Information to make distinction between projects in progress and gross capital formation.	.21035 (.0101)	.30701 (.0006)	.16582 (.0327)
Information to make distinction between internal financing and external financing.	.20508 (.0140)	.34241 (.0002)	.20332 (.0142)
Information to make distinction between local and foreign sources and applications of funds.	.17344 (.0308)	.30457 (.0009)	.16465 (.0371)
Information to explain changes in liquid resources.	.35801 (.0000)	.45959 (.0000)	.28711 (.0000)

* Significance levels are presented in parentheses.

"There is a positive relationship between the respondents' satisfaction with the usefulness of the provided information in the statement of sources and applications of funds and their satisfaction with the provided information in Form 6/A: the time distribution of the costs of capital applications."

The results of using Kendall's tau-c as a measure of association are presented in Table 9.28. From this Table, it can be noted that there is a low positive relationship (the highest correlation coefficient is .24544) between the respondents' satisfaction with the usefulness of the provided information in both statements. On the other hand, six relationships (among the ten studied correlations) are statistically significant (at .05 level of significance - one tail test) but they are not highly significant.

The above results lead to the rejection of the hypothesis of a relationship existing between the respondents' satisfaction with the usefulness of the information provided in both of the statements. In other words, hypothesis fourteen is rejected.

9.4.4.3 Conclusion

The hypotheses (thirteen and fourteen) discussed in this section revealed the gap between the respondents' satisfaction with the usefulness of the provided information in the financial reporting because the first relationship is accepted but the second is rejected.

TABLE 9.28: Correlation coefficients of the scales measuring the respondents' satisfaction with the usefulness of the provided information in Form No 6/A and the statement of sources and applications of funds.

FORM No 6/A / Statement of sources and applications of funds.	Information to explain the estimated time for undertaking the investment projects.	Information to analyse the budgeted and authorised total cost of each investment project.
Information to make distinction between capital transfer and capital investment.	.23372 (.0099)	.20508 (.0156)
Information to make distinction between projects in progress and gross capital formation.	.19727 (0257)	.12329 (.0960)
Information to make distinction between internal financing and external financing	.19857 (.0265)	.08911 (.1803)
Information to make distinction between local and foreign sources and applications of funds.	.13802 (.0881)	.11658 (.1145)
Information to explain changes in liquid resources.	.24544 (.0073)	.17822 (.0308)

* Significance levels are presented in parentheses.

9.4.5 Conclusions and discussion

The main objective of testing this group of hypotheses is to determine the interrelationships which may exist between the components of some of the structural characteristics. The eight hypotheses discussed and analysed in this section resulted in the acceptance of the following:

A Positive interrelationships existing between the components (planning and control) of the first structural characteristic; objectives (hypotheses seven, eight and nine).

B Positive interrelationships existing between the components (the different qualitative characteristics) of the second studied structural characteristic; qualitative characteristics and also interrelationships existing between the two main qualitative characteristics; relevance and reliability (hypotheses ten and eleven).

C Positive interrelationships not existing between the components (the importance of current value accounting information and its monetary value) of the third studied structural characteristic; measurement criteria (hypothesis twelve).

D Positive interrelationships existing between some of the components (statement of sources and applications of funds and Form No 6) of the fourth studied strucutral characteristic: financial reporting (hypothesis thirteen) but not existing between some other components (statement of sources and applications of funds and Form No 6/A) as revealed in hypothesis fourteen.

The results demonstrated that there are six positive and statistically significant interrelationships between the components of objectives (three studied cases), qualitative characteristics (two studied cases), and financial reporting (one studied case). A question which may be asked is: what are the benefits of these existing interrelationships?

The answer to this question is as previously mentioned, these interrelationships will be used in the treatment process (the third process of the suggested model). For instance:

A The interrelationships existing between the components (planning and control) of the first structural characteristic; objectives show that criteria can be developed for the purpose of evaluating the usefulness of the provided information for serving the two purposes at the same time. The building blocks of these criteria are the interrelated qualitative characteristics (hypothesis ten) and the interrelated two main qualitative characteristics; relevance and reliability (hypothesis eleven).

B There is an urgent need to bridge the so-called gap in evaluating the different financial statements which have been introduced by the system to serve the objectives of national investment planning and control. The usefulness of the provided information in the statement of sources and applications of funds was mainly ranged from (neutral) to (slightly successful), in Form No 6 it was mainly ranged from (neutral) to (slightly unsuccessful), and in Form No 6/A it was mainly ranged from (slightly unsuccessful) to (quite unsuccessful). This gap resulted in acceptance of some positive interrelationship (hypothesis thirteen) and in rejection of some other interrelationship (hypothesis fourteen) and it shed some light on the problem of unsuccessful statements such as Form No 6/A. This problem will be considered in treatment process.

The above positive relationships or interrelationships between structural characteristics could happen because of the effect of relating with other factors. Therefore, the author is going to study the effect of the background factors (the third group of hypotheses) in the next section. Those factors which have had effects will be controlled in the last section (the fourth group).

9.5 Analysis of hypotheses: the effects of the background factors:

9.5.1 Analysis of hypothesis fifteen: the effect of qualifications

The respondents have been classified into two main groups: respondents with accounting qualifications and respondents with other qualifications. This hypothesis relates to the influence of the respondents' qualifications on their pattern of reading of the different financial statements and budgets in the annual financial reports. It reads as follows:

> "Respondents with accounting qualifications differ in their pattern of reading of the different financial statements and budgets in the annual financial reports compared with those respondents with other qualifications."

To test for this hypothesis, the Mann-Whitney U test was chosen because the respondents scores on the pattern of reading of the different financial statements and budgets are measured on the ordinal level and there are two independent groups. The results of using this test are presented in two Tables: Table 9.29 presents the results of using the test to examine the statistical significance of the differences

between the two groups in reading the different financial statements. Table 9.30 presents the results of using the test to examine the statistical significance of the differences between the two Groups in reading the different budget statements.

The test results presented in the following Tables show that:

A There are no statistically significant differences between the two groups in reading the following statements;
- the balance sheet;
- the statement of sources and applications of funds;
- the cash flow statement;
- the quantitatve budget;
- the financial budget;
- the cash budget;

(at .05 level of significance - two tail test).

B There are statistically significant differences between the two groups in reading the following statements;
- the current operations account;
- the production and trading account;
- the profit and loss account;

(at .05 level of significance - two tail test).

These results demonstrated that there are no differences between the two groups in reading the most important, influential, reliable, and relevant statements i.e. the statement of sources and applications of funds, the balance sheet, and the cash flow statement. But there are statistically significant differences between the two groups in reading the less important, influential, reliable, and relevant statements i.e. the current operations account, the production and trading account, and the profit and loss account. In other words, respondents with accounting qualifications tend to read thoroughly or briefly all the financial statements and budgets regardless of their degree

TABLE 9.29: Mann-Whitney U test results of examining the statistical significance of the differences in the pattern of reading of the different financial statements according to the qualifications.

```
- - - - - MANN-WHITNEY U - WILCOXON RANK SUM W TEST

   READBASH  READING PATTERN OF THE BALANCE SHEET
 BY QUALIFIC  QUALIFICATIONS

   MEAN RANK     CASES

      32.18        44  QUALIFIC = 1  ACCOUNTING QUALIFIC.
      33.20        20  QUALIFIC = 2  OTHER QUALIFICATIONS
                   --
                   64  TOTAL

                                   CORRECTED FOR TIES
        U            W              Z       2-TAILED P
      426.0        664.0        -0.4362 -    0.6627

- - - - - MANN-WHITNEY U - WILCOXON RANK SUM W TEST

   READSSAF  READING PATTERN OF THE S.S.A.FUNDS
 BY QUALIFIC  QUALIFICATIONS

   MEAN RANK     CASES

      32.50        44  QUALIFIC = 1  ACCOUNTING QUALIFIC.
      32.50        20  QUALIFIC = 2  OTHER QUALIFICATIONS
                   --
                   64  TOTAL

                                   CORRECTED FOR TIES
        U            W              Z       2-TAILED P
      440.0        650.0         0.          1.0000

- - - - - MANN-WHITNEY U - WILCOXON RANK SUM W TEST

   READCOST  READING PATTERN OF THE C.O.ACCOUNT
 BY QUALIFIC  QUALIFICATIONS

   MEAN RANK     CASES

      27.86        44  QUALIFIC = 1  ACCOUNTING QUALIFIC.
      42.70        20  QUALIFIC = 2  OTHER QUALIFICATIONS
                   --
                   64  TOTAL

                                   CORRECTED FOR TIES
        U            W              Z       2-TAILED P
      236.0        854.0        -3.4119      0.0006

- - - - - MANN-WHITNEY U - WILCOXON RANK SUM W TEST

   READPRTR  READING PATTERN OF THE PRODUCT.&TRAD.AC.
 BY QUALIFIC  QUALIFICATIONS

   MEAN RANK     CASES

      27.52        44  QUALIFIC = 1  ACCOUNTING QUALIFIC.
      43.45        20  QUALIFIC = 2  OTHER QUALIFICATIONS
                   --
                   64  TOTAL

                                   CORRECTED FOR TIES
        U            W              Z       2-TAILED P
      221.0        869.0        -3.5582      0.0004

- - - - - MANN-WHITNEY U - WILCOXON RANK SUM W TEST

   READPRLO  READING PATTERN OF THE P.&L.ACCOUNT
 BY QUALIFIC  QUALIFICATIONS

   MEAN RANK     CASES

      27.65        44  QUALIFIC = 1  ACCOUNTING QUALIFIC.
      43.18        20  QUALIFIC = 2  OTHER QUALIFICATIONS
                   --
                   64  TOTAL

                                   CORRECTED FOR TIES
        U            W              Z       2-TAILED P
      226.5        863.5        -3.4523      0.0006

- - - - - MANN-WHITNEY U - WILCOXON RANK SUM W TEST

   READCAST  READING PATTERN OF THE CASH STATEMENT
 BY QUALIFIC  QUALIFICATIONS

   MEAN RANK     CASES

      33.95        44  QUALIFIC = 1  ACCOUNTING QUALIFIC.
      29.30        20  QUALIFIC = 2  OTHER QUALIFICATIONS
                   --
                   64  TOTAL

                                   CORRECTED FOR TIES
        U            W              Z       2-TAILED P
      376.0        586.0        -1.2358      0.2165
```

TABLE 9.30: Mann-Whitney U test results of examining the statistical significance of the differences in the pattern of reading of the different budget statements according to the qualifications.

```
- - - - - MANN-WHITNEY U - WILCOXON RANK SUM W TEST

    READQUDU  READIHG PATTERN OF THE QUANT. BUDGET
BY QUALIFIC   QUALIFICATIONS

    MEAN RANK     CASES

        31.48        44  QUALIFIC = 1  ACCOUNTING QUALIFIC.
        34.75        20  QUALIFIC = 2  OTHER QUALIFICATIONS
                     --
                     64  TOTAL

                                        CORRECTED FOR TIES
          U              W                Z       2-TAILED P
        395.0          695.0          -0.7276      0.4669

- - - - - MANN-WHITNEY U - WILCOXON RANK SUM W TEST

    READFIBU  READING PATTERN OF THE FINANCIAL BUDGET
BY QUALIFIC   QUALIFICATIONS

    MEAN RANK     CASES

        30.69        44  QUALIFIC = 1  ACCOUNTING QUALIFIC.
        36.47        20  QUALIFIC = 2  OTHER QUALIFICATIONS
                     --
                     64  TOTAL

                                        CORRECTED FOR TIES
          U              W                Z       2-TAILED P
        360.5          729.5          -1.4061      0.1597

- - - - - MANN-WHITNEY U - WILCOXON RANK SUM W TEST

    READCABU  READING PATTERN OF THE CASH BUDGET
BY QUALIFIC   QUALIFICATIONS

    MEAN RANK     CASES

        33.09        44  QUALIFIC = 1  ACCOUNTING QUALIFIC.
        31.20        20  QUALIFIC = 2  OTHER QUALIFICATIONS
                     --
                     64  TOTAL

                                        CORRECTED FOR TIES
          U              W                Z       2-TAILED P
        414.0          624.0          -0.6254      0.5317
```

of importance, influence, relevance, and reliability. Meanwhile, those with other qualifications tend to read thoroughly or briefly the most important, influential, relevant, and reliable statements.

The above results support the hypothesis that there are differences in the pattern of reading according to the respondents' qualifications. In other words, hypothesis fifteen is accepted. But this result needs further investigation, for instance, by controlling the effect of this factor on some of the previous studied relationships. This analysis will be conducted later.

9.5.2 Analysis of hypothesis sixteen: the effect of managerial position

The respondents have been classified into two main groups: respondents who had more than fifteen years of work experience (top or upper levels of management) and respondents who had from five to fifteen years of work experience (middle or lower levels of management). This hypothesis concerns the effect, if any, of the respondents' managerial position in the Bank on their pattern of reading of the different financial statements and budgets in the annual financial reports. It reads as follows:

> "Respondents at upper levels of management differ in their pattern of reading of the different financial statements and budgets in the annual financial reports compared with those respondents at lower levels."

To test for this hypothesis, the Mann-Whitney U test was chosen because there are two independent groups and their scores on the pattern of reading are measured on the ordinal level. The results of using this test are presented in two Tables:

Table 9.31 presents the results of using the test to examine the statistical significance of the differences between the two groups in reading the different financial statements; Table 9.32 presents the results of using the test to examine the statistical significance of the differences between the two groups in reading the different budget statements.

The test results presented in the following Tables show that there are no statistically significant differences between the two groups in reading the different financial statements and budgets (at .05 level of significance - two tail test).

The above results do not support the hypothesis that there are differences in the pattern of reading of the different financial statements and budgets according to the respondents' managerial position. In other words, hypothesis sixteen is rejected.

9.5.3 Analysis of hypothesis seventeen: the effect of studying the system

The studying of the system has been categorised into four groups: undergraduate, postgraduate, training programmes, and others. This hypothesis relates to the effect, if any, of the respondents' categories (type of used courses)of studying the system on their pattern of reading of the different financial statements and budgets in the annual financial reports. It reads as follows:

> "Respondents in the different categories of studying the system differ in their pattern of reading of the different financial statements and budgets in the annual financial reports."

TABLE 9.31: Mann-Whitney U test results of examining the statistical significance of the differences in the pattern of reading of the different financial statements according to the management position.

```
- - - - - MANN-WHITNEY U - WILCOXON RANK SUM W TEST

   READBASH  READING PATTERN OF THE BALANCE SHEET
 BY POSITION

   MEAN RANK     CASES

      33.76        17  POSITION = 1  TOP MANAGMENT
      32.04        47  POSITION = 2  MIDDLE MANAGMENT
                   --
                   64  TOTAL

                                   CORRECTED FOR TIES
        U            W              Z       2-TAILED P
      378.0        574.0        -0.7030       0.4821

- - - - - MANN-WHITNEY U - WILCOXON RANK SUM W TEST

   READSSAF  READING PATTERN OF THE S.S.A.FUNDS
 BY POSITION

   MEAN RANK     CASES

      32.50        17  POSITION = 1  TOP MANAGMENT
      32.50        47  POSITION = 2  MIDDLE MANAGMENT
                   --
                   64  TOTAL

                                   CORRECTED FOR TIES
        U            W              Z       2-TAILED P
      399.5        552.5         0.           1.0000

- - - - - MANN-WHITNEY U - WILCOXON RANK SUM W TEST

   READCOST  READING PATTERN OF THE C.O.ACCOUNT
 BY POSITION

   MEAN RANK     CASES

      30.38        17  POSITION = 1  TOP MANAGMENT
      33.27        47  POSITION = 2  MIDDLE MANAGMENT
                   --
                   64  TOTAL

                                   CORRECTED FOR TIES
        U            W              Z       2-TAILED P
      363.5        516.5        -0.6319       0.5275
```

```
- - - - - MANN-WHITNEY U - WILCOXON RANK SUM W TEST

   READPRTR  READING PATTERN OF THE PRODUCT.&TRAD.AC.
 BY POSITION

   MEAN RANK     CASES

      34.09        17  POSITION = 1  TOP MANAGMENT
      31.93        47  POSITION = 2  MIDDLE MANAGMENT
                   --
                   64  TOTAL

                                   CORRECTED FOR TIES
        U            W              Z       2-TAILED P
      372.5        579.5        -0.4604       0.5452

- - - - - MANN-WHITNEY U - WILCOXON RANK SUM W TEST

   READPRLO  READING PATTERN OF THE P.&L.ACCOUNT
 BY POSITION

   MEAN RANK     CASES

      37.44        17  POSITION = 1  TOP MANAGMENT
      30.71        47  POSITION = 2  MIDDLE MANAGMENT
                   --
                   64  TOTAL

                                   CORRECTED FOR TIES
        U            W              Z       2-TAILED P
      315.5        636.5        -1.4255       0.1540

- - - - - MANN-WHITNEY U - WILCOXON RANK SUM W TEST

   READCAST  READING PATTERN OF THE CASH STATEMENT
 BY POSITION

   MEAN RANK     CASES

      30.15        17  POSITION = 1  TOP MANAGMENT
      33.35        47  POSITION = 2  MIDDLE MANAGMENT
                   --
                   64  TOTAL

                                   CORRECTED FOR TIES
        U            W              Z       2-TAILED P
      359.5        512.5        -0.8106       0.4176
```

TABLE 9.32: Mann-Whitney U test results of examining the statistical significance of the differences in the pattern of reading of the budget statements according to the management position.

MANN-WHITNEY U - WILCOXON RANK SUM W TEST

READQUBU READIHG PATTERN OF THE QUANT. BUDGET
BY POSITION

MEAN RANK	CASES	
32.68	17	POSITION = 1 TOP MANAGMENT
32.44	47	POSITION = 2 MIDDLE MANAGMENT
	64	TOTAL

U	W	CORRECTED FOR TIES Z	2-TAILED P
396.5	555.5	-0.0509	0.9594

MANN-WHITNEY U - WILCOXON RANK SUM W TEST

READFIBU READING PATTERN OF THE FINANCIAL BUDGET
BY POSITION

MEAN RANK	CASES	
31.12	17	POSITION = 1 TOP MANAGMENT
33.00	47	POSITION = 2 MIDDLE MANAGMENT
	64	TOTAL

U	W	CORRECTED FOR TIES Z	2-TAILED P
376.0	529.0	-0.4362	0.6627

MANN-WHITNEY U - WILCOXON RANK SUM W TEST

READCABU READING PATTERN OF THE CASH BUDGET
BY POSITION

MEAN RANK	CASES	
33.65	17	POSITION = 1 TOP MANAGMENT
32.09	47	POSITION = 2 MIDDLE MANAGMENT
	64	TOTAL

U	W	CORRECTED FOR TIES Z	2-TAILED P
380.0	572.0	-0.4922	0.6226

The Kruskal-Wallis one-way analysis of variance by ranks will be used for testing the significance of the differences among the four categories of studying the system. This test was chosen because the respondents' scores on the pattern of reading are measured on the ordinal level and there are four independent groups (more than two).

The results of using this test are presented in two Tables: Table 9.33 presents the results of using the test to examine the statistical significance of the differences among the four groups in reading the different financial statements. Table 9.34 presents the results of using the test to examine the statistical significance of the differences among the four groups in reading the different budget statements.

The figures presented in the Tables reveal the following:

A There are no statistically significant differences (at .05 level of significance - two tail test) among the four groups in reading the following statements:
- the balance sheet;
- the statement of sources and applications of funds;
- the cash flow statement;
- the quantitative budget;
- the financial budget;
- the cash budget.

B There are statistically significant differences (at .05 level of significance - two tail test) among the four groups in reading the following statements:
- the current operations account;
- the production and trading account;
- the profit and loss account.

These results demonstrated that there are no significant differences among the four groups in reading the most important, influential, reliable, and relevant statements i.e. the statement of sources and applications of funds, the balance sheet, and the cash flow statement. But there are

TABLE 9.33: Kruskal-Wallis test results of examining the statistical significance of the differences in the pattern of reading financial statements according to categories of studying the system

KRUSKAL-WALLIS 1-WAY ANOVA

READBASH READING PATTERN OF THE BALANCE SHEET
BY CATSTUDY CATEGORIES OF STUDING THE UN.ACC.SYSTEM

MEAN RANK	CASES		
30.00	31	CATSTUDY = 1	UNDERGRADUATE
30.00	4	CATSTUDY = 2	POSTGRADUATE
34.57	7	CATSTUDY = 3	TRAINING PROGRAMS
35.82	22	CATSTUDY = 4	OTHERS
	64	TOTAL	

CASES	CHI-SQUARE	SIGNIFICANCE	CORRECTED FOR TIES CHI-SQUARE	CORRECTED FOR TIES SIGNIFICANCE
64	1.4164	0.7017	5.5538	0.0875

KRUSKAL-WALLIS 1-WAY ANOVA

READPRTR READING PATTERN OF THE PRODUCT.&TRAD.AC.
BY CATSTUDY CATEGORIES OF STUDING THE UN.ACC.SYSTEM

MEAN RANK	CASES		
26.21	31	CATSTUDY = 1	UNDERGRADUATE
25.75	4	CATSTUDY = 2	POSTGRADUATE
30.79	7	CATSTUDY = 3	TRAINING PROGRAMS
43.14	22	CATSTUDY = 4	OTHERS
	64	TOTAL	

CASES	CHI-SQUARE	SIGNIFICANCE	CORRECTED FOR TIES CHI-SQUARE	CORRECTED FOR TIES SIGNIFICANCE
64	11.3029	0.0102	14.2227	0.0026

KRUSKAL-WALLIS 1-WAY ANOVA

READSSAF READING PATTERN OF THE S.S.A.FUNDS
BY CATSTUDY CATEGORIES OF STUDING THE UN.ACC.SYSTEM

MEAN RANK	CASES		
32.50	31	CATSTUDY = 1	UNDERGRADUATE
32.50	4	CATSTUDY = 2	POSTGRADUATE
32.50	7	CATSTUDY = 3	TRAINING PROGRAMS
32.50	22	CATSTUDY = 4	OTHERS
	64	TOTAL	

CASES	CHI-SQUARE	SIGNIFICANCE	CORRECTED FOR TIES CHI-SQUARE	CORRECTED FOR TIES SIGNIFICANCE
64	0.	1.0000	0.	1.0000

KRUSKAL-WALLIS 1-WAY ANOVA

READPRLO READING PATTERN OF THE P.&L.ACCOUNT
BY CATSTUDY CATEGORIES OF STUDING THE UN.ACC.SYSTEM

MEAN RANK	CASES		
25.92	31	CATSTUDY = 1	UNDERGRADUATE
29.25	4	CATSTUDY = 2	POSTGRADUATE
29.71	7	CATSTUDY = 3	TRAINING PROGRAMS
43.25	22	CATSTUDY = 4	OTHERS
	64	TOTAL	

CASES	CHI-SQUARE	SIGNIFICANCE	CORRECTED FOR TIES CHI-SQUARE	CORRECTED FOR TIES SIGNIFICANCE
64	11.4848	0.0094	14.3142	0.0025

KRUSKAL-WALLIS 1-WAY ANOVA

READCOST READING PATTERN OF THE C.O.ACCOUNT
BY CATSTUDY CATEGORIES OF STUDING THE UN.ACC.SYSTEM

MEAN RANK	CASES		
26.98	31	CATSTUDY = 1	UNDERGRADUATE
19.00	4	CATSTUDY = 2	POSTGRADUATE
37.21	7	CATSTUDY = 3	TRAINING PROGRAMS
41.23	22	CATSTUDY = 4	OTHERS
	64	TOTAL	

CASES	CHI-SQUARE	SIGNIFICANCE	CORRECTED FOR TIES CHI-SQUARE	CORRECTED FOR TIES SIGNIFICANCE
64	10.1062	0.0177	13.4749	0.0037

KRUSKAL-WALLIS 1-WAY ANOVA

READCAST READING PATTERN OF THE CASH STATEMENT
BY CATSTUDY CATEGORIES OF STUDING THE UN.ACC.SYSTEM

MEAN RANK	CASES		
35.85	31	CATSTUDY = 1	UNDERGRADUATE
24.50	4	CATSTUDY = 2	POSTGRADUATE
29.07	7	CATSTUDY = 3	TRAINING PROGRAMS
30.32	22	CATSTUDY = 4	OTHERS
	64	TOTAL	

CASES	CHI-SQUARE	SIGNIFICANCE	CORRECTED FOR TIES CHI-SQUARE	CORRECTED FOR TIES SIGNIFICANCE
64	2.2844	0.5155	4.0601	0.2550

TABLE 9.34: Kruskal-Wallis test results of examining the statistical significance of the differences in the pattern of reading of the budget statements according to the categories of studying the system

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- - - - - KRUSKAL-WALLIS 1-WAY ANOVA

    READQUBU  READIHG PATTERN OF THE QUANT. BUDGET
  BY CATSTUDY  CATEGORIES OF STUDING THE UN.ACC.SYSTEM


    MEAN RANK     CASES

        30.90        31    CATSTUDY = 1    UNDERGRADUATE
        35.50         4    CATSTUDY = 2    POSTGRADUATE
        25.64         7    CATSTUDY = 3    TRAINING PROGRAMS
        36.39        22    CATSTUDY = 4    OTHERS
                     --
                     64    TOTAL

                                                   CORRECTED FOR TIES
        CASES    CHI-SQUARE  SIGNIFICANCE    CHI-SQUARE  SIGNIFICANCE
           64       2.2398        0.5241       2.7909        0.4250

- - - - - KRUSKAL-WALLIS 1-WAY ANOVA

    READFIBU  READING PATTERN OF THE FINANCIAL BUDGET
  BY CATSTUDY  CATEGORIES OF STUDING THE UN.ACC.SYSTEM


    MEAN RANK     CASES

        31.34        31    CATSTUDY = 1    UNDERGRADJATE
        37.50         4    CATSTUDY = 2    POSTGRADUATE
        26.43         7    CATSTUDY = 3    TRAINING PROGRAMS
        35.16        22    CATSTUDY = 4    OTHERS
                     --
                     64    TOTAL

                                                   CORRECTED FOR TIES
        CASES    CHI-SQUARE  SIGNIFICANCE    CHI-SQUARE  SIGNIFICANCE
           64       1.6021        0.6589       2.3888        0.4957

- - - - - KRUSKAL-WALLIS 1-WAY ANOVA

    READCABU  READING PATTERN OF THE CASH BUDGET
  BY CATSTUDY  CATEGORIES OF STUDING THE UN.ACC.SYSTEM


    MEAN RANK     CASES

        33.16        31    CATSTUDY = 1    UNDERGRADUATE
        36.00         4    CATSTUDY = 2    POSTGRADUATE
        28.00         7    CATSTUDY = 3    TRAINING PROGRAMS
        32.36        22    CATSTUDY = 4    OTHERS
                     --
                     64    TOTAL

                                                   CORRECTED FOR TIES
        CASES    CHI-SQUARE  SIGNIFICANCE    CHI-SQUARE  SIGNIFICANCE
           64       0.5905        0.8986       1.6284        0.6530
```

statistically significant differences among the four groups in reading the less important, influential, reliable, and relevant statements i.e. the current operations account, the production and trading account, and the profit and loss account.

The above results support the hypothesis that there are differences in the pattern of reading according to the respondents' categories of studying the system. In other words, hypothsis seventeen is accepted. But this result needs further investigation, for instance, by controlling the effect of this factor on some of the previous studied relationships. This analysis will be conducted later.

9.5.4 Analysis of hypothesis eighteen: the effect of working sectors

The respondents' working sectors in the National Investment Bank are the programmes and policies sector, the financial sector, the industrial sector, the agricultural sector, and the economic organisations sector. This hypothesis relates to the effect , if any, of the respondents' working sectors on their pattern of reading of the different financial statements and budgets in the annual financial reports. It reads as follows:

> "Respondents in the different sectors of the National Investment Bank differ in their pattern of reading of the different financial statements and budgets in the annual financial reports."

Since the respondents' scores on the pattern of reading are measured on the ordinal level and since there are five independent groups (more than two), the Kruskal-Wallis one-way analysis of variance by ranks has been used for testing the significance of the differences among the five groups.

The results of using this test are presented in two Tables: Table 9.35 presents the results of using the test to examine the statistical significance of the differences among the five groups in reading the different financial statements.

Table 9.36 presents the results of using the test to examine the statistical significance of the differences among the five groups in reading the different budget statements.

The test results presented in the Tables show that there are no statistically significant differences among the five groups in reading the different financial statements and budgets (at .05 level of significance - two tail test).

The above results do not support the hypothesis that there are differences in the pattern of reading of the different financial statements and budgets according to the respondents' working sectors in the National Investment Bank. In other words, hypothesis eighteen is rejected.

9.5.5 Conclusions and discussion

The main objective of testing this group of hypotheses is to study the effects, if any, of the different background factors on the respondents' pattern of reading of the different financial statements and budgets. The four hypotheses discussed and analysed in this sector resulted in the acceptance of the following:

A It was found that, when Mann-Whitney U test was used to examine the statistical significance of the differences between the two groups of respondents (respondents with accounting qualifications and respondents with other qualifications), differences in respondents' qualifications are significant at levels which suggest that qualifications have something to do with differences in the pattern of reading of financial statements and budgets. Therefore, it was decided to

TABLE 9.35: Kruskal-Wallis test results of examining the statistical significance of the differences in the pattern of reading of the financial statements according to the working sector in the bank.

KRUSKAL-WALLIS 1-WAY ANOVA

READBASH READING PATTERN OF THE BALANCE SHEET
BY SECTOR

MEAN RANK	CASES		
34.17	23	SECTOR = 1	PROGRAMS&POLICIES S.
30.00	8	SECTOR = 2	FINANCIAL SECTOR
37.11	9	SECTOR = 3	INDUSTIAL SECTOR
30.00	14	SECTOR = 4	AGRICULTURAL SECTOR
30.00	10	SECTOR = 5	ECONOMIC ORGAN. S.
	64	TOTAL	

CASES	CHI-SQUARE	SIGNIFICANCE	CORRECTED FOR TIES CHI-SQUARE	SIGNIFICANCE
64	1.3148	0.8589	6.0839	0.1930

KRUSKAL-WALLIS 1-WAY ANOVA

READSSAF READING PATTERN OF THE S.S.A. FUNDS
BY SECTOR

MEAN RANK	CASES		
32.50	23	SECTOR = 1	PROGRAMS&POLICIES S.
32.50	8	SECTOR = 2	FINANCIAL SECTOR
32.50	9	SECTOR = 3	INDUSTIAL SECTOR
32.50	14	SECTOR = 4	AGRICULTURAL SECTOR
32.50	10	SECTOR = 5	ECONOMIC ORGAN. S.
	64	TOTAL	

CASES	CHI-SQUARE	SIGNIFICANCE	CORRECTED FOR TIES CHI-SQUARE	SIGNIFICANCE
64	0.	1.0000	0.	1.0000

KRUSKAL-WALLIS 1-WAY ANOVA

READCOST READING PATTERN OF THE C.O. ACCOUNT
BY SECTOR

MEAN RANK	CASES		
27.67	23	SECTOR = 1	PROGRAMS&POLICIES S.
34.00	8	SECTOR = 2	FINANCIAL SECTOR
34.83	9	SECTOR = 3	INDUSTIAL SECTOR
32.93	14	SECTOR = 4	AGRICULTURAL SECTOR
39.70	10	SECTOR = 5	ECONOMIC ORGAN. S.
	64	TOTAL	

CASES	CHI-SQUARE	SIGNIFICANCE	CORRECTED FOR TIES CHI-SQUARE	SIGNIFICANCE
64	3.2413	0.5183	4.3218	0.3642

KRUSKAL-WALLIS 1-WAY ANOVA

READPRTR READING PATTERN OF THE PRODUCT.&TRAD.AC.
BY SECTOR

MEAN RANK	CASES		
25.39	23	SECTOR = 1	PROGRAMS&POLICIES S.
32.88	8	SECTOR = 2	FINANCIAL SECTOR
36.00	9	SECTOR = 3	INDUSTIAL SECTOR
35.93	14	SECTOR = 4	AGRICULTURAL SECTOR
40.60	10	SECTOR = 5	ECONOMIC ORGAN. S.
	64	TOTAL	

CASES	CHI-SQUARE	SIGNIFICANCE	CORRECTED FOR TIES CHI-SQUARE	SIGNIFICANCE
64	6.0413	0.1961	7.6019	0.1073

KRUSKAL-WALLIS 1-WAY ANOVA

READPRLO READING PATTERN OF THE P.&L. ACCOUNT
BY SECTOR

MEAN RANK	CASES		
27.11	23	SECTOR = 1	PROGRAMS&POLICIES S.
29.25	8	SECTOR = 2	FINANCIAL SECTOR
36.17	9	SECTOR = 3	INDUSTIAL SECTOR
37.62	14	SECTOR = 4	AGRICULTURAL SECTOR
36.95	10	SECTOR = 5	ECONOMIC ORGAN. S.
	64	TOTAL	

CASES	CHI-SQUARE	SIGNIFICANCE	CORRECTED FOR TIES CHI-SQUARE	SIGNIFICANCE
64	4.1755	0.3828	5.2041	0.2670

KRUSKAL-WALLIS 1-WAY ANOVA

READCAST READING PATTERN OF THE CASH STATEMENT
BY SECTOR

MEAN RANK	CASES		
31.46	23	SECTOR = 1	PROGRAMS&POLICIES S.
36.50	8	SECTOR = 2	FINANCIAL SECTOR
35.17	9	SECTOR = 3	INDUSTIAL SECTOR
33.64	14	SECTOR = 4	AGRICULTURAL SECTOR
27.70	10	SECTOR = 5	ECONOMIC ORGAN. S.
	64	TOTAL	

CASES	CHI-SQUARE	SIGNIFICANCE	CORRECTED FOR TIES CHI-SQUARE	SIGNIFICANCE
64	1.3434	0.8540	2.3878	0.5645

TABLE 9.36: Kruskal-Wallis test results of examining the statistical significance of the differences in the pattern of reading the budget statements according to the working sector.

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- - - - - KRUSKAL-WALLIS 1-WAY ANOVA

    READQUBU  READIHG PATTERN OF THE QUANT. BUDGET
  BY SECTOR


    MEAN RANK     CASES

      36.22         23    SECTOR = 1    PROGRAMS&POLICIES S.
      35.31          8    SECTOR = 2    FINANCIAL SECTOR
      28.67          9    SECTOR = 3    INDUSTIAL SECTOR
      29.82         14    SECTOR = 4    AGRICULTURAL SECTOR
      28.90         10    SECTOR = 5    ECONOMIC ORGAN. S.
                    --
                    64    TOTAL

                                                  CORRECTED FOR TIES
      CASES     CHI-SQUARE  SIGNIFICANCE     CHI-SQUARE  SIGNIFICANCE
        64        2.1445        0.7092         2.6721        0.6141

- - - - - KRUSKAL-WALLIS 1-WAY ANOVA

    READFIBU  READING PATTERN OF THE FINANCIAL BUDGET
  BY SECTOR


    MEAN RANK     CASES

      35.04         23    SECTOR = 1    PROGRAMS&POLICIES S.
      37.50          8    SECTOR = 2    FINANCIAL SECTOR
      28.89          9    SECTOR = 3    INDUSTIAL SECTOR
      30.86         14    SECTOR = 4    AGRICULTURAL SECTOR
      28.20         10    SECTOR = 5    ECONOMIC ORGAN. S.
                    --
                    64    TOTAL

                                                  CORRECTED FOR TIES
      CASES     CHI-SQUARE  SIGNIFICANCE     CHI-SQUARE  SIGNIFICANCE
        64        1.9870        0.7381         2.9628        0.5641

- - - - - KRUSKAL-WALLIS 1-WAY ANOVA

    READCABU  READING PATTERN OF THE CASH BUDGET
  BY SECTOR


    MEAN RANK     CASES

      30.78         23    SECTOR = 1    PROGRAMS&POLICIES S.
      36.00          8    SECTOR = 2    FINANCIAL SECTOR
      35.11          9    SECTOR = 3    INDUSTIAL SECTOR
      32.57         14    SECTOR = 4    AGRICULTURAL SECTOR
      31.20         10    SECTOR = 5    ECONOMIC ORGAN. S.
                    --
                    64    TOTAL

                                                  CORRECTED FOR TIES
      CASES     CHI-SQUARE  SIGNIFICANCE     CHI-SQUARE  SIGNIFICANCE
        64        0.7043        0.9508         1.9423        0.7464
```

conduct a further analysis of this result by controlling the effect of this factor on some of the previous studied relationships.

B It was found that, when the Mann-Whitney U test was applied to examine the statistical significance of the differences between the two groups of respondents (top or upper levels of management and middle or lower levels of management), differences in managerial position are not significant and they have little to do with differences in the pattern of reading of financial statements and budgets. Accordingly, it was decided not to pursue any further the issue of differences according to managerial position.

C It was found that, when the Kruskall-Wallis one-way analysis of variance by ranks was used to examine the statistical significance of the differences among the four respondents' categories (type of used courses) of studying the Egyptian unified accounting system (undergraduate, postgraduate, training programmes, and others), differences in respondents' categories of studying the system are significant at levels which suggest that they have something to do with differences in the pattern of reading of financial statements and budgets. Therefore, it was decided to conduct a further analysis of this result by controlling the effect of this factor on some of the previous studied relationships.

D It was found that, when the Kruskall-Wallis one-way analysis of variance by ranks was used to examine the statistical significance of the differences among the five groups of respondents according to their working sectors in the Bank, differences according to working sectors are not significant and they have little to do with differences in the pattern of reading of financial statements and budgets. Accordingly, it was decided not to pursue any further the issue of differences according to working sectors in the Bank.

In summary, the author is going to control for the effects of respondents' qualifications and respondents' studying of the system on some of the previous studied relationships (partial correlations) because the existing relationships may be merely incidental to the fact that the two related variables are correlated with one of these two factors.

9.6 Analysis of hypotheses: controlling for the effects of some background factors

9.6.1 Analysis of hypothesis nineteen: controlling for the effect of respondents' qualifications

This hypothesis concerns controlling for the effect, if any, of the respondents' qualifications on the relationship which exists (hypothesis one) between the respondents' satsifaction with the objectives - planning and control purposes - and their views of the qualitative characteristics of the provided information according to the system. It reads as follows:

> "The respondents' qualifications affect the relationship between the respondents' satisfaction with the objectives; planning and controlling purposes and their views of the qualitiative characteristics of the provided information according to the system."

We could partial out the effect of the respondents' qualifications by calculating the Kendall Partial Rank Correlation Coefficient between Planinfo (provide information for planning national investment) or Continfo (provide information for controlling national investment) and the respondents' evaluation of the qualitative characteristics of the provided information when hold constant the effect of

respondents' qualifications. To use this method of partial correlation, we must have data which is measured in at least an ordinal scale and our data is measured at this scale. The results are summarised in two Tables:

Table 9.37 presents the relationship which exists between the respondents' satisfaction with the planning objectives and their views of the qualitative characteristics of the provided information when holding constant (controlling for) effect of respondents' qualifications.
Table 9.38 presents the relationship which exists between the respondents' satisfaction with control objectives and their views of the qualitative characteristics of the provided information when holding constant (controlling for) the effect of respondents' qualifications.

Kendall and Stuart developed a good criterion for explaining partial correlations. "If we find that holding another variable fixed (in our case, the respondents' qualifications) reduces the correlation between two variables (in our case, Planinfo or Continfo and the evaluation of the qualitative characteristics), we infer that their interdependence arises in part through the agency of that other variable; and, if the partial correlation is zero or very small, we infer that their interdependence is entirely attributable to that agency. Conversely, if the partial correlation is larger than the original correlation between the variables we infer that the other variable was obscuring the stronger connection or, as we may say, "masking" the correlation" (12).

In order to follow this criterion, we must compare the original correlations (the first column in the Tables) with the partial correlations (the second and the third columns in the Tables). Therefore, we shall assign a+ to express the increase in the correlations and a- to express the decrease in the correlations. The figures in the Tables reveal the following:

TABLE 9.37: Correlation coefficients of the relationship between Planinfo and the qualitative characteristics of the provided information before and after controlling for the effect of qualifications.

Correlation between Planinfo "provide information for planning national investment" and the qualitative characteristics of the provided information:	Before controlling for the effect of Qualifications (original C.)		After controlling for the effect of Qualifications (Partial C.):			
			Accounting Qualifications		Other Qualifications	
	Correlation C.	Significance L.	Correlation C.	Change in C.C.	Correlation C.	Change in C.C.
Relevance	.57747	(.0000)	.47727 (.0001)	-	.77333 (.0000)	+
Predictive value	.45768	(.0000)	.44628 (.0001)	-	.52667 (.0014)	+
Feedback value	.51302	(.0000)	.45713 (.0001)	-	.62667 (.0003)	+
Timeliness	.38216	(.0000)	.23554 (.0238)	-	.63333 (.0003)	+
Necessity	.18229	(.0299)	.05424 (.3364)	-	.43333 (.0069)	+
Simplicity	.28451	(.0011)	.23089 (.0209)	-	.34667 (.0320)	+
Reliability	.53646	(.0000)	.42459 (.0004)	-	.76667 (.0000)	+
Trustworthiness	.42839	(.0000)	.39824 (.0011)	-	.54000 (.0019)	+
Accuracy	.35677	(.0001)	.33161 (.0048)	-	.42667 (.0102)	+
Conformity	.44271	(.0000)	.34711 (.0039)	-	.66000 (.0002)	+
Completeness	.48958	(.0000)	.38275 (.0018)	-	.74000 (.0000)	+
Freedom of bias	.30534	(.0005)	.18905 (.0556)	-	.52667 (.0021)	+
Comparability	.21094	(.0153)	.30217 (.0097)	+	.10000 (.2931)	-
Consistency	.36068	(.0001)	.29442 (.0110)	-	.50000 (.0041)	+
Benefits compared with costs	.27474	(.0027)	.05269 (.3462)	-	.64000 (.0003)	+
Materiality	.29883	(.0012)	.11312 (.1894)	-	.64667 (.0002)	+

* Significance levels are presented in parentheses.

TABLE 9.38: Correlation coefficients of the relationship between Continfo and the qualitative characteristics of the provided information before and after controlling for the effect of qualification.

Correlation between Continfo "provide information for controlling national investment" and the qualitative characteristics of the provided information:	Before controlling for the effect of qualifications (original C.)		After controlling for the effect of Qualifications (Partial C.):			
			Accounting Qualifications		Other Qualifications	
	Correlation C.	Significance	Correlation C.	Change in C.C.	Correlation C.	Change in C.C.
Relevance	.58716	(.0000)	.53926 (.0000)	-	.81250 (.0000)	+
Predictive value	.43396	(.0000)	.34986 (.0009)	-	.61250 (.0002)	+
Feedback value	.55664	(.0000)	.51102 (.0000)	-	.69333 (.0001)	+
Timeliness	.33936	(.0001)	.25568 (.0172)	-	.51875 (.0014)	+
Necessity	.23254	(.0039)	.12948 (.1170)	-	.40000 (.0082)	+
Simplicity	.25716	(.0025)	.21212 (.0169)	-	.24000 (.0973)	+
Reliability	.53955	(.0000)	.50052 (.0000)	-	.71875 (.0000)	+
Trustworthiness	.32715	(.0002)	.23416 (.0184)	-	.50667 (.0027)	+
Accuracy	.32166	(.0002)	.22950 (.0197)	-	.52000 (.0021)	+
Conformity	.42969	(.0000)	.36639 (.0006)	-	.56250 (.0005)	+
Completeness	.50958	(.0000)	.42011 (.0001)	-	.71250	+
Freedom of bias	.30151	(.0002)	.20248 (.0246)	-	.48125	+
Comparability	.17822	(.0276)	.15840 (.0862)	-	.25625 (.0739)	+
Consistency	.32953	(.0002)	.25758 (.0110)	-	.46875 (.0043)	+
Benefits compared with costs	.33325	(.0002)	.21350 (.0350)	-	.58000 (.0011)	+
Materiality	.24536	(.0043)	.10648 (.1838)	-	.50667 (.0031)	+

* Significance levels are presented in parentheses.

A When the effect of accounting qualifications was partialled out, the correlations between Planinfo (provide information for planning national investment) and the respondents' views of the qualitative characteristics of the provided information were reduced in all cases with the exception of one case. Therefore, we could infer that the relationship between Planinfo and the evaluation of the qualitative characteristics arises, in part, through the effect of accounting qualifications (Table 9.37).

B When the effect of other qualifications was partialled out, the correlations between Planinfo and the respondents' views of the qualitative characteristics of the provided information were clearly increased in all cases, with the exception of one case. Therefore, we could infer that the effect of other qualifications was obscuring the stronger connection between Planinfo and the evaluation of the qualitative characteristics (Table 9.37).

C When the effect of accounting qualifications was partialled out, the correlations between Continfo (provide information for controlling national investment) and the respondents' views of the qualitative characteristics of the provided information were reduced in all cases. Therefore, we could infer that the relationship between Continfo and the evaluation of the qualitative characteristics arises in part through the effect of accounting qualifications (Table 9.38).

D When the effect of other qualifications was partialled out, the correlations between Continfo and the respondents' views of the qualitative characteristics of the provided information were clearly increased in all cases. Therefore, we could infer that the effect of

the other qualifications was obscuring the stronger connection between Continfo and the evaluation of the qualitative characteristics (Table 9.38).

The above results support the hypothesis that the respondents' qualifications affect the relationship between their satisfaction with the objectives and the qualitative characteristics. In other words, hypothesis nineteen is accepted.

9.6.2 Analysis of hypothesis twenty: controlling for the effect of studying the system

This hypothesis concerns controlling for the effect, if any, of the respondents' categories (type of used courses) of studying the Egyptian unified accounting system on the relationship which exists (hypothesis one) between the respondents' satisfaction with the objectives; planning and control purposes and their views of the qualitative characteristics of the provided information according to the system. It reads as follows:

> "The respondents' categories of studying the Egyptian unified accounting system affect the relationship existing between the respondents' satisfaction with the objectives; planning and controlling purposes and their views of the qualitative characteristics of the provided information according to the system."

Since our data is measured on an ordinal scale, Kendall Partial Rank Correlation Coefficient will be calculated to partial out the effect of the respondents' studying of the system on the relationship between Planinfo (provide information for planning national investment) or Continfo (provide information for controlling national investment) and the respondents' evaluation of the qualitative characteristics of the provided information. The results are summarised in two Tables:

Table 9.39 presents the relationship existing between the respondents' satisfaction with planning objectives and their views of the qualitative characteristics of the provided information when holding constant the effect of the respondents' studying of the system. Both the original correlations (before controlling for the effect of the respondents' studying of the system) and partial correlations (after controlling the effect) will be presented in the Table.

Table 9.40 presents the relationship existing between the respondents' satisfaction with controlling objectives and their views of the qualitative characteristics of the provided information when holding constant the effect of the respondents' studying of the system.

By adopting the same criterion (Kendall and Stuart) as the previous hypothesis, the following results can be concluded:

A When the effect of the respondents' studying of the system (undergraduate, postgraduate, training programmes, and others) was partialled out, the correlations between Planinfo and the respondents' views of the qualitative characteristics of the provided information were increased in some cases and decreased in other cases. In other words, there is no definite attitude of increasing or decreasing. Meanwhile, the clear differences between the original correlations and the partial correlations indicate the effect of studying the system on this relationship (Table 9.39).

B When the effect of the respondents' studying of the system was partialled out, the correlations between Continfo and the respondents' views of the qualitative characteristics of the provided information were increased in some cases and decreased in other

TABLE 9.39: Correlation coefficients for the relationship between Planinfo and the qualitative characteristics before and after controlling for categories of studying the system.

Correlation between Planinfo "provide information for planning national investment" and the qualititative characteristics.	Original Correlations		After controlling for the effect of categories of studying the system (Partial C.):							
			Undergraduate		Postgraduate		Training Programmes		Others	
	Correlation C.	Significance	Correlation C.	Change	Correlation C	Change	Correlation C.	Change	Correlation C	Change
Relevance	.57747	(.0000)	.63267 (.0000)	+	.50000	-	.55102	-	.59504 (.0002)	+
Predictive value	.45768	(.0000)	.56053 (.0000)	+	.50000	+	.30612	-	.46281 (.0016)	+
Feedback value	.51302	(.0000)	.52445 (.0001)	+	.75000	+	.40816	-	.47934 (.0023)	-
Timeliness	.38216	(.0000)	.41346 (.0006)	+	.75000	+	.61224	+	.27895 (.0681)	-
Necessity	.18229	(.0229)	-.05550 (.3424)	-	.25000	+	.67347	+	.37466 (.0132)	+
Simplicity	.28451	(.0011)	.34409 (.0025)	+	-.50000	-	.24490	-	.33609 (.0261)	+
Reliability	.53646	(.0000)	.55498 (.0000)	+	.50000	-	.67347	+	.52342 (.0009)	-
Trustworthiness	.42839	(.0000)	.39126 (.0030)	-	.75000	+	.36735	-	.55096 (.0007)	+
Accuracy	.35677	(.0001)	.38016 (.0035)	+	.25000	-	.24490	-	.45730 (.0040)	+
Conformity	.44271	(.0000)	.50780 (.0002)	+	.50000	+	.36735	-	.41322 (.0067)	-
Completeness	.48958	(.0000)	.55220 (.0001)	+	.50000	+	.48980	+	.38567 (.0120)	-
Freedom of bias	.30534	(.0005)	.36074 (.0021)	+	.50000	+	.48980	+	.19835 (.1450)	-
Comparability	.21094	(.0153)	.31634 (.0125)	+	———		.48980	+	.03306 (.4241)	-
Consistency	.36068	(.0001)	.39681 (.0026)	+	———		.36735	+	.41873 (.0085)	+
Benefits compared with costs	.27474	(.0027)	.19424 (.0814)	-	.25000	-	.42857	+	.39118 (.0111)	+
Materiality	.29883	(.0012)	.27749 (.0214)	-	.25000	-	-.24490	-	.45179 (.0050)	+

* Significance levels are presented with parentheses.

TABLE 9.40: Correlation coefficients of the relationship between Continfo and the qualitative characteristics before and after controlling for categories of studying the system.

Correlation between Continfo "provide information for controlling national investment" and the qualitative characteristics	Original Correlations		After controlling for the effect of categories of studying the system (Partial C.):							
			Undergraduate		Postgraduate		Training programmes		Others	
	Correlation C.	Signigicance	Correlation C	Change	Correlation C.	Change	Correlation C.	Change	Correlation C.	Change
Relevance	.58716	(.0000)	.59938 (.0000)	+	.50000	-	.61224	+	.71074 (.0000)	+
Predictive value	.43396	(.0000)	.59573 (.0000)	+	———		.42857	-	.41322 (.0028)	-
Feedback value	.55664	(.0000)	.58793 (.0000)	+	.75000	+	.57143	+	.51791 (.0011)	-
Timeliness	.33936	(.0001)	.39126 (.0016)	+	.50000	+	.61224	+	.30372 (.0514)	-
Necessity	.23254	(.0039)	.22199 (.0545	-	-.50000	-	-.16327	-	.48485 (.0009)	+
Simplicity	.25716	(.0025)	.32744 (.0045)	+	-.50000	--	.08163	-	.34711 (.0200)	+
Reliability	.53955	(.0000)	.59660 (.0000)	+	.50000	-	.55102	+	.66942 (.0001)	+
Trustworthiness	.32715	(.0002)	.23673 (.0360)	-	.25000	-	.55102	+	.47383 (.0023)	+
Accuracy	.32166	(.0002)	.27836 (.0163)	-	.25000	-	.36735	+	.47934 (.0025)	+
Conformity	.42969	(.0000)	.36420 (.0033)	-	.50000	+	.48980	+	.62259 (.0001)	+
Completenss	.50958	(.0000)	.48127 (.0002)	-	.50000	-	.61224	+	.60055 (.0003)	+
Freedom of bias	.30151	(.0002)	.27055 (.0103)	-	.25000	-	.61224	+	.33471 (.0363)	+
Comparability	.17822	(.0276)	.18991 (.0805)	+	———		.18367	+	.25344 (.0710)	+
Consistency	.32953	(.0002)	.31478 (.0099)	-	———		.30612	-	.46281 (.0029)	+
Benefits compared with costs	.33325	(.0002)	.34860 (.0047)	+	.25000	-	.48980	+	.31405 (.0333)	-
Materiality	.24536	(.0043)	.20552 (.0604)	-	.25000	+	———		.41322 (.0089)	+

* Significance levels are presented in parentheses.

cases. In other words, there is no definite attitude of increasing or decreasing. Meanwhile, the clear differences between the original correlations and the partial correlations indicate the effect of the respondents' studying of the system on this relationship (Table 9.40).

The above results support the hypothesis that the respondents' categories of studying the system affect the relationship existing between their satisfaction with the objectives and the qualitative characteristics of the provided information. In other words, hypothesis twenty is accepted.

9.6.3 Conclusions and discussion

The main objective of testing this group of hypotheses is to control for the two factors (respondents' qualifications and respondents' categories of studying the Egyptian unified accounting system) which have had effects on the pattern of reading the different financial statements and budgets (hypothesis fifteen and seventeen). The two hypotheses discussed and analysed in this section resulted in the acceptance of the following:

A The respondents' qualifications (accounting qualifications and other qualifications) affect, to some degree, the relationship existing betweeen the respondents' satisfaction with the objectives and the qualitative characteristics of the provided information. The relationship between Planinfo or Continfo and the evaluation of the qualitative characteristics arises in part through the effect of accounting qualifications. In addition, the effect of other qualifications was obscuring the stronger connection between Planinfo or Continfo and the evaluation of the qualitative characteristics. A question which may be asked is:

what are the benefits of these differences? The answer to this question is that we must differentiate between the different qualifications when we design the training programmes (treatment process).

B The respondents' categories (type of used courses) of studying the Egyptian unified accounting system (undergraduate, postgraduate, training programmes, and others) affect, to some degree, the relationship existing between the respondents' satisfaction with the objectives and the qualitative characteristics of the provided information according to the system. Again, each category needs different training programmes (treatment process).

9.7 Conclusion

A The hypotheses formulated in this chapter uncovered the relationships existing between the different structural characteristics and the interrelationships existing between the components of each of the structural characteristics. This result shows the validity and applicability of the approach used in this research which is based on using the structural characteristics for evaluating the Egyptian unified accounting system.

B After controlling for effects of some background factors, it was found that the respondents' qualifications and their studying of the system have had effects on some of the studied relationships, meanwhile, the relationships are still positive and strong.

C The benefits of these relationships and interrelationships are that they can be used for the purpose of providing a treatment for the Egyptian accounting system's problems (the third process of the suggested model).

In this chapter, the author has presented the inferential empirical findings of the primary investigation of the Egyptian unified accounting system (primary investigation - inferential empirical findings). This stage is the final stage in the diagnosis process (the second process in the suggested model). Based on the results of the previous processes (case history and diagnosis) a treatment can be prescribed (the last process of the suggested model). The author is going to do that in the next chapter.

References

1) Norusis, M.J., SPSS* Introductory Statistics Guide, op.cit., p.54.

2) Dickinson, J.P., Statistics for Business, Finance, and Accounting, (Great Britain: Macdonald and Evans,, 1976), p. 236.

3) Emory, C.W., op.cit., p. 402.

4) Kendall, M., and Stuart, A., The Advanced Theory of Statistics: Inference and Relationships, Volume 2, Fourth edition, (London: Charles Griffin & Company Limited, 1979), pp. 298 - 299.

5) Siegel., S., op.cit., pp. 30 - 31, and p. 19.

6) Ibid., p. 31, VII.

7) Emory, C.W., op.cit., p. 406.

8) Siegel, S., op.cit., p. 239.

9) Norusis, M.J., SPSS , op.cit., p. 57.

10) Ibid., pp. 57 - 58.

11) Siegel, S., op.cit., p. 223.

12) Kendall, M., and Stuart, A., op.cit., p. 338.

Supplement to Chapter Nine

Tables S.9.1 to S.9.128

TABLE S.9.1

CROSSTABULATION OF

PLANINFO PROVIDE INFO.FOR PLAN.N.INVESTMENT BY PRELEVAN RELEVANCE OF INFO. FOR N.INVEST.PLAN.

PLANINFO	PRELEVAN (COUNT / ROW PCT / COL PCT / TOT PCT)	1 VERY SUCCESS.	2 QUITE SUCCESS.	3 SLIGHTLY SUCCESS.	4 NEUTRAL	5 SLIGHTLY UNSUCCES	ROW TOTAL
QUITE SUCCESS.	2	1 12.5 100.0 1.6	7 87.5 21.9 10.9				8 12.5
SLIGHTLYSUCCESS.	3		18 85.7 56.3 28.1	2 9.5 12.5 3.1	1 4.8 9.1 1.6		21 32.8
NEUTRAL	4		7 23.3 21.9 10.9	14 46.7 87.5 21.9	7 23.3 63.6 10.9	2 6.7 50.0 3.1	30 46.9
SLIGHTLYUNSUCCES	5				3 60.0 27.3 4.7	2 40.0 50.0 3.1	5 7.8
COLUMN TOTAL		1 1.6	32 50.0	16 25.0	11 17.2	4 6.3	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.57747	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.2

CROSSTABULATION OF PLANINFO PROVIDE INFO.FOR PLAN.N.INVESTMENT BY PPREDVAL PREDICTIVE V.OF INFO. FOR N.INVEST.PLAN.

PLANINFO	PPREDVAL: 1 VERY SUCCESS.	2 QUITE SUCCESS.	3 SLIGHTLY SUCCESS.	4 NEUTRAL	5 SLIGHTLY UNSUCCES	ROW TOTAL
2 QUITE SUCCESS.		8 100.0 22.2 12.5				8 12.5
3 SLIGHTLYSUCCESS.	1 4.8 100.0 1.6	16 76.2 44.4 25.0	2 9.5 16.7 3.1	2 9.5 20.0 3.1		21 32.8
4 NEUTRAL		12 40.0 33.3 18.8	10 33.3 83.3 15.6	6 20.0 60.0 9.4	2 6.7 40.0 3.1	30 46.9
5 SLIGHTLYUNSUCCES				2 40.0 20.0 3.1	3 60.0 60.0 4.7	5 7.8
COLUMN TOTAL	1 1.6	36 56.3	12 18.8	10 15.6	5 7.8	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.45768	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.3

CROSSTABULATION OF

PLANINFO PROVIDE INFO.FOR PLAN.N.INVESTMENT BY PFEEDBAC FEEDBACK V. OF INFO. FOR N.INVEST.PLAN.

PLANINFO	PFEEDBAC 1 VERY SUCCESS.	2 QUITE SUCCESS.	3 SLIGHTLY SUCCESS.	4 NEUTRAL	5 SLIGHTLY UNSUCCES	ROW TOTAL
2 QUITE SUCCESS.	1 12.5 100.0 1.6	7 87.5 22.6 10.9				8 12.5
3 SLIGHTLYSUCCESS.		15 71.4 48.4 23.4	4 19.0 28.6 6.3	2 9.5 15.4 3.1		21 32.8
4 NEUTRAL		9 30.0 29.0 14.1	10 33.3 71.4 15.6	9 30.0 69.2 14.1	2 6.7 40.0 3.1	30 46.9
5 SLIGHTLYUNSUCCES				2 40.0 15.4 3.1	3 60.0 60.0 4.7	5 7.8
COLUMN TOTAL	1 1.6	31 48.4	14 21.9	13 20.3	5 7.8	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.51302	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.4

CROSSTABULATION OF

PLANINFO PROVIDE INFO. FOR PLAN. N. INVESTMENT BY PWELLTIM TIMELINESS OF INFO. FOR N. INVEST. PLAN.

PLANINFO	PWELLTIM	1 QUITE SUCCESS.	2 SLIGHTLY SUCCESS.	3 NEUTRAL	4 SLIGHTLY UNSUCCES	5 QUITE UNSUCCES	ROW TOTAL
QUITE SUCCESS.	2	3 37.5 100.0 4.7	3 37.5 14.3 4.7	2 25.0 5.7 3.1			8 12.5
SLIGHTLYSUCCESS.	3		10 47.6 47.6 15.6	11 52.4 31.4 17.2			21 32.8
NEUTRAL	4		7 23.3 33.3 10.9	22 73.3 62.9 34.4	1 3.3 25.0 1.6		30 46.9
SLIGHTLYUNSUCCES	5		1 20.0 4.8 1.6		3 60.0 75.0 4.7	1 20.0 100.0 1.6	5 7.8
COLUMN TOTAL		3 4.7	21 32.8	35 54.7	4 6.3	1 1.6	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.38216	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.5

CROSSTABULATION OF

PLANINFO PROVIDE INFO. FOR PLAN. N. INVESTMENT BY PNECESSA NECESSITY OF INFO. FOR N. INVEST. PLANNING

PLANINFO	PNECESSA	1 VERY SUCCESS.	2 QUITE SUCCESS.	3 SLIGHTLY SUCCESS.	4 NEUTRAL	ROW TOTAL
QUITE SUCCESS.	2	5 62.5 20.8 7.8	2 25.0 7.4 3.1	1 12.5 14.3 1.6		8 12.5
SLIGHTLYSUCCESS.	3	8 38.1 33.3 12.5	10 47.6 37.0 15.6	1 4.8 14.3 1.6	2 9.5 33.3 3.1	21 32.8
NEUTRAL	4	11 36.7 45.8 17.2	12 40.0 44.4 18.8	4 13.3 57.1 6.3	3 10.0 50.0 4.7	30 46.9
SLIGHTLYUNSUCCES	5		3 60.0 11.1 4.7	1 20.0 14.3 1.6	1 20.0 16.7 1.6	5 7.8
COLUMN TOTAL		24 37.5	27 42.2	7 10.9	6 9.4	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.18229	0.0299

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.6

CROSSTABULATION OF

PLANINFO PROVIDE INFO.FOR PLAN.N.INVESTMENT BY PSIMPLE SIMPLICITY OF INFO.FOR N.INVEST.PLANNING

PLANINFO	PSIMPLE	1 VERY SUCCESS.	2 QUITE SUCCESS.	3 SLIGHTLY SUCCESS.	4 NEUTRAL	ROW TOTAL
QUITE SUCCESS.	2	5 62.5 50.0 7.8	3 37.5 8.1 4.7			8 12.5
SLIGHTLYSUCCESS.	3	1 4.8 10.0 1.6	17 81.0 45.9 26.6		3 14.3 27.3 4.7	21 32.8
NEUTRAL	4	3 10.0 30.0 4.7	16 53.3 43.2 25.0	5 16.7 83.3 7.8	6 20.0 54.5 9.4	30 46.9
SLIGHTLYUNSUCCES	5	1 20.0 10.0 1.6	1 20.0 2.7 1.6	1 20.0 16.7 1.6	2 40.0 18.2 3.1	5 7.8
COLUMN TOTAL		10 15.6	37 57.8	6 9.4	11 17.2	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.28451	0.0011

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.7

CROSSTABULATION OF

PLANINFO PROVIDE INFO.FOR PLAN.N.INVESTMENT BY PRELIABL RELIABILITY OF INFO.FOR N.INVEST.PLANING

PLANINFO	PRELIABL COUNT / ROW PCT / COL PCT / TOT PCT	1 VERY SUCCESS.	2 QUITE SUCCESS.	3 SLIGHTLY SUCCESS.	4 NEUTRAL	5 SLIGHTLY UNSUCCES	ROW TOTAL
QUITE SUCCESS.	2	1 12.5 100.0 1.6	7 87.5 25.0 10.9				8 12.5
SLIGHTLYSUCCESS.	3		15 71.4 53.6 23.4	3 14.3 16.7 4.7	3 14.3 21.4 4.7		21 32.8
NEUTRAL	4		6 20.0 21.4 9.4	15 50.0 83.3 23.4	8 26.7 57.1 12.5	1 3.3 33.3 1.6	30 46.9
SLIGHTLYUNSUCCES	5				3 60.0 21.4 4.7	2 40.0 66.7 3.1	5 7.8
COLUMN TOTAL		1 1.6	28 43.8	18 28.1	14 21.9	3 4.7	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.53646	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.8

CROSSTABULATION OF
PLANINFO PROVIDE INFO.FOR PLAN.N.INVESTMENT BY PTRUSTY TRUST. OF INFO.FOR N.INVEST.PLANNING

PLANINFO	PTRUSTY: VERY SUCCESS. (1)	QUITE SUCCESS. (2)	SLIGHTLY SUCCESS. (3)	NEUTRAL (4)	SLIGHTLY UNSUCCES (5)	ROW TOTAL
QUITE SUCCESS. (2)	3 37.5 75.0 4.7	5 62.5 21.7 7.8				8 12.5
SLIGHTLYSUCCESS. (3)	1 4.8 25.0 1.6	10 47.6 43.5 15.6	4 19.0 25.0 6.3	6 28.6 33.3 9.4		21 32.8
NEUTRAL (4)		8 26.7 34.8 12.5	10 33.3 62.5 15.6	12 40.0 66.7 18.8		30 46.9
SLIGHTLYUNSUCCES (5)			2 40.0 12.5 3.1		3 60.0 100.0 4.7	5 7.8
COLUMN TOTAL	4 6.3	23 35.9	16 25.0	18 28.1	3 4.7	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.42839	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.9

CROSSTABULATION OF
PLANINFO PROVIDE INFO.FOR PLAN.N.INVESTMENT BY PACCURAT ACCURACY OF INFO.FOR N.INVEST.PLANNING

PLANINFO	PACCURAT: 1 VERY SUCCESS.	2 QUITE SUCCESS.	3 SLIGHTLY SUCCESS.	4 NEUTRAL	5 SLIGHTLY UNSUCCES	ROW TOTAL
2 QUITE SUCCESS.	1 12.5 50.0 1.6	7 87.5 28.0 10.9				8 12.5
3 SLIGHTLYSUCCESS.	1 4.8 50.0 1.6	8 38.1 32.0 12.5	6 28.6 31.6 9.4	6 28.6 40.0 9.4		21 32.8
4 NEUTRAL		10 33.3 40.0 15.6	12 40.0 63.2 18.8	8 26.7 53.3 12.5		30 46.9
5 SLIGHTLYUNSUCCES			1 20.0 5.3 1.6	1 20.0 6.7 1.6	3 60.0 100.0 4.7	5 7.8
COLUMN TOTAL	2 3.1	25 39.1	19 29.7	15 23.4	3 4.7	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.35677	0.0001

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.10

CROSSTABULATION OF
PLANINFO PROVIDE INFO.FOR PLAN.N.INVESTMENT BY PCONFIRM CONFIRM. OF INFO.FOR.N.INVEST.PLANNING

PLANINFO	PCONFIRM COUNT / ROW PCT / COL PCT / TOT PCT	1 VERY SUCCESS.	2 QUITE SUCCESS.	3 SLIGHTLY SUCCESS.	4 NEUTRAL	5 SLIGHTLY UNSUCCES	6 QUITE UNSUCCES	ROW TOTAL
2 QUITE SUCCESS.		1	6	1				8
		12.5	75.0	12.5				12.5
		33.3	28.6	4.5				
		1.6	9.4	1.6				
3 SLIGHTLYSUCCESS.		2	8	7	4			21
		9.5	38.1	33.3	19.0			32.8
		66.7	38.1	31.8	26.7			
		3.1	12.5	10.9	6.3			
4 NEUTRAL			7	14	9			30
			23.3	46.7	30.0			46.9
			33.3	63.6	60.0			
			10.9	21.9	14.1			
5 SLIGHTLYUNSUCCES					2	2	1	5
					40.0	40.0	20.0	7.8
					13.3	100.0	100.0	
					3.1	3.1	1.6	
COLUMN TOTAL		3	21	22	15	2	1	64
		4.7	32.8	34.4	23.4	3.1	1.6	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.44271	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.11

CROSSTABULATION OF
PLANINFO PROVIDE INFO.FOR PLAN.N.INVESTMENT BY PCOMPLET COMPLETENESS OF INFO.FOR N.INVEST.PLAN.

PLANINFO	PCOMPLET	1 VERY SUCCESS.	2 QUITE SUCCESS.	3 SLIGHTLY SUCCESS.	4 NEUTRAL	5 SLIGHTLY UNSUCCES	6 QUITE UNSUCCES	ROW TOTAL
QUITE SUCCESS.	2	2 25.0 66.7 3.1	5 62.5 23.8 7.8	1 12.5 5.0 1.6				8 12.5
SLIGHTLYSUCCESS.	3	1 4.8 33.3 1.6	10 47.6 47.6 15.6	6 28.6 30.0 9.4	4 19.0 25.0 6.3			21 32.8
NEUTRAL	4		6 20.0 28.6 9.4	13 43.3 65.0 20.3	10 33.3 62.5 15.6	1 3.3 33.3 1.6		30 46.9
SLIGHTLYUNSUCCES	5				2 40.0 12.5 3.1	2 40.0 66.7 3.1	1 20.0 100.0 1.6	5 7.8
COLUMN TOTAL		3 4.7	21 32.8	20 31.3	16 25.0	3 4.7	1 1.6	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.43958	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.12

CROSSTABULATION OF

PLANINFO PROVIDE INFO.FOR PLAN.N.INVESTMENT BY PBIASED FREEDOM OF BIAS IN INFO.FOR N.IN.PLAN.

PLANINFO	PBIASED	QUITE SUCCESS.	SLIGHTLY SUCCESS.	NEUTRAL	SLIGHTLY UNSUCCES	QUITE UNSUCCES	ROW TOTAL
QUITE SUCCESS.	2	2	3	3			8
		25.0	37.5	37.5			12.5
		100.0	16.7	8.3			
		3.1	4.7	4.7			
SLIGHTLYSUCCESS.	3		7	12	2		21
			33.3	57.1	9.5		32.8
			38.9	33.3	28.6		
			10.9	18.8	3.1		
NEUTRAL	4		8	21	1		30
			26.7	70.0	3.3		46.9
			44.4	58.3	14.3		
			12.5	32.8	1.6		
SLIGHTLYUNSUCCES	5				4	1	5
					80.0	20.0	7.8
					57.1	100.0	
					6.3	1.6	
COLUMN TOTAL		2	18	36	7	1	64
		3.1	28.1	56.3	10.9	1.6	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.30534	0.0005

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.13

CROSSTABULATION OF
PLANINFO PROVIDE INFO.FOR PLAN.N.INVESTMENT BY PCOMPARE COMPARABILITY OF INFO.FOR N.INVEST.PLAN.

PLANINFO	COUNT / ROW PCT / COL PCT / TOT PCT	PCOMPARE: VERY SUCCESS. 1	QUITE SUCCESS. 2	SLIGHTLY SUCCESS. 3	NEUTRAL 4	SLIGHTLY UNSUCCES 5	ROW TOTAL
QUITE SUCCESS.	2	2	5		1		8
		25.0	62.5		12.5		12.5
		50.0	17.9		5.3		
		3.1	7.8		1.6		
SLIGHTLYSUCCESS.	3	1	9	5	6		21
		4.8	42.9	23.8	28.6		32.8
		25.0	32.1	41.7	31.6		
		1.6	14.1	7.8	9.4		
NEUTRAL	4	1	12	7	10		30
		3.3	40.0	23.3	33.3		46.9
		25.0	42.9	58.3	52.6		
		1.6	18.8	10.9	15.6		
SLIGHTLYUNSUCCES	5		2		2	1	5
			40.0		40.0	20.0	7.8
			7.1		10.5	100.0	
			3.1		3.1	1.6	
	COLUMN TOTAL	4	28	12	19	1	64
		6.3	43.8	18.8	29.7	1.6	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.21094	0.0153

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.14

CROSSTABULATION OF

PLANINFO PROVIDE INFO. FOR PLAN. N. INVESTMENT BY PCONSIST CONSISTENCY OF INFO. FOR N. INVEST. PLAN.

PLANINFO	PCONSIST	1 VERY SUCCESS.	2 QUITE SUCCESS.	3 SLIGHTLY SUCCESS.	4 NEUTRAL	5 SLIGHTLY UNSUCCES	ROW TOTAL
QUITE SUCCESS.	2	4 50.0 50.0 6.3	4 50.0 14.8 6.3				8 12.5
SLIGHTLY SUCCESS.	3	2 9.5 25.0 3.1	10 47.6 37.0 15.6	4 19.0 28.6 6.3	5 23.8 38.5 7.8		21 32.8
NEUTRAL	4	2 6.7 25.0 3.1	13 43.3 48.1 20.3	10 33.3 71.4 15.6	5 16.7 38.5 7.8		30 46.9
SLIGHTLY UNSUCCES	5				3 60.0 23.1 4.7	2 40.0 100.0 3.1	5 7.8
COLUMN TOTAL		8 12.5	27 42.2	14 21.9	13 20.3	2 3.1	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.36068	0.0001

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.15

CROSSTABULATION OF PLANINFO PROVIDE INFO.FOR PLAN.N.INVESTMENT BY PBENCOST BENEFIT&COST OF INFO.FOR N.INVEST.PLAN.

PLANINFO	PBENCOST: 1 VERY SUCCESS.	2 QUITE SUCCESS.	3 SLIGHTLY SUCCESS.	4 NEUTRAL	5 SLIGHTLY UNSUCCES	ROW TOTAL
2 QUITE SUCCESS.	1 12.5 33.3 1.6	5 62.5 38.5 7.8	1 12.5 5.9 1.6	1 12.5 3.8 1.6		8 12.5
3 SLIGHTLYSUCCESS.		3 14.3 23.1 4.7	7 33.3 41.2 10.9	11 52.4 42.3 17.2		21 32.8
4 NEUTRAL	2 6.7 66.7 3.1	5 16.7 38.5 7.8	8 26.7 47.1 12.5	14 46.7 53.8 21.9	1 3.3 20.0 1.6	30 46.9
5 SLIGHTLYUNSUCCES			1 20.0 5.9 1.6		4 80.0 80.0 6.3	5 7.8
COLUMN TOTAL	3 4.7	13 20.3	17 26.6	26 40.6	5 7.8	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.27474	0.0027

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.16

CROSSTABULATION OF

PLANINFO PROVIDE INFO.FOR PLAN.N.INVESTMENT BY PMATERIA MATERIALITY OF INFO.FOR N.INVEST.PLAN.

PLANINFO	PMATERIA: 1 VERY SUCCESS.	2 QUITE SUCCESS.	3 SLIGHTLY SUCCESS.	4 NEUTRAL	5 SLIGHTLY UNSUCCES	ROW TOTAL
2 QUITE SUCCESS.	1 12.5 100.0 1.6	7 87.5 31.8 10.9				8 12.5
3 SLIGHTLYSUCCESS.		4 19.0 18.2 6.3	6 28.6 46.2 9.4	11 52.4 45.8 17.2		21 32.8
4 NEUTRAL		11 36.7 50.0 17.2	7 23.3 53.8 10.9	12 40.0 50.0 18.8		30 46.9
5 SLIGHTLYUNSUCCES				1 20.0 4.2 1.6	4 80.0 100.0 6.3	5 7.8
COLUMN TOTAL	1 1.6	22 34.4	13 20.3	24 37.5	4 6.3	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.29883	0.0012

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.17

CROSSTABULATION OF
CONTINFO PROVIDE INFO.FOR CONT.N.INVESTMENT BY CRELEVAN RELEVANCE OF INFO.FOR N.INVEST.CONTROL

CONTINFO	CRELEVAN: VERY SUCCESS. 1	QUITE SUCCESS. 2	SLIGHTLY SUCCESS. 3	NEUTRAL 4	SLIGHTLY UNSUCCES 5	QUITE UNSUCCES 6	ROW TOTAL
2 QUITE SUCCESS.	1 10.0 100.0 1.6	9 90.0 25.7 14.1					10 15.6
3 SLIGHTLYSUCCESS.		24 85.7 68.6 37.5	3 10.7 15.8 4.7	1 3.6 14.3 1.6			28 43.8
4 NEUTRAL		2 9.5 5.7 3.1	15 71.4 78.9 23.4	4 19.0 57.1 6.3			21 32.8
5 SLIGHTLYUNSUCCES			1 25.0 5.3 1.6	2 50.0 28.6 3.1	1 25.0 100.0 1.6		4 6.3
6 QUITE UNSUCCES						1 100.0 100.0 1.6	1 1.6
COLUMN TOTAL	1 1.6	35 54.7	19 29.7	7 10.9	1 1.6	1 1.6	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.58716	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.18

CROSSTABULATION OF

CONTINFO PROVIDE INFO.FOR CONT.N.INVESTMENT BY CPREDVAL PREDICTIVE V.OF INFO.FOR N.INVEST.CONT.

CONTINFO	CPREDVAL: 1 VERY SUCCESS.	2 QUITE SUCCESS.	3 SLIGHTLY SUCCESS.	4 NEUTRAL	5 SLIGHTLY UNSUCCES	ROW TOTAL
2 QUITE SUCCESS.	2	6	1	1		10
	20.0	60.0	10.0	10.0		15.6
	100.0	17.6	6.7	9.1		
	3.1	9.4	1.6	1.6		
3 SLIGHTLYSUCCESS.		22	4	2		28
		78.6	14.3	7.1		43.8
		64.7	26.7	18.2		
		34.4	6.3	3.1		
4 NEUTRAL		6	9	6		21
		28.6	42.9	28.6		32.8
		17.6	60.0	54.5		
		9.4	14.1	9.4		
5 SLIGHTLYUNSUCCES			1	2	1	4
			25.0	50.0	25.0	6.3
			6.7	18.2	50.0	
			1.6	3.1	1.6	
6 QUITE UNSUCCES					1	1
					100.0	1.6
					50.0	
					1.6	
COLUMN TOTAL	2	34	15	11	2	64
	3.1	53.1	23.4	17.2	3.1	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.43396	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.19

CROSSTABULATION OF

CONTINFO PROVIDE INFO. FOR CONT. N. INVESTMENT BY CFEEDBAC FEEDBACK V. OF INFO. FOR N. INVEST. CONTROL

CONTINFO	CFEEDBAC: VERY SUCCESS. 1	QUITE SUCCESS. 2	SLIGHTLY SUCCESS. 3	NEUTRAL 4	SLIGHTLY UNSUCCES 5	ROW TOTAL
2 QUITE SUCCESS.	1 10.0 100.0 1.6	9 90.0 30.0 14.1				10 15.6
3 SLIGHTLYSUCCESS.		19 67.9 63.3 29.7	7 25.0 35.0 10.9	2 7.1 18.2 3.1		28 43.8
4 NEUTRAL		2 9.5 6.7 3.1	12 57.1 60.0 18.8	7 33.3 63.6 10.9		21 32.8
5 SLIGHTLYUNSUCCES			1 25.0 5.0 1.6	2 50.0 18.2 3.1	1 25.0 50.0 1.6	4 6.3
6 QUITE UNSUCCES					1 100.0 50.0 1.6	1 1.6
COLUMN TOTAL	1 1.6	30 46.9	20 31.3	11 17.2	2 3.1	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.55664	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.20

CROSSTABULATION OF
CONTINFO PROVIDE INFO. FOR CONT. N. INVESTMENT BY CWELLTIM TIMELINESS OF INFO. FOR N. INVEST. CONTROL

CONTINFO	CWELLTIM: COUNT / ROW PCT / COL PCT / TOT PCT	QUITE SUCCESS. 2	SLIGHTLY SUCCESS. 3	NEUTRAL 4	SLIGHTLY UNSUCCES 5	QUITE UNSUCCES 6	ROW TOTAL
QUITE SUCCESS.	2	1	6	3			10
		10.0	60.0	30.0			15.6
		100.0	26.1	8.8			
		1.6	9.4	4.7			
SLIGHTLY SUCCESS.	3		12	16			28
			42.9	57.1			43.8
			52.2	47.1			
			18.8	25.0			
NEUTRAL	4		4	14	3		21
			19.0	66.7	14.3		32.8
			17.4	41.2	60.0		
			6.3	21.9	4.7		
SLIGHTLY UNSUCCES	5		1	1	2		4
			25.0	25.0	50.0		6.3
			4.3	2.9	40.0		
			1.6	1.6	3.1		
QUITE UNSUCCES	6					1	1
						100.0	1.6
						100.0	
						1.6	
COLUMN TOTAL		1	23	34	5	1	64
		1.6	35.9	53.1	7.8	1.6	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.33936	0.0001

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.21

CROSSTABULATION OF

CONTINFO PROVIDE INFO. FOR CONT. N. INVESTMENT BY CNECESSA NECESSITY OF INFO. FOR N. INVEST. CONTROL

CONTINFO \ CNECESSA (COUNT / ROW PCT / COL PCT / TOT PCT)	1 VERY SUCCESS.	2 QUITE SUCCESS.	3 SLIGHTLY SUCCESS.	4 NEUTRAL	5 SLIGHTLY UNSUCCES	ROW TOTAL
2 QUITE SUCCESS.	2 20.0 12.5 3.1	8 80.0 21.6 12.5				10 15.6
3 SLIGHTLY SUCCESS.	10 35.7 62.5 15.6	16 57.1 43.2 25.0	2 7.1 33.3 3.1			28 43.8
4 NEUTRAL	4 19.0 25.0 6.3	11 52.4 29.7 17.2	3 14.3 50.0 4.7	3 14.3 75.0 4.7		21 32.8
5 SLIGHTLY UNSUCCES		2 50.0 5.4 3.1	1 25.0 16.7 1.6		1 25.0 100.0 1.6	4 6.3
6 QUITE UNSUCCES				1 100.0 25.0 1.6		1 1.6
COLUMN TOTAL	16 25.0	37 57.8	6 9.4	4 6.3	1 1.6	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.23254	0.0039

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.22

CROSSTABULATION OF

CONTINFO PROVIDE INFO FOR CONT. N. INVESTMENT BY CSIMPLE SIMPLICITY OF INFO FOR N. INVEST. CONTROL

CONTINFO	CSIMPLE: 1 VERY SUCCESS.	2 QUITE SUCCESS.	3 SLIGHTLY SUCCESS.	4 NEUTRAL	ROW TOTAL
2 QUITE SUCCESS	2 20.0 33.3 3.1	8 80.0 20.5 12.5			10 15.6
3 SLIGHTLY SUCCESS	1 3.6 16.7 1.6	21 75.0 53.8 32.8	3 10.7 42.9 4.7	3 10.7 25.0 4.7	28 43.8
4 NEUTRAL	2 9.5 33.3 3.1	9 42.9 23.1 14.1	3 14.3 42.9 4.7	7 33.3 58.3 10.9	21 32.8
5 SLIGHTLY UNSUCCES	1 25.0 16.7 1.6	1 25.0 2.6 1.6		2 50.0 16.7 3.1	4 6.3
6 QUITE UNSUCCES			1 100.0 14.3 1.6		1 1.6
COLUMN TOTAL	6 9.4	39 60.9	7 10.9	12 18.8	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.25716	0.0025

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.23

CROSSTABULATION OF

CONTINFO PROVIDE INFO. FOR CONT. N. INVESTMENT BY CRELIABL RELIABILITY OF INFO. FOR N. INVEST. CONTROL

CONTINFO	CRELIABL: 1 VERY SUCCESS.	2 QUITE SUCCESS.	3 SLIGHTLY SUCCESS.	4 NEUTRAL	5 SLIGHTLY UNSUCCES	ROW TOTAL
2 QUITE SUCCESS.	1 10.0 100.0 1.6	9 90.0 27.3 14.1				10 15.6
3 SLIGHTLYSUCCESS.		20 71.4 60.6 31.3	7 25.0 38.9 10.9	1 3.6 9.1 1.6		28 43.8
4 NEUTRAL		4 19.0 12.1 6.3	11 52.4 61.1 17.2	6 28.6 54.5 9.4		21 32.8
5 SLIGHTLYUNSUCCES				4 100.0 36.4 6.3		4 6.3
6 QUITE UNSUCCES					1 100.0 100.0 1.6	1 1.6
COLUMN TOTAL	1 1.6	33 51.6	18 28.1	11 17.2	1 1.6	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.53955	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.24

CROSSTABULATION OF
CONTINFO PROVIDE INFO. FOR CONT. N. INVESTMENT BY CTRUSTY TRUST. OF INFO. FOR N. INVEST. CONTROL

CONTINFO	CTRUSTY 1 VERY SUCCESS.	2 QUITE SUCCESS.	3 SLIGHTLY SUCCESS.	4 NEUTRAL	5 SLIGHTLY UNSUCCES	ROW TOTAL
2 QUITE SUCCESS.		8 80.0 28.6 12.5	2 20.0 9.5 3.1			10 15.6
3 SLIGHTLYSUCCESS.		15 53.6 53.6 23.4	8 28.6 38.1 12.5	5 17.9 41.7 7.8		28 43.8
4 NEUTRAL	1 4.8 100.0 1.6	5 23.8 17.9 7.8	9 42.9 42.9 14.1	6 28.6 50.0 9.4		21 32.8
5 SLIGHTLYUNSUCCES			2 50.0 9.5 3.1	1 25.0 8.3 1.6	1 25.0 50.0 1.6	4 6.3
6 QUITE UNSUCCES					1 100.0 50.0 1.6	1 1.6
COLUMN TOTAL	1 1.6	28 43.8	21 32.8	12 18.8	2 3.1	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.32715	0.0002

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.25

CROSSTABULATION OF

CONTINFO PROVIDE INFO. FOR CONT. N. INVESTMENT BY CACCURAT ACCURACY OF INFO. FOR N. INVEST. CONTROL

CONTINFO	CACCURAT COUNT / ROW PCT / COL PCT / TOT PCT	1 VERY SUCCESS	2 QUITE SUCCESS	3 SLIGHTLY SUCCESS	4 NEUTRAL	5 SLIGHTLY UNSUCCES	ROW TOTAL
QUITE SUCCESS	2		7	3			10
			70.0	30.0			15.6
			24.1	15.8			
			10.9	4.7			
SLIGHTLYSUCCESS	3		16	8	4		28
			57.1	28.6	14.3		43.8
			55.2	42.1	30.8		
			25.0	12.5	6.3		
NEUTRAL	4	1	6	7	7		21
		4.8	28.6	33.3	33.3		32.8
		100.0	20.7	36.8	53.8		
		1.6	9.4	10.9	10.9		
SLIGHTLYUNSUCCES	5			1	2	1	4
				25.0	50.0	25.0	6.3
				5.3	15.4	50.0	
				1.6	3.1	1.6	
QUITE UNSUCCES	6					1	1
						100.0	1.6
						50.0	
						1.6	
	COLUMN TOTAL	1	29	19	13	2	64
		1.6	45.3	29.7	20.3	3.1	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.32166	0.0002

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.26

CROSSTABULATION OF

CONTINFO PROVIDE INFO. FOR CONT. N. INVESTMENT BY CCONFIRM CONFIRM. OF INFO. FOR N. INVEST. CONTROL

CONTINFO	CCONFIRM (COUNT / ROW PCT / COL PCT / TOT PCT)	1 VERY SUCCESS.	2 QUITE SUCCESS.	3 SLIGHTLY SUCCESS.	4 NEUTRAL	5 SLIGHTLY UNSUCCES	6 QUITE UNSUCCES	ROW TOTAL
QUITE SUCCESS.	2		8	2				10
			80.0	20.0				15.6
			33.3	9.1				
			12.5	3.1				
SLIGHTLYSUCCESS.	3		14	10	4			28
			50.0	35.7	14.3			43.8
			58.3	45.5	26.7			
			21.9	15.6	6.3			
NEUTRAL	4	1	1	10	9			21
		4.8	4.8	47.6	42.9			32.8
		100.0	4.2	45.5	60.0			
		1.6	1.6	15.6	14.1			
SLIGHTLYUNSUCCES	5		1		2	1		4
			25.0		50.0	25.0		6.3
			4.2		13.3	100.0		
			1.6		3.1	1.6		
QUITE UNSUCCES	6						1	1
							100.0	1.6
							100.0	
							1.6	
COLUMN TOTAL		1	24	22	15	1	1	64
		1.6	37.5	34.4	23.4	1.6	1.6	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.42969	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.27

CROSSTABULATION OF

CONTINFO PROVIDE INFO. FOR CONT. N. INVESTMENT BY CCOMPLET COMPLETENESS OF INFO. FOR N. INVEST. CONT.

CONTINFO	COUNT / ROW PCT / COL PCT / TOT PCT	CCOMPLET 1 VERY SUCCESS.	2 QUITE SUCCESS.	3 SLIGHTLY SUCCESS.	4 NEUTRAL	5 SLIGHTLY UNSUCCES	6 QUITE UNSUCCES	ROW TOTAL
QUITE SUCCESS.	2		9 90.0 33.3 14.1	1 10.0 5.6 1.6				10 15.6
SLIGHTLY SUCCESS.	3	1 3.6 100.0 1.6	15 53.6 55.6 23.4	9 32.1 50.0 14.1	3 10.7 23.1 4.7			28 43.8
NEUTRAL	4		3 14.3 11.1 4.7	7 33.3 38.9 10.9	9 42.9 69.2 14.1	2 9.5 50.0 3.1		21 32.8
SLIGHTLY UNSUCCES	5			1 25.0 5.6 1.6	1 25.0 7.7 1.6	2 50.0 50.0 3.1		4 6.3
QUITE UNSUCCES	6						1 100.0 100.0 1.6	1 1.6
	COLUMN TOTAL	1 1.6	27 42.2	18 28.1	13 20.3	4 6.3	1 1.6	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.50598	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.28

CROSSTABULATION OF

CONTINFO PROVIDE INFO. FOR CONT. N. INVESTMENT BY CBIASED FREEDOM OF BIAS OF INFO. FOR N. IN. CONTROL

CONTINFO	CBIASED (COUNT / ROW PCT / COL PCT / TOT PCT)	2 QUITE SUCCESS.	3 SLIGHTLY SUCCESS.	4 NEUTRAL	5 SLIGHTLY UNSUCCES	6 QUITE UNSUCCES	ROW TOTAL
2 QUITE SUCCESS.		2	4	4			10
		20.0	40.0	40.0			15.6
		66.7	23.5	10.5			
		3.1	6.3	6.3			
3 SLIGHTLYSUCCESS.			9	19			28
			32.1	67.9			43.8
			52.9	50.0			
			14.1	29.7			
4 NEUTRAL		1	4	13	3		21
		4.8	19.0	61.9	14.3		32.8
		33.3	23.5	34.2	60.0		
		1.6	6.3	20.3	4.7		
5 SLIGHTLYUNSUCCES				2	2		4
				50.0	50.0		6.3
				5.3	40.0		
				3.1	3.1		
6 QUITE UNSUCCES						1	1
						100.0	1.6
						100.0	
						1.6	
COLUMN TOTAL		3	17	38	5	1	64
		4.7	26.6	59.4	7.8	1.6	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.30151	0.0002

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.29

CROSSTABULATION OF

CONTINFO PROVIDE INFO. FOR CONT. N. INVESTMENT BY CCOMPARE COMPARABILITY OF INFO. FOR N. INVEST. CONT.

CONTINFO	CCOMPARE: VERY SUCCESS. (1)	QUITE SUCCESS. (2)	SLIGHTLY SUCCESS. (3)	NEUTRAL (4)	SLIGHTLY UNSUCCES (5)	ROW TOTAL
2 QUITE SUCCESS.	2	6		2		10
	20.0	60.0		20.0		15.6
	40.0	22.2		11.1		
	3.1	9.4		3.1		
3 SLIGHTLYSUCCESS.	1	12	8	7		28
	3.6	42.9	28.6	25.0		43.8
	20.0	44.4	61.5	38.9		
	1.6	18.8	12.5	10.9		
4 NEUTRAL	2	8	3	8		21
	9.5	38.1	14.3	38.1		32.8
	40.0	29.6	23.1	44.4		
	3.1	12.5	4.7	12.5		
5 SLIGHTLYUNSUCCES		1	2	1		4
		25.0	50.0	25.0		6.3
		3.7	15.4	5.6		
		1.6	3.1	1.6		
6 QUITE UNSUCCES					1	1
					100.0	1.6
					100.0	
					1.6	
COLUMN TOTAL	5	27	13	18	1	64
	7.8	42.2	20.3	28.1	1.6	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.17822	0.0276

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.30

CROSSTABULATION OF

CONTINFO PROVIDE INFO. FOR CONT. N. INVESTMENT BY CCONSIST CONSISTENCY OF INFO. FOR N. INVEST. CONTROL

CONTINFO	CCONSIST: 1 VERY SUCCESS.	2 QUITE SUCCESS.	3 SLIGHTLY SUCCESS.	4 NEUTRAL	5 SLIGHTLY UNSUCCES	ROW TOTAL
2 QUITE SUCCESS.	3 30.0 60.0 4.7	6 60.0 20.0 9.4		1 10.0 3.3 1.6		10 15.6
3 SLIGHTLYSUCCESS.		16 57.1 53.3 25.0	9 32.1 60.0 14.1	3 10.7 25.0 4.7		28 43.8
4 NEUTRAL	2 9.5 40.0 3.1	8 38.1 26.7 12.5	5 23.8 33.3 7.8	6 28.6 50.0 9.4		21 32.8
5 SLIGHTLYUNSUCCES			1 25.0 6.7 1.6	2 50.0 16.7 3.1	1 25.0 50.0 1.6	4 6.3
6 QUITE UNSUCCES					1 100.0 50.0 1.6	1 1.6
COLUMN TOTAL	5 7.8	30 46.9	15 23.4	12 18.8	2 3.1	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.32593	0.0002

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.31

CROSSTABULATION OF

CONTINFO PROVIDE INFO. FOR CONT. N. INVESTMENT BY CBENCOST BENEFIT&COST OF INFO. FOR N. INVEST. CONT.

CONTINFO	CBENCOST: VERY SUCCESS. (1)	QUITE SUCCESS. (2)	SLIGHTLY SUCCESS. (3)	NEUTRAL (4)	SLIGHTLY UNSUCCES (5)	ROW TOTAL
QUITE SUCCESS. (2)		7	1	2		10
		70.0	10.0	20.0		15.6
		50.0	5.3	8.7		
		10.9	1.6	3.1		
SLIGHTLYSUCCESS. (3)	1	3	13	11		28
	3.6	10.7	46.4	39.3		43.8
	50.0	21.4	68.4	47.8		
	1.6	4.7	20.3	17.2		
NEUTRAL (4)	1	4	5	9	2	21
	4.8	19.0	23.8	42.9	9.5	32.8
	50.0	28.6	26.3	39.1	33.3	
	1.6	6.3	7.8	14.1	3.1	
SLIGHTLYUNSUCCES (5)				1	3	4
				25.0	75.0	6.3
				4.3	50.0	
				1.6	4.7	
QUITE UNSUCCES (6)					1	1
					100.0	1.6
					16.7	
					1.6	
COLUMN TOTAL	2	14	19	23	6	64
	3.1	21.9	29.7	35.9	9.4	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.33325	0.0002

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.32

CROSSTABULATION OF

CONTINFO PROVIDE INFO.FOR CONT.N.INVESTMENT BY CMATERIA MATERIALITY OF INFO.FOR N.INVEST.CONTROL

CONTINFO	CMATERIA: COUNT / ROW PCT / COL PCT / TOT PCT	1 VERY SUCCESS.	2 QUITE SUCCESS.	3 SLIGHTLY SUCCESS.	4 NEUTRAL	5 SLIGHTLY UNSUCCES	ROW TOTAL
QUITE SUCCESS.	2		6	1	3		10
			60.0	10.0	30.0		15.6
			27.3	7.1	13.0		
			9.4	1.6	4.7		
SLIGHTLYSUCCESS.	3	1	9	8	10		28
		3.6	32.1	28.6	35.7		43.8
		100.0	40.9	57.1	43.5		
		1.6	14.1	12.5	15.6		
NEUTRAL	4		7	5	8	1	21
			33.3	23.8	38.1	4.8	32.8
			31.8	35.7	34.8	25.0	
			10.9	7.8	12.5	1.6	
SLIGHTLYUNSUCCES	5				2	2	4
					50.0	50.0	6.3
					8.7	50.0	
					3.1	3.1	
QUITE UNSUCCES	6					1	1
						100.0	1.6
						25.0	
						1.6	
	COLUMN TOTAL	1	22	14	23	4	64
		1.6	34.4	21.9	35.9	6.3	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.24536	0.0043

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.33

CROSSTABULATION OF RANKBSPL RANK OF B.S.IMPORT.FOR N.INVEST.PLAN. BY RELVBSPL RANK OF B.S.RELEVAV.FOR N.INVEST.PLAN.

RANKBSPL	RELVBSPL 1 MOST RELEVANT	2 SECOND RELEVANT	3 THIRD RELEVANT	ROW TOTAL
1 MOST IMPORTANT	11 73.3 84.6 17.2	4 26.7 10.5 6.3		15 23.4
2 SECOND IMPORTANT	2 5.9 15.4 3.1	32 94.1 84.2 50.0		34 53.1
3 THIRD IMPORTANT		2 13.3 5.3 3.1	13 86.7 100.0 20.3	15 23.4
COLUMN TOTAL	13 20.3	38 59.4	13 20.3	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.73755	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.34

CROSSTABULATION OF RANKSAPL RANK OF SSAF.IMPORT.FOR N.INVEST.PLAN. BY RELVSAPL RANK OF SSAF.RELEVAN.FOR N.INVEST.PLAN.

RANKSAPL	RELVSAPL: MOST REL IVANT (1)	RELVSAPL: SECOND RELEVANT (2)	ROW TOTAL
MOST IMPORTANT (1)	45	2	47
	95.7	4.3	73.4
	91.8	13.3	
	70.3	3.1	
SECOND IMPORTANT (2)	3	13	16
	18.8	81.3	25.0
	6.1	86.7	
	4.7	20.3	
THIRD IMPORTANT (3)	1		1
	100.0		1.6
	2.0		
	1.6		
COLUMN TOTAL	49	15	64
	76.6	23.4	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.55078	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.35

CROSSTABULATION OF

RANKCOPL RANK OF C.O.IMPORT.FOR N.INVEST.PLAN. BY RELVCOPL RANK OF C.O.RELEVAN.FOR N.INVEST.PLAN.

RANKCOPL	RELVCOPL THIRD RELEVANT 3	FORTH RELEVANT 4	FIFTH RELEVANT 5	ROW TOTAL
3 THIRD IMPORTANT	7 77.8 100.0 10.9	2 22.2 3.8 3.1		9 14.1
4 FORTH IMPORTANT		49 98.0 92.5 76.6	1 2.0 25.0 1.6	50 78.1
5 FIFTH IMPORTANT		2 40.0 3.8 3.1	3 60.0 75.0 4.7	5 7.8
COLUMN TOTAL	7 10.9	53 82.8	4 6.3	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.39404	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.36

CROSSTABULATION OF

RANKPTPL RANK OF P.T.IMPORT.FOR N.INVEST.PLAN. BY RELVPTPL RANK OF P.T.RELEVAN.FOR N.INVEST.PLAN.

RANKPTPL	RELVPTPL FORTH RELEVANT 4	FIFTH RELEVANT 5	SIXTH RELEVANT 6	ROW TOTAL
4 FORTH IMPORTANT	4 57.1 80.0 6.3	3 42.9 6.1 4.7		7 10.9
5 FIFTH IMPORTANT	1 2.0 20.0 1.6	43 86.0 87.8 67.2	6 12.0 60.0 9.4	50 78.1
6 SIXTH IMPORTANT		3 42.9 6.1 4.7	4 57.1 40.0 6.3	7 10.9
COLUMN TOTAL	5 7.8	49 76.6	10 15.6	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.30176	0.0000**

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.37

CROSSTABULATION OF

RANKPLPL RANK OF P.L.IMPORT.FOR N.INVEST.PLAN. BY RELVPLPL RANK OF P.L.RELEVAN.FOR N.INVEST.PLAN.

RANKPLPL	RELVPLPL THIRD RELEVANT 3	FIFTH RELEVANT 5	SIXTH RELEVANT 6	ROW TOTAL
3 THIRD IMPORTANT	1 100.0 100.0 1.6			1 1.6
5 FIFTH IMPORTANT		5 62.5 45.5 7.8	3 37.5 5.8 4.7	8 12.5
6 SIXTH IMPORTANT		6 10.9 54.5 9.4	49 89.1 94.2 76.6	55 85.9
COLUMN TOTAL	1 1.6	11 17.2	52 81.3	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.21240	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.38

CROSSTABULATION OF

RANKCSPL RANK OF C.S.IMPORT.FOR N.INVEST.PLAN. BY RELVCSPL RANK OF C.S.RELEVAN.FOR N.INVEST.PLAN.

RANKCSPL	RELVCSPL: MOST RELEVANT (1)	SECOND RELEVANT (2)	THIRD RELEVANT (3)	FORTH RELEVANT (4)	SIXTH RELEVANT (6)	ROW TOTAL
1 MOST IMPORTANT	2 100.0 100.0 3.1					2 3.1
2 SECOND IMPORTANT		10 76.9 90.9 15.6	3 23.1 7.0 4.7			13 20.3
3 THIRD IMPORTANT		1 2.6 9.1 1.6	38 97.4 88.4 59.4			39 60.9
4 FORTH IMPORTANT			2 25.0 4.7 3.1	6 75.0 100.0 9.4		8 12.5
6 SIXTH IMPORTANT					2 100.0 100.0 3.1	2 3.1
COLUMN TOTAL	2 3.1	11 17.2	43 67.2	6 9.4	2 3.1	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.58289	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.39

CROSSTABULATION OF

RANKBSPL RANK OF B.S.IMPORT.FOR N.INVEST.PLAN. BY RELIBSPL RANK OF B.S.RELIABL.FOR N.INVEST.PLAN.

RANKBSPL	RELIBSPL COUNT ROW PCT COL PCT TOT PCT	MOST RELIABLE 1	SECOND RELIABLE 2	THIRD RELIABLE 3	ROW TOTAL
MOST IMPORTANT	1	10 66.7 76.9 15.6	3 20.0 8.3 4.7	2 13.3 13.3 3.1	15 23.4
SECOND IMPORTANT	2	3 8.8 23.1 4.7	30 88.2 83.3 46.9	1 2.9 6.7 1.6	34 53.1
THIRD IMPORTANT	3		3 20.0 8.3 4.7	12 80.0 80.0 18.8	15 23.4
COLUMN TOTAL		13 20.3	36 56.3	15 23.4	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C**	0.60059	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.40

CROSSTABULATION OF
RANKSAPL RANK OF SSAF.IMPORT.FOR N.INVEST.PLAN. BY RELISAPL RANK OF SSAF.RELIABL.FOR N.INVEST.PLAN.

RANKSAPL	RELISAPL COUNT ROW PCT COL PCT TOT PCT	1 MOST RELIABLE	2 SECOND RELIABLE	ROW TOTAL
1 MOST IMPORTANT		44 93.6 93.6 68.8	3 6.4 17.6 4.7	47 73.4
2 SECOND IMPORTANT		3 18.8 6.4 4.7	13 81.3 76.5 20.3	16 25.0
3 THIRD IMPORTANT			1 100.0 5.9 1.6	1 1.6
COLUMN TOTAL		47 73.4	17 26.6	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.59570	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.41

CROSSTABULATION OF

RANKCOPL RANK OF C.O.IMPORT.FOR N.INVEST.PLAN. BY RELICOPL RANK OF C.O.RELIABL.FOR N.INVEST.PLAN.

RANKCOPL	RELICOPL THIRD RELIABLE 3	FORTH RELIABLE 4	FIFHT RELIABLE 5	ROW TOTAL
3 THIRD IMPORTANT	5 55.6 100.0 7.8	4 44.4 7.4 6.3		9 14.1
4 FORTH IMPORTANT		48 96.0 88.9 75.0	2 4.0 40.0 3.1	50 78.1
5 FIFTH IMPORTANT		2 40.0 3.7 3.1	3 60.0 60.0 4.7	5 7.8
COLUMN TOTAL	5 7.8	54 84.4	5 7.8	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.31860	0.0003

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.42

CROSSTABULATION OF

RANKPTPL RANK OF P.T.IMPORT.FOR N.INVEST.PLAN. BY RELIPTPL RANK OF P.T.RELIABL.FOR N.INVEST.PLAN.

RANKPTPL	RELIPTPL 4 FORTH RELIABLE	5 FIFHT RE LIABLE	6 SIXTH RE LIABLE	ROW TOTAL
4 FORTH IMPORTANT	4 57.1 66.7 6.3	3 42.9 6.3 4.7		7 10.9
5 FIFTH IMPORTANT	2 4.0 33.3 3.1	41 82.0 85.4 64.1	7 14.0 70.0 10.9	50 78.1
6 SIXTH IMPORTANT		4 57.1 8.3 6.3	3 42.9 30.0 4.7	7 10.9
COLUMN TOTAL	6 9.4	48 75.0	10 15.6	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.25854	0.0001

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.43

CROSSTABULATION OF
RANKPLPL RANK OF P.L.IMPORT.FOR N.INVEST.PLAN. BY RELIPLPL RANK OF P.L.RELIABL.FOR N.INVEST.PLAN.

RANKPLPL	RELIPLPL THIRD RELIABLE 3	FIFHT RE LIABLE 5	SIXTH RE LIABLE 6	ROW TOTAL
3 THIRD IMPORTANT	1 100.0 100.0 1.6			1 1.6
5 FIFTH IMPORTANT		4 50.0 36.4 6.3	4 50.0 7.7 6.3	8 12.5
6 SIXTH IMPORTANT		7 12.7 63.6 10.9	48 87.3 92.3 75.0	55 85.9
COLUMN TOTAL	1 1.6	11 17.2	52 81.3	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.16626	0.0006

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.44

CROSS.TABULATION OF
RANKCSPL RANK OF C.S.IMPORT.FOR N.INVEST.PLAN. BY RELICSPL RANK OF C.S.RELIABL.FOR N.INVEST.PLAN.

RANKCSPL	RELICSPL: MOST RELIABLE (1)	SECOND RELIABLE (2)	THIRD RELIABLE (3)	FORTH RELIABLE (4)	SIXTH RELIABLE (6)	ROW TOTAL
1 MOST IMPORTANT	2 100.0 50.0 3.1					2 3.1
2 SECOND IMPORTANT	1 7.7 25.0 1.6	9 69.2 81.8 14.1	3 23.1 7.0 4.7			13 20.3
3 THIRD IMPORTANT		2 5.1 18.2 3.1	37 94.9 86.0 57.8			39 60.9
4 FORTH IMPORTANT	1 12.5 25.0 1.6		3 37.5 7.0 4.7	4 50.0 100.0 6.3		8 12.5
6 SIXTH IMPORTANT					2 100.0 100.0 3.1	2 3.1
COLUMN TOTAL	4 6.3	11 17.2	43 67.2	4 6.3	2 3.1	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.48767	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.45

CROSSTABULATION OF
RANKBSCO RANK OF B.S.IMPORT.FOR N.INVEST.CONT. BY RELVBSCO RANK OF B.S.RELEVAN.FOR N.INVEST.CONT.

RANKBSCO	RELVBSCO: MOST RELEVANT (1)	SECOND RELEVANT (2)	THIRD RELEVANT (3)	ROW TOTAL
MOST IMPORTANT (1)	11 91.7 78.6 17.2	1 8.3 2.5 1.6		12 18.8
SECOND IMPORTANT (2)	3 7.3 21.4 4.7	36 87.8 90.0 56.3	2 4.9 20.0 3.1	41 64.1
THIRD IMPORTANT (3)		3 27.3 7.5 4.7	8 72.7 80.0 12.5	11 17.2
COLUMN TOTAL	14 21.9	40 62.5	10 15.6	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.63062	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.46

CROSSTABULATION OF

RANKSACO RANK OF SSAF.IMPORT.FOR N.INVEST.CONT. BY RELVSACO RANK OF SSAF.RELEVAN.FOR N.INVEST.CONT.

RANKSACO	RELVSACO: 1 MOST RELEVANT	2 SECOND RELEVANT	3 THIRD RELEVANT	ROW TOTAL
1 MOST IMPORTANT	48	3		51
	94.1	5.9		79.7
	98.0	21.4		
	75.0	4.7		
2 SECOND IMPORTANT	1	10		11
	9.1	90.9		17.2
	2.0	71.4		
	1.6	15.6		
3 THIRD IMPORTANT		1	1	2
		50.0	50.0	3.1
		7.1	100.0	
		1.6	1.6	
COLUMN TOTAL	49	14	1	64
	76.6	21.9	1.6	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.43066	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.47

CROSSTABULATION OF

RANKCOCO RANK OF C.O.IMPORT.FOR N.INVEST.CONT. BY RELVCOCO RANK OF C.O.RELEVAN.FOR N.INVEST.CONT.

RANKCOCO	RELVCOCO: THIRD RELEVANT (3)	FORTH RELEVANT (4)	FIFTH RELEVANT (5)	SIXTH RELEVANT (6)	ROW TOTAL
THIRD IMPORTANT (3)	5 62.5 71.4 7.8	3 37.5 5.9 4.7			8 12.5
FORTH IMPORTANT (4)	2 3.9 28.6 3.1	46 90.2 90.2 71.9	3 5.9 60.0 4.7		51 79.7
FIFTH IMPORTANT (5)		2 50.0 3.9 3.1	2 50.0 40.0 3.1		4 6.3
SIXTH IMPORTANT (6)				1 100.0 100.0 1.6	1 1.6
COLUMN TOTAL	7 10.9	51 79.7	5 7.8	1 1.6	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C*	0.28060	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.48

CROSSTABULATION OF

RANKPTCO RANK OF P.T.IMPORT.FOR N.INVEST.CONT. BY RELVPTCO RANK OF P.T.RELEVAN.FOR N.INVEST.CONT.

RANKPTCO	RELVPTCO: THIRD RELEVANT (3)	FORTH RELEVANT (4)	FIFTH RELEVANT (5)	SIXTH RELEVANT (6)	ROW TOTAL
4 FORTH IMPORTANT		4 66.7 57.1 6.3	2 33.3 4.3 3.1		6 9.4
5 FIFTH IMPORTANT	1 2.1 100.0 1.6	3 6.3 42.9 4.7	39 81.3 84.8 60.9	5 10.4 50.0 7.8	48 75.0
6 SIXTH IMPORTANT			5 50.0 10.9 7.8	5 50.0 50.0 7.8	10 15.6
COLUMN TOTAL	1 1.6	7 10.9	46 71.9	10 15.6	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C**	0.31787	0.0000**

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.49

CROSSTABULATION OF

RANKPLCO RANK OF P.L.IMPORT.FOR N.INVEST.CONT. BY RELVPLCO RANK OF P.L.RELEVAN.FOR N.INVEST.CONT.

RANKPLCO	RELVPLCO: FIFTH RELEVANT (5)	SIXTH RELEVANT (6)	ROW TOTAL
3 THIRD IMPORTANT	1 100.0 7.7 1.6		1 1.6
5 FIFTH IMPORTANT	7 58.3 53.8 10.9	5 41.7 9.8 7.8	12 18.8
6 SIXTH IMPORTANT	5 9.8 38.5 7.8	46 90.2 90.2 71.9	51 79.7
COLUMN TOTAL	13 20.3	51 79.7	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.33984	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.50

CROSSTABULATION OF

RANKCSCO RANK OF C.S.IMPORT.FOR N.INVEST.CONT. BY RELVCSCO RANK OF C.S.RELEVAN.FOR N.INVEST.CONT.

RANKCSCO	RELVCSCO: MOST RELEVANT (1)	SECOND RELEVANT (2)	THIRD RELEVANT (3)	FORTH RELEVANT (4)	SIXTH RELEVANT (6)	ROW TOTAL
1 MOST IMPORTANT	1 100.0 50.0 1.6					1 1.6
2 SECOND IMPORTANT	1 8.3 50.0 1.6	9 75.0 90.0 14.1	2 16.7 4.4 3.1			12 18.8
3 THIRD IMPORTANT		1 2.3 10.0 1.6	41 95.3 91.1 64.1	1 2.3 20.0 1.6		43 67.2
4 FORTH IMPORTANT			2 33.3 4.4 3.1	4 66.7 80.0 6.3		6 9.4
6 SIXTH IMPORTANT					2 100.0 100.0 3.1	2 3.1
COLUMN TOTAL	2 3.1	10 15.6	45 70.3	5 7.8	2 3.1	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.51331	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.51

CROSSTABULATION OF

RANKBSCO RANK OF B.S.IMPORT.FOR N.INVEST.CONT. BY RELIBSCO RANK OF B.S.RELIABL.FOR N.INVEST.CONT.

RANKBSCO	RELIBSCO: MOST RELIABLE (1)	SECOND RELIABLE (2)	THIRD RELIABLE (3)	ROW TOTAL
1 MOST IMPORTANT	10	2		12
	83.3	16.7		13.8
	66.7	5.3		
	15.6	3.1		
2 SECOND IMPORTANT	5	34	2	41
	12.2	82.9	4.9	64.1
	33.3	89.5	18.2	
	7.8	53.1	3.1	
3 THIRD IMPORTANT		2	9	11
		18.2	81.8	17.2
		5.3	81.8	
		3.1	14.1	
COLUMN TOTAL	15	38	11	64
	23.4	59.4	17.2	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.61450	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.52

CROSSTABULATION OF

RANKSACO RANK OF SSAF.IMPORT.FOR N.INVEST.CONT. BY RELISACO RANK OF SSAF.RELIABL.FOR N.INVEST.CONT.

RANKSACO	RELISACO: MOST RELIABLE 1	SECOND RELIABLE 2	THIRD RELIABLE 3	ROW TOTAL
1 MOST IMPORTANT	46 90.2 95.8 71.9	5 9.8 33.3 7.8		51 79.7
2 SECOND IMPORTANT	2 18.2 4.2 3.1	9 81.8 60.0 14.1		11 17.2
3 THIRD IMPORTANT		1 50.0 6.7 1.6	1 50.0 100.0 1.6	2 3.1
COLUMN TOTAL	48 75.0	15 23.4	1 1.6	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.37646	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.53

CROSSTABULATION OF

RANKCOCO RANK OF C.O.IMPORT.FOR N.INVEST.CONT. BY RELICOCO RANK OF C.O.RELIABL.FOR N.INVEST.CONT.

RANKCOCO	RELICOCO 3 THIRD RELIABLE	4 FORTH RELIABLE	5 FIFHT RE LIABLE	6 SIXTH RE LIABLE	ROW TOTAL
3 THIRD IMPORTANT	5 62.5 100.0 7.8	3 37.5 5.7 4.7			8 12.5
4 FORTH IMPORTANT		48 94.1 90.6 75.0	3 5.9 60.0 4.7		51 79.7
5 FIFTH IMPORTANT		2 50.0 3.8 3.1	2 50.0 40.0 3.1		4 6.3
6 SIXTH IMPORTANT				1 100.0 100.0 1.6	1 1.6
COLUMN TOTAL	5 7.8	53 82.8	5 7.8	1 1.6	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.28841	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.54

CROSSTABULATION OF

RANKPTCO RANK OF P.T.IMPORT.FOR N.INVEST.CONT. BY RELIPTCO RANK OF P.T.RELIABL.FOR N.INVEST.CONT.

RANKPTCO	RELIPTCO 3 THIRD RELIABLE	4 FORTH RELIABLE	5 FIFHT RE LIABLE	6 SIXTH RE LIABLE	ROW TOTAL
4 FORTH IMPORTANT		4	2		6
		66.7	33.3		9.4
		57.1	4.5		
		6.3	3.1		
5 FIFTH IMPORTANT	1	3	38	6	48
	2.1	6.3	79.2	12.5	75.0
	100.0	42.9	86.4	50.0	
	1.6	4.7	59.4	9.4	
6 SIXTH IMPORTANT			4	6	10
			40.0	60.0	15.6
			9.1	50.0	
			6.3	9.4	
COLUMN TOTAL	1	7	44	12	64
	1.6	10.9	68.8	18.8	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.34570	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.55

CROSSTABULATION OF

RANKPLCO RANK OF P.L.IMPORT.FOR N.INVEST.CONT. BY RELIPLCO RANK OF P.L.RELIABL.FOR N.INVEST.CONT.

RANKPLCO	RELIPLCO: FIFTH RELIABLE (5)	SIXTH RELIABLE (6)	ROW TOTAL
3 THIRD IMPORTANT	1 100.0 6.7 1.6		1 1.6
5 FIFTH IMPORTANT	8 66.7 53.3 12.5	4 33.3 8.2 6.3	12 18.8
6 SIXTH IMPORTANT	6 11.8 40.0 9.4	45 88.2 91.8 70.3	51 79.7
COLUMN TOTAL	15 23.4	49 76.6	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.37598	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.56

CROSSTABULATION OF RANKCSCO RANK OF C.S.IMPORT.FOR N.INVEST.CONT. BY RELICSCO RANK OF C.S.RELIABL.FOR N.INVEST.CONT.

RANKCSCO	RELICSCO: MOST RELIABLE (1)	SECOND RELIABLE (2)	THIRD RELIABLE (3)	FORTH RELIABLE (4)	SIXTH RELIABLE (6)	ROW TOTAL
1 MOST IMPORTANT	1 100.0 100.0 1.6					1 1.6
2 SECOND IMPORTANT		10 83.3 90.9 15.6	2 16.7 4.3 3.1			12 18.8
3 THIRD IMPORTANT		1 2.3 9.1 1.6	42 97.7 91.3 65.6			43 67.2
4 FORTH IMPORTANT			2 33.3 4.3 3.1	4 66.7 100.0 6.3		6 9.4
6 SIXTH IMPORTANT					2 100.0 100.0 3.1	2 3.1
COLUMN TOTAL	1 1.6	11 17.2	46 71.9	4 6.3	2 3.1	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.51575	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.57

CROSSTABULATION OF

INFLBSPL DEGREE OF B.S.INFLU.IN N.INVEST.PLAN. BY RELVBSPL RANK OF B.S.RELEVAV.FOR N.INVEST.PLAN.

INFLBSPL	RELVBSPL COUNT / ROW PCT / COL PCT / TOT PCT	MOST RELEVANT 1	SECOND RELEVANT 2	THIRD RELEVANT 3	ROW TOTAL
1 MAXIMUM INFLUENC		11	22		33
		33.3	66.7		51.6
		84.6	57.9		
		17.2	34.4		
2 CONSIDERABLE INF		2	16	10	28
		7.1	57.1	35.7	43.8
		15.4	42.1	76.9	
		3.1	25.0	15.6	
3 MODERATEINFLUENC				3	3
				100.0	4.7
				23.1	
				4.7	
COLUMN TOTAL		13	38	13	64
		20.3	59.4	20.3	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.45044	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.58

CROSSTABULATION OF

INFLSAPL DEGREE OF SSAF.INFLU.IN N.INVEST.PLAN. BY RELVSAPL RANK OF SSAF.RELEVAN.FOR N.INVEST.PLAN.

INFLSAPL	RELVSAPL COUNT ROW PCT COL PCT TOT PCT	MOST REL IVANT 1	SECOND RELEVANT 2	ROW TOTAL
MAXIMUM INFLUENC	1	40 78.4 81.6 62.5	11 21.6 73.3 17.2	51 79.7
CONSIDERABLE INF	2	9 69.2 18.4 14.1	4 30.8 26.7 6.3	13 20.3
	COLUMN TOTAL	49 76.6	15 23.4	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.05957	0.2440

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.59

CROSSTABULATION OF

INFLCOPL DEGREE OF C.O.INFLU.IN N.INVEST.PLAN. BY RELVCOPL RANK OF C.O.RELEVAN.FOR N.INVEST.PLAN.

INFLCOPL	RELVCOPL: THIRD RELEVANT (3)	FORTH RELEVANT (4)	FIFTH RELEVANT (5)	ROW TOTAL
2 CONSIDERABLE INF	3 21.4 42.9 4.7	11 78.6 20.8 17.2		14 21.9
3 MODERATEINFLUENC	4 8.7 57.1 6.3	38 82.6 71.7 59.4	4 8.7 100.0 6.3	46 71.9
4 SLIGHT INFLUENC		4 100.0 7.5 6.3		4 6.3
COLUMN TOTAL	7 10.9	53 82.8	4 6.3	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.10107	0.0599

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.60

CROSSTABULATION OF

INFLPTPL DEGREE OF P.T.INFLU.IN N.INVEST.PLAN. BY RELVPTPL RANK OF P.T.RELEVAN.FOR N.INVEST.PLAN.

INFLPTPL	RELVPTPL: FORTH RELEVANT 4	FIFTH RELEVANT 5	SIXTH RELEVANT 6	ROW TOTAL
2 CONSIDERABLE INF	1 10.0 20.0 1.6	5 50.0 10.2 7.8	4 40.0 40.0 6.3	10 15.6
3 MODERATEINFLUENC	4 10.8 80.0 6.3	29 78.4 59.2 45.3	4 10.8 40.0 6.3	37 57.8
4 SLIGHT INFLUENC		13 86.7 26.5 20.3	2 13.3 20.0 3.1	15 23.4
5 NONE INFLUENC		2 100.0 4.1 3.1		2 3.1
COLUMN TOTAL	5 7.8	49 76.6	10 15.6	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	-0.05127	0.2680

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.61

CROSSTABULATION OF

INFLPLPL DEGREE OF P.L.INFLU.IN N.INVEST.PLAN. BY RELVPLPL RANK OF P.L.RELEVAN.FOR N.INVEST.PLAN.

INFLPLPL	RELVPLPL THIRD RELEVANT 3	FIFTH RELEVANT 5	SIXTH RELEVANT 6	ROW TOTAL
2 CONSIDERABLE INF		5 55.6 45.5 7.8	4 44.4 7.7 6.3	9 14.1
3 MODERATEINFLUENC	1 3.0 100.0 1.6	3 9.1 27.3 4.7	29 87.9 55.8 45.3	33 51.6
4 SLIGHT INFLUENC		3 15.0 27.3 4.7	17 85.0 32.7 26.6	20 31.3
5 NONE INFLUENC			2 100.0 3.8 3.1	2 3.1
COLUMN TOTAL	1 1.6	11 17.2	52 81.3	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.15015	0.0267

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.62

CROSSTABULATION OF

INFLCSPL DEGREE OF C.S.INFLU.IN N.INVEST.PLAN. BY RELVCSPL RANK OF C.S.RELEVAN.FOR N.INVEST.PLAN.

INFLCSPL	RELVCSPL COUNT / ROW PCT / COL PCT / TOT PCT	MOST REL IVANT 1	SECOND RELEVANT 2	THIRD RELEVANT 3	FORTH RELEVANT 4	SIXTH RE LEVANT 6	ROW TOTAL
MAXIMUM INFLUENC	1	2 14.3 100.0 3.1	3 21.4 27.3 4.7	9 64.3 20.9 14.1			14 21.9
CONSIDERABLE INF	2		6 18.2 54.5 9.4	25 75.8 58.1 39.1	2 6.1 33.3 3.1		33 51.6
MODERATEINFLUENC	3		2 12.5 18.2 3.1	9 56.3 20.9 14.1	4 25.0 66.7 6.3	1 6.3 50.0 1.6	16 25.0
SLIGHT INFLUENC	4					1 100.0 50.0 1.6	1 1.6
	COLUMN TOTAL	2 3.1	11 17.2	43 67.2	6 9.4	2 3.1	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.26888	0.0008

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.63

CROSSTABULATION OF

INFLBSPL DEGREE OF B.S.INFLU.IN N.INVEST.PLAN. BY RELIBSPL RANK OF B.S.RELIABL.FOR N.INVEST.PLAN.

INFLBSPL	RELIBSPL MOST RELIABLE 1	SECOND RELIABLE 2	THIRD RELIABLE 3	ROW TOTAL
COUNT / ROW PCT / COL PCT / TOT PCT				
1 MAXIMUM INFLUENC	11	21	1	33
	33.3	63.6	3.0	51.6
	84.6	58.3	6.7	
	17.2	32.8	1.6	
2 CONSIDERABLE INF	2	15	11	28
	7.1	53.6	39.3	43.8
	15.4	41.7	73.3	
	3.1	23.4	17.2	
3 MODERATEINFLUENC			3	3
			100.0	4.7
			20.0	
			4.7	
COLUMN TOTAL	13	36	15	64
	20.3	56.3	23.4	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.44312	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.64

CROSSTABULATION OF

INFLSAPL DEGREE OF SSAF.INFLU.IN N.INVEST.PLAN. BY RELISAPL RANK OF SSAF.RELIABL.FOR N.INVEST.PLAN.

INFLSAPL	RELISAPL MOST RELIABLE 1	RELISAPL SECOND RELIABLE 2	ROW TOTAL
1 MAXIMUM INFLUENC	41 80.4 87.2 64.1	10 19.6 58.8 15.6	51 79.7
2 CONSIDERABLE INF	6 46.2 12.8 9.4	7 53.8 41.2 10.9	13 20.3
COLUMN TOTAL	47 73.4	17 26.6	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.22168	0.0067

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.65

CROSSTABULATION OF

INFLCOPL DEGREE OF C.O.INFLU.IN N.INVEST.PLAN. BY RELICOPL RANK OF C.O.RELIABL.FOR N.INVEST.PLAN.

INFLCOPL	RELICOPL	3 THIRD RELIABLE	4 FORTH RELIABLE	5 FIFHT RELIABLE	ROW TOTAL
CONSIDERABLE INF	2	3	11		14
		21.4	78.6		21.9
		60.0	20.4		
		4.7	17.2		
MODERATEINFLUENC	3	2	39	5	46
		4.3	84.8	10.9	71.9
		40.0	72.2	100.0	
		3.1	60.9	7.8	
SLIGHT INFLUENC	4		4		4
			100.0		6.3
			7.4		
			6.3		
COLUMN TOTAL		5	54	5	64
		7.8	84.4	7.8	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C*	0.12085	0.0266*

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.66

CROSSTABULATION OF
INFLPTPL DEGREE OF P.T.INFLU.IN N.INVEST.PLAN. BY RELIPTPL RANK OF P.T.RELIABL.FOR N.INVEST.PLAN.

INFLPTPL	RELIPTPL	4 FORTH RELIABLE	5 FIFHT RELIABLE	6 SIXTH RELIABLE	ROW TOTAL
CONSIDERABLE INF	2	1	5	4	10
		10.0	50.0	40.0	15.6
		16.7	10.4	40.0	
		1.6	7.8	6.3	
MODERATEINFLUENC	3	5	29	3	37
		13.5	78.4	8.1	57.8
		83.3	60.4	30.0	
		7.8	45.3	4.7	
SLIGHT INFLUENC	4		12	3	15
			80.0	20.0	23.4
			25.0	30.0	
			18.8	4.7	
NONE INFLUENC	5		2		2
			100.0		3.1
			4.2		
			3.1		
COLUMN TOTAL		6	48	10	64
		9.4	75.0	15.6	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	-0.01025	0.4519

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.67

CROSSTABULATION OF

INFLPLPL DEGREE OF P.L.INFLU.IN N.INVEST.PLAN. BY RELIPLPL RANK OF P.L.RELIABL.FOR N.INVEST.PLAN.

INFLPLPL	RELIPLPL THIRD RELIABLE 3	FIFHT RE LIABLE 5	SIXTH RE LIABLE 6	ROW TOTAL
2 CONSIDERABLE INF		5 55.6 45.5 7.8	4 44.4 7.7 6.3	9 14.1
3 MODERATEINFLUENC	1 3.0 100.0 1.6	3 9.1 27.3 4.7	29 87.9 55.8 45.3	33 51.6
4 SLIGHT INFLUENC		3 15.0 27.3 4.7	17 85.0 32.7 26.6	20 31.3
5 NONE INFLUENC			2 100.0 3.8 3.1	2 3.1
COLUMN TOTAL	1 1.6	11 17.2	52 81.3	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.15015	0.0267

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.68

CROSSTABULATION OF

INFLCSPL DEGREE OF C.S.INFLU.IN N.INVEST.PLAN. BY RELICSPL RANK OF C.S.RELIABL.FOR N.INVEST.PLAN.

INFLCSPL	RELICSPL COUNT ROW PCT COL PCT TOT PCT	MOST RELIABLE 1	SECOND RELIABLE 2	THIRD RELIABLE 3	FORTH RELIABLE 4	SIXTH RELIABLE 6	ROW TOTAL
MAXIMUM INFLUENC	1	3 21.4 75.0 4.7	3 21.4 27.3 4.7	8 57.1 18.6 12.5			14 21.9
CONSIDERABLE INF	2		6 18.2 54.5 9.4	25 75.8 58.1 39.1	2 6.1 50.0 3.1		33 51.6
MODERATEINFLUENC	3	1 6.3 25.0 1.6	2 12.5 18.2 3.1	10 62.5 23.3 15.6	2 12.5 50.0 3.1	1 6.3 50.0 1.6	16 25.0
SLIGHT INFLUENC	4					1 100.0 50.0 1.6	1 1.6
COLUMN TOTAL		4 6.3	11 17.2	43 67.2	4 6.3	2 3.1	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.22070	0.0048

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.69

CROSSTABULATION OF

INFLBSCO DEGREE OF B.S.INFLU.IN N.INVEST.CONT. BY RELVBSCO RANK OF B.S.RELEVAN.FOR N.INVEST.CONT.

INFLBSCO	RELVBSCO: MOST RELEVANT (1)	SECOND RELEVANT (2)	THIRD RELEVANT (3)	ROW TOTAL
1 MAXIMUM INFLUENC	11	19		30
	36.7	63.3		46.9
	78.6	47.5		
	17.2	29.7		
2 CONSIDERABLE INF	2	21	8	31
	6.5	67.7	25.8	48.4
	14.3	52.5	80.0	
	3.1	32.8	12.5	
3 MODERATEINFLUENC	1		2	3
	33.3		66.7	4.7
	7.1		20.0	
	1.6		3.1	
COLUMN TOTAL	14	40	10	64
	21.9	62.5	15.6	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.35962	0.0001

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.70

CROSSTABULATION OF

INFLSACO DEGREE OF SSAF.INFLU.IN N.INVEST.CONT. BY RELVSACO RANK OF SSAF.RELEVAN.FOR N.INVEST.CONT.

INFLSACO	RELVSACO: MOST RELEVANT (1)	SECOND RELEVANT (2)	THIRD RELEVANT (3)	ROW TOTAL
1 MAXIMUM INFLUENC	41	9		50
	82.0	18.0		78.1
	83.7	64.3		
	64.1	14.1		
2 CONSIDERABLE INF	8	4	1	13
	61.5	30.8	7.7	20.3
	16.3	28.6	100.0	
	12.5	6.3	1.6	
3 MODERATEINFLUENC		1		1
		100.0		1.6
		7.1		
		1.6		
COLUMN TOTAL	49	14	1	64
	76.6	21.9	1.6	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C**	0.13916	0.0182

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.71

CROSSTABULATION OF

INFLCOCO DEGREE OF C.O.INFLU.IN N.INVEST.CONT. BY RELVCOCO RANK OF C.O.RELEVAN.FOR N.INVEST.CONT.

INFLCOCO	RELVCOCO: THIRD RELEVANT (3)	FORTH RELEVANT (4)	FIFTH RELEVANT (5)	SIXTH RELEVANT (6)	ROW TOTAL
2 CONSIDERABLE INF	4 26.7 57.1 6.3	11 73.3 21.6 17.2			15 23.4
3 MODERATEINFLUENC	3 6.7 42.9 4.7	37 82.2 72.5 57.8	4 8.9 80.0 6.3	1 2.2 100.0 1.6	45 70.3
4 SLIGHT INFLUENC		3 75.0 5.9 4.7	1 25.0 20.0 1.6		4 6.3
COLUMN TOTAL	7 10.9	51 79.7	5 7.8	1 1.6	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.18311	0.0048

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.72

CROSSTABULATION OF

INFLPTCO DEGREE OF P.T.INFLU.IN.N.INVEST.CONT. BY RELVPTCO RANK OF P.T.RELEVAN.FOR N.INVEST.CONT.

INFLPTCO	RELVPTCO COUNT / ROW PCT / COL PCT / TOT PCT	THIRD RELEVANT 3	FORTH RELEVANT 4	FIFTH RELEVANT 5	SIXTH RELEVANT 6	ROW TOTAL
2 CONSIDERABLE INF			1	6	4	11
			9.1	54.5	35.4	17.2
			14.3	13.0	40.0	
			1.6	9.4	6.3	
3 MODERATEINFLUENC		1	4	25	5	35
		2.9	11.4	71.4	14.3	54.7
		100.0	57.1	54.3	50.0	
		1.6	6.3	39.1	7.8	
4 SLIGHT INFLUENC			1	14	1	16
			6.3	87.5	6.3	25.0
			14.3	30.4	10.0	
			1.6	21.9	1.6	
5 NONE INFLUENC			1	1		2
			50.0	50.0		3.1
			14.3	2.2		
			1.6	1.6		
COLUMN TOTAL		1	7	46	10	64
		1.6	10.9	71.9	15.6	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	-0.12500	0.0588

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.73

CROSSTABULATION OF

INFLPLCO DEGREE OF P.L.INFLU.IN N.INVEST.CONT. BY RELVPLCO RANK OF P.L.RELEVAN.FOR N.INVEST.CONT.

INFLPLCO	RELVPLCO	FIFTH RELEVANT 5	SIXTH RELEVANT 6	ROW TOTAL
CONSIDERABLE INF	2	5	5	10
		50.0	50.0	15.6
		38.5	9.8	
		7.8	7.8	
MODERATEINFLUENC	3	6	27	33
		18.2	81.8	51.6
		46.2	52.9	
		9.4	42.2	
SLIGHT INFLUENC	4	2	17	19
		10.5	89.5	29.7
		15.4	33.3	
		3.1	26.6	
NONE INFLUENC	5		2	2
			100.0	3.1
			3.9	
			3.1	
COLUMN TOTAL		13	51	64
		20.3	79.7	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.24805	0.0101

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.74

CROSSTABULATION OF

INFLCSCO' DEGREE OF C.S.INFLU.IN N.INVEST.CONT. BY RELVCSCO RANK OF C.S.RELEVAN.FOR N.INVEST.CONT.

INFLCSCO	RELVCSCO: MOST RELEVANT (1)	SECOND RELEVANT (2)	THIRD RELEVANT (3)	FORTH RELEVANT (4)	SIXTH RELEVANT (6)	ROW TOTAL
1 MAXIMUM INFLUENC	2 13.3 100.0 3.1	4 26.7 40.0 6.3	9 60.0 20.0 14.1			15 23.4
2 CONSIDERABLE INF		5 16.7 50.0 7.8	22 73.3 48.9 34.4	3 10.0 60.0 4.7		30 46.9
3 MODERATEINFLUENC		1 5.6 10.0 1.6	14 77.8 31.1 21.9	2 11.1 40.0 3.1	1 5.6 50.0 1.6	18 28.1
4 SLIGHT INFLUENC					1 100.0 50.0 1.6	1 1.6
COLUMN TOTAL	2 3.1	10 15.6	45 70.3	5 7.8	2 3.1	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.26888	0.0007

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.75

CROSSTABULATION OF

INFLBSCO DEGREE OF B.S.INFLU.IN N.INVEST.CONT. BY RELIBSCO RANK OF B.S.RELIABL.FOR N.INVEST.CONT.

INFLBSCO	RELIBSCO COUNT ROW PCT COL PCT TOT PCT	MOST RELIABLE 1	SECOND RELIABLE 2	THIRD RELIABLE 3	ROW TOTAL
MAXIMUM INFLUENC	1	13 43.3 86.7 20.3	17 56.7 44.7 26.6		30 46.9
CONSIDERABLE INF	2	1 3.2 6.7 1.6	21 67.7 55.3 32.8	9 29.0 81.8 14.1	31 48.4
MODERATEINFLUENC	3	1 33.3 6.7 1.6		2 66.7 18.2 3.1	3 4.7
COLUMN TOTAL		15 23.4	38 59.4	11 17.2	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.42700	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.76

CROSSTABULATION OF

INFLSACO DEGREE OF SSAF.INFLU.IN N.INVEST.CONT. BY RELISACO RANK OF SSAF.RELIABL.FOR N.INVEST.CONT.

INFLSACO	RELISACO: MOST RELIABLE (1)	SECOND RELIABLE (2)	THIRD RELIABLE (3)	ROW TOTAL
1 MAXIMUM INFLUENC	39	11		50
	78.0	22.0		78.1
	81.3	73.3		
	60.9	17.2		
2 CONSIDERABLE INF	9	3	1	13
	69.2	23.1	7.7	20.3
	18.8	20.0	100.0	
	14.1	4.7	1.6	
3 MODERATEINFLUENC		1		1
		100.0		1.6
		6.7		
		1.6		
COLUMN TOTAL	48	15	1	64
	75.0	23.4	1.6	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C*	0.08423	0.1076

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.77

CROSSTABULATION OF
INFLCOCO DEGREE OF C.O.INFLU.IN N.INVEST.CONT. BY RELICOCO RANK OF C.O.RELIABL.FOR N.INVEST.CONT.

INFLCOCO	RELICOCO: THIRD RELIABLE (3)	FORTH RELIABLE (4)	FIFHT RELIABLE (5)	SIXTH RELIABLE (6)	ROW TOTAL
2 CONSIDERABLE INF	3	12			15
	20.0	80.0			23.4
	60.0	22.6			
	4.7	18.8			
3 MODERATEINFLUENC	2	38	4	1	45
	4.4	84.4	8.9	2.2	70.3
	40.0	71.7	80.0	100.0	
	3.1	59.4	6.3	1.6	
4 SLIGHT INFLUENC		3	1		4
		75.0	25.0		6.3
		5.7	20.0		
		4.7	1.6		
COLUMN TOTAL	5	53	5	1	64
	7.8	82.8	7.8	1.6	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.16040	0.0077

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.78

CROSSTABULATION OF

INFLPTCO DEGREE OF P.T.INFLU.IN.N.INVEST.CONT. BY RELIPTCO RANK OF P.T.RELIABL.FOR N.INVEST.CONT.

INFLPTCO	RELIPTCO: THIRD RELIABLE (3)	FORTH RELIABLE (4)	FIFHT RELIABLE (5)	SIXTH RELIABLE (6)	ROW TOTAL
2 CONSIDERABLE INF	1 9.1 14.3 1.6	6 54.5 13.6 9.4	4 36.4 33.3 6.3		11 17.2
3 MODERATEINFLUENC	1 2.9 100.0 1.6	5 14.3 71.4 7.8	23 65.7 52.3 35.9	6 17.1 50.0 9.4	35 54.7
4 SLIGHT INFLUENC			14 87.5 31.8 21.9	2 12.5 16.7 3.1	16 25.0
5 NONE INFLUENC		1 50.0 14.3 1.6	1 50.0 2.3 1.6		2 3.1
COLUMN TOTAL	1 1.6	7 10.9	44 68.8	12 18.8	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	-0.07617	0.1783

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.79

CROSSTABULATION OF

INFLPLCO DEGREE OF P.L.INFLU.IN N.INVEST.CONT. BY RELIPLCO RANK OF P.L.RELIABL.FOR N.INVEST.CONT.

INFLPLCO	RELIPLCO: FIFHT RELIABLE (5)	SIXTH RELIABLE (6)	ROW TOTAL
2 CONSIDERABLE INF	5 50.0 33.3 7.8	5 50.0 10.2 7.8	10 15.6
3 MODERATEINFLUENC	7 21.2 46.7 10.9	26 78.8 53.1 40.6	33 51.6
4 SLIGHT INFLUENC	3 15.8 20.0 4.7	16 84.2 32.7 25.0	19 29.7
5 NONE INFLUENC		2 100.0 4.1 3.1	2 3.1
COLUMN TOTAL	15 23.4	49 76.6	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.21875	0.0259

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.80

CROSSTABULATION OF

INFLCSCO DEGREE OF C.S.INFLU.IN N.INVEST.CONT. BY RELICSCO RANK OF C.S.RELIABL.FOR N.INVEST.CONT.

INFLCSCO	RELICSCO COUNT / ROW PCT / COL PCT / TOT PCT	MOST RELIABLE 1	SECOND RELIABLE 2	THIRD RELIABLE 3	FORTH RELIABLE 4	SIXTH RELIABLE 6	ROW TOTAL
MAXIMUM INFLUENC	1	1	5	9			15
		6.7	33.3	60.0			23.4
		100.0	45.5	19.6			
		1.6	7.8	14.1			
CONSIDERABLE INF	2		5	23	2		30
			16.7	76.7	6.7		46.9
			45.5	50.0	50.0		
			7.8	35.9	3.1		
MODERATEINFLUENC	3		1	14	2	1	18
			5.6	77.8	11.1	5.6	28.1
			9.1	30.4	50.0	50.0	
			1.6	21.9	3.1	1.6	
SLIGHT INFLUENC	4					1	1
						100.0	1.6
						50.0	
						1.6	
COLUMN TOTAL		1	11	46	4	2	64
		1.6	17.2	71.9	6.3	3.1	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.26953	0.0005

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.81

CROSSTABULATION OF

RANKBSPL RANK OF B.S.IMPORT.FOR N.INVEST.PLAN. BY READBASH READING PATTERN OF THE BALANCE SHEET

RANKBSPL	READBASH 1 R.THOROUGHLY	2 R.BRIEFLY	ROW TOTAL
1 MOST IMPORTANT	14 93.3 23.7 21.9	1 6.7 20.0 1.6	15 23.4
2 SECOND IMPORTANT	33 97.1 55.9 51.6	1 2.9 20.0 1.6	34 53.1
3 THIRD IMPORTANT	12 80.0 20.3 18.8	3 20.0 60.0 4.7	15 23.4
COLUMN TOTAL	59 92.2	5 7.8	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C**	0.09570	0.3885

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.82

CROSSTABULATION OF

RANKSAPL RANK OF SSAF.IMPORT.FOR N.INVEST.PLAN. BY READSSAF READING PATTERN OF THE S.S.A.FUNDS

RANKSAPL	READSSAF COUNT ROW PCT COL PCT TOT PCT	1 IR.THOROUGHLY	ROW TOTAL
MOST IMPORTANT	1	47 100.0 73.4 73.4	47 73.4
SECOND IMPORTANT	2	16 100.0 25.0 25.0	16 25.0
THIRD IMPORTANT	3	1 100.0 1.6 1.6	1 1.6
	COLUMN TOTAL	64 100.0	64 100.0

*** STATISTICS CANNOT BE COMPUTED WHEN THE NUMBER OF NON-EMPTY ROWS OR COLUMNS IS ONE ***

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.83

CROSSTABULATION OF
RANKCOPL RANK OF C.O.IMPORT.FOR N.INVEST.PLAN. BY READCOST READING PATTERN OF THE C.O.ACCOUNT

RANKCOPL	READCOST			ROW TOTAL
COUNT / ROW PCT / COL PCT / TOT PCT	IR.THOROUGHLY 1	R.BRIEFLY 2	DO NOT READ 3	
3 THIRD IMPORTANT	3	6		9
	33.3	66.7		14.1
	13.6	15.8		
	4.7	9.4		
4 FORTH IMPORTANT	16	30	4	50
	32.0	60.0	8.0	78.1
	72.7	78.9	100.0	
	25.0	46.9	6.3	
5 FIFTH IMPORTANT	3	2		5
	60.0	40.0		7.8
	13.6	5.3		
	4.7	3.1		
COLUMN TOTAL	22	38	4	64
	34.4	59.4	6.3	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	-0.04395	0.2882

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.84

CROSSTABULATION OF

RANKPTPL RANK OF P.T.IMPORT.FOR N.INVEST.PLAN. BY READPRTR READING PATTERN OF THE PRODUCT.&TRAD.AC.

RANKPTPL	READPRTR COUNT ROW PCT COL PCT TOT PCT	IR.THOROUGHLY 1	R.BRIEFLY 2	DO NOT READ 3	ROW TOTAL
4 FORTH IMPORTANT		4 57.1 18.2 6.3	3 42.9 8.6 4.7		7 10.9
5 FIFTH IMPORTANT		14 28.0 63.6 21.9	30 60.0 85.7 46.9	6 12.0 85.7 9.4	50 78.1
6 SIXTH IMPORTANT		4 57.1 18.2 6.3	2 28.6 5.7 3.1	1 14.3 14.3 1.6	7 10.9
COLUMN TOTAL		22 34.4	35 54.7	7 10.9	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.02856	0.3622

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.85

CROSSTABULATION OF

RANKPLPL RANK OF P.L.IMPORT.FOR N.INVEST.PLAN. BY READPRLO READING PATTERN OF THE P.&L.ACCOUNT

RANKPLPL	READPRLO			
COUNT / ROW PCT / COL PCT / TOT PCT	1 R.THOROUGHLY	2 R.BRIEFLY	3 DO NOT READ	ROW TOTAL
3 THIRD IMPORTANT	1 100.0 3.6 1.6			1 1.6
5 FIFTH IMPORTANT	5 62.5 17.9 7.8	3 37.5 9.7 4.7		8 12.5
6 SIXTH IMPORTANT	22 40.0 78.6 34.4	28 50.9 90.3 43.8	5 9.1 100.0 7.8	55 85.9
COLUMN TOTAL	28 43.8	31 48.4	5 7.8	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.10986	0.0531

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.86

CROSSTABULATION OF
RANKCSPL RANK OF C.S.IMPORT.FOR N.INVEST.PLAN. BY READCAST READING PATTERN OF THE CASH STATEMENT

RANKCSPL	COUNT / ROW PCT / COL PCT / TOT PCT	READCAST: R.THOROUGHLY 1	READCAST: R.BRIEFLY 2	ROW TOTAL
1 MOST IMPORTANT		2		2
		100.0		3.1
		4.2		
		3.1		
2 SECOND IMPORTANT		8	5	13
		61.5	38.5	20.3
		16.7	31.3	
		12.5	7.8	
3 THIRD IMPORTANT		31	8	39
		79.5	20.5	60.9
		64.6	50.0	
		48.4	12.5	
4 FORTH IMPORTANT		6	2	8
		75.0	25.0	12.5
		12.5	12.5	
		9.4	3.1	
6 SIXTH IMPORTANT		1	1	2
		50.0	50.0	3.1
		2.1	6.3	
		1.6	1.6	
COLUMN TOTAL		48	16	64
		75.0	25.0	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	-0.02832	0.3985

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.87

CROSSTABULATION OF

RANKBSCO RANK OF U.S. IMPORT. FOR N.INVEST.CONT. BY READBASH READING PATTERN OF THE BALANCE SHEET

RANKBSCO	READBASH COUNT ROW PCT COL PCT TOT PCT	1 R.THOROUGHLY	2 R.BRIEFLY	ROW TOTAL
1 MOST IMPORTANT		12 100.0 20.3 18.8		12 18.8
2 SECOND IMPORTANT		39 95.1 66.1 60.9	2 4.9 40.0 3.1	41 64.1
3 THIRD IMPORTANT		8 72.7 13.6 12.5	3 27.3 60.0 4.7	11 17.2
COLUMN TOTAL		59 92.2	5 7.8	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.15723	0.0090

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.88

CROSSTABULATION OF

RANKSACO RANK OF SSAF.IMPORT.FOR N.INVEST.CONT. BY READSSAF READING PATTERN OF THE S.S.A.FUNDS

RANKSACO	READSSAF: 1 IR.THOROUGHLY	ROW TOTAL
MOST IMPORTANT (1)	51 100.0 79.7 79.7	51 79.7
SECOND IMPORTANT (2)	11 100.0 17.2 17.2	11 17.2
THIRD IMPORTANT (3)	2 100.0 3.1 3.1	2 3.1
COLUMN TOTAL	64 100.0	64 100.0

*** STATISTICS CANNOT BE COMPUTED WHEN THE NUMBER OF NON-EMPTY ROWS OR COLUMNS IS ONE ***

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.89

CROSSTABULATION OF

RANKCOCO RANK OF C.O.IMPORT.FOR N.INVEST.CONT. BY READCOST READING PATTERN OF THE C.O.ACCOUNT

RANKCOCO	READCOST 1 HIGHLY THOROUGHLY	2 BRIEFLY	3 DO NOT READ	ROW TOTAL
3 THIRD IMPORTANT	3 37.5 13.6 4.7	5 62.5 13.2 7.8		8 12.5
4 FORTH IMPORTANT	15 29.4 68.2 23.4	32 62.7 84.2 50.0	4 7.8 100.0 6.3	51 79.7
5 FIFTH IMPORTANT	3 75.0 13.6 4.7	1 25.0 2.6 1.6		4 6.3
6 SIXTH IMPORTANT	1 100.0 4.5 1.6			1 1.6
COLUMN TOTAL	22 34.4	38 59.4	4 6.3	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	-0.07178	0.1741

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.90

CROSSTABULATION OF

RANKPTCO RANK OF P.T.IMPORT.FOR N.INVEST.CONT. BY READPRTR READING PATTERN OF THE PRODUCT.&TRAD.AC.

RANKPTCO	READPRTR COUNT ROW PCT COL PCT TOT PCT	1 R.THOROUGHLY	2 R.BRIEFLY	3 DO NOT READ	ROW TOTAL
FORTH IMPORTANT	4	4 66.7 18.2 6.3	2 33.3 5.7 3.1		6 9.4
FIFTH IMPORTANT	5	12 25.0 54.5 18.8	30 62.5 85.7 46.9	6 12.5 85.7 9.4	48 75.0
SIXTH IMPORTANT	6	6 60.0 27.3 9.4	3 30.0 8.6 4.7	1 10.0 14.3 1.6	10 15.6
	COLUMN TOTAL	22 34.4	35 54.7	7 10.9	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	-0.01318	0.4384

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.91

CROSSTABULATION OF

RANKPLCO RANK OF P.L.IMPORT.FOR N.INVEST.CONT. BY READPRLO READING PATTERN OF THE P.&L.ACCOUNT

RANKPLCO	READPRLO COUNT / ROW PCT / COL PCT / TOT PCT	1 THOROUGHLY	2 BRIEFLY	3 DO NOT READ	ROW TOTAL
3 THIRD IMPORTANT		1			1
		100.0			1.6
		3.6			
		1.6			
5 FIFTH IMPORTANT		8	4		12
		66.7	33.3		18.8
		28.6	12.9		
		12.5	6.3		
6 SIXTH IMPORTANT		19	27	5	51
		37.3	52.9	9.8	79.7
		67.9	87.1	100.0	
		29.7	42.2	7.8	
COLUMN TOTAL		28	31	5	64
		43.8	48.4	7.8	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.17285	0.0141

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.92

CROSSTABULATION OF RANKCSCO RANK OF C.S.IMPORT.FOR N.INVEST.CONT. BY READCAST READING PATTERN OF THE CASH STATEMENT

RANKCSCO	COUNT / ROW PCT / COL PCT / TOT PCT	READCAST: R.THOROUGHLY 1	READCAST: R.BRIEFLY 2	ROW TOTAL
1 MOST IMPORTANT		1		1
		100.0		1.6
		2.1		
		1.6		
2 SECOND IMPORTANT		10	2	12
		83.3	16.7	18.8
		20.8	12.5	
		15.6	3.1	
3 THIRD IMPORTANT		31	12	43
		72.1	27.9	67.2
		64.6	75.0	
		48.4	18.8	
4 FORTH IMPORTANT		5	1	6
		83.3	16.7	9.4
		10.4	6.3	
		7.8	1.6	
6 SIXTH IMPORTANT		1	1	2
		50.0	50.0	3.1
		2.1	6.3	
		1.6	1.6	
COLUMN TOTAL		48	16	64
		75.0	25.0	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.07422	0.2390

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.93

CROSSTABULATION OF

INFLBSPL DEGREE OF B.S.INFLU.IN N.INVEST.PLAN. BY READBASH READING PATTERN OF THE BALANCE SHEET

INFLBSPL	READBASH COUNT ROW PCT COL PCT TOT PCT	1 R.THOROUGHLY	2 R.BRIEFLY	ROW TOTAL
MAXIMUM INFLUENC	1	32 97.0 54.2 50.0	1 3.0 20.0 1.6	33 51.6
CONSIDERABLE INF	2	24 85.7 40.7 37.5	4 14.3 80.0 6.3	28 43.8
MODERATEINFLUENC	3	3 100.0 5.1 4.7		3 4.7
COLUMN TOTAL		59 92.2	5 7.8	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.08691	0.1036

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.94

CROSSTABULATION OF

INFLSAPL DEGREE OF SSAF.INFLU.IN N.INVEST.PLAN. BY READSSAF READING PATTERN OF THE S.S.A.FUNDS

INFLSAPL	COUNT / ROW PCT / COL PCT / TOT PCT	READSSAF 1 IR.THOROUGHLY	ROW TOTAL
MAXIMUM INFLUENC	1	51 100.0 79.7 79.7	51 79.7
CONSIDERABLE INF	2	13 100.0 20.3 20.3	13 20.3
	COLUMN TOTAL	64 100.0	64 100.0

*** STATISTICS CANNOT BE COMPUTED WHEN THE NUMBER OF NON-EMPTY ROWS OR COLUMNS IS ONE ***

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.95

CROSSTABULATION OF
INFLCOPL DEGREE OF C.O.INFLU.IN N.INVEST.PLAN. BY READCOST READING PATTERN OF THE C.O.ACCOUNT

INFLCOPL	READCOST 1 R.THOROUGHLY	2 R.BRIEFLY	3 DO NOT READ	ROW TOTAL
2 CONSIDERABLE INF	6	8		14
	42.9	57.1		21.9
	27.3	21.1		
	9.4	12.5		
3 MODERATEINFLUENC	14	29	3	46
	30.4	63.0	6.5	71.9
	63.6	76.3	75.0	
	21.9	45.3	4.7	
4 SLIGHT INFLUENC	2	1	1	4
	50.0	25.0	25.0	6.3
	9.1	2.6	25.0	
	3.1	1.6	1.6	
COLUMN TOTAL	22	38	4	64
	34.4	59.4	6.3	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.07178	0.2013

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.96

CROSSTABULATION OF
INFLPTPL DEGREE OF P.T.INFLU.IN N.INVEST.PLAN. BY READPRTR READING PATTERN OF THE PRODUCT.&TRAD.AC.

INFLPTPL	READPRTR	1 THOROUGHLY	2 BRIEFLY	3 DO NOT READ	ROW TOTAL
CONSIDERABLE INF	2	5	5		10
		50.0	50.0		15.6
		22.7	14.3		
		7.8	7.8		
MODERATEINFLUENC	3	14	20	3	37
		37.8	54.1	8.1	57.8
		63.6	57.1	42.9	
		21.9	31.3	4.7	
SLIGHT INFLUENC	4	2	10	3	15
		13.3	66.7	20.0	23.4
		9.1	28.6	42.9	
		3.1	15.6	4.7	
NONE INFLUENC	5	1		1	2
		50.0		50.0	3.1
		4.5		14.3	
		1.6		1.6	
COLUMN TOTAL		22	35	7	64
		34.4	54.7	10.9	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.22778	0.0113

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.97

CROSSTABULATION OF

INFLPLPL' DEGREE OF P.L.INFLU.IN N.INVEST.PLAN. BY READPRLO READING PATTERN OF THE P.&L.ACCOUNT

INFLPLPL	READPRLO	1 IR.THOROUGHLY	2 R.BRIEFLY	3 DO NOT READ	ROW TOTAL
CONSIDERABLE INF	2	5 55.6 17.9 7.8	4 44.4 12.9 6.3		9 14.1
MODERATEINFLUENC	3	17 51.5 60.7 26.6	15 45.5 48.4 23.4	1 3.0 20.0 1.6	33 51.6
SLIGHT INFLUENC	4	5 25.0 17.9 7.8	12 60.0 38.7 18.8	3 15.0 60.0 4.7	20 31.3
NONE INFLUENC	5	1 50.0 3.6 1.6		1 50.0 20.0 1.6	2 3.1
COLUMN TOTAL		28 43.8	31 48.4	5 7.8	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.22998	0.0126**

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.98

CROSSTABULATION OF

INFLCSPL DEGREE OF C.S.INFLU.IN M.INVEST.PLAN. BY READCAST READING PATTERN OF THE CASH STATEMENT

INFLCSPL	COUNT / ROW PCT / COL PCT / TOT PCT	READCAST 1 IR.THOROUGHLY	READCAST 2 R.BRIEFLY	ROW TOTAL
MAXIMUM INFLUENC	1	14		14
		100.0		21.9
		29.2		
		21.9		
CONSIDERABLE INF	2	22	11	33
		66.7	33.3	51.6
		45.8	68.8	
		34.4	17.2	
MODERATEINFLUENC	3	12	4	16
		75.0	25.0	25.0
		25.0	25.0	
		18.8	6.3	
SLIGHT INFLUENC	4		1	1
			100.0	1.6
			6.3	
			1.6	
COLUMN TOTAL		48	16	64
		75.0	25.0	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.20898	0.0349

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.99

CROSSTABULATION OF

INFLBSCO DEGREE OF S.S.INFLU.IN N.INVEST.CONT. BY READBASH READING PATTERN OF THE BALANCE SHEET

INFLBSCO	READBASH COUNT ROW PCT COL PCT TOT PCT	1 R.THOROUGHLY	2 R.BRIEFLY	ROW TOTAL
MAXIMUM INFLUENC	1	29 96.7 49.2 45.3	1 3.3 20.0 1.6	30 46.9
CONSIDERABLE INF	2	27 87.1 45.8 42.2	4 12.9 80.0 6.3	31 48.4
MODERATEINFLUENC	3	3 100.0 5.1 4.7		3 4.7
	COLUMN TOTAL	59 92.2	5 7.8	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.07227	0.1478

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.100

CROSSTABULATION OF

INFLSACO DEGREE OF SSAF.INFLU.IN N.INVEST.CONT. BY READSSAF READING PATTERN OF THE S.S.A.FUNDS

INFLSACO	READSSAF COUNT ROW PCT COL PCT TOT PCT	1 IR.THOROUGHLY	ROW TOTAL
MAXIMUM INFLUENC	1	50 100.0 78.1 78.1	50 78.1
CONSIDERABLE INF	2	13 100.0 20.3 20.3	13 20.3
MODERATEINFLUENC	3	1 100.0 1.6 1.6	1 1.6
COLUMN TOTAL		64 100.0	64 100.0

*** STATISTICS CANNOT BE COMPUTED WHEN THE NUMBER OF NON-EMPTY ROWS OR COLUMNS IS ONE ***

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.101

CROSSTABULATION OF

INFLCOCO DEGREE OF C.O.INFLU.IN N.INVEST.CONT. BY READCOST READING PATTERN OF THE C.O.ACCOUNT

INFLCOCO	READCOST 1 R.THOROUGHLY	2 R.BRIEFLY	3 DO NOT READ	ROW TOTAL
2 CONSIDERABLE INF	5 33.3 22.7 7.8	10 66.7 26.3 15.6		15 23.4
3 MODERATEINFLUENC	15 33.3 68.2 23.4	27 60.0 71.1 42.2	3 6.7 75.0 4.7	45 70.3
4 SLIGHT INFLUENC	2 50.0 9.1 3.1	1 25.0 2.6 1.6	1 25.0 25.0 1.6	4 6.3
COLUMN TOTAL	22 34.4	38 59.4	4 6.3	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.01758	0.4201

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.102

CROSSTABULATION OF

INFLPTCO DEGREE OF P.T.INFLU.IN.N.INVEST.CONT. BY READPRTR READING PATTERN OF THE PRODUCT.&TRAD.AC.

INFLPTCO	READPRTR COUNT / ROW PCT / COL PCT / TOT PCT	1 IR.THOROUGHLY	2 R.BRIEFLY	3 DO NOT READ	ROW TOTAL
CONSIDERABLE INF	2	5	6		11
		45.5	54.5		17.2
		22.7	17.1		
		7.8	9.4		
MODERATEINFLUENC	3	12	20	3	35
		34.3	57.1	8.6	54.7
		54.5	57.1	42.9	
		18.8	31.3	4.7	
SLIGHT INFLUENC	4	4	9	3	16
		25.0	56.3	18.8	25.0
		18.2	25.7	42.9	
		6.3	14.1	4.7	
NONE INFLUENC	5	1		1	2
		50.0		50.0	3.1
		4.5		14.3	
		1.6		1.6	
COLUMN TOTAL		22	35	7	64
		34.4	54.7	10.9	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.15747	0.0603

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.103

CROSSTABULATION OF

INFLPLCO DEGREE OF P.L.INFLU.IN N.INVEST.CONT. BY PEADPRLO READING PATTERN OF THE P.&L.ACCOUNT

INFLPLCO	READPPLO	1	2	3	ROW TOTAL
CONSIDERABLE INF	2	5	5		10
		50.0	50.0		15.6
		17.9	16.1		
		7.8	7.8		
MODERATEINFLUENC	3	17	15	1	33
		51.5	45.5	3.0	51.6
		60.7	48.4	20.0	
		26.6	23.4	1.6	
SLIGHT INFLUENC	4	5	11	3	19
		26.3	57.9	15.8	29.7
		17.9	35.5	60.0	
		7.8	17.2	4.7	
NONE INFLUENC	5	1		1	2
		50.0		50.0	3.1
		3.6		20.0	
		1.6		1.6	
COLUMN TOTAL		28	31	5	64
		43.8	48.4	7.8	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.20142	0.0253

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.104

CROSSTABULATION OF

INFLCSCO DEGREE OF C.S.INFLU.IN N.INVEST.CONT. BY READCAST READING PATTERN OF THE CASH STATEMENT

INFLCSCO	READCAST: 1 IR.THOROUGHLY	2 R.BRIEFLY	ROW TOTAL
1 MAXIMUM INFLUENC	15 100.0 31.3 23.4		15 23.4
2 CONSIDERABLE INF	21 70.0 43.8 32.8	9 30.0 56.3 14.1	30 46.9
3 MODERATEINFLUENC	12 66.7 25.0 18.8	6 33.3 37.5 9.4	18 28.1
4 SLIGHT INFLUENC		1 100.0 6.3 1.6	1 1.6
COLUMN TOTAL	48 75.0	16 25.0	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.28418	0.0076

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.105

CROSSTABULATION OF

RANKBSPL RANK OF B.S.IMPORT.FOR N.INVEST.PLAN. BY RANKBSCO RANK OF B.S.IMPORT.FOR N.INVEST.CONT.

RANKBSPL	RANKBSCO: MOST IMPORTANT (1)	SECOND IMPORTANT (2)	THIRD IMPORTANT (3)	ROW TOTAL
MOST IMPORTANT (1)	8	6	1	15
	53.3	40.0	6.7	23.4
	66.7	14.6	9.1	
	12.5	9.4	1.6	
SECOND IMPORTANT (2)	4	30		34
	11.8	88.2		53.1
	33.3	73.2		
	6.3	46.9		
THIRD IMPORTANT (3)		5	10	15
		33.3	66.7	23.4
		12.2	90.9	
		7.8	15.6	
COLUMN TOTAL	12	41	11	64
	18.8	64.1	17.2	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.52515	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.106

CROSSTABULATION OF
RANKSAPL RANK OF SSAF.IMPORT.FOR N.INVEST.PLAN. BY RANKSACO RANK OF SSAF.IMPORT.FOR N.INVEST.CONT.

RANKSAPL	RANKSACO: MOST IMPORTANT (1)	SECOND IMPORTANT (2)	THIRD IMPORTANT (3)	ROW TOTAL
MOST IMPORTANT (1)	43 91.5 84.3 67.2	4 8.5 36.4 6.3		47 73.4
SECOND IMPORTANT (2)	7 43.8 13.7 10.9	7 43.8 63.6 10.9	2 12.5 100.0 3.1	16 25.0
THIRD IMPORTANT (3)	1 100.0 2.0 1.6			1 1.6
COLUMN TOTAL	51 79.7	11 17.2	2 3.1	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.25928	0.0001

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.107

CROSSTABULATION OF

RANKCOPL RANK OF C.O.IMPORT.FOR N.INVEST.PLAN. BY RANKCOCO RANK OF C.O.IMPORT.FOR N.INVEST.CONT.

RANKCOPL	RANKCOCO: THIRD IMPORTANT (3)	FORTH IMPORTANT (4)	FIFTH IMPORTANT (5)	SIXTH IMPORTANT (6)	ROW TOTAL
THIRD IMPORTANT (3)	6	3			9
	66.7	33.3			14.1
	75.0	5.9			
	9.4	4.7			
FORTH IMPORTANT (4)	2	47		1	50
	4.0	94.0		2.0	78.1
	25.0	92.2		100.0	
	3.1	73.4		1.6	
FIFTH IMPORTANT (5)		1	4		5
		20.0	80.0		7.8
		2.0	100.0		
		1.6	6.3		
COLUMN TOTAL	8	51	4	1	64
	12.5	79.7	6.3	1.6	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.38086	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.108

CROSSTABULATION OF

RANKPTPL RANK OF P.T.IMPORT.FOR N.INVEST.PLAN. BY RANKPTCO RANK OF P.T.IMPORT.FOR N.INVEST.CONT.

RANKPTPL	RANKPTCO: FORTH IMPORTANT (4)	FIFTH IMPORTANT (5)	SIXTH IMPORTANT (6)	ROW TOTAL
FORTH IMPORTANT (4)	5 71.4 83.3 7.8	2 28.6 4.2 3.1		7 10.9
FIFTH IMPORTANT (5)	1 2.0 16.7 1.6	46 92.0 95.8 71.9	3 6.0 30.0 4.7	50 78.1
SIXTH IMPORTANT (6)			7 100.0 70.0 10.9	7 10.9
COLUMN TOTAL	6 9.4	48 75.0	10 15.6	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C**	0.45923	0.0000**

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.109

CROSSTABULATION OF

RANKPLPL RANK OF P.L.IMPORT.FOR N.INVEST.PLAN. BY RANKPLCO RANK OF P.L.IMPORT.FOR N.INVEST.CONT.

RANKPLPL	RANKPLCO: THIRD IMPORTANT (3)	FIFTH IMPORTANT (5)	SIXTH IMPORTANT (6)	ROW TOTAL
THIRD IMPORTANT (3)	1 100.0 100.0 1.6			1 1.6
FIFTH IMPORTANT (5)		8 100.0 66.7 12.5		8 12.5
SIXTH IMPORTANT (6)		4 7.3 33.3 6.3	51 92.7 100.0 79.7	55 85.9
COLUMN TOTAL	1 1.6	12 18.8	51 79.7	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.34497	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.110

CROSSTABULATION OF

RANKCSPL RANK OF C.S.IMPORT.FOR N.INVEST.PLAN. BY RANKCSCO RANK OF C.S.IMPORT.FOR N.INVEST.CONT.

RANKCSPL	RANKCSCO: MOST IMPORTANT (1)	SECOND IMPORTANT (2)	THIRD IMPORTANT (3)	FORTH IMPORTANT (4)	SIXTH IMPORTANT (6)	ROW TOTAL
1 MOST IMPORTANT	1 50.0 100.0 1.6	1 50.0 8.3 1.6				2 3.1
2 SECOND IMPORTANT		9 69.2 75.0 14.1	4 30.8 9.3 6.3			13 20.3
3 THIRD IMPORTANT		2 5.1 16.7 3.1	36 92.3 83.7 56.3	1 2.6 15.7 1.6		39 60.9
4 FORTH IMPORTANT			3 37.5 7.0 4.7	5 62.5 83.3 7.8		8 12.5
6 SIXTH IMPORTANT					2 100.0 100.0 3.1	2 3.1
COLUMN TOTAL	1 1.6	12 18.8	43 67.2	6 9.4	2 3.1	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.51697	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S,9.111

CROSSTABULATION OF

INFLBSPL DEGREE OF B.S.INFLU.IN N.INVEST.PLAN. BY INFLBSCO DEGREE OF B.S.INFLU.IN N.INVEST.CONT.

INFLBSPL	INFLBSCO 1 MAXIMUM INFLUENC	2 CONSIDERABLE INF	3 MODERATE INFLUENC	ROW TOTAL
1 MAXIMUM INFLUENC	28 84.8 93.3 43.8	4 12.1 12.9 6.3	1 3.0 33.3 1.6	33 51.6
2 CONSIDERABLE INF	2 7.1 6.7 3.1	26 92.9 83.9 40.6		28 43.8
3 MODERATEINFLUENC		1 33.3 3.2 1.6	2 66.7 66.7 3.1	3 4.7
COLUMN TOTAL	30 46.9	31 48.4	3 4.7	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C**	0.61597	0.0000**

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.112

CROSSTABULATION OF

INFLSAPL DEGREE OF SSAF.INFLU.IN N.INVEST.PLAN. BY INFLSACO DEGREE OF SSAF.INFLU.IN N.INVEST.CONT.

INFLSAPL	INFLSACO 1 MAXIMUM INFLUENC	2 CONSIDER ABLE INF	3 MODERATE INFLUENC	ROW TOTAL
1 MAXIMUM INFLUENC	46 90.2 92.0 71.9	5 9.8 38.5 7.8		51 79.7
2 CONSIDERABLE INF	4 30.8 8.0 6.3	8 61.5 61.5 12.5	1 7.7 100.0 1.6	13 20.3
COLUMN TOTAL	50 78.1	13 20.3	1 1.6	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.38965	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.113

CROSSTABULATION OF

INFLCOPL DEGREE OF C.O.INFLU.IN N.INVEST.PLAN. BY INFLCOCO DEGREE OF C.O.INFLU.IN N.INVEST.CONT.

INFLCOPL	INFLCOCO: CONSIDERABLE INF (2)	MODERATE INFLUENC (3)	SLIGHT INFLUENC (4)	ROW TOTAL
CONSIDERABLE INF (2)	12 85.7 80.0 18.8	2 14.3 4.4 3.1		14 21.9
MODERATEINFLUENC (3)	3 6.5 20.0 4.7	43 93.5 95.6 67.2		46 71.9
SLIGHT INFLUENC (4)			4 100.0 100.0 6.3	4 6.3
COLUMN TOTAL	15 23.4	45 70.3	4 6.3	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C**	0.54932	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.114

CROSSTABULATION OF

INFLPTPL DEGREE OF P.T.INFLU.IN N.INVEST.PLAN. BY INFLPTCO DEGREE OF P.T.INFLU.IN.N.INVEST.CONT.

INFLPTPL	INFLPTCO: CONSIDERABLE INF (2)	MODERATE INFLUENC (3)	SLIGHT INFLUENC (4)	NONE NFLJENC (5)	ROW TOTAL
CONSIDERABLE INF (2)	9 90.0 81.8 14.1	1 10.0 2.9 1.6			10 15.6
MODERATEINFLUENC (3)	2 5.4 18.2 3.1	33 89.2 94.3 51.6	2 5.4 12.5 3.1		37 57.8
SLIGHT INFLUENC (4)		1 6.7 2.9 1.6	14 93.3 87.5 21.9		15 23.4
NONE INFLUENC (5)				2 100.0 100.0 3.1	2 3.1
COLUMN TOTAL	11 17.2	35 54.7	16 25.0	2 3.1	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.70182	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.115

CROSSTABULATION OF
INFLPLPL DEGREE OF P.L.INFLU.IN N.INVEST.PLAN. BY INFLPLCO DEGREE OF P.L.INFLU.IN N.INVEST.CONT.

INFLPLPL	INFLPLCO: CONSIDERABLE INF (2)	MODERATE INFLUENC (3)	SLIGHT INFLUENC (4)	NONE NFLUENC (5)	ROW TOTAL
CONSIDERABLE INF (2)	8	1			9
	88.9	11.1			14.1
	80.0	3.0			
	12.5	1.6			
MODERATEINFLUENC (3)	2	29	2		33
	6.1	87.9	6.1		51.6
	20.0	87.9	10.5		
	3.1	45.3	3.1		
SLIGHT INFLUENC (4)		3	17		20
		15.0	85.0		31.3
		9.1	89.5		
		4.7	26.6		
NONE INFLUENC (5)				2	2
				100.0	3.1
				100.0	
				3.1	
COLUMN TOTAL	10	33	19	2	64
	15.6	51.6	29.7	3.1	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.70052	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.116

CROSSTABULATION OF

INFLCSPL DEGREE OF C.S.INFLU.IN N.INVEST.PLAN. BY INFLCSCO DEGREE OF C.S.INFLU.IN N.INVEST.CONT.

INFLCSPL	INFLCSCO 1 MAXIMUM INFLUENC	2 CONSIDER ABLE INF	3 MODERATE INFLUENC	4 SLIGHT INFLJENC	ROW TOTAL
1 MAXIMUM INFLUENC	13 92.9 86.7 20.3	1 7.1 3.3 1.6			14 21.9
2 CONSIDERABLE INF	2 6.1 13.3 3.1	27 81.8 90.0 42.2	4 12.1 22.2 6.3		33 51.6
3 MODERATEINFLUENC		2 12.5 6.7 3.1	14 87.5 77.8 21.9		16 25.0
4 SLIGHT INFLUENC				1 100.0 100.0 1.6	1 1.6
COLUMN TOTAL	15 23.4	30 46.9	18 28.1	1 1.6	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.71094	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.117

CROSSTABULATION OF

RELVBSPL RANK OF B.S.RELEVAV.FOR N.INVEST.PLAN. BY RELIBSPL RANK OF B.S.RELIABL.FOR N.INVEST.PLAN.

RELVBSPL	RELIBSPL: MOST REL RELIABLE (1)	SECOND RELIABLE (2)	THIRD RELIABLE (3)	ROW TOTAL
MOST RELVANT (1)	12 92.3 92.3 18.8	1 7.7 2.8 1.6		13 20.3
SECOND RELEVANT (2)	1 2.6 7.7 1.6	34 89.5 94.4 53.1	3 7.9 20.0 4.7	38 59.4
THIRD RELEVANT (3)		1 7.7 2.8 1.6	12 92.3 80.0 18.8	13 20.3
COLUMN TOTAL	13 20.3	36 56.3	15 23.4	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.75586	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.118

CROSSTABULATION OF RELVSAPL RANK OF SSAF RELEVAN FOR N. INVEST. PLAN. BY RELISAPL RANK OF SSAF RELIABL. FOR N. INVEST. PLAN.

RELVSAPL	RELISAPL: MOST REL IIABLE (1)	RELISAPL: SECOND RELIABLE (2)	ROW TOTAL
MOST RELVANT (1)	46 93.9 97.9 71.9	3 6.1 17.6 4.7	49 76.6
SECOND RELEVANT (2)	1 6.7 2.1 1.6	14 93.3 82.4 21.9	15 23.4
COLUMN TOTAL	47 73.4	17 26.6	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.62598	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.119

CROSSTABULATION OF

RELVCOPL RANK OF C.O.RELEVAN.FOR N.INVEST.PLAN. BY RELICOPL RANK OF C.O.RELIABL.FOR N.INVEST.PLAN.

RELVCOPL	RELICOPL	THIRD RELIABLE 3	FORTH RELIABLE 4	FIFHT RELIABLE 5	ROW TOTAL
THIRD	3 RELEVANT	5 71.4 100.0 7.8	2 28.6 3.7 3.1		7 10.9
FORTH	4 RELEVANT		52 98.1 96.3 81.3	1 1.9 20.0 1.6	53 82.8
FIFTH	5 RELEVANT			4 100.0 80.0 6.3	4 6.3
	COLUMN TOTAL	5 7.8	54 84.4	5 7.8	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.36841	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.120

CROSSTABULATION OF

RELVPTPL RANK OF P.T.RELEVAN.FOR N.INVEST.PLAN. BY RELIPTPL RANK OF P.T.RELIABL.FOR N.INVEST.PLAN.

RELVPTPL	COUNT / ROW PCT / COL PCT / TOT PCT	RELIPTPL FORTH RELIABLE 4	FIFHT RE LIABLE 5	SIXTH RE LIABLE 6	ROW TOTAL
FORTH RELEVANT 4		5			5
		100.0			7.8
		83.3			
		7.8			
FIFTH RELEVANT 5		1	47	1	49
		2.0	95.9	2.0	76.6
		16.7	97.9	10.0	
		1.6	73.4	1.6	
SIXTH RELEVANT 6			1	9	10
			10.0	90.0	15.6
			2.1	90.0	
			1.6	14.1	
COLUMN TOTAL		6	48	10	64
		9.4	75.0	15.6	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.52881	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.121

CROSSTABULATION OF
RELVPLPL RANK OF P.L.RELEVAN.FOR N.INVEST.PLAN. BY RELIPLPL RANK OF P.L.RELIABL.FOR N.INVEST.PLAN.

RELVPLPL	RELIPLPL THIRD RELIABLE 3	FIFHT RE LIABLE 5	SIXTH RE LIABLE 6	ROW TOTAL
THIRD RELEVANT 3	1 100.0 100.0 1.6			1 1.6
FIFTH RELEVANT 5		10 90.9 90.9 15.6	1 9.1 1.9 1.6	11 17.2
SIXTH RELEVANT 6		1 1.9 9.1 1.6	51 98.1 98.1 79.7	52 81.3
COLUMN TOTAL	1 1.6	11 17.2	52 81.3	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.41895	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.122

CROSSTABULATION OF

RELVCSPL RANK OF C.S.RELEVAN.FOR N.INVEST.PLAN. BY RELICSPL RANK OF C.S.RELIABL.FOR N.INVEST.PLAN.

RELVCSPL	RELICSPL: MOST RELIABLE (1)	SECOND RELIABLE (2)	THIRD RELIABLE (3)	FORTH RELIABLE (4)	SIXTH RELIABLE (6)	ROW TOTAL
1 MOST RELVANT	2 100.0 50.0 3.1					2 3.1
2 SECOND RELEVANT		10 90.9 90.9 15.6	1 9.1 2.3 1.6			11 17.2
3 THIRD RELEVANT	2 4.7 50.0 3.1	1 2.3 9.1 1.6	40 93.0 93.0 62.5			43 67.2
4 FORTH RELEVANT			2 33.3 4.7 3.1	4 66.7 100.0 6.3		6 9.4
6 SIXTH RELEVANT					2 100.0 100.0 3.1	2 3.1
COLUMN TOTAL	4 6.3	11 17.2	43 67.2	4 6.3	2 3.1	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.52429	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.123

CROSSTABULATION OF

RELVBSCO RANK OF B.S.RELEVAN.FOR N.INVEST.CONT. BY RELIBSCO RANK OF B.S.RELIABL.FOR N.INVEST.CONT.

RELVBSCO	COUNT / ROW PCT / COL PCT / TOT PCT	RELIBSCO MOST RELIABLE 1	SECOND RELIABLE 2	THIRD RELIABLE 3	ROW TOTAL
MOST RELVANT	1	12	2		14
		85.7	14.3		21.9
		80.0	5.3		
		18.8	3.1		
SECOND RELEVANT	2	3	35	2	40
		7.5	87.5	5.0	62.5
		20.0	92.1	18.2	
		4.7	54.7	3.1	
THIRD RELEVANT	3		1	9	10
			10.0	90.0	15.6
			2.6	81.8	
			1.6	14.1	
	COLUMN TOTAL	15	38	11	64
		23.4	59.4	17.2	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.67603	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.124

CROSSTABULATION OF
RELVSACO RANK OF SSAF.RELEVAN.FOR N.INVEST.CONT. BY RELISACO RANK OF SSAF.RELIABL.FOR N.INVEST.CONT.

RELVSACO	RELISACO	MOST RELIABLE 1	SECOND RELIABLE 2	THIRD RELIABLE 3	ROW TOTAL
MOST RELVANT 1	COUNT	46	3		49
	ROW PCT	93.9	6.1		76.6
	COL PCT	95.8	20.0		
	TOT PCT	71.9	4.7		
SECOND RELEVANT 2	COUNT	2	12		14
	ROW PCT	14.3	85.7		21.9
	COL PCT	4.2	80.0		
	TOT PCT	3.1	18.8		
THIRD RELEVANT 3	COUNT			1	1
	ROW PCT			100.0	1.6
	COL PCT			100.0	
	TOT PCT			1.6	
	COLUMN TOTAL	48	15	1	64
		75.0	23.4	1.6	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.44604	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.125

CROSSTABULATION OF RELVCOCO RANK OF C.O.RELEVAN.FOR N.INVEST.CONT. BY RELICOCO RANK OF C.O.RELIABL.FOR N.INVEST.CONT.

RELVCOCO	RELICOCO: THIRD RELIABLE (3)	FORTH RELIABLE (4)	FIFHT RELIABLE (5)	SIXTH RELIABLE (6)	ROW TOTAL
THIRD RELEVANT (3)	5 71.4 100.0 7.8	2 28.6 3.8 3.1			7 10.9
FORTH RELEVANT (4)		50 98.0 94.3 78.1	1 2.0 20.0 1.6		51 79.7
FIFTH RELEVANT (5)		1 20.0 1.9 1.6	4 80.0 80.0 6.3		5 7.8
SIXTH RELEVANT (6)				1 100.0 100.0 1.6	1 1.6
COLUMN TOTAL	5 7.8	53 82.8	5 7.8	1 1.6	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.35938	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.126

CROSSTABULATION OF RELVPTCO RANK OF P.T.RELEVAN.FOR N.INVEST.CONT. BY RELIPTCO RANK OF P.T.RELIABL.FOR N.INVEST.CONT.

RELVPTCO	RELIPTCO	3 THIRD RELIABLE	4 FORTH RELIABLE	5 FIFHT RE LIABLE	6 SIXTH RE LIABLE	ROW TOTAL
3 THIRD RELEVANT	COUNT	1				1
	ROW PCT	100.0				1.6
	COL PCT	100.0				
	TOT PCT	1.6				
4 FORTH RELEVANT	COUNT		6	1		7
	ROW PCT		85.7	14.3		10.9
	COL PCT		85.7	2.3		
	TOT PCT		9.4	1.6		
5 FIFTH RELEVANT	COUNT		1	43	2	46
	ROW PCT		2.2	93.5	4.3	71.9
	COL PCT		14.3	97.7	16.7	
	TOT PCT		1.6	67.2	3.1	
6 SIXTH RELEVANT	COUNT				10	10
	ROW PCT				100.0	15.6
	COL PCT				83.3	
	TOT PCT				15.6	
COLUMN TOTAL		1	7	44	12	64
		1.6	10.9	68.8	18.8	100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.54948	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.127

CROSSTABULATION OF

RELVPLCO RANK OF P.L.RELEVAN.FOR N.INVEST.CONT. BY RELIPLCO RANK OF P.L.RELIABL.FOR N.INVEST.CONT.

RELVPLCO	RELIPLCO: FIFTH RELIABLE (5)	RELIPLCO: SIXTH RELIABLE (6)	ROW TOTAL
5 FIFTH RELEVANT	13 100.0 86.7 20.3		13 20.3
6 SIXTH RELEVANT	2 3.9 13.3 3.1	49 96.1 100.0 76.6	51 79.7
COLUMN TOTAL	15 23.4	49 76.6	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.62207	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

TABLE S.9.128

CROSSTABULATION OF
RELVCSCO RANK OF C.S.RELEVAN.FOR N.INVEST.CONT. BY RELICSCO RANK OF C.S.RELIABL.FOR N.INVEST.CONT.

RELVCSCO	RELICSCO: MOST RELIABLE (1)	SECOND RELIABLE (2)	THIRD RELIABLE (3)	FORTH RELIABLE (4)	SIXTH RELIABLE (6)	ROW TOTAL
1 MOST RELVANT	1 50.0 100.0 1.6	1 50.0 9.1 1.6				2 3.1
2 SECOND RELEVANT		9 90.0 81.8 14.1	1 10.0 2.2 1.6			10 15.6
3 THIRD RELEVANT			45 100.0 97.8 70.3			45 70.3
4 FORTH RELEVANT		1 20.0 9.1 1.6		4 80.0 100.0 6.3		5 7.8
6 SIXTH RELEVANT					2 100.0 100.0 3.1	2 3.1
COLUMN TOTAL	1 1.6	11 17.2	46 71.9	4 6.3	2 3.1	64 100.0

STATISTIC	VALUE	SIGNIFICANCE
KENDALL'S TAU C	0.49622	0.0000

NUMBER OF MISSING OBSERVATIONS = 0

CHAPTER TEN

Chapter Ten

Treatment and Management of the Egyptian Unified Accounting System's Problems

10.1 Introduction.

10.2 Summary of the results of the case history and diagnosis processes:

10.2.1 Summary of the results of the case history process

10.2.2 Summary of the results of the diagnosis process

10.2.2.1 Preliminary examination's results

10.2.2.2 Primary investigation's results

10.3 Treatment and management of the Egyptian unified accounting system's problems

10.3.1 Structural problem: self help

10.3.1.1 Objectives

10.3.1.2 Qualitative characteristics of information

10.3.1.3 Elements of financial statements

10.3.1.4 Recognition criteria

10.3.1.5 Measurement criteria

10.3.1.6 Financial reporting

10.3.2 Organisational problems

10.3.2.1 The approach adopted in the operation of the system and the responsible body: self help

10.3.2.2 The organisational structure of the accounting profession: domestic professional help

10.3.2.3 Organisational status of accounting education: self help

10.3.2.4 Contradiction between different organisations which control economic units: self help

10.3.3. Environmental problems

10.3.3.1 Changing users' needs: self help

10.3.3.2 International accounting standards: the strategy of "prevention is better than cure"

10.4 Conclusion

Chapter Ten

Treatment and Management of the Egyptian Unified Accounting System's Problems

10.1 Introduction

In the previous chapter, the author presented the final stage (primary investigation: inferential empirical findings) in the diagnosis process (the second process in the suggested model). In this chapter, the last process in the suggested model (treatment and management) will be discussed.

In fact, this process depends upon the results of the analysis in the previous processes of the suggested model (case history and diagnosis). Therefore, we are going to start the analysis in this chapter by presenting a brief summary of these results.

10.2 Summary of the results of the case history and diagnosis processes

10.2.1 Summary of the results of the case history process

This process was considered in Chapter Five of this research. Three periodic stages were studied in order to summarise the history of the case: the Egyptian accounting environment. The analysis in that Chapter revealed the following main results:

A. The period from 1805 to 1956: there was a chaotic accounting practice because of the wide variation in the accounting principles, terms, concepts, and definitions. Also the organisation of the accounting profession

and the financial reporting practices closely followed those of the United Kingdom.

B The period from 1956 to 1973: the unified accounting system had been issued in 1966 to facilitate collection, tabulation, and storage of accounting information for national planning and control.

C The period from 1974 to 1982: Rush steps were taken in the accounting standard setting process, by trying to adopt international accounting standards without following the reasonable steps: political, production of the standards, and marketing of them.

D In general, both the economic factors and the foreign factors (formal colonial administration and foreign investors...) have influenced accounting practices in all the studied periods.

It became apparent from the case history review that the Egyptian accounting practices in the first period (from 1805 to 1956) suffered from accounting schizophrenia (chaotic practices and confusion in operations and procedures). In the second period (from 1956 to 1973) there was a positive step for development with the issuing of the Egyptian unified accounting system which represents a reliable body of specialised knowledge for both the users and regulators of accounting information. But there has been a long debate about the system's problems because there is no diagnosis of them by empirical methods. In the third period (from 1974 to 1982), there was a rush towards the adoption of international accounting standards because of the new foreign pressure groups. This step may have caused the recurrance of accounting schizophrenia.

10.2.2 Summary of the results of the diagnosis process

This process has been classified into two stages: preliminary examination and primary investigation.

10.2.2.1 Preliminary examiniation's results

This stage was conducted in Chapter Six of this research. A sub-model had been developed to examine the Egyptian unified accounting system. This sub-model essentially took into consideration the three dimensions of the conceptual framework for financial accounting and reporting (structural, organisational, and environmental characteristics) as basic tools for testing the system.

The adoption of this sub-model raised many questions (for more details, see the conclusion of Chapter Six). From these unanswered questions, many hypotheses have been formulated to be tested in the second stage of this process.

10.2.2.2 Primary investigation's results

The methods for the empirical investigation of the system have been developed in Chapter Seven of this research. Both the descriptive and inferential empirical findings have been presented in Chapters Eight and Nine respectively. The following Table presents a summary of the results of the descriptive and inferential analysis. The first column of the Table presents the intended use of the diagnosis process's outputs, the second column presents the type of analysis, and the third column presents the final results.

From the diagnosis process's outputs, it became clear that the Egyptian unified accounting system does work but there are problems (structural, organisational, and environmental) which affect the usefulness of the provided information.

TABLE 10.1: A Summary of the main results of the descriptive and inferential analyses

Question Number:	The intended use of the diagnosis process' outputs	Analysis	Results
Q.NO. 1	Testing the following hypothesis: "The information provided as a result of the application of the system is able to satisfy the informational needs of the Egyptian national investor: planning and control."	Descriptive	- As to the usefulness of the provided information for planning national investment, the median score was 4 (neutral) and the mode was also 4 (the mean was 3.5); - The information usefulness for controlling national investment was considered to be slightly more successful than its counterpart usefulness for planning national investment; - These results support the acceptance of the hypothesis.
	The answer to this question is to be used in correlation analysis with other data from the questionnaire. For instance: "There is a positive relationahip between the respondents' satisfaction with the objectives: planning and control purposes and their views of the qualitative characteristics of the provided information" (hypothesis one).	Inferential	Accepted.

TABLE 10.1: A Summary of the main results of the descriptive and inferential analyses (continued/2.....)

Question Number	The intended use of the diagnosis process' outputs.	Analysis	Results
Q.No. 1	"There is a positive relationship between the respondents satisfaction with the objectives and their views of the effectiveness of standardised accounting definitions of the elements of the different financial statements as a mean of increasing accounting communication to them" (hypothesis four).	Inferential	Rejected
	Testing the interrelationships between objectives: "There is a positive relationship between the respondents' satisfaction with the provided information for planning purpose and their satisfaction with the provided information for controlling purpose" (hypothesis seven).	Inferential	Accepted

TABLE 10.1: A Summary of the main results of the descriptive and inferential analyses (continued/3.....)

Question Number	The intended use of the diagnosis process' outputs	Analysis	Results
Q.No. 2	Providing some evidences of the respondents' level of understanding of the importance of the different financial statements in serving national investment planning and control.	Descriptive	According to the agreement of the three measures of central tendency, the given ranking of importance of the different financial statements indicates a reasonable level of understanding of their objectives by the respondents.
	The answer to this question is to be used in correlation analysis with other data from the questionnaire. The following relationships have been tested: "There is a positive relationship between the respondents' views of the ranking of importance of the different financial statements for serving the purposes of national investment planning and control and their views of the ranking of relevance and reliability of these statements for the same two purposes" (hypothesis two).	Inferential	Accepted.

TABLE 10.1: A Summary of the main results of the descriptive and inferential analyses (continued/4.....)

Question Number	The intended use of the diagnosis process' outputs	Analysis	Results
Q.No. 2	"There is a positive relationship between the respondents views of the ranking of importance of the different financial statements for the purpose of national investment planning and control and their pattern of reading of these statements" (hypothesis five).	Inferential	Accepted
	Testing the following interrelationship: "There is a positive relationship between the respondents' views of the ranking of importance of the different financial statements for serving the purpose of national investment planning and their views of this ranking for serving national investment control" (hypothesis eight).	Inferential	Accepted

TABLE 10.1: A Summary of the main results of the descriptive and inferential analyses (continued/5.....)

Question Number	The intended use of the diagnosis process' outputs.	Analyses	Results
Q.No. 3	Examining whether the system provides the national investor with influential data for the purpose of making investment decisions.	Descriptive	According to the agreement among the respondents, the most important statements were considered to have maximum or considerable influence on national investment planning and control and the less important statements were considered to have moderate or slight influence on both decisions.
	The answer to this question is to be used in correlation analysis with other data from the questionnaire. The following hypotheses have been tested: "There is a positive relationship between the respondents' views of the degree of influence of the different financial statements on national investment planning and control and their views of the ranking of relevance and reliability of these statements for the same two pourposes" (hypothesis three).	Inferential	Accepted.

TABLE 10.1: A Summary of the main results of the descriptive and inferential analyses (continued/6.....)

Question Number	The intended use of the diagnosis process' outputs	Analyses	Results
Q.No. 3	"There is a positive relationship between the respondents' views of the degree of influence of the different financial statements on national investment planning and control and their pattern of reading of these statements" (hypothesis six).	Inferential	Accepted
	Testing the following interrelationship: "There is a positive relationship between the respondents' views of the degree of influence of the different financial statements on national investment planning and their views of the statements' influence on national investment control" (hypothesis nine).	Inferential	Accepted

TABLE 10.1: A Summary of the main results of the descriptive and inferential analyses (continued/7.....)

Question Number	The intended use of the diagnosis process' outputs	Analysis	Results
Q.No. 4	Examining the usefulness of the provided information as a result of the application of the system by studying its qualitative characteristics.	Descriptive	The rating of the qualitative characteristics of the provided information lies in success area (between neutral and quite successful) for both national investment planning and control.
	Examining the relationship between respondents' satisfaction with the qualitative characteristics of the provided information and their satisfaction with objectives (hypothesis one).	Inferential	Accepted
	Testing the interrelationships between the different qualitative characteristics: "There are positive relationships between the different scales measuring the qualitative characteristics of the provided information according to the system" (hypothesis ten).	Inferential	Accepted

TABLE 10.1: A Summary of the main results of the descriptive and inferential analyses (Continued/8.....)

Question Number	The intended use of the diagnosis process' outputs	Analysis	Results
Q.No. 5	Measuring the ranking of relevance and reliability of the different financial statements for serving national investment planning and control.	Descriptive	According to the agreement of the three measures of central tendency, the given ranking of relevance and reliability of the different financial statements indicates a reasonable level of understanding of their objectives by the respondents.
	Examining the relationship between the ranking of relevance and reliability, and the ranking of importance (hypothesis two).	Inferential	Accepted
	Examining the relationship between the ranking of relevance and reliability, and the degree of statements' influence (hypothesis three).	Inferential	Accepted

TABLE 10.1: A Summary of the main results of the descriptive and inferential analyses (Continued/9.....)

Question Number	The intended use of the diagnosis process' outputs	Analyses	Results
Q.No. 5	There is a positive relationship between the ranking of relevance of the financial statements for serving the purposes of national investment planning and control, and the ranking of reliability of these statements for serving the same two purposes" (hypothesis eleven).	Inferential	Accepted
Q.No. 6	Testing the following hypothesis: "The standardised definitions of the elements of the financial statements increased the effectiveness of accounting communication to the users."	Descriptive	According to the agreement between the three measures of central tendency, the majority of the respondents quite agreed that the standardised definitions increased the effectiveness of accounting communication.
	Testing the relationship between the respondents' views of the effectiveness of standardised definitions and their satisfaction with the objectives (hypothesis four).	Inferential	Rejected

TABLE 10.1: A Summary of the main results of the descriptive and inferential analyses (Continued/10.....)

Question Number	The intended use of the diagnosis process' outputs	Analysis	Results
Q.No. 7	Testing the following hypothesis: "The instructions to declare the current value accounting information on a voluntary basis have been followed by the economic units in their annual financial reports.	Descriptive	Less than 25% of the economic units had followed the voluntary instructions.
Q.No. 8	Measurement of the respondents' perceived importance of the current value accounting information.	Descriptive	The majority of the respondents considered the current value accounting information as very important to be declared in the annual financial reports.
	Testing the following hypothesis: "There is a positive relationship between the respondents views of the importance of the current value accounting information and their monetary value estimates of this information (Hypothesis twelve).	Inferential	Rejected As we mentioned before, this result is strange and unreasonable and we did not conduct any further test on it. Accordingly, our intention to study the relationship between the monetary value estimates (Q.9) and the bases for establishing them (Q.10) was excluded.

TABLE 10.1: A Summary of the main results of the descriptive and inferential analyses (continued/11.....)

Question Number	The intended use of the diagnosis process' outputs	Analysis	Results
Q.No. 11	Providing some evidence of the respondents' level of understanding the usefulness of the different financial statements by studying the pattern of reading them.	Descriptive	The respondents' pattern of reading of the different financial statements indicates a reasonable level of understanding of their usefulness.
	Testing the relationship between the pattern of reading of the different financial statements and their ranking of importance (hypothesis five).	Inferential	Accepted
	Testing the relationship between the pattern of reading of the different financial statements and their degree of influence (hypothesis six).	Inferential	Accepted

TABLE 10.1: A Summary of the main results of the descriptive and inferencial analyses (continued/12.....)

Question Number	The intended use of the diagnosis process' outputs	Analysis	Results
Q.No. 12	Providing some evidence of the respondents' level of understanding of budget statements' objectives.	Descriptive	The given ranking was: Cash budget Financial budget Quantitative budget This ranking indicates a reasonable understanding having taken into consideration that both the cash budget and the financial budget are directly related to investment decisions but the quantitative budget shows the economic unit's production programme.

TABLE 10.1: A Summary of the main results of the descriptive and inferential analyses (Continued/13.....)

Question Number	The intended use of the diagnosis process' outputs	Analysis	Results
Q.No. 13, 14 and 15	Testing the following hypothesis: "The information provided as a result of introducing some new statements (the statements of sources and applications of funds) and Forms (No. 6 and No. 6/A) is able to satisfy the information needs of the Egyptian national investor."	Descriptive	The usefulness of the provided information in the statement of sources and applications of funds ranged from 4 (neutral) to 3 (slightly successful). The usefulness of the provided information in Form No. 6 ranged from neutral to slightly unsuccessful. The usefulness of the provided information in Form No. 6/A ranged from 5 (slightly unsuccessful) to 6 (quite unsuccessful).
	"There is a positive relationship between the respondents' satisfaction with the usefulness of the provided information in the statement of sources and applications of funds and their satisfaction with the provided information in Form No. 6" (hypothesis thirteen).	Inferential	Accepted

TABLE 10.1: A Summary of the main results of the descriptive and inferential analyses (continued/14.....)

Question Number	The intended use of the diagnosis process' outputs	Analysis	Results
Q.No. 13, 14 and 15	"There is a positive relationship between the respondents' satisfaction with the usefulness of the provided information in the statement of sources and applications of funds and their satisfaction with the provided information in Form No. 6/A" (hypothesis fourteen).	Inferential	Rejected.
Q No. 16 and 17	Determination of the most important problems that affected the usefulness of the provided information according to the system and the suggested solutions.	Descriptive	The respondents' views concerning the problems and solutions have been classified according to the dimensions of the conceptual framework: structural, organisational, and environmental (for more details, see Chapter Eight).
Q. No. 18	Studying the effect of the background factors by testing these hypotheses: "Respondents with accounting qualifications differ in their pattern of reading of the financial statements and budgets in the annual reports compared with those respondents with other qualifications" (hypothesis fifteen).	Inferential	Accepted

TABLE 10.1: A Summary of the main results of the descriptive and inferential analyses (continued/15.....)

Question Number	The intended use of the diagnosis process' outputs	Analyses	Results
Q. No. 18	"Respondents at upper levels of management differ in their pattern of reading of the financial statements and budgets in the annual reports compared with those respondents at lower levels" 'hypothesis sixteen).	Inferential	Rejected
	"Respondents in the different categories of studying the system differ in their pattern of reading of the different financial statements and budgets in the annual reports" (hypothesis seventeen).	Inferential	Accepted
	"Respondents in the different sectors in the bank differ in their pattern of reading of the different financial statements and budgets in the annual reports" (hypothesis eighteen).	Inferential	Rejected

TABLE 10.1: A Summary of the main results of the descriptive and inferential analyses (continued/16.....)

Question Number	The intended use of the diagnosis process' outputs	Analysis	Results
Q.No. 18	Controlling for the effects of some background factors:		
	"The respondents' qualifications affect the relationship between the respondents' satisfaction with the objectives and their views of the qualitative characteristics" (hypothesis nineteen).	Inferential	Accepted
	"The respondents' categories of studying the system affect the relationship between the respondents' satisfaction with the objectives and their views of the qualitative characteristics" (hypothesis twenty).	Inferential	Accepted

We mentioned before that the users and preparers of accounting data were represented in the different committees in the process of developing the system (democratic approach) but the system itself was issued by legislation (autocratic approach). A question can be raised: does the autocratic approach (financial reports shaped by legal requirements) represent an appropriate approach for establishing an accounting system according to the prevailing environment in Egypt?

The results do support a positive answer to this question because the system has been enforced by legislation and it does work. In addition, there is another source of evidence; when we tested how the instructions to declare current value accounting information on a voluntary basis had been followed, we noticed that less than 25% of the economic units had followed the voluntary instructions. However, all the determined economic units in the law of the system had followed it.

In fact, some authors recommended the use of the autocratic approach which enforces accounting standards and systems by legislation in developing countries and they added that "...the profession in these countries will have the advantage of legislation in enforcing requirements and standards... though it may become inflexible and tend to remain premanently in force long beyond its usefulness. This is the price that must be paid, however, to quicken the pace of development" (1). The question now: is it possible, in the case of Egypt, to reduce this price by determining and treating the system's problems?

10.3 Treatment and management of the Egyptian unified accounting system's problems

In this section, the author is not going to repeat what was mentioned by the respondents, in Chapter Eight, concerning the most important problems that affect the usefulness of the provided information according to the system or their suggested solutions to these problems, but we are going to analyse them and add others when it becomes necessary. This analysis will be conducted having taken into consideration the following main results:

A The results of the case history process.

B The descriptive empirical findings.

C The inferential empirical findings:

- The relationships existing between the different structural characteristics;
- The interrelationships existing between the components of each of the structural characteristics:
- the effect of both the respondent's qualifications and their studying of the system on some of the previous relationships.

10.3.1 Structural problems: self help

10.3.1.1 Objectives

The Egyptian unified accounting system has achieved accounting control through purposive uniformity. "Purposive uniformity is a system of accounting control in which the interpretation of economic events and the prescription of accounting methods and reports are responsive to definitive user needs... For each purpose (need) to be served there is a uniform set of accounting standards and procedures; different purposes demand different uniform sets of accounting standards and procedures... This concept suggests that truth in accounting can be found only in the relevance of the control process to the needs of users" (2).

From the descriptive empirical findings, it is evident that there is an emphasis placed on control objectives because the system was developed by a control organisation. In addition, the information usefulness for control purposes was considered to be slightly more successful than its counterpart usefulness for planning purposes. In spite of the emphasis placed on control objectives, purposive uniformity has been successfully applied in Egypt because of the relevance of the Egpytian environment for adopting this system.

"The reasons contributing to the success of purposive uniformity are as follows:

A Uniformity has been applied to a higher degree in an environment where there is central control over the operation of a defined group of entities and an identifiable set of user operational information needs.

B Uniformity has been easily applied in a country where the people are ready to accept government intervention in the country's affairs.

C The level of accounting education is rather poor in comparison with that in developed nations to the degree that accountants can not be expected to exercise mature judgement in their work. Thus a central government has to take the initiative to achieve an acceptable standard of accounting practices in the country. This can be done by applying purposive uniformity" (3).

Now we are going to consider these three reasons in the Egyptian environment:

(i) The first reason, it has become clear from the second-stage study (from 1956 - 1973) in the case history process that the government extended its control of the economy to the point where most of its major elements belonged to the public sector. The Egyptianisation and nationalisation constituted a radical change in the Egyptian economy which became a centrally planned economy. Under these circumstances, the government's information needs come at the top of the users' needs of information.

(ii) The second reason, the readiness of the Egyptian people to accept governmental intervention in the country's economy stems from the urgent need for the implementation of development programmes with a large and growing volume of public investment.

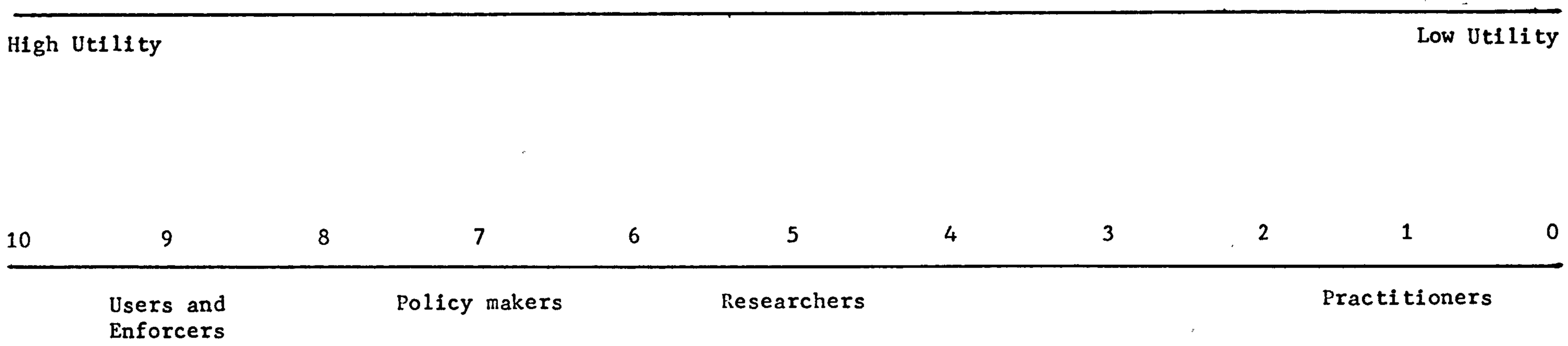
(iii) The third reason, the level of accounting education is poor because the students leave college with only limited theoretical aspects of accounting and auditing, principles and legal texts. They also lack practical experience.

From the above, it has become clear that the reasons contributing to the success of purposive uniformity are apparent in the Egyptian environment. However, the system's success is not quite satisfactory. This contradiction raises the question of the influence of different parties on uniformity.

"Parties with potential influence on the problem of uniformity, although not always in this order, are: accounting practitioners; policy makers; research-theorists; users (external), and enforcers" (4). The hierarchy of parties with respect to utility under the purposive uniformity model is shown in Figure 10.1.

"The users and enforcers of accounting information occupy a high position on the utility scale of this model. Because the policy makers of this model are primarily regulators of accounting information, they too occupy a high position on the scale. The next position is occupied by researcher-theorists, who provide feedback on the feasibility and practicability of different uniform sets of accounting procedures. Practitioners occupy the final position on the scale, a position justified by the lack of practitioner involvement in the policy-making structure of accounting under this model. Practitioners serve primarily as technicians, not as policy makers, researchers, or enforcers" (5).

FIGURE 10.1: Hierarchy of parties with respect to utility under the purposive uniformity model



Source: Al Hashim, D.D., op.cit., p. 24.

In the Egyptian environment, the users, enforcers, and the regulators of accounting information are primarily represented by the government which naturally occupies a high position on the utility scale. The research feedback on the feasibility of accounting procedures is weak. But the most serious problem is that the low position given to the practitioners group on the utility scale under the purposive uniformity model has led to the practitioners' lack of interest towards the system's success.

The treatment must start from this key problem, the problem of lack of interest by practitioners (producers of accounting information and generally all members of the accounting profession). There is an urgent need to establish an incentive plan (bonus) inducing the practitioners to be more active, more positive, and more efficient. For instance, a reward can be given to the most reliable financial report to encourage the producers of accounting information. Needless to add the great importance of training programmes.

10.3.1.2 Qualitative characteristics of information

It is generally recognised that the primary function of the system is to provide information useful for making economic decisions. The usefulness of the provided information is judged by studying its qualitative characteristics. Although the rating of the qualitative characteristics lies in the success area (between neutral and quite successful), the qualitative characteristics of the information useful for control purposes were considered to be slightly more successful than those for planning purposes. In fact, this result is expected because of the emphasis placed on control objectives under the purposive uniformity model.

In addition, some respondents believed that the provided accounting information is ill timed or biased to achieve benefits to the economic units. There are several reasons for these defects, the most important are:

A Lack of interest by the producers of accounting information.

B There is a shortage of qualified producers of accounting information because of the following factors:

- Poor accounting education system which is overburdened by tremendous student loads and inadequate facilities for practical training;
- Most of the qualified accountants leave the public sector and the government bodies to work in other Arab countries because of the high level of salaries in these countries compared with those in Egypt.
- Lack of co-operation between accounting education bodies (universities) and the accounting professional bodies (practitioners). The practitioners could provide the practical experience for the graduates.

To improve the qualitative characteristics of the provided information, the following could be done:

A Sanctions for prevention of improper, biased and ill-timed financial reports.

B The university accounting education system should be reviewed to increase the number of qualified graduates. Emphasis must be placed on the quality, and not the quantity, of the graduates. And co-operation between the universities and the practitioners must be considered.

10.3.1.3 Elements of financial statements

Although the Egyptian unified chart of accounts has met the three prominent requirements (flexibility, lucidity, and the classification symbols) for a good standard chart of accounts and the majority of the respondents (descriptive empirical finding) quite agreed that the standardised definitions of the elements of financial statements increased the effectiveness of accounting communication, it was criticised because of the tremendous expansion of its contents. It is

virtually impossible to establish a complete classification which will be able to meet all the users' needs. Therefore, the classification included in the system is regaded as minimal in the sense that it can be expanded by sub-dividing the accounts to add additional items. However, there is no doubt that the different expansions during the years of application (more than fifteen years) have affected the chart's unity.

To face the above problem, only one remedy exists; continuous revision of the chart of account. The Standing Committee on Clarification and Amendment of the Unified Accounting System must always be in close contact with the everchanging users' needs and must be bold enough to supplement and to alter the chart, if it is really necessary.

10.3.1.4 Recognition criteria

The system has recognised and incorporated into the financial statements items which can satisfy the needs of macro-accounting and micro-accounting at the same time. Having taken into consideration that macro and micro-accounting are different in purpose, in nature, in measurement, and in organisation, it is expected that the coupling between them will produce broad recognition criteria. The success of these broad recognition criteria is conditional upon the familiarity of the producers of accounting information with them.

31.2% of the respondents stated that these broad criteria overloaded the work required to prepare the financial statements, and the received statements sometimes suffer from incompleteness and lack timeliness. Reasons for this problem may be that the producers of accounting information lack general training and education concerning the nature and role of these criteria in producing information useful for decision making especially at the macro-level. Therefore,

more training programmes are required for the producers and also the users of accounting information with the emphasis on methods of link between macro and micro-accounting such as the opposite twin accounts.

10.3.1.5 Measurement criteria

The system has recognised the deficiency of historical cost under an inflationary environment and required that an appropriation of profit should be made to provide for the difference between historical cost and the predicted replacement cost of assets. In other words, the system introduced some remedies to reduce the side effects of inflation but nothing has been done to satisfy the users' needs for current value accounting information except the issuing of instructions to declare this information on a voluntary basis. Less than 25% of the economic units (descriptive empirical finding) had followed these voluntary instructions.

Having taken into consideration that the majority of the respondents (descriptive empirical finding) considered the declaration of the current value accounting information in the annual financial reports to be very important, an incentive plan inducing the producers of accounting information to declare current value accounting information must be established. If this plan does not work, a ministerial order with detailed instructions for the operation and preparation of current value accounting information must be issued.

10.3.1.6 Financial reporting

Preceding sections have investigated what appear to be some of the most important problems which affect the usefulness of the provided information according to the system. As financial reporting is the output of the system, all the

previous problems, and also the solutions, could affect it. Therefore, we are not going to repeat them in this section. Two problems deserve further attention. First, the problem of unsuccessful statements. Second, no satisfactory testing methods have been developed for evaluating the quality of financial disclosure according to the system.

(i) The first problem, it has been seen that the usefulness of the provided information in Form No 6: the quantitative and financial analysis of the capital applications ranged from neutral to slightly unsuccessful, and in Form No 6/A: the time distribution of the costs of capital applications, the usefulness ranged from slightly unsuccessful to quite unsuccessful (descriptive empirical findings). The reasons for the lack of success of some statements must be investigated during the required revision of the system.

(ii) The second problem, an attempt must be made to examine the quality of information disclosed in the annual reports of the different economic units which apply the system. For instance, Singhvi (6) used an index of disclosure which is similar to the one used by Cerf (7) to evaluate the quality of disclosed information. Initially, the items in the index were selected on the basis of a study of the investment decision process, a review of the literature describing how the decision should be made, interviews with security analysts, and an examination of the analysts' reports. Weights were assigned to these items to note distinctions in their relative importance. Weights given to all items total 68. The items included in the index were classified into four classes, and they were given different weights ranging from one to four. Using the index, the quality of disclosure in annual reports was quantified. Certain characteristics, like asset size and type of management, of corporations associated with the quality of disclosure were examined. The index of disclsoure used by Singhvi is shown in Table 10.2.

TABLE 10.2

Index of Disclosure

Items of Information	*Weight*
1. Comparative Income Statement for 2 years	4
2. Comparative Balance Sheet for 2 years	4
3. Statement of reconciliation of earned surplus	3
4. Statement of cash-flow (or source and application)	3
5. Summary of important financial statistics	3
10 years = 3 points	
6-9 years = 2 points	
4-5 years = 1 point	
6. Method of inventory valuation	1
Basis of inventory valuation	2
7. Sales breakdown by division or by individual companies in a consolidated statement	3
8. Method of depreciation	3
9. Description of type of capital expenditure planned	3
10. Capital expenditure amount for current year	3
11. Research expenditure amount for current year	3
12. Statement of gross and net property accounts	2
13. Sales broken down by customers or industry served	2
14. Sales separated by major product lines	2
15. Discussion of major factors affecting future business	2
16. Information on labor contracts	2
17. Basic policies and objectives of management	2
18. Description of principal plants	2
19. Details of outstanding stock issues	1
20. Index of selling prices	1
21. Index of raw material prices	1
22. Discussion of new product development	1
23. Discussion of industry trends	1
24. Number of employees	1
25. Description of management	1
26. List of names of directors	1
27. Summary of major products produced	1
28. Information on tax clearances and pending tax claims	1
29. Advertising expenses for current year	2
30. Contingent liabilities	2
31. Inventory breakdown	2
32. Sources of other earnings	1
33. Backlogs and projections	1
34. Number of stockholders	1
TOTAL NUMBER OF WEIGHTS	68

Source: Singhvi, S.S., op.cit., p. 43.

The above attempt to develop an index of disclosure is suitable for a market economy where "...variations in corporate disclosure are likely to result since corporations are managed by groups which have varying managerial philosophies and can exercise wide discretion in connection with disclosing information to the investing public" (8). The situation is different in the centrally planned economy, like Egypt, where the variations in economic units' disclosures are likely to be less than those in market economy because the items of information to be disclosed were determined by the governmental body in the law of the system. Accordingly, in order to evaluate the quality of information disclosed in annual reports, an emphasis is always placed on the degree of compliance with the rules of the unified accounting system. Meanwhile, the following factors could be considered:

A. The qualitative characteristics of the provided information;

B. The degree of success in following the chart of accounts and its classifications;

C. The degree of success in adopting the broad recognition criteria which satisfy the needs of both micro and macro-accounting;

D. The degree of success in declaring current value accounting information in addition to historical cost information.

There is an urgent need for further studies to examine the quality of information disclosed in the annual reports of the different economic units which apply the system. These studies must consider the above factors and must be expanded to include different sectors of the economy in order to note distinctions in the quality of information associated with the sector's characteristics.

10.3.2 Organisational problems

10.3.2.1 The approach adopted in the operation of the system and the responsible body: self help

In the process of the preparation of the system, a combination of the inductive (which tends to be democratic) and deductive (which tends to be autocratic) approaches has been achieved. But the system itself has been enforced by legislation (autocratic approach).

The possibility of becoming inflexible in operation is one of the main defects in the autocratic approach. Therefore, the Standing Committee on Clarification and Amendment of the Unified Accounting System was formed. This procedure is intended to provide the system with a desirable flexibility since future modifications will not require the cumbersome procedures involved in law changes. Accordingly, the purpose of the Committee is two-fold. First, interpretations and clarifications. Second, modifications in both form and substance of the system.

The Committee succeeded in the first purpose, many answers and clarifications have been given to the questions raised by both producers and users of accounting information. Concerning the second purpose, modifications, the committee was not bold enough to provide essential modifications such as introducing a new statement to satisfy the users' needs. The reasons for this problem are:

A Most of the members of the Standing Committee are employees in the Central Auditing Agency and they are reluctant to provide modifications because they respect the law which has been issued by their employer. In addition, the low position given to the practitioners group under the purposive uniformity model has caused

the practitioners lack of interest towards providing any suggestion for improving the system by modifications. To face this problem, only one remedy exists: the approach followed in the preparation of the system must be imposed in its operation. In other words, the users and producers of accounting information must have an active role in the Standing Committee. We have already seen that the meetings of ASC (U.K.) are attended by observers, FASB's meetings are held in public, and users of accounting information have been represented in both of them.

B As a result of lack of co-operation between the committee and the practitioners, the Standing Committee did not provide some users with the answers and interpretations to the questions raised by the different economic units (descriptive empirical finding). Strong channels of communication between the Committee and the producers and users of accounting information are required.

10.3.2.2 The organisation structure of the accounting profession: domestic professional help

According to the previously mentioned criteria concerning the characteristics of the profession, we have noticed that:

A In the period before 1956, the Egyptian accounting profession was able to meet six of seven characteristics of the profession. Although, an important characteristic (charter or constitution) was missing, the profession was able to meet the other characteristics with varying degrees. In this period, there were two organisations: the Egyptian Society of Chartered Accountants and Auditors, and the Egyptian Syndicate of Accountants and Auditors.

B In the period from 1956 to 1973, the profession witnessed some negative factors. The main one was that some members of the Central Auditing Agency and the Accounting Control Boards were not professionally qualified Accountants and, hence, did not meet the professional standards and requirements governing admission to professional institutions. In addition, the demand for services of Chartered Accountants by private companies declined enormously due to nationalisation. This period also witnessed the establishment of the Egyptian Syndicate of Commerce Professions, in which the Syndicate of Accountants and Auditors became a devision.

C In the period from 1974 to 1982, the profession did not change notably from the previous period except that the demand for services of professionally qualified Accountants rapidly increased because of adoption of the Open Door Policy. As a consequence, many accounting firms have sprung up and they have enjoyed rapid growth.

From this brief review, it is worth mentioning that:

A The following organisations exist but without co-ordination between them:

- The Egyptian Society of Chartered Accountants and Auditors (established in 1946).
- The Egyptian Syndicate of Accountants and Auditors (established in 1955).
- The Central Auditing Agency (instead of the State Accounting Office) (established 1964).
- The Accounting Control Boards (established in 1965).
- The Egyptian Syndicate of Commerce Profession (established in 1972), and the Egyptian Syndicate of Accountants and Auditors became a division on it.

An example of co-ordination can be seen in the U.K., "The ASC was formed in the first instance by The Institute of Chartered Accountants in England and Wales (ICAEW). ICAEW was almost immediately joined by the Institute of Chartered Accountants of Scotland and the Institute of Chartered Accountants in Ireland. The Association of Certified Accountants and the Institute of Cost and Management Accountants joined in 1971 and the Chartered Institute of Public Finance and Accountancy in 1976. From February 1976 the ASC was reconstituted as a joint committee of these six accounting bodies ('the governing bodies') who now comprise the Consultative Committee of Accountancy Bodies (CCAB" (9). "Any accounting standard can not be issued without the approval of this Committee" (10). Accordingly, there is an urgent need for co-ordination between the Egyptian governing bodies especially in vital matters such as the required review of the Egyptian Unified Accounting System.

B The situation of allowing some members of the Central Auditing Agency and the Accounting Control Boards not to be professionally qualified Accountants must be reviewed in order to raise the level of the profession.

C As a consequence of adopting the Open Door Policy, many accounting firms have sprung up. This growth must be invested in studying the domestic practical problems in the profession and not in importing international accounting standards which in most cases do not suit the Egyptian environment.

10.3.2.3 Organisational status of accounting education: self help

For accounting systems to be created and function properly, there must be available a cadre of trained accountants. The

problem of a lack of adequately trained accountants appears to be the root of many of the problems which have been investigated in the preceding sections. Trained accountants are the outputs of a reliable accounting education system.

"Educational systems may be classified according to their structure (the degree of formality or rigidity of the programme) into:

A formal or rigid system includes educational programmes similar to those offered by schools, colleges, and other institutions.

An informal or non-rigid system includes educational programmes such as on-the-job training, apprenticeship programmes, experience requirements, and so forth" (11).

In the Egyptian environment, both formal and informal system have been followed with varying degrees. From the inferential empirical findings, we have seen that the respondents' qualifications (hypothesis fifteen) and their studying of the Egyptian unified accounting system (hypothesis seventeen) affect their pattern of reading of the financial statements and budgets in the annual reports.

"Formal and informal education systems differ from each other in the following ways:

1 The formal system of education uses educators who are trained specifically for the task of teaching, whereas the informal system uses qualified practitioners who usually do not have any training in education.

2 The formal system encourages the creation of educational aids, such as textbooks, casebooks, and so on, and uses them extensively. The informal system is based on learning by imitation of the master's behaviour and by the use of verbal instructions.

3 The formal system is based on the development of common and objective examinations which do not depend on the specific instructor, and which permit the creation of a general ranking system. The informal system is based on the subjective evaluation by the student's master and only in rare cases are formal and widely accepted examinations used.

4 The formal system of education utilises a common body of knowledge and of educational methods and, therefore, allows the mobility of both students and teachers from one institution to another. By contrast, the informal system, which does not have a common body of knowledge, does not encourage the mobility of either the students or the teachers.

5 The formal system of education is more efficient than the informal system in the sense that it enables the training of a larger number of students at one time than does the informal system of education" (12).

The above stated differences between the formal and informal education systems justify the greater emphasis on formal education in the Egyptian accounting education system. This emphasis has created the following problems:

A Shortage of qualified accounting educators because the formal system uses educators who are trained specifically for the task of teaching. In spite of this shortage, there is a reluctance to have anyone without a Ph.D. as a member of the staff at the universities while there are some CPA's who would be willing to teach.

B As the formal system encourages the creation of educational aids such as textbooks, the students leave college with only limited theoretical aspects of accounting and auditing. In addition, they also lack practical experience.

C Because the formal system is based on the development of common and objective examinations, the Egyptian employers prefer and respect the university certificate regardless of practical experience.

D Because the formal system enables the training of a larger number of students, the Egyptian universities are overburdened with tremendous student loads and inadequate facilities for practical training.

To face the above problems, the following remedies could help:

A A combination of both Ph.D's and CPA's must be considered. The two categories complement each other, the first has the academic experience and the second has the practical experience.

B There must be an effective interface, or line of communication, between accounting education bodies (universities) and the accounting professional bodies (practitioners). The co-operation could open opportunities for training university students. In particular, accounting educators and accounting professionals can review the existing accounting education programmes.

C A balance between the formal and informal education system is required. As indicated earlier, in the first periods of adopting the Egyptian unified accounting system there were detailed training programmes for both accountants and management to increase their awareness of their new role. Although the application of the system has revealed many problems, the training programmes do not continue at the same level as earlier stages and some respondents stated that they stopped completely. Therefore, continuous training programmes are necessary especially on-the-job training programmes.

10.3.2.4 Contradiction between different organisations which control economic units: self help

As indicated earlier, these organisations insist on applying some rigid definitions and forms which are slightly different from those introduced in the Egyptian unified system. In addition, there is no co-ordination between them concerning the appropriate time of requiring these forms.

A further study is required to study the reasons for contradiction and to set a strategy for establishing lines of communication between these organisations.

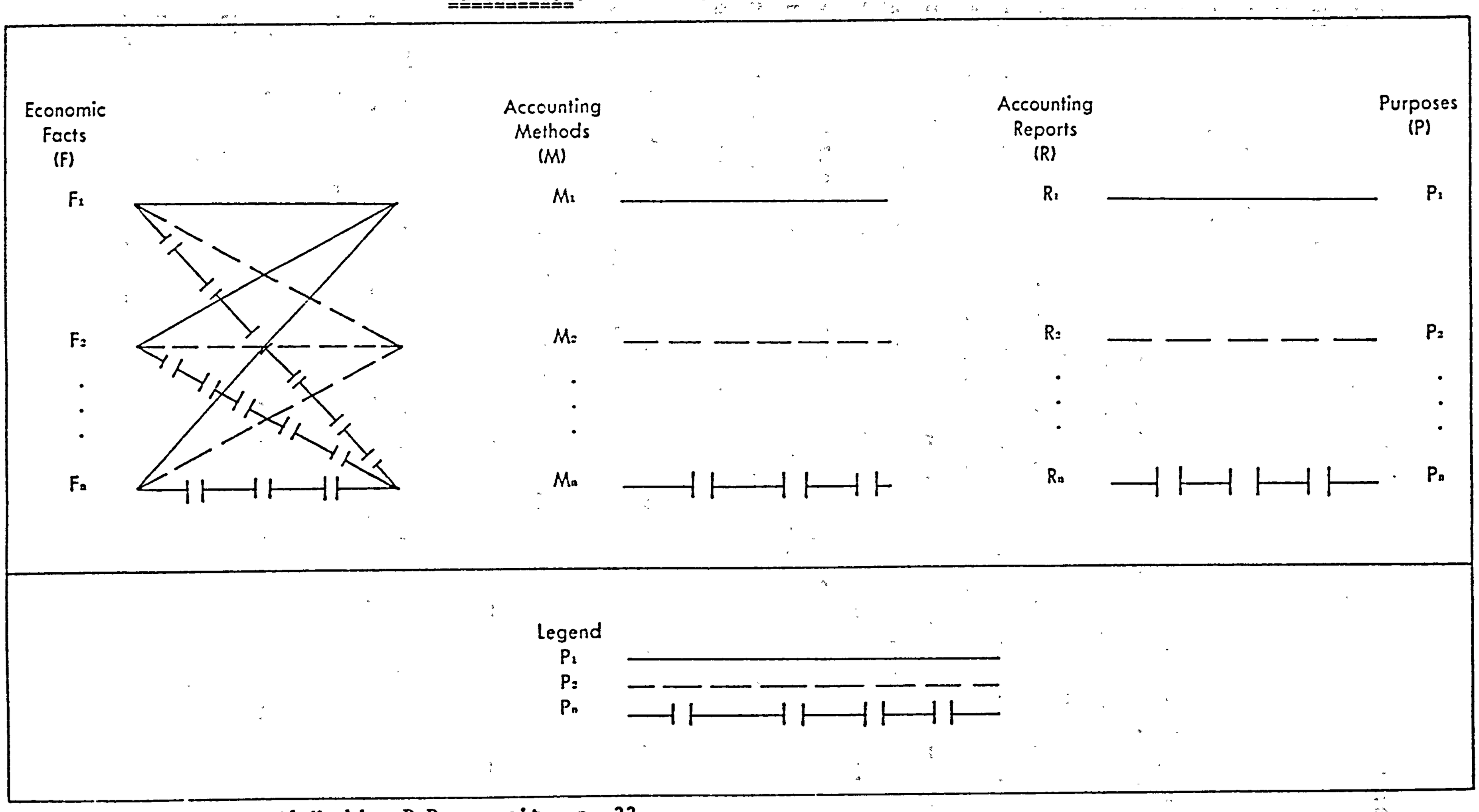
10.3.3 Environmental problems

10.3.3.1 Changing users' needs: self help

As indicated earlier, in the stage from 1956 - 1973, the Egyptian economy was characterised by the transformation from free private enterprise to a centrally planned economy. Egyptianisation and nationalisation constituted radical steps towards the expansion of the role of the public sector with the shrinking of the private sector. Under this environment the Egyptian unified accounting system was issued in 1966 to facilitate collection, tabulation and storage of accounting information for national planning and control.

In the process of developing the system, the purposive uniformity model has been followed with success because of the relevanvce of the Egyptian environment for adopting this model. "The model must be highly responsive to changing users' needs; methods and reports would all be subject to change with changing users' needs" (13). Purposive uniformity is represented schematically in Figure 10.2. "As illustrated, if purpose changes (e.g. from P1 to P2), economic events can be defined differently and alternative accounting methods and reports prescribed" (14).

FIGURE 10.2: **The Purposive Uniformity Model**



Source: Al Hashim, D.D., op.cit., p. 22.

The question now: has there been any change in the users' needs in Egypt? The answer is yes because the stage from 1974 to 1982 witnessed the adoption of the Open Door Policy within a centrally planned framework and the encouragement of the private sector, Arab, and foreign capital. Therefore, some projects have been established as joint investment between the public sector, the private sector, Arab, and foreign capital. These joint investment projects have created new requirements for accounting policies and reports applicable to their nature. For instance, the problem of dealing with the translation of foreign currency and including or excluding the gain or loss of translation adjustment from the determination of net income. In other words, new users' needs have emerged and if the system (the Standing Committee on Clarification and Amendment) does not consider the changing users' needs, it will be easy to attack the system especially as there are some pressures from:

- the shortage of the human element to operate the system;
- modern accounting systems introduced by foreign investment;
- a growing private sector accounting profession.

As suggested by the respondents, a continuous revision is a prime necessity to keep the system in operation.

10.3.3.2 International accounting standards: the strategy of "prevention is better than cure"

As mentioned before, Egypt rushed towards the adoption of international accounting standards instead of concentrating on evaluating and improving its own accounting system.

Historically, in most of the developing countries including Egypt, the establishment of accounting standards, if there are any, has been achieved in a similar manner to that adopted by developed countries regardless of the unique accounting environment of the developing countries

(Chapter Three). Therefore, it was concluded that accounting practices in most of the developed countries suffered from accounting schizophrenia (chaotic practices and confusion in operation and procedures) (chapter four). Some countries, like Egypt, started treatment by developing their own accounting systems. However, the rush towards the adoption of international accounting standards may cause the recurrence of accounting schizophrenia. Therefore, the strategy of "prevention is better than cure" must be followed. The implementation of this strategy is the joint responsibility of the following parties:

A Developing countries: self help and domestic professional help. Perhaps, the framework suggested by Needles (summarised in Chapter Four) is the best way for prevention. A three-phase plan was described for the implementation of this framework, by which a country may formulate a strategy for the international transfer of accounting technology as a part of its overall economic plan. This study dealt directly with the problem of transferring accounting technology from developed countries to developing countries. By following this framework, the developing countries can avoid foreign accounting technologies which do not suit their environmental characteristics.

B Developed countries: relative help and international professional help. A study by Ndubizu argued that "...a careless intervention into the Third World economy by developed countries' accounting professions and governments would have adverse economic ramifications on development... Therefore, careful intervention in the Third World by advanced countries' accounting associations and governments requires a complete study of the various aspects of the environment (political, social, legal, economic, and technological environments) and the culture which unifies these elements" (15).

It was a hopeful sign that the American Accounting Association tried to construct a methodology for identifying the socioeconomic factors and the characteristics of accounting systems in developing countries. This attempt was made after a long history of transferring accounting technology from developed countries without modifications to suit the developing countries' unique environment.

The above two examples indicate that the developed countries have started the recognition of their critical role in the prevention of accounting schizophrenia from occurring in developing countries.

10.4 Conclusion

In this chapter, the author presented the last process in the suggested model (treatment and management). In fact, this process depends upon the results of the analysis of the previous processes of the suggested model (case history and diagnosis). Several general conclusions can be reached from the analysis, but we shall concentrate on the main ones:

A The results show that many of the most important problems that affect the usefulness of the provided information according to the system are believed to result from important causes deeply rooted in human elements. The human elements are probably of even greater importance in the restriction of the growth of the system. For instance, it has been noticed that:

- In the process of developing the system, the purposive uniformity model has been followed because of the relevance of the Egyptian environment for adopting this model. But the most important problem is that the low position given to the practitioners group on the utility scale under this model has led to the practitioners' lack of interest towards the system's success.
- The provided accounting information sometimes lacks some important qualitative characteristics such as timeliness because some of the producers of accounting information lack awareness of the importance and critical role of the unified accounting information for making decisions by users. Therefore, they send the financial reports in insufficient time to be useful for users.
- In spite of the importance of the current value accounting information for users, the producers of accounting information are reluctant to provide it.

- The producers of accounting information lack general training and education concerning the nature and role of the broad recognition criteria introduced by the system. Under these criteria, there is a coupling between micro and macro-accounting within the same financial reports.
- In addition, there is a shortage of qualified producers of the accounting information because of the following factors:

First: Poor education system overburdened by tremendous student loads and inadequate facilities for practical training.

Second: Most of the qualified accountants leave the public sector and the governmental bodies to work in other Arab countries because of the high level of salaries in these countries compared with those in Egypt, or to work for the private sector and the new investment projects established after the adoption of the Open Door Policy.

Third: The training programmes for accountants are inadequate for increasing their practical experience.

The treatment must start from this key problem, the problem of human elements:

- Concerning the lack of interest by practitioners, there is an urgent need to establish an incentive plan (bonus) inducing the practitioners to be more active, more positive, and more efficient.
- The accounting education system should be reviewed to increase the number of qualified graduates. Emphasis must be placed on their quality, rather than quantity.
- The salary system must be reviewed with the objective of keeping a balance, at least, between the salaries in the public and private sector.

- Continuous training programmes are necessary especially on-the-job training programmes.

B No satisfactory testing methods have been developed for evaluating the quality of financial disclosure according to the system. Therefore, there is an urgent need for further studies to examine the quality of information disclosed in the annual reports of the different economic units which apply the system. Those studies must consider the following factors:

- The qualitative characteristics of the provided information;
- The degree of success in following the chart of accounts and its classifications;
- The degree of success in adopting the broad recognition criteria which satisfy the needs of both micro and macro-accounting;
- The degree of success in declaring current value accounting information in addition to historical cost information.

In addition, further studies must be conducted to include the different sectors of the economy to note distinction in the quality of information associated with the sectors' characteristics.

C From an organisational point of view, the analysis revealed the following:

(1) The approach adopted in the operation of the system and the responsible body: the approach followed in the preparation of the system must be imposed in its operation. In other words, the users and producers of accounting information must have an active role in the Standing Committee on Clarification and Amendment of the System. Strong channels of communication between the committee and the producers and users of accounting information are required.

(2) The organisational structure of the accounting profession: there is an urgent need for co-ordination between the different Egyptian governing bodies especially in vital matters such as the required review of the Egyptian unified accounting system.

(3) Organisational status of accounting education: A combination of both Ph.D's and CPA's must be achieved in the members of staff at the universities to face the problem of the shortage of qualified accounting educators. In addition, there must be an effective interface, or line of communication, between accounting education bodies (universities) and accounting professional bodies. Also a balance between the formal and informal education system is required.

(4) Contradiction between different organisations which control economic units: A further study is required to study the reasons for this contradiction and to devise a strategy for establishing lines of communication between these organisations.

D From an environmental dimension, the analysis revealed the following:

(1) Changing users' needs: New users' needs have emerged, especially after the adoption of the Open Door Policy, and if the system (the Standing Committee) does not consider the changing users' needs, it will be easy to attack the system especially as there are some pressures from:

- the shortage of the human element to operate the system;
- modern accounting systems introduced by foreign investment;
- a growing private-sector accounting profession.

Therefore, a continuous revision is a prime necessity in keeping the system in operation.

(2) International accounting standards: To avoid the recurrence of accounting schizophrenia, the strategy of "prevention is better than cure" must be followed. The implementation of this strategy is the joint responsibility of both developed and developing countries.

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CHAPTER ELEVEN

Chapter Eleven

Summary, Conclusions, Recommendations of the Study, and Suggestions for Further Research

11.1 Introduction

11.2 Justification for the proposed research and its objectives
- 11.2.1 In the developing countries
- 11.2.2 In the Egyptian environment

11.3 Summary of the methodology
- 11.3.1 Theoretical analysis
- 11.3.2 Empirical investigation
  - 11.3.2.1 Decision concerning the selection of a field site
  - 11.3.2.2 Decision concerning the method of data collection
  - 11.3.2.3 Decision concerning the techniques of data analysis

11.4 Summary of the results of the theoretical analysis
- 11.4.1 The building blocks of the suggested model
  - 11.4.1.1 The three dimensions of the characteristics of the conceptual framework for financial accounting and reporting
  - 11.4.1.2 The applicability of the general medical model for disease regulation to accounting problems
  - 11.4.1.3 The applicability of the medical model for regulating schizophrenia to accounting problems in developing countries

11.4.2 Description of the suggested model

11.4.3 Why does the author recommend the use of this model?

11.5 Summary of the results of the empirical investigation

11.6 Suggestions for further research

11.6.1 In the developing countries

11.6.2 In Egypt

Chapter Eleven

Summary, Conclusions, Recommendations of the Study, and Suggestions for Further Research

11.1 Introduction

From an overall perspective, this chapter is perhaps best viewed as progressing through the following main points: (1) justification for the proposed research and its objectives, (2) a summary of the methodology, (3) a summary of the research results including main conclusions and key recommendations, and finally (4) suggestions for further research. Certain significant aspects of these and related topics are discussed below.

11.2 Justification for the proposed research and its objectives

11.2.1 In the developing countries:

A Nature of accounting studies in developing countries.

In a bibliographical study by Professor Jaggi, it was found that most of the studies of accounting in developing countries were of a descriptive nature, few studies exist which conceptualise the role of accounting in these countries, and almost none which attempt research of a hypothesis-testing nature.

A review of the literature has revealed that this situation has not obviously changed since Jaggi's conclusion in 1973, and there is still a shortage of both conceptual studies and hypothesis-testing studies. Therefore, the author has conducted a descriptive, conceptual, and hypothesis-testing study, having taken into consideration that there are interrelationships between the three kinds of studies.

B. Considering the three dimensions of the characteristics of the conceptual framework for financial accounting and reporting. A review of literature has revealed that no study has completely considered the characteristics of the conceptual framework in their three dimensions (structural, organisational, and environmental) to examine the case of accounting in developing countries. Accordingly, these three dimensions have been considered in our study.

C The influence of foreign accounting methods. Unfortunately, in most cases, there has been an uncritical acceptance of these foreign accounting methods without taking into consideration the environmental needs of developing countries. This situation has created chaotic practices and confusion in operations and procedures in these countries (accounting schizophrenia). Therefore, a method or methods must be devised which are capable of preventing such an occurrence of accounting schizophrenia.

D Recently, some of the developing countries have rushed to apply international accounting standards without considering their individual circumstances. Therefore, there is an urgent need to rationalise this process by studying the specific environment and accounting needs of these countries before applying, if it is possible, the international accounting standards.

The basic premise on which the research rests is that this situation (explained in points C and D) can not be allowed to persist. There exists a critical need for a model which will assist in identifying and managing accounting problems in developing countries. The first objective of our research, then, has been to develop such a model and to demonstrate its potential value and usefulness.

It is believed by this writer that the attempt to develop the model should be accompanied by empirical study (or studies) concerned with testing its applicability. The empirical study has been conducted in one of the developing countries, Egypt, because of the factors discussed below.

11.2.2 In the Egyptian environment

The Egyptian environment represents a good case study for testing the suggested model, because of the following factors:

A Some argue that the best way for establishing accounting systems in developing countries is by legislation. This exactly represents the situation in Egypt when the unified accounting system was enforced by legislation. It would be extremely helpful, after more than fifteen years of the application of the system, if research could examine this issue.

B The Egyptian unified accounting system has the basic structural characteristics of the conceptual framework. It would be helpful if research could test some hypotheses concerning the relationships between these structural characteristics.

C Foreign forces (former colonial administration, foreign investors, etc.) have influenced accounting practices in Egypt by introducing foreign accounting methods. This situation resulted in the occurance of accounting schizophrenia in some periods. Therefore, the Egyptian environment provides a good case study for this disease.

D Recently, Egypt has rushed to apply international accounting standards without following reasonable steps.

The above factors justify why the Egyptian environment has been chosen to test the suggested model, which is the second main objective of our research.

11.3 Summary of the methodology

11.3.1 Theoretical analysis

This phase involves a review of the literature with the purpose of:

- Identifying the meaning and characteristics of the conceptual framework for financial accounting and reporting.

- Using these characteristics to examine the existing accounting systems and practices in developing countries.

- Testing the possibilities of applying some models which have been used in physical sciences (models for regulating diseases and especially the model for regulating schizophrenia) in the identification and management of some problems (diseases) in social sciences (accounting in developing countries).

- These have provided the researcher with the building blocks from which to progress and develop a new model of general applicability to the identification and management of accounting problems in developing countries.

11.3.2 Empirical investigation

Testing the applicability of the suggested model in the Egyptian environment. The empirical investigation consists of collecting and analysing data related to the usefulness of the Egyptian unified accounting system. This phase involves the following decisions:

11.3.2.1 Decision concerning the selection of a field site

The data was collected from the investors, who have been represented by the staff in the National Investment Bank in Egypt. The Bank is considered a special kind of bank - it is not an institution for profit making. In fact, it is a continuation of the operation of planning for national development and the achievement of its targets. The Bank aims to concentrate the financial resources in the hands of one government agency and then redistribute these resources to fulfil planning targets. The reasons behind the selection of the Bank as a field site are as follows:

- A high priority could be given to the Bank as a user of financial reports because it works as an investor and creditor at the same time.
- It is a government agency and government agencies come at the top of the users' list of financial reports in developing countries.
- We can find in the Bank a direct application of the accounting objective concerned with aiding economic development by providing useful information.
- We can find in the Bank a direct application of the Egyptian unified accounting system's basic objective concerned with serving the purposes of national planning and control.
- The high relative importance allocated to the Bank in the distribution pattern of the Egyptian national investment.

11.3.2.2. Decision concerning the method of data collection

The data was collected through personal interviewing by structured questionnaire. The main reasons for this decision are:

- The depth and detail of information that can be secured with this method.

- Most of the requirements for a successful interview have been appreciated in our research.
- The lines of investigation of our research are clearly defined; we are looking for an evaluation of the usefulness of the Egyptian unified accounting system by using the characteristics of the conceptual framework for financial accounting and reporting. Therefore, the structured questions have been used.

11.3.2.3 Decision concerning the techniques of data analysis

Statistical analysis has been used in the analysis of the collected questionnaire data and in testing the research hypotheses. In addition, the computer analysis of the data was undertaken by using the Statistical Package for the Social Sciences (SPSS*).

The results of both the theoretical analysis and the empirical investigation are summarised and presented in the following two sections.

11.4 Summary of the results of the theoretical analysis

11.4.1 The building blocks of the suggested model

11.4.1.1 The three dimensions of the characteristics of the conceptual framework for financial accounting and reporting

The structural characteristics of the conceptual framework are concerned with the components of the framework which consist of conceptual components (objectives, qualitative characteristics of accounting information, and elements of financial statements) and operational components (recognition criteria, measurement criteria, and financial reporting).

The professional body which will take on the responsibility for developing the conceptual framework must have a special structure and work according to a clear approach. The structure of the responsible body and its approach of working will represent the organisational characteristics of the conceptual framework.

Accounting can not be separated from the environment it serves. The conceptual framework can rationalise the development of accounting in response to users' needs which are continually changing. Therefore, the environmental factors respresent the third dimension of the characteristics of the conceptual framework.

The above three dimensions have been used as basic tools in the examination of accounting problems in the developing countries. The main implications of this test are:

A Structural characteristics which consist of:

(i) Conceptual components: the basic objective of accounting has not changed in developing countries. The role of accounting is still to provide useful information to satisfy the users' requirements for making economic decisions. But because there is an urgent need for economic development in developing countries, accounting must provide useful information for aiding economic development in these countries.
It is evident that the accounting information produced in the developing countries lacks most of the qualitative characteristics of accounting information. The accounting systems are not adequately established to be able to provide relevant, timely and reliable information to satisfy users' needs.

(ii) Operational Components: since developing countries are often plagued with heavy inflationary pressures, an approach based on the basic principles and concepts of current cost accounting is required to take into consideration the effect of inflation in these countries.

It is generally recognised that the information disclosed in financial reports is not adequate for the purpose of making economic decisions.

B Organisational characteristics: the accounting profession in most of the developing countries is at an embryonic stage, and the influence of foreign countries is an obvious tendency. An autocratic rather than a democratic approach has been followed by most of the developing countries in setting accounting systems and regulating the accounting profession.

C Environmental characteristics: the accounting principles of developed countries have been enforced in developing countries accounting practices without modification to suit their unique environment.

11.4.1.2 The applicability of the general medical model for disease regulation to accounting problems

It is evident that the three main processes (case history, diagnosis which consists of preliminary examination and primary investigation, and finally treatment and management) of the general medical model for disease regulation can be applied in the identification of accounting problems by conducting descriptive (description of the state of accounting), conceptual (developing a model to examine the existing accounting practices), and hypothesis-testing studies (developing and testing some accounting hypotheses). Based on the results of the descriptive, conceptual, and hypothesis-testing studies, the analyst can suggest a prescription for improving the existing accounting practices.

11.4.1.3 The applicability of the medical model for regulating schizophrenia to accounting problems in developing countries

The two main symptoms of the central syndrome of schizophrenia are thought insertion or substitution and will is taken over and controlled by external forces. It is evident that accounting practices in developing countries suffer from these two symptoms as a result of the adherence to various foreign accounting influences. Therefore, we can say that accounting practices in these countries suffer from accounting schizophrenia (chaotic practices and confusion in operation and procedures). Hence, the three main processes of the medical model for regulating schizophrenia can be applied in the identification and management of accounting problems in developing countries.

In this section, the author has determined the three building blocks which have been used in constructing the suggested model.

11.4.2 Description of the suggested model

The proposed model comprises of three interconnected processes. The fact that all the components are interrelated is of fundamental importance. The model consists of the following main processes:

A Case history: this process can be conducted by taking into consideration the results of descriptive studies which examine the state of accounting practices in developing countries. In other words, it is the process of collecting relevant descriptive data about the studied case.

B Diagnosis: this process can be implemented within the following two stages:

B-1 Preliminary examination: a model can be developed to examine the existing accounting practices (conceptual studies). This sub-model has essentially taken into consideration the three dimensions of the characteristics of the conceptual framework for financial accounting and reporting (structural, organisational, and environmental characteristics) as basic tools for testing the accounting practices in developing countries.

B-2 Primary investigation: use of the above sub-model will provide us with some hypotheses which need more advanced investigation by conducting empirical studies.

The output of the diagnosis process is the identification of the accounting problems.

C Treatment and management: based on the results of the two previous processes: case history (descriptive studies) and diagnosis (conceptual and hypothesis-testing studies), the analyst can write a prescription for improving existing accounting practices within three dimensions: self help, relative help, and professional help (domestic and international).

11.4.3 Why does the author recommend the use of this model?

In fact, this model has the following advantageous characteristics:

A It is inductive and deductive: a combination between the inductive and deductive approach has been achieved by making a number of observations (the inductive approach)

within the restrictions of a model representing what ought to be done (deductive approach). These observations will be made within the restrictions of the general model with its three main processes (case history, diagnosis, and treatment) and the sub-model with its three dimensions (structural, organisational, and environmental).

B It is democratic and autocratic: the democratic approach has been followed in the first stage of the second process (preliminary examiniation) by representing the users of accounting data in most of this process. On the other hand, a presuppose agreement as to the objective of accounting in the developing countries (the maximisation of the role of accounting for serving economic development) will have to be autocratically imposed.

C It is comprehensive: the interrelationships among the descriptive studies (case history), conceptual studies (preliminary examinatin), and hypothesis-testing studies (primary examination) have been considered in the model.

D It is systematic: the system approach has been considered because the model proposes to view accounting as a system; its components are interrelated (inputs, processing, and outputs) and each of these components interacts with the three dimensions of the characteristics of the conceptual framework.

E It is dynamic: the environmental characteristics have been considered to suit the nature of accounting as a discipline which operates in an atmosphere of change. In the process of using the model, the acquired information will be used as a feedback as the environmental characteristics change.

F It is prescriptive: it answers the question about what ought to be done to face the accounting problems revealed in the developing countries.

In this section, a summary of the results of the theoretical analysis has been presented. In this summary, we have concluded the building blocks of the suggested model, description of the suggested model, and its advantages. Next, a summary of the results of the empirical investigation will be presented.

11.5 Summary of the results of the empirical investigation

The applicability of the suggested model has been tested in the Egyptian environment. Summary of the results of case history (the first process of the suggested model) and diagnosis (the second process) has been presented in Chapter Ten of this research before introducing the treatment of the problems of the Egyptian unified accounting system.

As the proposed model is prescriptive, it answers the question of what ought to be done to treat the uncovered problems. Therefore, the detailed conclusions and recommendations for treating these exposed problems and improving accounting practices in Egypt have also been presented in Chapter Ten of this research. Here, we are going to repeat some of the key conclusions and recommendations:

A Egyptian unified accounting does work but it suffers from some problems which affect the usefulness of the provided information. These problems have been classified into three categories: structural, organisational, and environmental problems. There are interrelationships among these problems and also among the suggested solutions.

B The analysis revealed that many of the most important problems that affect the usefulness of the provided information according to the system are believed to result from important causes deeply rooted in human elements. The human elements are probably of even greater importance in the restriction of the growth of the system. For instance, the provided accounting information sometimes lacks some important qualitative characteristics such as timeliness because some of the producers of accounting information lack awareness of the importance and critical role of the unified accounting information for serving the economic decision making and they send the financial reports in inappropriate time to be useful for users.

The treatment must start from this key problem; the problem of human elements:

B-1 Concerning the lack of interest by practitioners and producers of accounting information, there is an urgent need to establish an incentive plan (bonus) inducing them to be more active, more positive, and more efficient.

B-2 The accounting education system should be reviewed to increase the number of qualified graduates. Emphasis must be placed on their quality, rather than quantity.

B-3 The salary system must be reviewed with the objective of keeping a balance, at least, between the salaries in the public and the private sector.

B-4 Continuous training programmes are necessary especially on-the-job training programmes.

C From an organisational point of view, the analysis revealed the following:

C-1 The approach adopted in the operation of the system and the responsible body: The approach employed in the preparation of the system must be re-imposed in

its operation. In other words, the users and producers of accounting information must have an active role in the Standing Committee on Clarification and Amendment of the System. Strong channels of communication between the committee and the producers and users of accounting information are required.

C-2 The organisational structure of the accounting profession: There is an urgent need for co-ordindation between the different Egyptian governing accounting bodies especially in vital matters such as the required review of the Egyptian unified accounting system.

C-3 Organisatonal status of accounting education: A combination of both Ph.D's and CPA's must be achieved amongst the members of staff at the universities to face the problem of the shortage of qualified accounting educators. In addition, there must be an effective interface, or line of communication, between accounting education bodies (universities) and accounting professional bodies. Also a balance between the formal and informal education system is required.

C-4 Contradiction between different organisations which control economic units: A further study is required to explore the reasons for this contradiction and to devise a strategy for establishing lines of communication between these organisations.

D From an environmental dimension, the analysis revealed the following:

D-1 Changing users' needs: New users' needs emerged especially after the adoption of the Open Door Policy, and if the system (the Standing Committee) does not consider the changing users' needs, it will be easy to attack the system especially as there are pressures from:

- the shortage of the human element to operate the system;
- modern accounting systems introduced by foreign investment;
- a growing private-sector accounting profession.

Therefore a continuous revision is a prime necessity for keeping the system in operation.

D-2 International accounting standards: To avoid the recurrence of accounting schizophrenia, the strategy of "prevention is better than cure" must be followed. The implementation of this strategy is the joint responsibility of both developed and developing countries.

11.6 Suggestions for further research

11.6.1 In the developing countries

The model developed in this dissertation represents only a beginning. The suggested model has identified and managed accounting problems in one of the developing countries, Egypt, because the Egyptian environment represents a good case study for testing its applicability. But a full appreciation of its value must await a more extensive application of the model to the analysis and comparison of existing accounting practices in other developing countries. Research in this direction is urgently needed and should be given top priority. Therefore, similar comparative studies can be undertaken to study the problems of accounting practices in other developing countries. Such studies will increase the possibilities of improving the accounting practices in one country by examining the accounting practices in other countries with a similar environment.

11.6.2 In Egypt

The general rationale of this study is that an important way to learn about the usefulness of an accounting system is to study its ability to provide useful information to the users of its outputs of accounting information. This study did not attempt to cover all the users of the provided accounting information according to the Egyptian unified accounting system because of the limitations of time. Instead, the study was limited to one important user, the Egyptian National Investment Bank, because of previously mentioned reasons. However, there are other categories of users who cannot be ignored such as the Central Auditing Agency or the Ministry of Planning. Therefore, further studies are required to investigate the points of view of the other users concerning the usefulness of the Egyptian unified accounting system.

This study is primarily limited to one side of the coin, the users. The other side is the preparers of accounting information according to the system. A further research should be undertaken to examine the practical difficulties which face the preparers of accounting information. The questions to be researched are: what are the different practical difficulties in the preparation of the different financial reports according to the system and can such difficulties be improved?

No satisfactory testing methods have been developed for evaluating the quality of financial disclosures according to the system. Therefore, there is an urgent need for further studies to examine the quality of information disclosed in the annual reports of the different economic units which apply the system. These studies can consider the following factors:

- The qualitative characteristics of the provided information.

- The degree of success in following the chart of accounting and its classificatins.
- The degree of success in adopting the broad recognition criteria which satisfy the needs of both micro and marco-accounting.
- The degree of success in declaring curent value accounting information in addition to historical cost information.

In addition, further studies can be extended to include the different sectors of the economy to note distinctions in the quality of information associated with the sectors' characteristics.

The final suggestion for additional research is how the contradiction between the different organisations which control economic units can be removed. These studies can inquire into the reasons why these organisations insist on applying some rigid definitions and forms which are slightly different from those introduced by the Egyptian unified accounting system. A strategy can be devised to establish reliable lines of communication between these organisations. This strategy can minimize or remove this contradiction which confuse both the users and producers of accounting information.

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