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**MARKETING'S ROLE IN
SUCCESSFUL NEW PRODUCT DEVELOPMENT IN
COMMERCIAL, INVESTMENT AND MERCHANT BANKS**

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submitted for the degree of

Doctor of Philosophy

Department of Business Studies
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TO MY PARENTS

Maya and Michael - without whose encouragement
and continuous support this thesis would not
have materialised

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DECLARATION

The University Librarian is hereby granted the power of discretion to allow single copies in whole or in part of this thesis to be made without further reference to the author, for study purposes, and subject to the normal conditions of acknowledgement.

ABSTRACT

This thesis investigates marketing's role in new product development (NPD) in commercial, investment and merchant banks. It examines how marketing inputs contribute to new product development success.

NPD success can be measured at two levels of analysis - at the program and at the project level. Our study is concentrated at the program level at which sustained product development success is examined, rather than one-off project success. Successful product developers are identified as those banks with a better record of being first to market with new products. This measure of product development success is important in the financial risk management market in which commercial, investment and merchant banks compete fiercely.

Based on peer evaluation seventeen banks were identified as innovative, that is to say; active new product developers in the financial risk management market from a universe of almost 130 U.K. and foreign banks with established operations in London. From these seventeen eight participated in our research study. Data was collected in two stages. First, personal interviews were conducted with the heads of the treasury divisions or the heads of derivatives desks to collect background information for control purposes. Second, detailed questionnaires were administered to two further members of each bank who were involved with the development of financial risk management products. The questionnaires consisted of statements for which respondents were invited to indicate agreement or disagreement on 5-point Likert type scales.

Our findings show that it is not the trappings but the quality of marketing inputs that contribute to program success. Quality of marketing inputs comprises the quality of approach adopted and the quality of execution. The most important finding is that successful product developers adopt higher quality marketing than do less successful product developers. Successful product developers place great emphasis on getting both their approach and their execution right.

It was found that successful product developers adopt a market-based approach in identifying new opportunities. They not only adopt a strategy which selects markets on the basis of benefits sought (instead of determining strategy on the basis of primarily internal strengths), but they also use internal marketing to promote this cause. Further, successful product developers possess the appropriate implementation skills to exploit selected opportunities.

While we cannot claim that program success will be guaranteed from a market-based approach, our evidence lends strong support that absence of a market-based approach is likely to lead to considerably lesser success in the type of product development investigated in this research study.

CHAPTER 1: INTRODUCTION

If the test of a philosophy is the result of its implementation, then what is required of research into marketing is an analysis of how marketing is actually carried out, rather than of the mechanisms and structures which may be mistaken for a true marketing orientation.

Baker, M. and Susan Hart. (1989)

1.1 Introduction

There are few business activities more important than the development of new products. New product development is critical to the success, profitability, growth and future survival of a business. However, with constantly changing business environments affected by shortening product life cycles, increased competition and new technologies, the search for the factors which underpin successful new product development has become critically important (Cooper, 1988a; DeBrentani, 1989a, 1989b; Johne and Snelson, 1988a, 1988b, 1988c, 1990). This is the phenomenon under investigation in this research study.

Every reputable study in the new product development area has identified marketing inputs, in one form or another, as critically important in ensuring product development success. However, most previous research has focused on the trappings of marketing inputs, rather than on the substance or quality of marketing inputs. That is to say; whether "marketing" activity is undertaken and if so, how much of it; rather than how well it is executed. This research study investigates how marketing inputs contribute to new product development success

qualitatively. This is the analytical perspective under investigation.

In acknowledging the importance of successful new product development for future growth and profitability, many researchers have investigated factors which contributed to new product development success. From this body of research, relatively little has been formally reported in the field of services in comparison with the manufactured goods area. However, successful new product development is important for services companies too (DeBrentani, 1989,1993; DeBrentani & Cooper, 1992; Colletti et al, 1988; Easingwood, 1986; Easingwood & Storey, 1991; Iwamura and Jog, 1991; Johnne and Snelson, 1985; Scheuing and Johnson, 1989). We decided to investigate successful new product development in the services industry, concentrating on the financial services area. We narrowed down this focus further to financial risk management service products supplied by commercial, investment and merchant banks. This is the experimental context in which the phenomenon is investigated.

This chapter describes the business problem investigated; describes the research study's aims and objectives and its new elements; gives working definitions on different terms used throughout the thesis; and, finally, gives a brief description of the findings.

1.2 The business problem defined

Successful new product development is an important business issue. The problems faced in the successful

development of new products to practitioners are well recognised, and this field has been the subject of recent academic research.

The findings of academic research in both the services sector and manufactured goods sector have identified marketing input, in one form or another, as a key managerial factor contributing to new product development success (Cooper, 1979, 1980, 1982, 1984a, 1988a, 1988b; Cooper and DeBrentani, 1991; Cooper and Kleinschmidt, 1986, 1987a; DeBrentani, 1989a; John and Snelson, 1988a, 1988c, 1990; Rothwell, 1976, 1977; Souder, 1987). However, in most product development studies the role of marketing has been examined by focusing on what Ames (1970) calls the trappings of marketing inputs rather than the substance. We can think of "substance" as the quality of approach used and the quality of execution. By "trappings" we mean factors like more advertising expenditure; more market research; more sales effort; more persons in the marketing department; or more marketing expenditure. We do not assert that these trappings are unimportant, but more marketing inputs are no guarantee of product development success. As McKenna (1991) stressed, what is needed is "not more marketing, but better marketing". He suggested that we should give more emphasis to the qualitative aspects of marketing rather than to the quantitative ones.

In this respect, Kotler (1991) has argued that the substance of marketing is in determining the needs and wants of target markets - approach - and how to meet these more proficiently than competitors - execution. Thus, what matters

most is not how much marketing input is applied or how wide a range of marketing activities were executed, but whether marketing input is applied well and if the right activities are executed. In this respect, Baker and Hart (1989) emphasized "it's not what you do, it's the way that you do it". As a result, the important operational question of this research study is how substance or quality of marketing inputs contributes to product development success.

1.3 The dependent variable

Preliminary interviews, conducted in a number of banks which are actively developing financial risk management products, revealed lack of agreement on how to measure success. Without exception respondents stated that profitability is the acid test of all development activities. However, banks face complex problems in accurately measuring the profitability of existing financial risk management products, and these problems are magnified in the case of assessing the profitability of completely new products. In an endeavour to sidestep these problems we turned attention towards the so-called "external" measures of success. By external measures we mean the degree of success achieved against market potentials rather than against internal hurdle rates.

In the financial risk management market, increased competition, fast-changing technologies, and shorter product life cycles all point to the necessity of making early market entries. On the other hand, one could argue that a strategy

of being second can allow a supplier to enter a market more efficiently and with greater certainty, on the basis of having learned from the first-mover. Certainly, it is not essential to be first to market to achieve higher profitability. However, in the financial risk management market it is critically important to demonstrate that one is capable of working in the forefront of new product development. In this way, customers gain and retain confidence in you as a supplier, which is important in a market involving close relationships. Indeed, Tufano (1992) has shown on the basis of empirical study that while financial services innovators do not enjoy a monopoly situation for long, they have often been able to lower costs through economies of scale and scope reaped from making an early market entry. Also, first-mover banks achieved a reputation and credibility that could not be achieved through advertising.

Most importantly, it was decided to focus on speed to market as the measure of product development success because this type of performance is not idiosyncratic to one or few banks. It is a strong comparative measure which provides a pointer to which banks are serving target markets more successfully than others.

1.4 Aims of the research

The research focused on the following issues: (1) that the relationship between quality of marketing inputs and product development success has not yet been precisely

substantiated; (2) that the relationship between quality of marketing inputs and program success has not yet been precisely substantiated; and (3) that the phenomenon has not been previously investigated in the context of financial services risk management. Thus, the aims of the research are:

1. To investigate, in the context of commercial, investment, and merchant bank financial risk management operations, the quality of marketing inputs applied by successful and less successful product developers;
2. To investigate, in the context of commercial, investment, and merchant bank financial risk management operations, whether the marketing practices of successful product developers are significantly different qualitatively from those of less successful product developers;
3. From (1) and (2) above to provide practical recommendations for successful marketing practice.

1.5 The research question

The research question underlying the research aims is:

In what way does the quality of marketing inputs contribute to successful new product development?

The aim is to test the association between product development success - at the program level of analysis - and the way that marketing inputs contribute to successful new product development qualitatively.

1.5.1 The method of investigation

The methodological approach employed in this research

study is of the traditional hypothetico-deductive approach (Eysenck, 1950; Popper, 1968). The logic for adopting this methodological approach is similar to that of Galtung's (1967) view that "a hypothetico-deductive system or scientific theory is a system where some valid hypotheses are tenable, and (almost) none are untenable". Thus, the hypothetico-deductive approach required us to develop tenable hypotheses by executing a systematic and in-depth study of the product development, marketing and strategy literatures.

1.6 The research design

The logic for choosing the research design is based on review of the literature - discussed in Chapters 2,3,5 - and on previous empirical work. The purpose of this section is to identify the elements that constitute the research design.

The experimental context of this research study is the corporate banking market and in particular the financial risk management market. The units of this study are innovative banks with established new product development operations in the U.K. for financial risk management products. By innovative we mean banks which are continually developing new products - active product developers. Based on peer evaluation seventeen (17) were identified as innovative banks, from a universe of almost 130 U.K. and foreign banks with established risk management operations in London (Foster & Taylor, 1991). From these seventeen, eight participated in our research study. The study focuses on the market for financial risk management products. The unit of analysis is

the group of persons who were substantially involved in the development of new financial risk management products. Data was collected through: (1) personal interviews with either the head of the treasury division or the head of the derivatives desk; and (2) a self-administered questionnaire which was answered by two members of the product development team involved in the development of new financial risk management products.

New product development success is measured at the program level. New product development is defined as the supplier (bank) making a new offering to customers. Program level success is examined for a group of products in a bank. Successful product developers are active bank product developers with a better record of being first to market, ahead of the competition, with new products than their competitors. The new products considered were all developed in the U.K between the years 1988 - 1992. In the research we compare successful product developers with less successful product developers to test hypothesised associations.

Statistical tests were used to test associations between quality of marketing inputs and program success. The statistical data, which was mainly collected through five-point Likert type scales, was analysed to determine how marketing inputs were applied qualitatively during the product development process. For analytical purposes, the McKinsey 7S framework was used to measure the quality of marketing inputs.

1.7 New elements

This research study includes three main new elements. The first and the second concern the analytical perspective. As previously discussed the relationship between marketing inputs and product development success has not yet been clearly substantiated. No research study has examined explicitly the quality of marketing inputs for ensuring product development success. Specifically, no research study has examined explicitly the quality of marketing inputs at the program level of analysis.

The third new element concerns our experimental context. At the same time as the size of the financial services sector has continued to grow in the economies of most Western nations, some financial markets have become increasingly competitive. Particularly, banking is becoming a far more competitive activity, and successful new product development is emerging as important for achieving growth and profitability. However, little rigorous empirical managerial research has been undertaken in the banking area. Also, the majority of the published research findings regarding new product development in banking have focused on the retail banking sector. But the environment is particularly competitive in the corporate banking market where commercial, investment and merchant banks compete not only with each other but also with other non-bank financial institutions. Thus, the need to investigate the successful development of new corporate banking products has become urgent. Particularly, this research study focuses on the development of new

financial risk management products, in which there has been no directly comparable previous research.

1.8 Definitions

For the purpose of this research study the following terms are defined:

- (1) **new product development** is defined as the act of a supplier in making a new offering to customers (Johne and Snelson, 1990);
- (2) **product updating** is defined as a supplier making an amendment to what is already being offered (Johne & Snelson, 1990);
- (3) **program success** measures success for a group of new product developments in a business; (Johne and Snelson, 1988a).
- (4) **inputs** are defined as those internal resources and activities that go to make up what a business offers to customers (Mathur, 1988);
- (5) **outputs** are the benefits that particular products bring to customers (Quinn, Doorley and Paquette, 1990);
- (6) **product market** is the next level after market and is defined as an identified set of products developed to meet specific customer needs (e.g swaps, options, etc.);
- (7) **marketing skill** is the knowledge or expertise to execute marketing activities (Johne and Snelson, 1990);
- (8) **marketing staff** is defined as any person who performs any kind of marketing activity;
- (9) **top marketing staff** is defined as the person who has as

its prime responsibility to manage (supervise) the marketing staff;

- (10) **marketing** is defined as an important business function with the prime purpose of encoding the changes in the environment and then influencing the organization to interact more proficiently and profitably with this environment (Simmonds, 1986; Kotler, 1984);
- (11) **function** is defined as a grouping of activities (Koontz, Donnell and Weihrich, 1984);
- (12) **market-based marketing**, marketing is defined to be market-based when it takes the market as the starting point (Davidson, 1987);
- (13) **asset-based marketing**, marketing is defined to be asset-based when it takes the company's resources and capabilities as its starting point (Davidson, 1987);
- (14) **division** is defined as a number of business units.

1.9 General findings

In this research study it was found that it is not the trappings but the substance or quality of marketing inputs that contribute to success. No striking differences were found in the way marketing activities are organised in different banks. As in some other industries, banks appear to follow the industry "recipe" in organising important activities such as product development. Within the sample of banks only one had established a self-standing department.

The most important finding is that successful product developers apply higher quality marketing than do less

successful product developers. Particularly, they give greater emphasis to getting both their approach and execution right than merely having more persons with formal marketing titles or established marketing departments.

Specifically, successful product developers are more likely to adopt a market-based approach in identifying new opportunities. They have a unique vision for markets by continually giving emphasis primarily on selecting target markets based on detailed analysis of customer benefits. They also make strong use of internal marketing to support a market orientation for the purpose of identifying new opportunities.

On the other hand, less successful product developers predominantly adopt an asset-based approach in identifying new opportunities. They give greater emphasis on the analysis of technical opportunities engaged in within a bank and less to customer needs. They believe that technical proficiency leads to successful identification of new opportunities. That is the reason why they give less emphasis to internally promoting the case for a market orientation in identifying new opportunities.

As far as the execution is concerned, successful product developers have the appropriate implementation skills to exploit the identified opportunities. Particularly, they establish not only market criteria for assessing new market opportunities but also systems for marketing planning and control. They use formal marketing planning procedures as part of a more formal planning process and they also systematically monitor markets to identify new opportunities.

They also exhibit well-developed organising skills and are experts in analysing market criteria. Their top marketing staff play an important role in supporting the exploitation of new opportunities, by providing valuable background market information and by especially coordinating the effort for marketing planning procedures.

On the other hand, less successful product developers often lack the necessary skills to exploit the identified new opportunities. They give less emphasis to the systematic analysis of markets. Their emphasis primarily is more on establishing criteria for assessing technical opportunities. They have less well-established systems for marketing planning and control and mostly their marketing procedures are not written and are used in a somewhat haphazard way, not as a part of formal planning process. Their market analysis is done less systematically. The main reason is that there is little support from less successful product developers' top marketing staff to the product development team concerning the establishment of specific market criteria and communicating background information on different market alternatives, competitors and customer benefits. It is also indicated that less successful product developers' top marketing staff do not take a leading role in coordinating the marketing effort inside the product development team. The main reason is that they are not aggressive enough to convince the other members of the product development team (e.g. financial engineers) that they are the right persons for coordinating the marketing effort during the product development process.

**CHAPTER 2: MARKETING'S ROLE IN NEW PRODUCT DEVELOPMENT: A
REVIEW OF THE LITERATURE**

2.1 Introduction

The objective of this chapter is to review the literature on the determinants of success in new product development. Special attention is paid to new product development in service companies and particularly to the contribution of marketing inputs in successful new product development.

In our review of the literature, we classify the determinants of success at the program level and at the project level. At the program level, success is examined for a group of products in a company; at the project level success is examined for an individual product. The difference between project and program success is, important. Gluck & Foster (1975) showed that it is all too easy to claim short-run success for individual projects, particularly when these are of a low risk nature, while jeopardizing the long-term future of a company.

Furthermore, this review of the literature has been undertaken from a managerial standpoint. Accordingly, only factors which are under the control of management have been focused on for the purpose of better understanding product development success.

2.2 Managerial factors contributing to success at the project level

Published research findings have revealed that many

factors influence product development success at the project level. These results from analytical and empirical research undertaken from the vantage point of four main analytical perspectives:

1. The market and operating environment of the company.
2. The actions or attitudes of the company as a whole.
3. The people within the company involved in development work.
4. Particular individuals who are, or ought to be, involved.

Each of these four analytical perspectives can provide insights for management. In the review of the literature which follows we have concentrated on those factors over which product development managers can exert direct control. These factors (variables) are called internal or endogenous factors. On their own, endogenous factors cannot explain project success or failure. This is because success will be determined also by exogenous or external factors over which managers have little or no control, such as for example, a sudden downturn in economic activity, or an unexpected competitive reaction that may cause sales of a new product to be much lower than anticipated. However, even accepting that they have limited control over exogenous factors, managers can increase the chances of launching new products successfully by ensuring that endogenous development work is undertaken efficiently.

Accordingly, it is on efficiency in development where we have focused attention. We pay particular attention to what previous researchers have had to say about what those involved

in new product and service development can do to increase the chances of success. In our analysis we address issues affecting the development of completely new products and services. Most previous research has failed to differentiate between new product development and other types of development (e.g. product updating). But whenever previous research has made clear which type of development is involved - new product development as opposed to product updating - we have highlighted this.

Many empirical investigations have measured factors associated with project success (Booz, Allen & Hamilton, 1982; Calantone and Cooper, 1981; Cooper, 1982,1985b; Cooper and Kleinschmidt, 1986,1987a,1987b,1988,1993; Maidique and Zirger, 1983,1985; Myers and Marquis, 1969; Rothwell, 1977; Rubenstein et al, 1976; SPRU, 1972). As we shall see in the next section, far fewer studies have set out to study factors specifically associated with success at the program level.

Cooper (1988b) investigated manufacturing companies' capacities for proficiently executing the development process and competence in designing and executing product and launch strategies. Cooper (1988a) also identified that successful product developers gave more emphasis on the up-front stages of the development process - idea generation, preliminary assessment, concept, development. Cooper & DeBrentani (1984) and Ronkainen (1985) examined the criteria which companies use for making go/no-go decisions. Cooper & Kleinschmidt (1988) in a study of manufactured goods examined how a company can efficiently allocate skills and resources. Cooper (1988b) and

Rubenstein et al (1976) examined the skills in gathering market and technical information. Cooper & Kleinschmidt (1993) in an empirical study of 103 projects in the chemical industry identified that success depends on the "ability to achieve a product differential and deliver superior benefits".

Dwyer and Mellor (1991b) investigated the associations between the proficient execution of new product development activities and project outcomes as well as the association between organizational environment and new product success. Hise, O'Neal, McNeal and Parasuraman (1989) investigated the effect of product design on successful new industrial products. Hegarty and Hoffman (1990) examined the contribution of top management to product development success among four different organisational cultures. Ruckert & Walker (1987) examined efficient communication or interaction between marketing and other functions. In particular, Carroad and Carroad (1982), Gupta, Raj and Wilemon (1985) Gupta and Wilemon (1988), Millman (1982), Monteleone (1976) and Souder (1980,1981,1987,1988) in different studies of manufactured goods examined the relationship between marketing and R&D personnel and how this relationship might be improved.

In addition, studies in service companies (Lovelock, 1984) have reported the following managerial factors (variables) contributing to project success: (1) emphasis on the definition of the service concept, (2) identification of segments with considerable market potential, (3) emphasis on the image that the new service will have in the specified market, (4) communication with customers and (5) the need for

new services to be designed with customer needs in mind.

DeBrentani (1988,1989,1991), has identified seventeen factors contributing to project success in services and classified these into four broad groups: (i) new service development proficiency consisting of factors involved in the management of the service development process, (ii) project synergy consisting of factors such as overall corporate synergy, service and market newness; (iii) nature of the service offering consisting of factors such as expert skills and equipment, quality of service, complexity and uniqueness of the new service; and (iv) market characteristics consisting of factors such as market competitiveness and potential and specialized market segment.

Recently, Cooper and DeBrentani (1991) in a study in the industrial financial services industry identified five factors contributing to new project success. These are: (i) business synergy - the degree of fit between project needs and the resources, skills and experiences of the business existed; (ii) product/market fit - the degree of fit between the service and the market needs and wants; (iii) quality of execution of the launch - including testing the service prior to launch, the launch plan being highly detailed and documented, a well designed formal promotional program and internal marketing having been done; (iv) unique/superior product - the new service being more reliable and of higher quality; (v) strong market orientation accompanied by a proficient execution of marketing activities.

Easingwood and Storey (1991) in a study of consumer financial products have identified four important factors contributing to project success. These are: (i) overall quality, including the quality on after-sales service, the quality of the product itself and quality of the delivery system; (ii) product fit and internal marketing, describing the support the product gets and its fit with the company; (iii) use of technology; (iv) a differentiated product, providing unique benefits to the customer, being first to the market and being innovative.

Basically success at the project level has been measured for services and also for manufactured products in three main ways: (1) financial success; (2) opening up opportunities; and (3) sales/market share and competitive performance.

Taking financial success first, we see that this has been measured differently in the case of services as opposed to manufactured products. In new services more focus was given on the cost reductions which the new services had achieved. In terms of achieving financial success in new service development the following factors have been identified: (i) effective interaction between the different functions involved; (ii) project fit to the company's existing proficiencies and resources; (iii) responsiveness to demand variations; (iv) new production processes and technology used by the company; and (v) a systematic new service development process. These factors are listed in Table 2.2.1. In the case of manufactured products, in terms of achieving financial success, the following factors have been suggested: (i)

product differential advantage; (ii) a better product in the eyes of the customer; (iii) full understanding of customers' needs, wants and preferences; (iv) strong market orientation; (v) better executed launch effort: selling, promotion and distribution; (vi) high degree of marketing communication; (vii) high degree of synergy between marketing and technical people; (viii) more resources committed to selling and promoting the product; (ix) top management support; and (x) proficient execution of new product process activities. These factors are listed in Table 2.2.2.

For services, as far as the second dimension of product development success is concerned - opening up new opportunities - the following factors have been identified: (i) selecting a specialized market segment; (ii) overall corporate synergy; (iii) service newness; and (iv) a new service development using new production processes and technology. These factors are listed in Table 2.2.3. On the other hand, for manufactured products, the following factors have been identified: (i) technologically advanced product features; (ii) better fit between the product's technology, and the technological resources and skills of the firm; (iii) new approach for offering the new product; (iv) top management support; and (v) greater responsiveness to customer needs, wants and preferences. These factors are listed in Table 2.2.4.

For services as far as the third dimension is concerned - sales/market share and competitive performance - the following contributing factors have been identified. First, for the

TABLE 2.2.1
MANAGERIAL FACTORS CONTRIBUTING TO <u>PROJECT</u> COST PERFORMANCE IN SERVICES
<ul style="list-style-type: none"> - Effective interaction between the different functions involved. - Project fit to the company's existing proficiencies and resources. - Responsiveness to demand variations. - New production processes and technology used by the company - Systematic NSD process.
<p>Source: DeBrentani (1989a)</p>

TABLE 2.2.2
MANAGERIAL FACTORS CONTRIBUTING TO <u>PROJECT</u> FINANCIAL SUCCESS IN MANUFACTURED PRODUCTS
<ul style="list-style-type: none"> - Product differential advantage. - A better product in the eyes of the customer. - Full understanding of customers' needs, wants and preferences. - Strong market orientation. - Better executed launch effort: selling, promotion and distribution. - High degree of marketing communication. - High degree of synergy between marketing and technical people. - More resources committed to selling and promoting the product. - Top management support. - Proficient execution of new product process activities.
<p>Sources: Cooper (1979, 1980, 1982, 1984, 1984a, 1988a, 1988b)</p> <p>Cooper & Kleinschmidt (1993)</p> <p>Dwyer & Mellor (1991b)</p> <p>Maidique & Zirger (1984)</p>

TABLE 2.2.3

**MANAGERIAL FACTORS CONTRIBUTING TO "OTHER BOOSTER"
PROJECT SUCCESS IN SERVICES**

- Selecting a specialized market segment.
- Overall corporate synergy.
- Service newness.
- A new service development using
new production processes and technology

Source: DeBrentani (1989a)

TABLE 2.2.4

**MANAGERIAL FACTORS CONTRIBUTING TO OPPORTUNITY
WINDOW PROJECT SUCCESS IN MANUFACTURED PRODUCTS**

- Technologically advanced product features.
- Better fit between the product's technology,
and the technological resources and skills of
the firm.
- New approach for offering the product.
- Greater responsiveness to customer needs, wants
and preferences.
- Top management support.

Sources: Cooper (1979, 1980, 1982, 1984, 1984a
1988a, 1988b)
Maidique & Zirger (1984)

sales/market share type of project success: (i) selecting markets with potential; (ii) effectiveness of the new service development management; (iii) service newness of the product; (iv) overall corporate strategy; (v) detailed new service development process; (vi) tailored to market segments; (vii) business synergy; and (viii) service quality and reliability of the product. Second, for the competitive performance type of project success: (i) service innovativeness, meaning developments perceived by buyers as unique and highly innovative; (ii) faster and efficient service; (iii) skilful personnel; (iv) quality of the service; and (iv) market potential. These factors are listed in Table 2.2.5. For manufactured products, the following factors have been identified: (i) offering a product with unique benefits to customers; (ii) better product in the eyes of the customer; (iii) a high growth market with good future prospects; (iv) product differential advantage (in relation to competitors' products); (v) a market with low competitive activity; and (vi) top management support. These factors are listed in Table 2.2.6.

Unanimity exists amongst researchers that marketing input is an important factor contributing to all types of project success.

2.3 Managerial factors contributing to success at the program level

Relatively fewer studies have measured factors associated with success at the program level than success at the project

TABLE 2.2.5

MANAGERIAL FACTORS CONTRIBUTING TO PROJECT MARKET SHARE AND COMPETITIVE PERFORMANCE IN SERVICES

i) Sales/Market share performance

- Selecting markets with potential.
- Effectiveness of the NSD management.
- Service newness of the product.
- Overall corporate strategy.
- Detailed NSD process.
- Tailored to market segments.
- Business Synergy.
- Service quality and reliability of the product

ii) Competitive performance

- Service innovativeness.
- Faster and efficient service.
- Skilful personnel.
- Quality of the service.
- Market potential.

Source: Cooper & DeBrentani (1991).
DeBrentani (1989a).

TABLE 2.2.6

MANAGERIAL FACTORS CONTRIBUTING TO PROJECT MARKET SHARE SUCCESS IN MANUFACTURED PRODUCTS

- Offering a product with unique benefits to customers
- Better product in the eyes of the customer.
- Product differential advantage (in relation to competitors' products).
- A high growth market with good future prospects.
- A market with low competitive activity.
- Top management support.

Sources: Cooper (1973, 1980, 1982, 1984, 1984a, 1988a, 1988b)
Maidique & Zirger (1983)

level. A study by Johnne & Harborne (1985) investigated how organizational systems contribute to program success. They compared active product innovator banks with less active banks. Also, Iwamura & Jog (1991) in an exploratory study divided investment houses in innovative and non innovative companies and studied significant differences in their organizational structures and environments. Evidence of factors contributing to program success can be found in studies of manufactured product development by Cooper (1984, 1985a); Crawford (1980,1984); Johnne (1984,1985); and Johnne & Snelson (1988a,1988b,1990); Kuczmariski (1992); Rochford & Rudelius, (1992).

At the program level three main measures of success have been used: (1) relative impact; (2) relative track record; and (3) relative performance (See Chapter 5 for further reference). The few studies which have been conducted in the services area have used similar criteria of program success.

As far as the first dimension of success is concerned - relative impact - no study was found which investigates this type of success (Table 2.3.1). On the other hand, for manufactured products the following factors have been suggested as determinants: (i) skilful assessment of market needs; (ii) technological sophistication; (iii) technological innovativeness; (iv) technological aggressiveness; (v) loose organizational structures at the initial stages and tight at the end; (vi) program focus (concentration of effort); (vii) interplay and balance between high skilled marketing and technical inputs; (viii) R&D spending; (viiii) market research

spending; (x) product differential advantage; (xi) type of staff and functional specialists; (xii) top management support; and (xiii) effective communication between functional areas. These factors are listed in Table 2.3.2.

As far as the second dimension of program success is concerned - relative track record - for services there is no study which has investigated factors determining this type of success (Table 2.3.3). On the other hand, for manufactured products, the following factors have been identified as determinants: (i) product fit to the existing technology and focusing to existing markets; (ii) offering a product differential advantage in relation to competitors' products; (iii) interaction between production and technical functions. These factors are listed in Table 2.3.4.

As far as the third dimension of program success is concerned - relative performance - the following factors have been identified as determinants in service product development: (i) effective market contact by key personnel; (ii) flexible operating structures; (iii) wider range of specialist skills; (iv) management proficiency; and (v) formalized and better structured processes. These factors are listed in Table 2.3.5. On the other hand, for manufactured products, factors such as the following have been identified as determinants: (i) market need and offensive marketing orientation; (ii) marketing orientation and domination; (iii) interaction of marketing with other departments; and (iv) market research, production and technological synergy. These factors are listed in Table 2.3.6.

TABLE 2.3.1
MANAGERIAL FACTORS CONTRIBUTING TO RELATIVE IMPACT <u>PROGRAM</u> SUCCESS IN SERVICES
Sources: None found

TABLE 2.3.2
MANAGERIAL FACTORS CONTRIBUTING TO RELATIVE IMPACT <u>PROGRAM</u> SUCCESS IN MANUFACTURED PRODUCTS
<ul style="list-style-type: none"> - Skilfull assessment of market needs. leading to product differential advantage. - Technological sophistication. - Technological innovativeness. - Technological aggressiveness. - Interplay and balance between high skilled marketing and technical inputs. - Loose organizational structures at the initial stages and tight at the end. - Program focus (concentration of effort). - R&D spending. - Market research spending. - Product differential advantage. - Type of staff and functional specialists. - Top management support. - Effective communication between functional areas <p>Sources: Cooper (1984a,1985) Johne & Snelson (1988a,1988b,1990) Rochford & Rudelius (1992)</p>

TABLE 2.3.3
MANAGERIAL FACTORS CONTRIBUTING TO SUCCESSFUL <u>PROGRAM</u> TRACK RECORD IN SERVICES
<p>Sources: None found</p>

TABLE 2.3.4
MANAGERIAL FACTORS CONTRIBUTING TO SUCCESSFUL <u>PROGRAM</u> TRACK RECORD IN MANUFACTURED PRODUCTS
<ul style="list-style-type: none">- Product fit to the existing technology and focusing to existing markets.- Offering a product differential advantage in relation to competitors' products.- Interaction between production and and technical functions. <p>Source: Cooper (1984a,1985)</p>

TABLE 2.3.5
MANAGERIAL FACTORS CONTRIBUTING TO SUCCESS IN RELATIVE <u>PROGRAM</u> DEVELOPMENT PERFORMANCE IN SERVICES
<ul style="list-style-type: none"> - Effective market contact by key personnel. - Flexible operating structures. - Wide range of specialist skills. <p>Source: Johne & Harborne (1985)</p>

TABLE 2.3.6
MANAGERIAL FACTORS CONTRIBUTING TO SUCCESS IN RELATIVE <u>PROGRAM</u> DEVELOPMENT PERFORMANCE IN MANUFACTURED PRODUCTS
<ul style="list-style-type: none"> - Market need and offensive marketing orientation. - Marketing orientation and domination. - Interaction of marketing with other departments. - Market research, production and technological synergy. <p>Sources: Cooper (1984a,1985) Johne & Snelson (1988a,1988b,1990)</p>

Having reviewed product development studies, in both manufactured product and services, concerning determinants contributing to program success, it is evident that the marketing input appears as an important factor contributing to every type of program success. Consequently, the next section shows the importance of marketing by reviewing marketing's role in product development success at both levels of analysis - project and program level.

2.4 The role of marketing

It is appropriate at this stage to emphasise again that our review of the literature has been undertaken from a managerial standpoint. Accordingly, only factors which are under the control of management have been focused on at both levels of analysis - project and program.

What is striking about the analysis of the product development literature is that marketing inputs in one form or another emerge consistently and are given emphasis as a key managerial factor.

At the project level at which success for an individual product is examined, Rothwell (1976, 1977) in an earlier empirical study of 43 cases in the chemical process and instrument industries, stressed that successful innovators "pay more attention to marketing and publicity". In particular, he pointed out that "the factors relating to the innovator's degree of understanding of user needs and his marketing, sales and after-sales effort have, generally, the greatest significance in differentiating success from

failures". He also stressed the fact that most successful product developments are based "on the recognition of a customer need as opposed to the recognition of a new technical potential".

Cooper (1979) in an empirical study concerning success and failure of industrial products, emphasized the need for marketing proficiency and strong market orientation. He stressed that "the message from the current research is gratifying to marketers". He also stressed the crucial role of a market orientation, marketing information, marketing communication and market launch strategy. Andrews (1975) pointed out the "need for a marketing orientated approach to achieve successful new product development". Cooper (1980) in a major investigation of what distinguished success from failure in 200 industrial products identified that one of the most important factors of success is the magnitude of marketing efforts. He stressed that an understanding of consumer needs, detailed market study, advertising, sales efforts and distribution are essential activities to success. He also emphasised that the proficient execution of marketing activities contributed to the success of the projects. Littler (1984) stressed that "a strict attention to the wants of purchasers and users of products is the outstanding hallmark of successful products".

Lucas and Bush (1984), based on a case study in the petroleum industry, emphasised that an understanding of market needs and benefits is essential for successfully marketing a new product. Cooper (1988b), in an empirical study of 203

industrial products, stressed that marketing plays an important role during all the stages of the new product development process. Cooper (1988a) stressed that "the message is that market orientation - executing these marketing activities - must be built into the new product process as a matter of routine, rather than by exception". Also he identified how important is the efficient execution of marketing activities in the development of a new project. Cooper and Kleinschmidt (1986), in a comprehensive study of 252 new product histories at 123 industrial product manufacturers, underlined the need for understanding user needs, wants and preferences, the need for more marketing resources and the important role that marketing inputs have played in shaping the concept and design of the products.

Calantone & DiBenedetto (1988), in an investigation of industrial manufacturing companies, stressed that in order to "improve product development success we should utilize and execute our marketing resources and skills well". Cooper & Kleinschmidt (1987a) in an empirical investigation of 203 new industrial products, found "customer-based product advantage" to be the dominant factor in project success. The implication of this factor is that a thorough investigation of the market is needed to determine customer needs, wants and preferences, which is the essence of a marketing orientation. DeBrentani (1989a) in an empirical study investigating success and failure in new industrial services found that in all types of success a marketing orientation is a prerequisite.

Foxall (1984a,1984b), in an analytical study, emphasised

that "a customer-orientation is vital at every stage of innovation from idea generation to the management of the diffusing product". Hill (1988) by investigating four cases in both product and services industries found that building up a consistent market research program is an essential factor to the success of the new product development activity. He also emphasised the important role of marketing people in communicating the market research program results to top management. Kotler (1991) argued that marketing plays an important role in discovering, developing and launching successful new products. Maidique & Zirger (1983), in an empirical study of 158 businesses in the electronics industry, identified "customer and market understanding" as essential to project success.

Millman (1982) in an analytical study stressed that "ignorance of the marketing input" in the new product development activity will jeopardise the success of new products and will create product concepts which do not meet the needs and wants of the market. Souder (1987) pointed out that "marketing should be involved from the point of idea generation". Also, Von Hippel (1978) in an empirical study identified the importance of understanding user needs, especially those of lead users. Recently, Cooper and DeBrentani (1991) in an investigation in new industrial financial services have identified that successful projects had a strong understanding of customer needs, wants and preferences and a strong focus on marketing activities.

At the program level, where success for a group of

products is examined, Cooper (1982) in an empirical study in 103 industrial firms stressed that "marketing resources appear to be the most critical in deciding a successful new product program". In particular, this study identified that marketing research, advertising, promotion and distribution are marketing strengths which can influence the success of new product programs. Hopkins (1981) in an empirical study into industrial and consumer markets identified the necessity of understanding user needs and the need for more accurate marketing research. Cooper (1984a) in a study of 122 industrial firms emphasized that a proactive market stance contributes to success of new programs. Particularly, he found out that successful new product programs are strongly market oriented, with domination by a marketing group which is actively searching for new ideas, seeking market needs, and relying on market research.

Cooper (1985a) in an investigation of corporate strategies for successful new product programs, has identified that the best strategy for success is what he named as the balanced-focused strategy. This strategy had a market oriented new product development program, ideas generating from the market and strong marketing presence. Johnne and Snelson (1985, 1988a, 1988b, 1988c) in an empirical study of product development procedures in 40 leading UK and US manufacturing firms operating in different industries - electrical engineering, mechanical engineering, chemical and food - stressed that the "marketing function has on balance a more important contribution to make in identifying and

initiating successful product development options than the technical function". They also argued that marketing also has a very important role to play in identifying and exploiting new product opportunities and for identifying different ways in which existing or new products can be offered to customers.

2.5 Summary

Before summarising our conclusions from the review of the product development literature, it is necessary to stress that our review has unavoidable limitations. Despite the fact that we acknowledged that success in product development must be studied in relation to (i) new product development and (ii) product improvement, we have not been able to conduct the review under these two headings. To have done so would have made it unmanageably complex. Not only this, but as has been previously stressed, only a few researchers have made explicit the type of product development being described.

The review of the product and service development literature, has shown that marketing input, in one form or another, is the key managerial factor contributing to product development success. However, the relationship between marketing input and product development success has not yet been clearly substantiated. Most of the product development studies at both level of analysis - project and program - have emphasised the importance of more marketing - trappings - for ensuring product development success. No study has examined explicitly the importance of quality of marketing for ensuring product development success. Consequently, the next chapter

argues why we need to focus on the substance or quality of marketing inputs rather than on the trappings of marketing inputs for optimising product development success.

In Chapter 1 we referred to a relatively simple classification of product developments. Two broad types were identified: (1) new product developments - which involve the supplier in making a new offering to customers, and (2) product improvements - which are concerned with amendments to what is already being offered. Empirical work by Johne & Snelson (1990) shows that successful product developers manage these two types of tasks quite differently. Hence, any investigation into the role played by marketing in product development activities will need to determine the type of product development being addressed.

Previous research has stressed the need to consider the full range of activities during what is now widely referred to as "the development process". These activities have been variously conceptualized. They are embraced in normative models, such as the 15 step model advanced by Scheuing and Johnson (1989), and also in analytic models, such as that advanced by Johne & Snelson (1990). Clearly, any investigation into new product development success will need to specify clearly the type of development activity in which managerial factors contribute.

Our review of the literature has shown that not only are marketing inputs a key determinant of product development success, but that marketing influence is particularly important during the earlier "up-front" activities - planning

product changes, idea exploration and screening and evaluation. Any investigation into the contributions of marketing to product development success will need to pay close attention to "up-front" activities.

Our review of the literature has also shown how little research has been formally reported in the field of services in comparison with work undertaken in the area of manufactured goods. As we will see in Chapter 4 recent developments in the financial services sector have made future work on success in the new product development process very important. Finally, the review showed that very few studies investigate success at the program level of analysis.

CHAPTER 3: WHAT IS QUALITY MARKETING AND HOW IT CAN BE MEASURED?

3.1 Introduction

In our review of the literature in Chapter 2, we identified that marketing input, in one form or another, is an important factor contributing to product development success. However, in most of the studies reviewed the relationship between marketing input and product development success was not clearly substantiated.

In most of the product development studies the role of marketing has been investigated by focusing on what Ames (1970) calls the trappings of marketing inputs rather than the substance of marketing inputs. He showed that researchers have typically focused on issues like: (i) how to create a marketing organization; (ii) how to adopt new administrative mechanisms; (iii) how much marketing expenditure to allocate; (iv) how to strengthen the advertising and sales effort; (v) how many persons should be responsible for market research. We do not assert that these issues are unimportant, but by themselves, they are no guarantee of product development success. By continually focusing on changes like strong advertising and sales effort, more market research, more persons in the marketing department, or more marketing expenditure, what we are emphasizing is more marketing inputs. In this respect, King (1985) stressed that "there is a wide spread of activities which are called 'Marketing', and many of them seem to have failed". But as McKenna (1991) observed,

what is needed is "not more marketing, but better marketing". He suggested that we should give more emphasis on the qualitative aspects of marketing rather than the quantitative ones. That means focusing on the substance or quality of marketing inputs.

3.2 The substance or quality of marketing

Bonoma (1985) emphasized that "marketing for a number of years has been long on advice about what to do in a given competitor or market situation and short on useful recommendations for how to do it within companies' competitor and customer constraints...". Baker, Hart, Black and Tawfik (1986), Baker, Black and Hart (1988) and Baker and Hart (1989) stressed "it's not what you do, it's the way that you do it". Piercy (1989) emphasised "We know what marketing is, but how do we do it?". A small number of studies focused on how marketing is actually carried out and tried to find what underlies "good", "excellent" or "real" marketing.

For example, Foster (1982) examined "good" marketing and identified it as: (1) promoting a means of classifying, assessing and integrating information relevant to a business; (2) providing a method of approach which forms the basis for action; (3) explaining, predicting and controlling the marketing process; (4) providing enough analytical methods to help solve problems. Michaels (1982) examined the key elements of marketing effectiveness. He identified six key elements: (1) investment by top management; (2) injection of outside talent; (3) develop a clear sense of direction; (4)

refocus on the customer; (5) use of market research; (6) introduction of genuine product management and product-line planning. Hooley, West and Lynch (1984) examined marketing practices in the U.K. in order to identify how marketing is implemented in high performing and low performing companies. Nevens (1984) identified different tactics used by "excellent" marketers such as: (i) they segment by customer applications benefits; (ii) they know the factors that influence customers' buying decisions; (iii) they communicate with market segments; (iv) they know the strategy, assumptions, cost structure and objectives of their major competitors; (v) they use market research and systematic collection of sales reports; (vi) they talk about customer needs, share, applications and segments.

Spillard (1985) examined how marketing failure is frequently caused, and how "successful" marketing can be achieved by examining marketing in terms of mission, strategy, structure, functional role, scope and values. Piercy (1986) in order to identify what is "good" marketing examined the role and function of the chief marketing executive and the marketing department. Doyle (1985) examined the reasons for "poor" marketing in the British industry by examining marketing as a business philosophy and as a business function. He identified that "British companies are more production-oriented or sales-oriented than marketing-oriented" and that "successful" marketing is based on identifying the right target markets. Hooley and Mann (1986) examined the adoption of marketing in financial institutions by focusing on (i) attitudes to marketing; (ii) the organisation of marketing;

(iii) the execution of marketing effort. Brown (1987) highlighted that "real" marketing is doing the things which suit the customer, rather than just doing things which are interesting or convenient.

Piercy and Morgan (1989) identified how marketing effectiveness is dependent on formal structure and also on information dissemination and key corporate values. Peattie and Notley (1989) stressed that "the quality of marketing as a total function depends upon quality of marketing information, and the quality of vertical integration of marketing planning". Brooksbank (1991) examined "successful" marketing practice. He identified that successful marketing practitioners: (1) adopt a more marketing oriented approach; (2) do a more comprehensive situation analysis; (3) make greater use of basic strategic planning tools; (4) have greater marketing staff involvement in the planning process; (5) set more clearly defined, aggressive and challenging marketing objectives; (6) have greater organisational flexibility; (7) ensure higher levels of employee motivation; (8) are more oriented towards marketing information gathering; and (9) give greater attention to performance evaluation.

What these arguments suggest is that getting the approach (identifying new opportunities) right and at the same time the execution (exploiting new opportunities) wrong, or vice versa, is unlikely to lead to success. Thus, what matters most is not how much marketing input is applied or how wide a range of marketing activities are executed, but whether marketing input is applied well and whether the right activities are executed.

In this respect, Drucker (1974) stressed what matters most is not only doing things right but doing the right things. However, just doing the right things or executing them well is not enough. Brown (1987) has explained that unless a company adopts a customer-centered philosophy, it is perfectly possible to carry out all the right marketing activities and not really be involved with marketing. As stressed by Lorenz (1985a; 1985b) effective marketing would appear to be much more than just a collection of activities. It requires an appropriate attitude of mind.

As far as the substance of marketing is concerned, Simmonds (1986) and Kotler (1991) have argued that this consists of (i) determining the needs and wants of target markets - the approach; and (ii) meeting these needs more proficiently than competitors - the execution. Based on this analytical assertion, it is evident that adopting the "right" approach is no guarantee of success unless the "right" skills exist to back up the approach. Indeed, Baker and Hart (1989) have argued that the only effective way to test the benefits of an approach is to consider its success in implementation. Building on these arguments, we argue that quality of marketing is concerned with: (a) the quality of approach, in identifying new opportunities; and (b) the quality of execution, namely the implementation "skills" used to exploit these opportunities.

3.2.1 The approach

In the previous section, we argued that for successful

identification of new opportunities an appropriate attitude of mind is required. As far as the attitude of mind or approach is concerned many marketing scholars, including Davidson (1987), Day (1990), Johne and Snelson (1990), Mathur (1986, 1988), McKenna (1991), Piercy (1991), Schnaars (1991) have argued that there are two general approaches to consider: (1) the traditional asset-based approach where company resources and capabilities are the starting point in identifying emerging opportunities; and (2) the market-based approach where the market is the starting point in identifying new opportunities.

In this respect, Zibrun (1991) found that successful companies focus on customer wants and needs instead of the company. Shapiro (1988) and Gronroos (1989) have stressed that many companies have realised that in order to remain competitive in markets they must primarily focus on market needs and not look primarily for solutions inside the company. By looking primarily at market needs, businesses can shape their offerings both to respond to observable needs and opportunities in the marketplace, and to energize latent market opportunities (Bower and Garda, 1985). Hardy (1988) emphasised that in order to effectively compete, organisations should primarily look at markets, and not inside the company; because "from a strategic point of view, a market orientation recognises that end buyers and channels possess the ultimate power". Walker and Ruekert (1987) also underlined that businesses should always be market driven in the sense of being responsive to customer needs, instead of focusing

primarily on their own business resources.

Day (1990) also stressed that for a business to compete in markets and be ahead of the competition it should adopt a market-based strategy instead of an asset-based strategy. Barabba and Zaltman (1991) emphasised that in order to compete more effectively and elicit more favourable customer responses on their offerings, companies should listen first to the "voice of the market" - what the customer wants - and then listen to the "voice of the company". Silverstein (1991) and Norris (1991) also identified that companies which respond and listen to the market and its customers have "a basis of differentiation that it is difficult to match". Piercy (1991) argued that in order to achieve competitive differentiation, meaning positioning offerings distinctively in customer's judgements, one has to be market-based. Smith (1991) argued that the first and most important thing is to look at markets and learn for customers. He indicated that "from customer knowledge comes credibility, from credibility comes opportunity, and from opportunity comes success". Schnaars (1991) identified that businesses must focus on the market with the prime purpose of detecting the different changes that occur in that market.

Based on these analytical assertions we argue that businesses which primarily focus on market needs - being market-based - have greater potential to compete effectively in markets. This output orientation is the essence of an appropriate marketing attitude. Marketing is the business philosophy which establishes a different perspective in

thinking and attitude throughout the firm, so that everyone in every function considers it of great importance to be responsive to changes in customers' wants and needs (Baker and Hart, 1989; Bower and Garda, 1985; Kotler, 1991; Levitt, 1977,1986). Consequently, since the essence of an appropriate marketing attitude is to focus on what the customer wants, now and in the future, we argue that marketing should adopt a market-based approach in identifying opportunities.

Most of the previous studies quoted have stressed that a market-based approach to identifying opportunities means responsiveness to customer needs and wants. This is in accordance with Von Hippel's (1978, 1986) argument which emphasised that successful new products come from identifying customer needs and wants. However, responsiveness to customer needs and wants was one of the main reasons why marketing scholars such as Austen (1983) and King (1985) argued that marketing "has failed or never really tried" or that the "marketing concept is obsolete". In this respect, Hamel and Prahalad (1991) stressed that "simply being customer-led is not enough. Of course it is important to listen to your customers, but it is hard to be a market leader if you do no more than that". Deep insight into the benefits sought by today's and tomorrow's customers is required. As O'Shaughnessy (1984) argued "once we have categorised those in the market on the basis of the benefits they seek, they can be identified by what they are and/or do". Mathur (1988) also stressed businesses must think more in terms of outputs - benefits - rather than inputs - internal resources and tasks -

in order to compete effectively in markets. Of course, there is an important connection between inputs and outputs. What is important, though, is that customers buy products or services based on what benefits they offer (DeBruicker and Summe, 1985).

DeBruicker and Summe (1985) also illustrated that when customers first purchase a new product they look primarily at the benefits offered. McDonald (1988) quoted the popular marketing dictum that "customers don't buy products; they seek to acquire benefits". He also stressed that many companies fall into the trap of talking to customers about their needs and wants but without asking what they mean to them. Hooley and Saunders (1993) argued that new product and services should be marketed as bundles of benefits. In this respect, it has been suggested that successful product developers are guided by the bundle of benefits which target customers seek and not by the inherent quality of the product being offered (Johns & Snelson, 1990). We do not deny that focusing on customers needs and wants is important, but businesses which want to be really successful can with benefit to themselves adopt a market-based approach in identifying opportunities, primarily targeted to customer benefits. As we have previously argued, this output-orientation is the essence of an appropriate marketing attitude. Ideally, marketing as a philosophy and practice should be the driving force for product development.

To contribute to effective change management Baker and Hart (1989) and Simmonds (1986) have asserted that the role of

marketing is to watch, identify, organize, induce and monitor innovation. However, in the literature there has been little formal acknowledgement of the importance of innovation as a concept essential to marketing (Simmonds, 1986). Few of the conventional definitions of marketing explicitly include mention of innovation.

3.2.2 The execution

However, adopting a market-based approach is no guarantee of success unless appropriate implementation skills exist to back up the approach. These skills are: (1) selecting and analysing) appropriate market opportunities; (2) planning; and 3) control. Indeed, as we have previously mentioned, Baker and Hart (1989) have argued that the only effective way to test the benefits of the market-based approach is to consider its success in implementation. Based on this analytical assertion, we argue that the quality of marketing execution - implementation skills - applied for exploiting the new opportunities should reflect the market-based approach adopted.

To illustrate the importance of the substance or quality of marketing inputs let us examine banking, which is the experimental context of this thesis. As a result of deregulation, high interest rates, high inflation and intensified competition from other financial institutions, banks now have to think seriously how to compete in existing and newly emerging markets.

In order to compete effectively in today's more turbulent

environment, banks now have to focus much more attention on the substance or quality of marketing. As we have previously said, Simmonds (1986) and Kotler (1991) have argued that the essential substance of marketing is in determining the needs and wants of target markets - approach - and how to meet these more proficiently than competitors - execution. An important task is differentiating offerings from those of competitors. In this regard Kotler's (1991) five stages in the learning of bank marketing are highly relevant. These five stages are: (i) advertising, sales promotion and publicity; (ii) smiling and friendly atmosphere; (iii) innovation; (iv) positioning and (v) marketing analysis, planning and control. He observed that in order to compete effectively, banks have to move to the higher stages. Particularly, important is the move from the innovation stage to positioning - successfully differentiating your offerings from competitors - and from there on to the analysis (selecting), planning and control stage.

The important perational question of this research study is in what way quality of marketing inputs contributes to new product development success. By adopting a market-based approach backed with appropriate implementation skills, a business stands a high chance of being successful in identifying and exploiting new opportunities. Thus, the key to success would appear to be the adoption of both the "right" (market-based) approach, meaning the identification of new opportunities, backed with the "right" (appropriate implementation skills) execution.

3.3 Measuring the quality of marketing

Measuring the quality of marketing is difficult (Hansen, Gronhaug and Warneryd, 1990). But, based on the 7Ss McKinsey framework - strategy, structure, systems, staff, style, skills, shared values - popularized by Peters and Waterman (1982) we can operationalise the quality of marketing in terms of activities which reflect the (1) adopted approach; and (2) the skills used - execution. Each of the seven aspects in the 7Ss framework provides important analytical information on the way marketing inputs are applied for product development purposes qualitatively. For example, it is very important to know what sort of marketing strategy is being followed in identifying new business opportunities and also what values are being shared among the staff to implement it.

Additionally, it is very important to know what sort of marketing staff is used for exploiting new opportunities; what their knowledge and expertise is; what sort of systems are in place to exploit the new opportunities; what sort of structure is being adopted to exploit the new opportunities; and what sort of management style is adopted by top marketing staff to manage the exploitation of new opportunities efficiently. The remaining five Ss are directly related to the measurement of the quality of execution as will be explained in Chapter 5.

3.4 Summary

In this chapter we reviewed the substance or quality of marketing inputs and how these can be measured. We argued that the substance or quality of marketing inputs is concerned

with the quality of approach and the quality of execution. We also highlighted that the substance or quality of marketing inputs can be measured with the help of the McKinsey 7Ss framework.

Finally, we argued that successful product developers are likely to adopt a market-based marketing approach, which primarily focuses on benefits, backed with the appropriate implementation skills - selecting, planning and control - which reflect a market-based implementation approach. Thus, what now requires investigation is whether and how successful bank product developers do this.

All the above findings and those emerging from the review of the literature in Chapter 2 were operationalised for designing a rigorous scientific experiment to investigate the role of marketing in successful new product development. Thus in the following chapter the experimental context is described, in Chapter 5 the adopted method of study and in Chapter 6 the field investigation.

CHAPTER 4: THE EXPERIMENTAL CONTEXT: BANK MARKETING

4.1 Introduction

As we identified during our review of the product development literature very little research has been formally reported in the services field in comparison with work undertaken in the area of manufactured goods; particularly concerning marketing's contribution to new product development success.

Thus we decided to investigate our phenomenon in the under-researched industrial services area, focusing on the corporate banking area. Recent changes in the financial services sector have created a highly competitive corporate banking market, where successful new product development is of great importance for future survival.

The main objectives of this chapter are: (i) to describe the chosen experimental context; and at the same time (ii) to explain the reasons why successful new product development is so important. In particular, we discuss the importance of the services industry in U.K. and especially banking; the importance of the corporate banking area and the importance of marketing to that particular business area. Also discussed are the reasons why we have focused on the financial risk management market; the main financial risk management products; how recent developments in banking have changed the environment in the financial risk management area; why successful new product development is important in the financial risk management area. Further, we provide an

overview on the research studies investigating new product development success in financial services and discuss the role of marketing in bank product development success.

4.2 The services industry

In the major Western industrialised countries services are a most important sector contributing to GNP. This is clearly demonstrated in one of the reports of the Central Statistical Office presented in July 1990. This report demonstrated that in the last ten years the contribution of the service sector to GNP in comparison with that of manufacturing is now higher in U.S.A, Japan, Germany, France and U.K. In the U.K. the contribution of the service sector almost doubled in the last 10 years.

4.3 Financial services market

The highest contribution to GNP from the U.K services industry is from the financial services sector. In recent years there has been a tremendous growth in the size of the financial services sector in U.K. This growth had as an effect: i) the establishment of financially powerful international institutions as well as small ones engaging in specialist operations; and (ii) an increase in the number of financial markets and their sales turnover. The deregulation of 1986 which brought the 'big bang' and the Building Society Act of 1987 gave building societies the permission to offer products and services traditionally offered by banks. This created a volatile and competitive environment, where

financial institutions are trying to diversify their activities and increase the range of services and products offered to customers. The result of all these changes increased the activity in the development of new financial services.

The financial institutions that operate in this industry can be classified as bank and non-bank. This classification is based on the nature of activities undertaken. Banking financial institutions are clearing banks in the U.K., foreign banks, British merchant banks, other British banks, Abbey National plc, and discount houses. Non-banking institutions are building societies, non-banking sector finance houses, National Savings Bank, insurance companies, pension funds, unit trusts, investment trust companies and specialist non-bank intermediaries (Peat Marwick McLintock, 1988). This network is supervised by the Bank of England, the country's central bank.

4.3.1 The importance of the banking services market

The changes in the financial services markets have influenced every area in financial services. However, the most heavily affected was the banking services market which in recent years has become one of the biggest industries in Britain, both in earnings and employment (Hedges, 1991).

By the end of 1990 there were no less than 600 authorised banking institutions operating within the United Kingdom, of which the vast majority are foreign owned. In London the representation of the foreign banking sector ranges from the

world's largest 100 banks to small banks representing some of the smallest nations in the world (Peat Marwick McLintock, 1988). We were interested in banks (almost 130) with established treasury and risk management operations in London (Foster & Taylor, Telerate Bank Register, 1991) which in recent years has proved to be one of the world's leading international financial centres (Banking World, 1992).

These one hundred and thirty banks (U.K. and foreign owned) operating in London can be classified as three main types of banks (Peat Marwick McLintock, 1988). These are: (i) commercial; (ii) investment; and (iii) merchant. Their customers can be classified in two broad categories: (1) the retail sector which includes personal customers and very small businesses; and (ii) the corporate sector which includes larger businesses. In the next section we provide a brief description of what these banks offer to their customers and their basic activities. The line between investment and merchant banking is very thin, and this becomes blurred when we look at the difference in their services.

4.3.1.1 Commercial banks

In general, a commercial bank offers transaction and deposit accounts into which its customers deposit and draw money, or spending and saving functions (Geisst, 1988). At the same time the commercial bank is able to utilize the depositors' money as loans to different entities, which can either be an individual or a business. In addition to these activities commercial banks can also be involved in providing

customers - individuals and businesses - with expertise in how to invest their money and can also execute the investment decision for which it normally charges a fee. In this type of activity commercial banks act as investment advisors to customers, which put them in direct competition with the investment and merchant banks.

4.3.1.2 Investment banks

Like commercial banks, investment banks offer many services and perform a wide spectrum of activities under one generic umbrella (Geisst, 1988). Even though investment banking can be practised by commercial and merchant banks the risks involved would be high due to the various regulations. Investment banking is directly related to securities and securities markets. In Britain, investment banking is referred to as merchant banking. Foreign investment banks coming to London are not considered merchant banks, although, many American investment banks are aiming to become merchant banking orientated. Also, many British banks are aiming to become more involved with the securities markets. This is due to recent changes in the banking environment which will be discussed later in this chapter.

Generally, investment banks facilitate transactions in which assets are placed on a balance sheet other than their own (Carey, 1989). Their main activities are in flotation of new securities for cash, and acting as brokers between buyers and sellers in the securities market for existing securities. The major difference between an investment and a commercial

bank is that commercial banks have different relationships with customers, since they are lending the money that customers have deposited. However, investment banks' relationship with customers is based on market skills which are the justification of their fees. In addition, investment banks are more vulnerable since they are influenced by interest rates that are constantly changing.

4.3.1.3 Merchant banks

Merchant banks invest their own capital and that of their depositors in loans and other assets. Their customers are usually corporations and very wealthy individuals.

Generally, the main activities performed by a merchant bank are deposit taking and lending; treasury activity in corporate money and foreign exchange markets; issuing bond and other non-equity security issues; interest rate and currency exposure management; corporate finance; fund management; stockbroking and venture capital.

Between commercial and merchant banks there is a difference in the customer base since merchant banks are offering services to corporates rather than dealing with the retail depositor. Thus, merchant banks conduct a limited commercial banking activity but without the retail depositor. However, merchant banks' corporate business in comparison with commercial banks is limited since it is primarily focused on institutional clients.

4.4 Corporate banking market

With the recent changes in the banking sector barriers have been broken down and other financial and non-bank institutions have started to offer banking services. The environment is particularly competitive in the corporate banking sector due to: (i) the involvement of commercial and other foreign banks in corporate markets (Banking World, 1990); (ii) the size and importance of banks' corporate customers; (iii) the widespread use of computer systems; and (iv) the increasing competition of non-bank financial institutions. At the same time customers within the marketplace have become more aware of alternatives and less loyal. Militello (1984) has argued that corporate treasurers are becoming increasingly more demanding on their bankers.

For commercial, investment and merchant banks to better compete in the future they must develop a better understanding of their markets, identify the precise needs of corporate customers, and try to effectively satisfy them (Gavaghan, 199 . This market understanding is likely to arise from the marketing inputs such as market analysis and customer/competitor analysis.

Within this highly competitive environment with a large number of financial institutions and products available to corporate customers, banks can use new products to effectively position and differentiate themselves from their competitors in order to sustain their market positions. New financial products for this purpose can be classified in three broad categories: (1) general investing-financing securities; (2)

asset-related securities; and (3) financial risk-management securities. From these three the most active market in new product development is the financial risk management market.

4.5 Financial risk management market

This section provides a brief description of what is financial risk management, and which are the main products that are being offered by commercial, investment and merchant banks. Based on Easingwood's (1986) suggestions that it is better to focus on a particular area with the same financial needs for better research results, we have selected the financial risk management market.

The volatility of the last decade caused many businesses to be exposed to financial risks with profitability and competitiveness in jeopardy and the decision process in disarray. While treasury management as a whole is in danger, the emerging area of the 1990s is financial risk management (Darke and Klar, 1990). Particularly, businesses face risks arising from fluctuations in interest rates and exchange rates. Interest rates involve risks when you borrow or lend funds, and the risks involved in unpredictable exchange rate movements go well beyond those of related borrowing or lending funds. All types of businesses which are involved with business activities in a foreign currency may be threatened by such adverse movements. Likewise, portfolio managers face risks coming from volatility in bond and equity markets (Redhead and Hughes, 1988).

Given the volatility of interest rates, bond and equity

markets, and the instability of exchange rates between currencies, financial institutions and markets have developed a large number of different products to help corporations manage financial risks. The increased customer demand for these products has resulted in a new product development explosion. This has increased competition between established banking institutions but also between banking institutions and other non-bank financial institutions. This intense competition created one of the most competitive markets in the corporate banking sector. As long as financial markets remain unpredictable there will be a continued need for financial risk management products. A survey on the future of European capital markets forecast that cash markets will become more volatile and the interest of institutional investors will grow, something which will create stronger demand for these products (Arthur Andersen, 1989).

4.5.1 Main product categories

The product categories briefly described in the following sections are considered to be the most important ones in the financial risk management market, where product development activity is concerned. The main reason for selecting these product categories is that each of the banks participating in the study was able to nominate new products from these product categories. Some of the new products identified by these banks are: (i) base rate caps and floors; (ii) "cribs" swaps; (iii) "exotic" currency forwards; (iv) FX options; (v) swaptions; (vi) average rate currency options; (vii) "cross

rate" swaps or Libor differential swaps. The main product categories are: (1) caps, floors and collars; (2) futures; (3) FRA; (4) options; (5) swaps. Particularly, swaps and options development has exploded in the past few years, partly because the Basle rules - on new capital standards - require less capital for such off-balance-sheet transactions than for normal loans (Economist, 1992). As it is argued in a survey on the future of European capital markets (Arthur Andersen, 1989), financial futures and options will remain the most important area for innovation in capital markets. The main characteristic of these five product categories is that they are used for managing financial risks, an act also referred to as "hedging".

Derivatives of these five generic product categories have been developed to serve different customers. Examples are: foreign exchange forwards; interest rates swaps; forex exchange options; oil- and energy-linked swaps; other commodity-linked swaps; listed interest rate futures and options; listed forex futures and options; listed equity futures and options; over-the-counter interest rate futures and options; equity-linked swaps; over-the-counter equity swaps; "exotic" options. However, plain transactions of straight swaps, caps or options still account for most of the business in the market (Banking World, 1992).

For the future, we believe that there will be an increased need for developing mainly over-the-counter products (swaps and options) tailored to individual's requirements. Further, there will be a need for: (1) financial derivatives

to enhance the investment return of assets without increasing the risk profile; (2) developing commodity swaps - allowing companies to reduce their exposure to price changes in oil or metals; (3) developing new instruments for hedging underwriting risk associated with unexpected disasters; (4) credit risk derivatives which would allow banks and companies to reduce their credit risk (for example, a bank manager holding single-A rated bonds can buy a credit-risk option which will compensate him if the securities were down-graded to double-B).

4.5.1.1 Caps, floors and collars

Caps, collars and floors are instruments used to cover exposure to short or long-term interest rate changes (Abken, 1989). A cap is a series of interest rate call options for increasingly distant reset dates. A floor is a similar series of put options (Call options and put options are explained in the next sections). A collar is a combination of interest rate cap and interest rate floor, equivalent to a synthetic interest rate swap (Abken, 1989). Each one of these can be sold and bought separately. The difference between collars and caps/floors is that a collar agreement risks the upside potential of the producer and the downside price benefit to the end user, while a cap and floor agreement is performed on a fee basis (Spragins, 1990).

4.5.1.2 Financial futures

A financial futures contract is an agreement to buy or

sell a quantity of a specific financial instrument at a predetermined future date and at a price agreed between the parties to the contract in the present (Redhead and Hughes, 1988; Fischer and Jordan, 1991). The seller of the financial future contract agrees to sell the specified instrument to the buyer at a future date. Financial futures contracts are traded via organised exchanges; the London International Financial Futures Exchange - LIFFE for example. The financial futures contracts traded in LIFFE have just four maturity dates each year. These are in March, June, September and December.

Financial futures contracts are used to hedge for different types of risk emanating from: (1) fluctuations in exchange rates - named as currency futures; (2) fluctuations in interest rates - named as interest rate futures; (3) movements in equity prices - named as equity futures. We describe here a financial futures contract to examine how it works. Thus, we select one of the new products identified by one of the participating banks in our study. The name of this new product is: interest rate future contract.

The interest rate future contract is developed with the prime purpose of hedging against a sudden rise or fall of interest rates. In particular, if a borrower wants to hedge against a sudden rise in interest rates he will sell financial futures contracts. On the other hand, if a lender wants to hedge against a sudden fall in interest rates he will buy financial futures contracts. Once the contracts have been established, any change in interest rates will automatically lead to changes in the value of the contract. These changes

on the value of the contract will be just enough to cover any losses incurred by the lender or the borrower. If the interest rates increase then the borrower will incur losses and the lender gains. On the other hand if interest rates fall the lender will incur losses and the borrower gains. This speculative feature of any type of the financial futures contracts is very important since it attracts a wide range of participants to the market, thus helping to sustain its viability.

4.5.1.3 FRAS (Forward rate agreements)

An FRA "is an agreement between two counterparties, a buyer wishing to protect himself against a future rise in interest rates and the seller against a future fall" (BIS, 1986). Forward rate agreements are principally used by banks and some non-bank customers for hedging interest rate exposure. FRAs are in effect an over-the-counter cash-settled financial future. Some banks may use FRAs as trading instruments which may take the form of arbitrage between FRAs and financial futures, short-term interest swaps or cash deposits (BIS, 1986).

The main advantages of the FRAs in relation to traditional financial futures are simplicity, flexibility and absence of margin requirements. On the other hand, they do not have the advantage of being able to be sold and bought in a central market place, but only reversed with another FRA. Another main limitation of FRAs are that they are normally available only in amounts of 500,000 pounds and above, and

they are difficult to obtain in excess of one year (BIS, 1986).

Generally, cash is not exchanged upon entering a forward rate agreement, and the cash settlement payment is determined by the future spot market reference rate. For example, FRAs can be used when a business may have a long-term bank loan outstanding which is influenced by a floating rate of interest. The problem is that the business is subject to an increase in the market rate of interest, so the business entering into an FRA does so in order to limit the rate that it has to pay over the future.

4.5.1.4 Options

An options agreement "is a contract in which the writer of the options grants the buyer of the option the right to purchase from or sell a designated instrument at a specified price within a specified period of time" (Fischer and Jordan, 1991). There are essentially two kinds of options agreements. A call option gives the holder the right, but not the obligation, to purchase from the writer the specified security before an expiry date in the future. A put option gives the holder the right, but not the obligation, to sell to the writer the specified security before an expiry date in the future (BIS, 1986). Option contracts allow a future price to be set that is only binding upon the seller (the writer of the option). The holder of the option contract does not have to exercise it if it would be unprofitable for him to do so.

There are two main reasons for buying an option. The

first is when speculators get a hot tip on a security but do not have the money to buy it. The second is when an investor who wants to buy the security might be afraid that it might decline in value. Options are sold when conservative investors want additional income (Fischer and Jordan, 1991).

On the Stock Exchange there are three kinds of options. These are (i) traditional; (ii) negotiated options which are settled between two parties direct; and (iii) traded options which are standardised contracts traded by open outcry through the London Options Clearing House. Recently, LIFFE has offered its own financial options. Here the security is the specified financial future contract, although some contracts are traded on currencies.

However, options can also be used for securing a sudden increase or fall in the interest rates or currencies. It is a suitable tool for the currency manager who has a view on the future movement of a currency but is not certain that the change he has predicted will be the right one. Thus, he wishes to reduce losses from a wrong speculation. The option contract used is called currency option. The same course of action is taken when businesses want to borrow or lend at a particular rate of interest for a particular period, starting on a specific future date or beginning during a period starting from the present (Ducros, 1989; Redhead and Hughes, 1988). This form of contract is called an interest rate option.

These two types of option contracts appeared in early 1980s when businesses expressed a wish that banks offer, for a

fee, a product which could introduce security into rising interest rates and exchange rate volatility. The currency option is more developed in markets than the interest rate option. Most banks are willing to sell options with features tailor-made for their customers' requirements, in terms of benefits identified, value, period of maturity, currency of denomination and agreed rates of interest.

Other types of options identified by the sample banks are the "average-rate" option, "you-choose" option, "lookback" and "knock-in" and "knock-out" options. The "average-rate" options give the holders the right to buy or sell an underlying market not at a pre-determined strike price, but at the average price over the duration of the option. The "lookback" option gives the holder the right, but not the obligation to buy or sell a currency at the minimum or maximum recorded rate over the lifetime of the option. The name "lookback" comes because the fixed price - strike - of the option is unknown at the beginning. The strike price is "looked back" for when the option has expired. "knock-out" options are different from standardised options since they expire when a specific event occurs. If that event does not occur, the option expires as per normal. The "knock-in" options work in the opposite way. They are only activated when a predetermined event occurs. The "you-choose" options may have a three year life, but can be used as either a call or a put option during, for example, the second year.

4.5.1.5 Swaps

Since their introduction to the markets over a decade ago swaps have turned out to be an important product for financial risk management (Abken, 1991). "A swap contract is a financial transaction in which two counterparties agree to exchange streams of payments over time"(BIS, 1986). Generally, swaps alter the cash flows from assets or liabilities into preferred forms. The two main types of swaps are: (1) interest rate swaps; and (2) currency swaps. Other types of swaps are commodity swaps; equity swaps; currency coupon swaps; basic rate swaps; cross-currency interest rate swaps; cross-rate swaps.

An interest rate swap occurs when borrowers raise funds independently and then swap the associated debt servicing commitments on equal sums. One reason for entering into an interest rate swap is if borrowers' expectations differ as to future interest rate movements. It is very important to indicate that the parties involved in an interest rate swap transaction maintain their basic responsibilities to the lenders of the money. Thus, the parties have to accept counterparty risk, in the sense that if a counterparty fails to pay its interest payments, the borrower is still liable for debt servicing. As a result, swap transactions have suffered many complex legal problems. In interest rates swaps one interest rate is fixed and another is floating. In a basic rate swap both interest rates are floating.

Redhead and Hughes (1986) have identified that a currency swap has three different, but related, meanings: (i) the

purchase and simultaneous forward sale of a currency; (ii) simultaneous loan of two currencies; (iii) an exchange of a liability in one currency for a liability in another currency. A business or any other body may wish to exchange a liability in one currency for a liability in another currency in order to reduce currency exposure. Another swap involving currencies is the "cross-currency interest rate swap" which involves the exchange of payments in different currencies and also on different interest rate bases, such as fixed and floating interest rate. Typically, this type of swap involves the exchange of non dollar fixed interest rate payments for dollar floating rate interest payments (BIS, 1986). Another type of swap which has been developed in 1991 is the "cross rate swap" or "Libor differential swap". It takes advantage of the wide differential between Libor rates in different markets. Applied to securities it offers investors an opportunity to lock in high foreign interest rates with no currency exchange risk.

A swap contract is in effect, an exchange of net cash flows developed to reflect changes in specified prices. Up to now we have described only two prices, interest rates and exchange rates. However, swaps can be established in prices other than interest rates and exchange rates. For example, in commodities such as wheat and oil or equities.

4.6 Recent developments in banking and their implications for the financial risk management market

The banking area has changed and has become highly

competitive due to different forces which have appeared in the last decade. First, a sharp shift in the geographical pattern of net flows of international savings and investments. That means that different borrowers and investors in some geographical areas have shown their preferences for particular forms of assets and liabilities (BIS, 1986).

Second, changes in regulatory environments have affected different national markets. There were two important issues emanating from these regulatory changes. The first has to do with an increasing tendency around the world to deregulate and to eliminate structural rigidities and barriers to competition in domestic financial markets (BIS, 1986). Particularly, in the U.K. the deregulation of the U.K. securities market has resulted in tremendous changes in the U.K. banking system. Two important acts have helped in that process: (1) the Financial Services Act 1986; and (2) the Building Societies Act 1987. The second issue, concerning changes in the regulatory environment, has been the increased attention by supervisory authorities concerning capital adequacy. This trend had as an effect an increased attention towards off-balance-sheet products.

Third, a widespread application of new communications and technology to the financial markets and financial deals. Technological advances brought markets together and facilitated the trade in financial transactions between domestic and foreign markets.

Fourth, boundaries between the sectors of financial

services have become increasingly blurred with banks, building societies, insurance companies, retailers and estate agents competing for the same customers with similar services, often generated through cross sectoral acquisition. Thus, competition among financial institutions has increased.

Fifth, rises or falls in inflation, increased volatility of interest rates and exchange rates. Higher volatility has increased the risk exposure of the financial intermediaries which fail to maintain a balance between their assets and liabilities (BIS, 1986).

The above mentioned changes have created three main trends in banking. These are: (a) securitization - to substitute intermediation through markets for institution-based intermediation - and a related blurring of distinctions between bank credits and the capital markets; (b) global integration - the integration of the world's financial markets into one entity; and (c) shift towards off-balance-sheet products because of the regulatory pressure for capital adequacy and the cost for banks to raise money for capital. Thus, banks needed marketable instruments in order to manage their balance sheets by trading their existing assets and not having to acquire new ones. This is the reason why the financial risk management market has exploded. Banks had the need to develop off-balance-sheet products (earning-fee products) and corporate customers had the need to manage their risk exposure caused by the volatility in interest and exchange rates.

4.6.1 The need for marketing involvement

As we have previously identified, the different changes in the regulatory environment, the increasing globalisation of markets, the increased use of technology, non-bank institutions entering the banking markets and volatility in financial markets have created a highly competitive banking environment. This competitive environment, particularly in the financial risk management area, has created more sophisticated customer needs. It is forcing banks to expand or enter new markets by developing new products and businesses.

Hooley and Mann (1986) identified that "it is clear that the operations-centered and financed-dominated strategic emphasis of the early 1980s is giving way to a more market-driven stance. In particular, compared with five years ago more are centering their activities on their customers' needs and requirements rather their own products and capabilities". As a result, marketing issues are playing an important role in banks. Marketing is seen as a means for getting understanding of the markets with prime purpose of developing new services to satisfy customer needs and wants profitably (Channon, 1986; Meidan, 1984). As Meidan (1983) identified "the success of a bank depends upon the ability to satisfy customers' financial needs and the effective practice of marketing in the banking environment is becoming recognised as a vital objective".

Chorafas (1989) argued that banks in the 1990s which have the ability to segment and differentiate, will effectively position themselves against the competition. This can be

achieved by a thorough understanding and analysis of the needs and wants of customer segments, which as has been recognised is the prime purpose of a marketing involvement. Furthermore, Lockhart (1990) and VonLohneysen, Baptista and Walton (1990) argued that the new competitive banking environment has increased price competition and product innovation, and the need for marketing skills is essential. Turnbull (1982) also argued that in corporate banking, marketing is of great importance for the recognition and seizure of the opportunities created by the changing needs of corporate customers.

However, even though marketing has been recognised as important to product development in banking, it has so far been examined only as an important function (Carey, 1989; Channon, 1986; Cheese, Day & Wills, 1988; Davis, 1985; Landon & Donnelly, 1983; Meidan, 1984; McCullough, Serheng & Khem, 1986; McIver & Naylor, 1986; Piercy & Morgan, 1989; Carey & Turnbull; 1982; Watson, 1984). Zenoff (1985) has suggested a possible explanation for this: "traditionally banking has been driven by the needs and strengths of the organization and marketing evolved ad hoc, consisting primarily of selling existing products to existing clients". There has not yet been an investigation into whether there is a demonstrable relationship between success in developing particular banking products and the quality of marketing practised, which is the focus of this thesis.

4.6.2 The need for successful new product development

As we previously stressed, financial risk management products were originally developed in order to cover risk exposure in highly volatile markets. They have continued to provide this service creating a very competitive environment as banks were trying to diversify their portfolios in search of a competitive edge (Peat Marwick McLintock, 1988). However, the recent changes in banking - deregulation - not only had an effect in the explosion of the financial risk management market but also in the intensity of the competition inside this market. New players appeared in the market and banks faced the problem of competing not only against each other but also with non-bank institutions. New product development was considered as a most important process for future survival in these markets (BIS, 1986; Chorafas, 1989). As Meidan (1984) has stressed, product development is important since it attracts customers outside existing markets; increases sales to the existing markets and reduces the cost of offering existing services. Recently, however, there have been many examples in the London financial markets - Citicorp, Chase Manhattan, etc - where product developers could not make profits and cope with the increased competition. This is happening because every player who is entering the market and has the necessary means can easily duplicate the new products offered by others. The reason is that there are no significant technological barriers or patents for these type of products.

Thus, the financial risk management market is turning into a very competitive one with profits shrinking for banks, since many non-bank institutions have the opportunity to offer the same new products on the basis of competing at very short notice. That means just developing more new products is not the solution. What is really needed now is for banks to successfully develop new products as an on-going process. An important task is differentiating their offerings from those of competitors. This can be done by concentrating on the benefits for customers. This is also evident in the current financial risk management philosophy which addresses the concept of 'fine tuning'. This concept is aimed at offering customers a greater choice of features with the prime purpose of focusing on customer benefits (Futures and Options World, 1989).

In the next section we review what has been written concerning successful new product development in financial services, and particularly in the banking area and for our experimental context.

4.7 New product development success in financial services companies: an overview

The increasing pressure for successful new product development in the financial risk management market and in financial services area generally has aroused the interest of marketing scholars. However, compared with product development, much less has been written on the factors of success and failure in new service development, particularly

in banking.

Most studies of financial services development have been conducted in the consumer sector. The focus has been on: (i) describing differences between new product development and new service development (Cowell, 1988); (ii) describing the importance of new product development in service firms for the purpose of sustaining profitability (Donnelly, Berry & Thompson, 1985); (iii) examining the process of developing new services in a specific industry (Bowers, 1986) or in a specific particular service (Shostack, 1977); (iv) examining the role of technological innovation in the financial services sector (Scarborough & Lannon, 1989); (v) describing product development tasks in the financial services sector (Scheuing & Johnson, 1989); (vi) showing how new product managers in service companies (banks, hotels, tour operators, insurance) manage service development (Easingwood, 1986); (vii) identifying a number of attributes that are associated with new financial product success (Easingwood & Storey, 1991, Easingwood & Percival, 1990); (viii) identifying a number of characteristics that influence the effectiveness of the new product development process (Thwaites, 1992). So far only Cooper and DeBrentani (1991), DeBrentani and Cooper (1992) and DeBrentani (1991,1993) have explicitly investigated factors contributing to success in the industrial financial services sector.

There are studies which have addressed the following issues in banking: (1) the importance of product development in banking (Coletti et al, 1988; Davis, 1985; McIver & Naylor,

1986; Varadarajan & Berry, 1983), (2) the stages of the banking product development process (Bowers, 1986; Colletti et al, 1988), (3) the design and delivery of new complex banking products (Haarof, 1983; Shostack, 1984), (4) the relationship between a bank's new product development practices and its overall performance (Reidenback & Moak, 1986), (5) the relationship between market research and the development of personal financial products (Davison, Watkins & Wright, 1989), (6) detailed descriptions of financial innovations (Bank of International Settlements, 1986). So far only Johnne and Harborne (1985) and Iwamura and Jog (1991) have explicitly examined independent variables associated with a certain type of product development success in large commercial banks.

4.8 Summary

In this chapter we explained why we selected the corporate banking area and particularly the financial risk management area as our experimental context. We showed that the influence of regulation; changing technology; competition between banks and other non-bank institutions, and the need for off-balance sheet activity brought about the explosion in banking product development. This explosion has created many uncertainties in financial markets. The need for covering risk exposure has exploded the financial risk management market with new products and players. Banks now not only compete with each other, but also face the threat of non-bank institutions taking over their business. Thus, successful new product development is of great importance for banks,

particularly so in the financial risk management area. It is those features which make the area particularly suited to investigating managerial performance in product development.

CHAPTER 5: THE METHOD OF STUDY

5.1 Introduction

The objective of this chapter is to describe the research methodology adopted, and to explain the selection of this methodology to achieve the stated aims. Accordingly, the research aims, the methodological approach and the data collection method are discussed; the research questions illustrated; hypotheses developed; the dependent and independent variables presented with theoretical support; the sample chosen with the unit of study stated, and the unit of analysis justified.

The methodology adopted is that of the case method of a descriptive nature. The research design is both of a descriptive and comparative nature involving a cross-study of a number of cases to test a common set of hypotheses.

5.2 Research aims

Three research aims have been set. The first two have been set to contribute to theory development and the third aim to provide practical recommendations. Specifically, the research aims are:

1. To investigate, in the context of commercial, investment, and merchant bank financial risk management operations, the quality of marketing inputs applied by successful and less successful product developers;

2. To investigate, in the context of commercial, investment, and merchant bank financial risk management operations, whether the marketing practices of successful product developers are significantly different qualitatively from those of less successful product developers;
3. From (1) and (2) above to provide practical recommendations for successful marketing practice.

The first research aim is descriptive having as an objective to investigate, in the context of the financial risk management business of commercial, investment and merchant banks, the ways in which successful and less successful product developers apply marketing inputs qualitatively. The details for classifying these commercial, investment and merchant banks as successful product developers - high program success - and less successful product developers - low program success - are discussed in section 5.7.

The logic for justifying this descriptive aim, which is of critical importance to this thesis, is that (i) very few studies have been identified which investigate new product development success at the program level in the financial services context and (ii) that the contribution of marketing inputs to new product development success has so far been researched primarily from a "trappings viewpoint" and not from a "substance viewpoint" as was explained in Chapter 3.

The second research aim is comparative, having as its prime objective to compare, in the context of financial risk management business of commercial, investment and merchant

banks, the ways in which successful product developers and less successful product developers apply marketing inputs qualitatively. The comparison between successful and less successful product developers as an investigative method has been widely used in the product development area as an appropriate method for investigating factors contributing to new product development success at both levels of analysis - project or program (Cooper & Kleinschmidt 1987,1987a,1993; DeBrentani, 1988, 1989; John & Harborne, 1985; John & Snelson, 1988a,1988b,1988c,1990; Maidique & Zirger, 1983,1985; Project SAPPHO, 1972).

The logic for justifying this comparative aim is that (i) little rigorous empirical research has been undertaken on the substance or quality of marketing inputs applied in financial service businesses; (ii) the relationship between substance or quality of marketing inputs and program success has not yet been precisely substantiated and (iii) it is evident on the basis of preliminary fieldwork, that the way marketing inputs are applied qualitatively in this experimental context differs significantly between successful and less successful product developers.

The last aim is set because practical recommendations on how to achieve successful marketing practice are largely missing from most previous research in this context.

5.3 Methodological approach

Generally, there are two methodological approaches open to a researcher seeking conceptual evidence for the formation

of tenable hypotheses (DeGroot, 1969; Emory, 1976). The first is to make himself aware of all the relevant literature. The second is based on observation - seeking information from persons experienced in the area of study. The former is the so called deductive approach and the latter the inductive approach.

The methodological approach employed in this research study is of the traditional hypothetico-deductive approach (Eysenck, 1950; Hull, 1952; Popper, 1968). The logic for adopting this methodological approach is similar to that of Galtung's (1967) view that:

"a hypothetico-deductive system or scientific theory is a system where some valid hypotheses are tenable, and (almost) none are untenable."

The implication of Galtung's argument is that a systematic study of the relevant literature allows tenable hypotheses to be developed in order to examine research propositions.

However, a methodological approach which is based on "inspiration through the literature" for hypotheses testing, involves two risks: (i) the risk of refutation - or confirmation - that a newly conceived testable proposition will be a "foregone conclusion" if the researcher is not familiar with all the facts; and (ii) the risk that formation of fresh testable propositions will be delayed, if the researcher is too attached to the facts and to traditional ideas. However, as suggested by DeGroot (1969) such risks can be eliminated not only by conducting a thorough study of the relevant publications targeted directly on the subject, but

also by seeking information farther afield. This was achieved by us by executing an in-depth study of the product innovation, marketing and strategy literatures.

As Boyd, Westfall and Stasch (1985) have explained, we need to ensure that specified methods for selecting sources of information and for collecting data from those sources are used in a research design of a descriptive and comparative nature for deductive hypothesis testing. This is achieved by using appropriate scales for data collection.

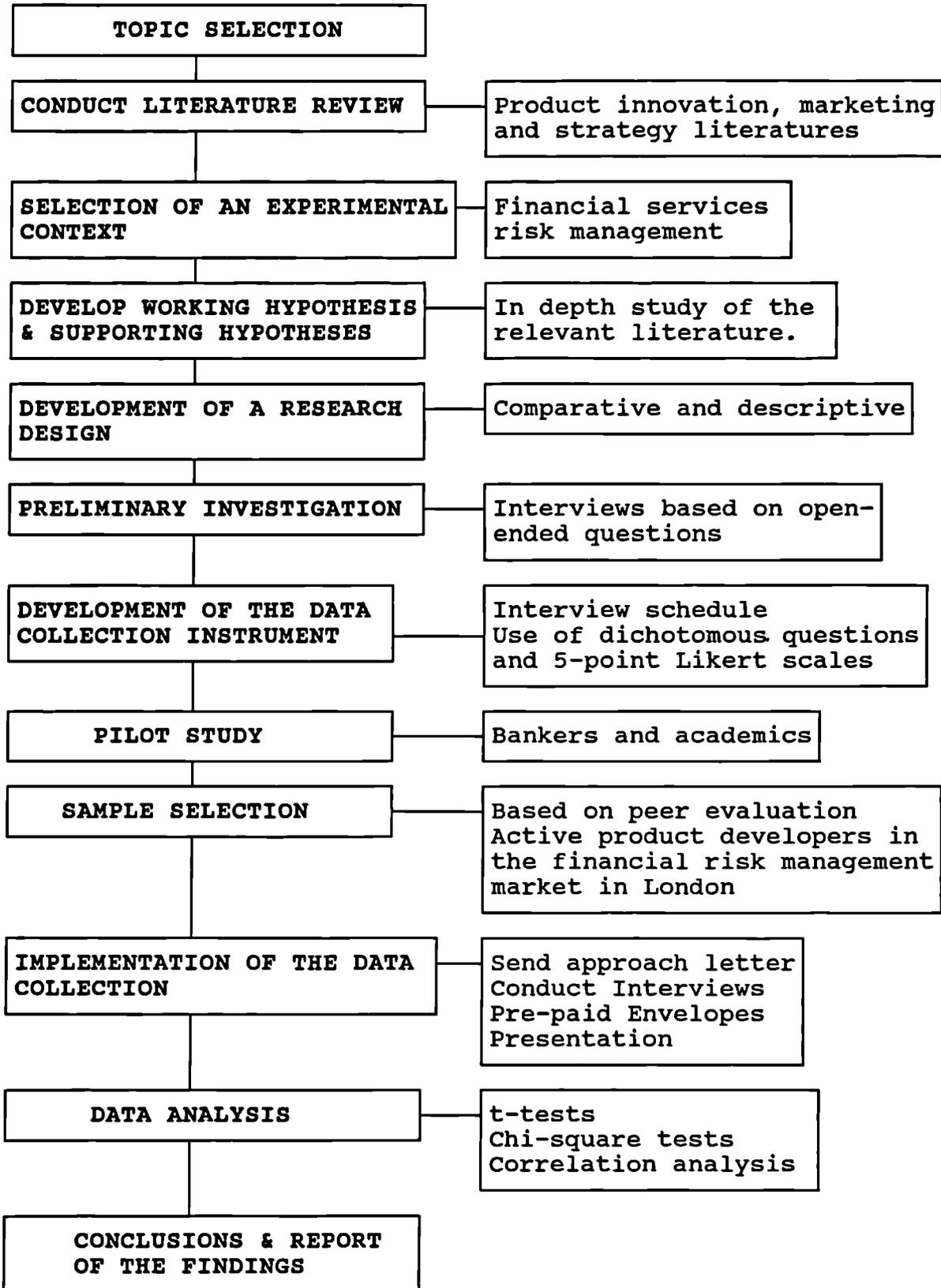
Furthermore, such a research design involves the risk of using constructs which may perform poorly in the field measuring the phenomenon. In order to decrease that risk we have used the established 7Ss McKinsey framework, popularized by Peters & Waterman (1982), to develop the necessary constructs to describe the phenomenon. While the 7Ss analytical framework was originally developed to appraise the management of a total organization, it has been also applied to analyze specific business activities such as product development (Dwyer & Mellor, 1991; Johnne & Snelson, 1990). A summary of the research methodology is provided in Figure 5.1.

5.3.1 Case method

Boyd, Westfall and Stasch (1985) have argued that there are two general types of research. These two types are: (i) exploratory and (ii) conclusive. The first one is to discover new relationships and the second is to provide information for making rational decisions. The terms used for these two types

Figure 5.1

Research Methodology



of research are based on the fundamental objective of the research rather than on the character of the data and the process by which they are gathered. Based on this assertion our research study is an exploratory one. However, as far as the character of the data and the process by which they are gathered we could say that it is an exploratory investigation of a quantitative nature. The benefit for this type of research is that we are able to test associations (relationships) by using the case method with the help of statistical tests. At this point we should indicate that even though we used statistical tests our method is not called a statistical method. The main differences between the case method and the statistical method lie in the number of cases examined and the comprehensiveness of the study in each case. The statistical method is a study of breadth and the case method is a study of depth (Emory, 1976).

The reasoning for adopting the case method lies on the scope of investigation, posited by the research aims, as discussed in section 5.2. Thus, a method of study was needed which would permit (a) description of the phenomenon in the new context; (b) testing testable propositions drawn from previous research; (c) comparison of observed differences in the phenomenon; (d) practical recommendations on successful marketing practice. The method of study that meets these objectives best is that of case method.

Yin (1981,1984) has also argued that the nature of the method of study should be identified based on: (i) the type of

research questions asked; (ii) how much control the researcher has over behavioural events; and (iii) the focus of the research in investigating historic as opposed to contemporary events.

Concerning the type of the research questions asked, we have shown that these are of a descriptive and comparative nature. Furthermore, qualitative differences have also been observed in the way that marketing inputs are applied between successful and less successful new product development programs. The research questions are:

1. How are marketing inputs applied qualitatively during the new product development processes in the context of commercial, investment and merchant banking?
2. How is quality of marketing associated with new product development success?

With regard to control over behavioural events, in an unknown new experimental context it is very difficult to introduce the appropriate number of controls. However, we have introduced controls on selection of our banks included in the sample to ensure that new product development programs can be compared. More detailed discussion on the above controls is held on the section concerning our sample selection.

Finally, the duration of this research study does not allow us to study contemporary events. However, we argue that the new product development programs which were investigated can be broadly described as contemporary since they have been developed between 1988 and 1992. All these three previously mentioned factors support the choice of the case method as the appropriate method of study in this research.

One can easily argue that in the case method statistical tests are not widely used. However, Boyd, Westfall and Stasch (1985) have argued that this type of case method should be used more in the future. The reasoning lies on the distinctive difference between the case method of a qualitative nature (use of content analysis) and the case method of a quantitative nature (use of statistical analysis) which is in the objectivity of the results. The main problem, however, with the use of statistical analysis, is the possibility of missing important findings which we could easily detect with a content analysis schedule.

On the other hand, we found it dangerous to ignore the vast amount of empirical findings which exist in the product development, marketing and strategy literatures, on our subject of investigation. Thus, we decided to use the above mentioned literatures for the development of hypotheses to capture the substance or quality of marketing in new product development processes.

Thus, in this research study, where testing associations is the prime objective, we can argue that a case method of quantitative nature should be followed. However, it has been argued that the case method lacks: (i) objectivity and (ii) generalizability (Bittner, 1973; Bryman, 1988).

Concerning the problem of objectivity, case studies record and analyse data based on subjective methods (content analysis), because of the intuition and convictions of the researcher. And as Boyd, Westfall and Stasch (1985) have

argued "this can lead to unwarranted conclusions". In this research study we limited the subjectivity problem by having the respondent, and not the researcher, answer a structured type of questionnaire based on five-point Likert type scales. But even if we limited the researcher's subjectivity in this way, initially our method of data collection is a subjective one.

Regarding the generalizability problem, all researchers who analyze cases tend to generalize. However, this is not acceptable when, as is usually found, a small number of cases is examined; cases are subjectively selected, and are not related to each other. However, in this research study, the generalizability problem is not a big issue since our sample, which consisted of eight banks, can be considered as a representative of a population consisting of seventeen active bank product developers identified from a universe of almost 130 banks with established risk management operations in the U.K. Even though the number of cases investigated in absolute terms is small, in relative terms it large, in using our statistical results to make generalizations for our selected population.

Looking at the solutions for limiting the problems of objectivity and generalizability in this research study, one can argue that these solutions are rather a feature of the statistical method. And thus we have to use the term survey instead of case method for a method of study. However, Boyd, Westfall and Stasch (1985) argued that "survey is also used to

denote all methods of collecting data by interviewing". Also, they have illustrated that in the case method, the procedure may be formalized, so that the points to be investigated definitely known, and analysis can approach the quantitative analysis used with the statistical method.

The arguments used and the descriptive and comparative nature of the research aims capture the essence of the method of study adopted for this exploratory research study, which is the case method of a quantitative nature.

5.4 Research questions

The important role of marketing inputs in successful new product development has already been identified in the review of the literature. We have also shown how important is successful new product development in our experimental context. These findings together with the descriptive and comparative aims of this thesis, demand an extensive investigation in the way that marketing inputs are applied - managed - qualitatively during the new product development processes. This aim is captured in the basic research question of this thesis:

In what way does the quality of marketing inputs contribute to successful new product development?

This basic research question is posed in such a way as to make it clear that the aim is to test the association between

product development success and the way that marketing inputs contribute qualitatively to successful new product development. This association is evident in the form of a working hypothesis and supporting hypotheses discussed in the coming sections.

Furthermore, in this particular experimental context, we had no previous research (i) testing for association between the substance or quality of marketing inputs and product development success; or (ii) describing the different ways in which marketing inputs are applied qualitatively; or (iii) comparing the different ways marketing inputs are applied qualitatively between successful and less successful product developers. These objectives must also be examined in this research study. The following general questions aim at just that:

1. Which are the precise ways in which marketing inputs are applied qualitatively in the context of commercial, investment and merchant banking?
2. Is the substance or quality of marketing inputs important to the successful development of new product development programs?
3. Does quality of marketing inputs matter more than quantity in achieving product development success?
4. What other endogenous managerial variables, other than marketing inputs contribute to new product development success in this particular experimental context?
5. To what extent does the quality of the approach adopted contribute to new product development success in this particular experimental context?
6. To what extent does the quality of execution contribute to new product development success in this particular experimental context?

5.5 Working hypothesis

The main research question and the subsequent general questions provided us with the basis for forming our hypotheses for this research study. The theoretical justification for the working hypothesis is based on the arguments discussed in Chapters 2 and 3. The experimental objective of this research study is to test the working hypothesis and the supporting hypotheses developed from the review of the product development, marketing and strategy literatures.

However, before providing the theoretical justification for the hypotheses, one important point has to be made. To test the hypotheses requires measurement scales. These measurement scales require tests of a statistical nature. As a result, the working and supporting hypotheses have to be stated in the traditional null form. However, for reasons of simplicity we prefer to do that in Chapter 7 together with all the statistical tests and results. Thus, all the hypotheses in the present and the following section are stated in the form of the desired outcome.

As shown in Chapters 2 and 3 in the review of the manufactured product development literature, and also that concerned with the development of services, marketing inputs in one form or another have been identified as a key managerial factor contributing to success. However, as we have argued, in most of the product development studies quoted in the review of the literature, the role of marketing has been investigated by focusing on what Ames (1970) calls the

trappings of marketing rather than the substance. By themselves, however, these trappings are no guarantee of product development success. The literature indicates that what matters most is not how much marketing input is applied or how wide a range of marketing activities are executed, but whether marketing input is applied well and whether the right activities are executed. In this respect, Simmonds (1986) and Kotler (1991) have argued that the substance of marketing consists of (i) determining the needs and wants of target markets - the approach; and (ii) meeting these needs more proficiently than competitors - the execution. Based on this analytical assertion it is evident that adopting the "right" approach is no guarantee of success unless the "right" skills exist to back up the approach. Indeed, Baker and Hart (1989) have argued that the only effective way to test the benefits of an approach is to consider its success in implementation. Building on these arguments, we have argued that the quality of marketing inputs is concerned with: (1) the quality of approach; and (2) the quality of execution, namely the implementation "skills".

Also in Chapter 4 we argued that in order to compete effectively in today's highly competitive banking environment, banks now have to focus much more attention on marketing inputs. Based on the above arguments the working hypothesis should encapsulate the main proposition for this research study, which shows the association between program success and substance or quality of marketing. Thus:

Banks which achieve high program success apply higher quality marketing than do those banks which achieve low program success.

It is stated in such a way as to reflect the experimental design by which it will be tested. Examining this working hypothesis we observe that (1) "program success" is the dependent variable; (2) "quality of marketing" is the constructs by which marketing inputs are analysed; and (3) "higher" is the difference in the quality of approach adopted and the quality of execution and is the ground for defining the independent variables. "Higher" is defined in relative terms by having theoretically contrasting tenable propositions for each one of the independent variables used to describe qualitatively the way in which marketing inputs are applied for new product development purposes.

5.6 Supporting hypotheses

For the purpose of testing the working hypothesis, development of supporting hypotheses is needed. The theoretical ground for the supporting hypotheses is based on the argument that successful product developers apply higher quality marketing than do less successful product developers. Particularly, successful product developers adopt a market-based approach, primarily targeted at customer benefits, in identifying new opportunities backed with appropriate implementation skills (analysing appropriate new market opportunities, planning and control) reflecting the market-

based approach adopted in exploiting them. But how can we measure the difference in the quality of marketing (quality of approach and the quality of execution) applied between successful and less successful product developers?

As we have previously argued in Chapter 3 each of the seven aspects in the 7Ss McKinsey framework (popularized by Peters and Waterman, 1982) can provide important analytical insight into the way marketing inputs are operationalised for product development purposes.

Another advantage of using the 7Ss framework is that while it was originally developed to appraise the working of the total organization, it can be applied with equal effectiveness to analyse specialist tasks; and business functions such as marketing (Used by John & Snelson, 1984, 1985, 1990; Dwyer & Mellor, 1991). In this respect, strong theoretical support exists among marketing scholars that marketing is an important business function with its prime purpose being to encode the changes in the environment and then to influence the organisation to interact more proficiently and profitably with this environment. Marketing scholars have also emphasized that marketing is second only to corporate strategy in the way that involves all aspects and functions of management (Baker, 1984; Day, 1990; Kotler, 1991; Levitt, 1986; McDonald, 1984). And since marketing has been recognised as an important business function for the product development process (Cooper, 1980; John and Snelson, 1985, 1988, 1988a, 1988b; Kotler, 1991) we consider it appropriate to use the 7Ss framework to tease out important differences,

in the way marketing inputs are applied for product development purposes qualitatively.

We also found the 7Ss framework particularly useful as a means for identifying other endogenous managerial variables, other than quality of marketing which are likely to contribute to our type of success, as we shall see later in the thesis. Furthermore, the use of the 7Ss framework will help us to satisfy the third aim of this study which is to contribute to improving the successful development of new products by providing practical recommendations to managers.

Based on the analytical review of the product development, marketing and strategy literatures seven main hypotheses - constructs - were considered as important to our research objectives - one for each of the analytical aspects identified in the Peters and Waterman 7Ss framework. It is appropriate, however, to indicate that three - systems, skills and style - of the seven main hypotheses were divided in two parts. Thus, the total number of hypotheses investigated was ten (for testing purposes each hypothesis was treated separately). The ten hypotheses - constructs - were based on multi-item measures. The type of scales used to measure the following supporting hypotheses are discussed in Chapter 6.

(A) **Approach:**

As we have argued in Chapter 3 based on the 7Ss framework we can operationalise the quality of marketing in terms of activities which reflect the (1) adopted approach; and (2) the skills used - execution. As far as the adopted approach is

concerned it is very important to know what sort of marketing strategy is being followed in identifying new opportunities and also what values are being shared among the staff to support it. Thus, the quality of approach is captured through the following supporting hypotheses.

Strategy(H1)

H1: Successful product developers pursue a market-based strategy in identifying new opportunities.
Less successful product developers pursue an asset-based strategy in identifying new opportunities.

This particular hypothesis examines the association between program success and market-based strategy. As we have previously discussed successful companies predominantly adopt a market-based approach in identifying new opportunities (Hardy, 1988; Piercy, 1991; Schnaars, 1991; Smith, 1991; Zibrun, 1991). The reason for developing this particular hypothesis is that strong theoretical support suggests that companies that are market-oriented pursue a marketing strategy which primarily focuses on the market rather than on key resources and capabilities (Baker, 1984; Cooper, 1984; Davidson, 1987; Day, 1990; Johne & Snelson, 1990; Kotler, 1991; McKenna, 1991; Piercy, 1991).

Shared Values(H2)

H2. Successful product developers make stronger use of internal marketing in promoting the case of a market orientation.
Less successful product developers make weaker use of internal marketing in promoting the case of a market orientation.

Empirical work by Piercy & Morgan (1990,1991) provides the rationale for this hypothesis. Their work showed that market orientation can be effectively promoted through

internal marketing. Payne (1993) has argued that internal marketing is essential for a customer-focused organisation. Thus, for a market-based approach to be adopted, bank product developers need to place great emphasis on internal marketing. Thus, this particular hypothesis examines the association between program success and strong use of internal marketing in promoting a market orientation.

(B) The execution

As we have previously discussed the quality of marketing arises not only from the quality of the approach adopted but also from the quality of the execution, meaning the implementation skills used to exploit the opportunities. Indeed, adopting a market-based approach is no guarantee of success unless appropriate implementation skills exist to back up the approach. This analytical assertion is supported in the work by Baker and Hart (1989) who have argued that the only effective way to test the benefits of the market-based approach is to consider its success in implementation. To do that, it is very important to know what sort of marketing staff is used for exploiting new opportunities; what their knowledge and expertise is; what sort of systems are in place to exploit the new opportunities; what sort of structure is being adopted to exploit the new opportunities, and what sort of management style is adopted by top marketing staff to manage the exploitation of new opportunities efficiently. Having said that the quality of execution is captured through the following supporting hypotheses.

Structure (H3)

H3. Successful product developers organise their marketing activities predominantly on the basis of market features.

Less successful product developers organise their marketing activities predominantly along on the basis of product features.

Many analysts including Washborn (1988) and Wilson (1989) have argued that marketing activities should be focused on a market or group of markets instead of products. The advantage of such a structure is that it widens the spectrum for selecting new opportunities. Thus, this particular hypothesis examines the association between program success and organising marketing activities along market features.

Systems (H4 & H5)

H4. Successful product developers use predominantly formal marketing planning procedures to exploit new opportunities.

Less successful product developers use predominantly informal marketing planning procedures.

Many marketing scholars argue that any procedure in order to be efficiently executed should be formalized - written - instead of non-formalised - only spoken (Kotler, 1991; McDonald, 1987; Wishborn, 1987; Wilson, 1989). And since marketing planning is identified as an important skill for exploiting new opportunities, this hypothesis investigates the association between program success and the use of formal marketing planning procedures for exploiting new opportunities.

H5. Successful product developers monitor markets more systematically to identify and exploit new opportunities; that is to say, they establish market criteria for a detailed investigation of markets. Less successful product developers monitor markets less systematically.

Marketing scholars have identified that part of the implementation process is the establishment of controls to monitor the performance of marketing activities (Baker, 1984, 1985; Kotler, 1991; McDonald, 1987). Furthermore, we have identified in the review of the literature, that monitoring markets is essential for detecting new opportunities (Cooper, 1980, 1984a). As a result, this particular hypothesis examines the association between program success and the systematic monitoring of markets needed for the identification and exploitation of new opportunities. Particularly, it signifies that not only do successful product developers control investigation of market opportunities, but also they do it systematically, by establishing market criteria.

Style(H6 & H7)

- H6.** Successful product developers' top marketing staff retain a supportive role inside the product development team.
Less successful product developers' top marketing staff retain a lesser supportive role.

McDonald (1987) argued that for marketing plans and procedures to be efficiently implemented planning executives need to retain a supportive role. Marketing scholars identified that successful product developers ensure that their top management staff adopt a supportive style over product development activities (Cooper, 1979, 1980, 1982, 1984a, 1988a; John and Snelson, 1990). Thus, in order top marketing staff to ensure the identification and exploitation of new opportunities predominantly from the market they should retain a supportive role into the product development team.

Thus, this particular hypothesis examines the association between program success and the supportive style of top marketing staff over the exploitation of new opportunities. Particularly it signifies not only that top marketing staff support the establishment of systems for marketing selecting, planning and control, also ensuring that market opportunities are exploited.

- H7. Successful product developers' top marketing staff retain an administrative role; that is to say, coordinate the marketing planning effort and support communications inside the product development team. Less successful product developers' top marketing staff retain a lesser administrative role.

During our review in the product development literature we found how important efficient communication between marketing and other functions for the implementation of different product development activities is (Cooper, 1980, 1984, 1984a, 1988a; Millman, 1982; Souder, 1980, 1987, 1988). Thus, for better execution of analysis, planning and control, top marketing staff need to administer the different communications and coordinate the marketing effort into the product development team. Based on this argument, this particular hypothesis examines the association between program success and the administrative role that top marketing staff retains over communications within the product development team.

Skills (H8 & H9)

- H8. Successful product developers' marketing staff possess specific skills for exploiting new opportunities; that is to say, marketing staff have the ability to monitor and to co-ordinate the product development effort. Less successful product developers possess less specific skills.

Day and Wensley (1983) argued that marketing should have a central role - manage, allocate, co-ordinate. Kotler (1991) also emphasised the need for allocating, monitoring and organising skills for the successful execution of the marketing effort. John & Snelson (1988b,1990), Rothwell (1977) and Souder (1987) stressed the importance of marketing skills and how marketing has an important role to play in the product development process. Based on these analytical assertions we argue that in order for the marketing staff to lead the product development effort, they need to possess specific - allocating, monitoring and organising - skills.

- H9.** Successful product developers' marketing staff are more skilled (efficient) in collecting and interpreting market-related information.
Less successful product developers' marketing staff are less skilled (efficient) in collecting and interpreting market-related information.

The rationale for this hypothesis has plentiful support in the literature. For example, Barabba and Zaltman (1991), Day (1990) and Piercy (1991) found that while collecting and analysing market data is important for identifying and exploiting new market opportunities, what counts most is the skill with which is done. Having said that, this particular hypothesis examines the association between program success and the efficient collection and analysis of market-related information.

Staff(H10)

- H10.** Successful product developers involve qualified marketing staff; that is to say, marketing staff with strong ability in analysing new market opportunities.
Less successful product developers involve less qualified marketing staff.

To get our execution right we also need marketing staff who are qualified enough to analyse market criteria (Kotler, 1991). Indeed, adopting a market-orientation needs strong knowledge of how to analyse markets. Thus, a product development team need to employ qualified marketing staff - that means staff capable of analyzing new opportunities coming from the market. Thus, this particular hypothesis examines the association between program success and qualified marketing staff (marketing staff with a strong ability in analysing new market opportunities).

5.7 Dependent variable

For the purposes of conducting a scientific experiment it is necessary to determine a meaningful dependent variable which captures the essence of product development success in our experimental context. This dependent variable will help us to classify the investigated banks into successful product developers and less successful product developers. Thus, in this section we have reviewed previous product development studies concerning different measures of success used by researchers. The reason is to select the appropriate dependent variable for our research study.

5.7.1 New product development success defined

Success in product development can be measured at two levels - at the program level and at the project level. At the program level success is examined for a group of products

in a company; at the project level success is examined for an individual product. Frequently, researchers do not state clearly whether they are speaking about project level success or program success.

Maidique and Zirger (1985) in a study of industrial companies, argued that using the project as the unit of analysis has two main advantages. First, it is a clearly identifiable entity and this facilitates the gathering of data; second, it is likely to have individual sales forecasts and ROI criteria, meaning that management generally knows the extent to which such criteria will have been satisfied. Obviously, for project level analysis it is necessary to identify financial data such as sales, profits and costs. This can, however, be difficult, and is particularly difficult in banking where there are considerable problems in accurately determining profits and costs for every new project.

Another argument against the use of the project as the level of analysis is that it results in conclusions that are both short term and non-optimal. As Bennett and Cooper (1981), have argued "project success has myopic focus". On the other hand, using the program level of analysis focuses on factors associated with the long term growth of the firm. It is primarily this aspect which differentiates the two levels of analysis.

Each level of analysis has advantages and disadvantages and it is up to the judgement of the researcher to decide which is appropriate. Before describing the different ways

for measuring new product development success in service firms at either level it is necessary to define what we mean by success in general terms. Many analysts have stressed that companies develop new products for different reasons.

In consequence, some studies have identified product development success as a multi-dimensional concept (Boag and Rinholm, 1989; Cooper 1988b; Cooper & Kleinschmidt, 1993; Crawford, 1979,1980; Johne 1984,1985; Johne & Snelson, 1988a, 1988b; Maidique & Zirger, 1985). The majority of studies, however, measure product development success as a one-dimensional concept concentrating attention on profitability measures.

But how is new product success to be measured in service firms? The studies in services companies from which we can draw any answers to this question are those by Easingwood & Storey, (1991), Cooper and DeBrentani (1991), DeBrentani (1988) and Johne & Harborne (1985). For more evidence on this question we need to draw from the rich body of product development literature.

Analytical and empirical studies have been conducted at both the project and the program level in the development of manufactured goods where success has been measured using both financial and non-financial criteria. At the project level, financial criteria have been used, such as profitability (Calantone & DiBenedetto, 1988; Cooper,1979,1980,1982,1988a, 1988b,1988c; Hopkins, 1981; Maidique & Zirger, 1983,1985). Hopkins (1981) and Rothwell (1976,1977) measured success

according to whether a project met company expectations. Using non-financial criteria, Larson and Gobeli (1988) measured success as the extent to which a project achieves market launch objectives.

At the program level, sales revenue growth has been used to distinguish between successful and less successful new product development (Johns & Snelson, 1988a). Ruekert & Walker (1987) used market success perceived by customers or professional bodies. Voss (1985) used technical success measures. Other researchers have used the speed of commercializing new products (Dumaine, 1989).

The issue of measuring success both at the project and program level, has raised questions of validity because the dimension used may not be the only dimension of success for the organisation concerned. Success on one dimension does not necessarily mean success on others. Researchers have found that it is very difficult to measure all relevant dimensions simultaneously. Another important issue is time. How long after a product's launch is success to be measured?

It is important to observe that the methodologies, terms of reference and aims of studies reported so far are not always similar, meaning that measures of success are not directly comparable. Nevertheless, we will see that even though studies have used different measures of success, there is something approaching agreement on the factors contributing to project and program development success.

5.7.2 Measuring success at the project level

After we have discussed how success was defined by different researchers it is appropriate to examine how success was measured at the project and program level respectively. To date, Easingwood & Storey (1991), Cooper and DeBrentani (1991) and DeBrentani (1988) are the researchers whose work has investigated the different ways of measuring project development success in a range of service companies spanning banks, transportation, management consulting, insurance and communication. In contrast, there are many research studies for manufactured products (Booz, Allen & Hamilton, 1982; Calantone & Cooper, 1981; Cooper, 1979, 1980, 1984a, 1988a; Cooper & Kleinschmidt, 1986, 1987, 1987a; Crawford, 1979; Dwyer & Mellor, 1991a, 1991b; Edgett, Shipley and Forbes, 1992; Hegarty & Hoffman, 1990; Hise, O'Neal, McNeal and Parasuraman, 1989; Hopkins, 1981; Kleinschmidt and Cooper, 1991; Maidique & Zirger, 1985; Nystrom, 1985; Rothwell, 1977; Rubenstein et al, 1976).

In her study, DeBrentani (1988) compared two new service projects introduced in the last five years, one successful and one a failure. She defined success as a new service which met or exceeded company objectives. Her findings showed that industrial service companies primarily use financial indicators to measure success at the project level, and identified four specific dimensions of project success:

1. Sales/market share performance which measure the revenue creating potential of a new service. There are different measures which can be used for this purpose. In general

terms, one can measure whether the project met or exceeded objectives. Specifically, one can measure if the project achieved high customer use levels; high relative market share; high overall profitability, or had a strong positive impact on a company's image and reputation.

2. Competitive performance is non-financial and measures project outcome in relation to competitors' projects. It measures the differential advantage achieved in a market. It is a subjective measure because it reflects how a customer perceive a new service in terms of what it offers over competitors' offerings.
3. "Other booster" which measures whether the development of new auxiliary services enhances the sales or profitability of other company products.
4. Cost performance measures both the cost effectiveness of the new service as well as its ability to create cost reductions for the supplying company. This dimension measures a company's ability to develop service products by modifying existing ones to achieve greater cost-effectiveness, in relation to competitors.

Each of the four dimensions of project success require specific measures. These are shown in Table 5.7.2.1. However, it is important to emphasize that the cost performance measure does not actually measure success of a new service offering, as do the other three measures. Rather it measures process success. It is therefore only for the supplying company's own benefit. DeBrentani's findings in services build on the results of previous studies of manufactured product success. For example, Cooper (1980) used three dimensions of project development success.

These dimensions, shown in Table 5.7.2.2, were:

1. Financial performance which measures the overall financial success of a project. In specific terms, one may measure a new project's profitability, its payback

TABLE 5.7.2.1

MAIN DIMENSIONS USED TO MEASURE SERVICE
PROJECT SUCCESS

1. Sales/market share performance
 - Exceeded market share objectives.
 - Exceeded sales/customer use level objectives.
 - Exceeded sales/customer use growth objectives.
 - High relative sales/customer use level.
 - High relative market share.
 - High overall profitability.
 - Strong positive impact on company image/reputation.

2. Competitive performance
 - Superior service "outcome" and "experience" relative to competitors (perceived).
 - Superior unique benefits relative to competitors (perceived).
 - Gave important competitive advantage.

3. "Other booster"
 - Enhanced sales/customer use of other products.
 - Enhanced profitability of other products.

4. Cost performance
 - Substantially lowered costs for firm.
 - Performed below expected costs.
 - Achieved important cost efficiencies for the company.

Sources : DeBrentani (1988,1989).

TABLE 5.7.2.2

MAIN DIMENSIONS USED TO MEASURE PRODUCT
PROJECT SUCCESS

1. Market share
 - Domestic market share.
 - Foreign market share.

2. Financial performance
 - Profitability level.
 - Payback period.
 - Sales and profits of a new product relative to other new products of the company.
 - Sales and profits versus objectives.

3. Opportunity window
 - Opportunity window to new products for the company.
 - Opportunity window to new markets for the company.

Sources: Cooper (1980)
 Cooper & Kleinschmidt (1987, 1987a)
 Kotler (1991)

period, or its sales or profits relative to other new projects, or the sales or profits achieved against objectives.

2. Opportunity window which describes the degree to which the project opened new product opportunities to the company in terms of new categories of products or new markets.

3. Market share which depicts the impact of the product on both domestic and foreign markets. In specific terms, one can measure a new project's domestic market share or its foreign market share in a specified period after market launch. Kotler (1991) has amplified market share measures as follows : (i) **overall market share** - the company's sales as a percentage of total industry sales, (ii) **served market share** - the company's sales expressed as a percentage of industry sales in the served market, (iii) **relative market share** - the company's sales as a percentage of the combined sales of the three largest competitors, (iv) **relative market share** to the leading competitor.

In an earlier study Souder (1981), measured project success by comparing projects that: (i) met or exceeded a company's targets and expectations, (ii) met most, but not all, of a company's targets and expectations, and (iii) met few, or none, of a company's targets and expectations.

Nystrom and Edvardsson (1982), defined project success by type of expectation dimensions. Three types were used :

- (i) Technological success measured by the level of technological innovation.

- (ii) Market success measured by the competitive situation for a new product at the time of market commercialization. The measure used was the uniqueness of a new product for perceived buyers in relation to the closest competitive products on the market.

- (iii) Commercial success measured the estimated profit level of the new project based on scores accorded by company executives.

5.7.3 Measuring success at the program level

Research studies investigating dimensions of program success in services firms are almost non-existent. Johne and Harborne (1985) and Iwamura and Jog (1991) used innovativeness - the number of new products launched - as a measure of success for large commercial banks and securities houses (see Table 5.7.3.2). On the other hand, there are studies conducted in manufacturing companies which can give insights into how to measure success at the program level. However, even these studies are limited in number (Cooper, 1984,1985; Crawford, 1980; Johne, 1985; Johne & Snelson, 1988a,1988b, 1988c; Pavia, 1991).

Cooper (1984,1985) has identified three dimensions of success at the program level. These dimensions shown in Table 5.7.3.1, are:

1. Relative impact, which records the impact or importance of the program on company sales and profits. In specific terms, one measures the percentage of current company sales or profits made up by sales resulting from new products introduced over the last three or five years.
2. Success rate which measures the track record of products developed in terms of success, kill and failure rates. Success, failure and kill rates together add to 100%. Often only the success and the failure rates are included. In financial terms the percentage of new products introduced to the market which fell short of minimum profitability criteria can be measured, as can the percentage of new products introduced which met or exceeded the minimum financial criteria.
3. Relative performance which describes the overall performance of the program relative to competitors' performance. Here, with the use of scales, one can measure the extent to which the program met its performance objectives; the extent to which the program

TABLE 5.7.3.1

**MAIN DIMENSIONS USED TO MEASURE PRODUCT DEVELOPMENT
SUCCESS AT THE PROGRAM LEVEL IN MANUFACTURING COMPANIES**

1. Relative impact

- % of current company sales made up by new products program introduced. (usually 3-5 yrs)
- % of current company profits made up by new products program introduced. (usually 3-5 yrs)

2. Success rate

- % of new products introduced to the market but fell short of minimum profitability criteria.
- % of new products introduced to the market but met or exceeded minimum profitability criteria.
- % of new products killed before market launch

3. Relative performance

- The extent to which the program of new products met its performance objectives (scaled).
- The extent to which the program of new products generate sales and profits to the company (scaled).
- The extent the operating profits generated by the program of new products exceeded the costs (scaled).
- The extent to which the program of new products is successful relative to competitors' new programs (scaled).
- Overall success of the program of new products (scaled).
- The market share of the program of new products relative to competitors.
- Speed to market of new products' program relative to competitors.

Sources: Cooper (1984,1985)
Dumaine (1989)
Reinertsen (1983)

TABLE 5.7.3.2

**MAIN DIMENSIONS USED TO MEASURE PRODUCT DEVELOPMENT
SUCCESS AT THE PROGRAM LEVEL IN SERVICES COMPANIES**1. Innovative performance

- Number of new offerings introduced in to the market relative to competitors.

Source: Johne & Harborne (1985)
Iwamura & Jog (1991)

is generating sales and profits; the extent to which the operating profits generated by the new program exceeded costs; the extent to which the new program is successful relative to competitors' new programs, or just the overall success of the new program against company objectives. Furthermore, one can measure the market share of the program relative to competitors.

Finally, some analysts have measured program success in terms of speed to market (Dumaine, 1989; Reinertsen, 1983). This measure of performance is particularly important in the case of high technology and financial service (especially banking) products where speed to market is a critical contributor to profitability (Kerin, Varadarajan & Peterson, 1992).

5.7.4 Market measure of success: first to market

Having reviewed the different measures of product development success at both levels of analysis - project and program - and examining our experimental context we decided to focus attention on program success, rather than one-off project success. Building on an earlier review of the literature (Johns & Snelson, 1988), we formed the view that individual project success is an idiosyncratic phenomenon. Almost all banks are able to point to a successful product development, but fewer are able to point to a regular stream of successful developments, and thereby claim program success. The possible dimensions for measuring program success are: (i) relative impact, (ii) success rate, and (iii) relative performance. One or more of these measures will need to be operationalized as a dependent variable for this research study.

Preliminary interviews conducted in a small number of commercial, investment and merchant banks involved with product development revealed lack of agreement in measuring success. Without exception all respondents stated that profitability is the acid test of product development activities. However, because of the problems in measuring profitability, (confidentiality, different accounting standards, difficulty in identifying costs of resources used) we sought a surrogate measure of success which can provide insight into not only short-term success, but also into long-term success.

The distinction between short- and long-term success is important. For example, it is possible to achieve short-term success with a procession of rather minor product developments using existing technology. But doing this when new technology (new computers, communication systems, sophisticated financial models and financial product designs) provides the potential for long-term product development opportunities is dangerous. This phenomenon can be observed in the development of financial risk management products considered in this research study. Many of these products and their derivatives are based on financial models, such as that developed by Black & Scholes (1973) - specifically used in the development of new options products. Short term profit maximization can be achieved by developing more and more variants from the same basic financial model. However, while detracting from short-term profitability, developing a better financial model affords

opportunities for longer-term profitability. In these circumstances failure to invest in developing new models can mean that a supplier becomes seriously disadvantaged in the long-run.

Because of the problems associated with measuring product profitability, we turned our attention towards the so-called "external" measures of success. By external measures we mean the degree of success achieved against market potentials rather than against internal hurdle rates. One such measure is speed to market with new products. The speed to market measure has been used by previous researchers (Dumaine, 1989; Easingwood, 1988; Tufano, 1992).

Many marketing scholars have argued that the timing of entry of new products is a crucial decision which can have a significant impact on competing successfully (Bertrand, 1991; Cordero, 1991; Green & Ryans, 1990; Nevens, Summe, Utal, 1990; Robinson, 1988; Ryans, 1988). These researchers have stressed how important the time a new product enters the market for the success of that product is. But the question is when it is a "good" time to enter the market, particularly, in our experimental context?

Until recently banking has been highly regulated and controlled. Deregulation and increased globalisation is changing competition particularly for the corporate banking markets of commercial, investment and merchant banks. In order to compete effectively, in highly competitive and constantly changing environments - e.g. financial risk

management market - companies (in our case active bank product developers) have to take an aggressive new product market position within markets - being the first - and continually changing the rules of the game (Karagozoglu & Brown, 1988; Miles & Snow, 1978; Miller & Friesen, 1982; Mintzberg, 1973). Davidson (1987) also argued that companies have to lead rather than follow and to respond to competitive moves by creation and not by imitation. One has to act ahead of the competition (proactively) by continually differentiating offerings.

A proactive strategy attempts to influence and change the environment rather than simply reacting to it (Aaker, 1984). Johnes and Snelson (1990) indicated that companies which follow a proactive strategy "leave the competition guessing at what is coming next from your product development portfolio". The reason for doing that is that companies do not want to be late and consequently out of date because the markets are continually changing (El Din, 1990). The first company to enter with new products in a market has many competitive advantages (Brown & Karagozoglu, 1993; Glazer, 1985; Kerin, Varadarajan & Peterson, 1992; Millson, Raj & Wilemon, 1992; Peterson, 1993; Robinson & Fornell, 1988; Rumelt, 1982; Vesey, 1992; Zahra & Ellor, 1993). Lieberman and Montgomery (1988) argued that being proactive - a first mover - you gain advantage (1) through technological leadership by moving up the experience curve ahead of your competitors; and (2) by pre-empting competitors in acquiring market positions. Tufano (1992) argued that first mover investment banks achieve advantages such as: "(1) lower costs; and (2) larger

quantities than those experienced by investment banks that merely imitate". Brown (1991), Lawless and Fisher (1990) and Schnaars (1991) argued that by being earlier in the market than your competitors you have the best chance to develop customer awareness. And this is very important for our experimental context of corporate banking in which building relationships with customers is crucial to competing successfully.

On the other hand, it is true that high costs have deterred many banks, operating in corporate banking markets, from innovating successfully. These banks have resorted to a follower strategy, where companies wait for others to develop products and then copy them (Assael, 1985; Johne & Snelson, 1990; Mansfield, Schwartz, Wagner, 1981; O'Shaughnessy, 1984; Quinn, Mintzberg, James, 1988; Urban, Hauser, Dholakia, 1987). Financial risk management products such as swaps, futures, options, etc. have no significant technological barriers or patents and therefore can be easily copied (Iwamura & Jog, 1991). It is also argued that followers enter a market more efficiently and with greater certainty, having learned from the first-movers' experience (Mansfield, Schwartz, Wagner, 1981). But is this true, particularly in a market dominated by products with short product life cycles? Just being innovative in a market where new products have short product life cycles and can be easily copied is not enough. Innovative banks have to move fast and be first in the market continually with new products in order to compete successfully. But is being first to market with new products

is a surrogate (directly related) measure of profitability?

In this respect, Seger (1986) found that businesses adopting a proactive strategy achieved better financial performance (e.g. higher profits; higher sales) than businesses adopting a reactive strategy. Peterson (1993) indicated that early new product introduction brings higher profits. Green and Ryans (1990) also showed that being a first-mover leads to better financial performance. Kerin, Nahajan and Varadarajan (1990) suggested that a first mover should be in a position to achieve higher profits than after entrants. Rosenau (1988a, 1988b) also argued that reaching the market before competitors gives the opportunity to charge a premium price and get extensive sales and as a result profits. Furthermore, Urban, Carter and Mucha (1986) and Day and Wensley (1988) argued that firms that enter first in a market have the opportunity to develop the rules for subsequent competition and as a result consolidate their position in the market and also acquire market share advantages. Buzzell, Gale and Sultan (1975) have illustrated that market share is one of the most important determinants of business profitability. Based on all these arguments we can conclude that being first in a market is one of the routes leading to profitability.

Based on this theoretical ground we can argue that in the competitive and constantly changing banking environment being first to market is what differentiates the successful product developer banks from the less successful ones. In this respect, Easingwood & Storey (1991) in an empirical study in the personal financial services industry identified that being

first to market is important to new product development success.

For experimental purposes we chose a dependent variable which is not idiosyncratically internal to one or a few banks, but one which provides an overview of speed in serving target markets successfully. Successful product developers are defined those banks with a better record of being first to market with new financial risk management products. All investigated banks in the sample had large established risk management operations and so had almost equal opportunities in achieving market firsts if they so desired. Hence, it was the absolute number of firsts to market which were measured rather than the relative.

The process with the following steps were taken to identify which one of the banks included in our sample is a successful product developer or not. First, almost every new product that was developed (time period between 1988 - 1992) from the sample banks was identified by the respondents. Second, each respondent identified which ones of these new products were introduced first to market, ahead of the competition. Third, we classified the identified new financial risk management products into the following five product market categories: (1) caps, floors and collars; (2) financial futures; (3) forward rate agreements; (4) options; (5) swaps. These product market categories satisfy the same generic need: to manage financial risk. The use of product market categories was suggested to us during our preliminary fieldwork by different bankers. There are two main advantages

resulting from the division of the new financial risk management products into product market categories: (1) it helped us to have a clearer picture when we measured the dependent variable; and (2) it helped us to identify if any new products appeared more than once as firsts on our list under another name. Fourth, after we classified the new products into product market categories we computed the total number of new products firsts to market for each one of the participating banks. The results showed one bank with seven (7) new products, one with five (5), two with four (4), two with three (3), one with two (2) and one with no new products first to market. Fifth, after we computed the number of new products introduced by each one of the banks we purposefully divided them into two groups of four with the purpose of making comparisons between the two groups and drawing conclusions concerning the association between our dependent and the independent variables. Our final sample included eight active bank product developers. Thus, in the one group we placed the first four banks with the highest number of new product firsts to market - these achieved high program success - (successful product developers), and in the other group the other four banks which had relatively the lowest number of new product firsts to market - these achieved low program success - (less successful product developers). Sixth, we ran a t-test in order to see if there is a statistical significant difference between the successful and the less successful product developers (See Table 5.11.1.1 in section 5.11.1).

To conclude, we would like again to emphasize that this

particular dimension of success is not a perfect measure but is more than acceptable for the purposes of our research study. It (i) is a market criterion; (ii) can be considered as a surrogate measure of profitability; (iii) it is very important in a market where products have short product life cycles and can be easily copied; (iv) it is easily identifiable and acceptable by bankers. The only disadvantage of this measure lies on the fact that it is based on respondents' opinions. However, we tried to make it more objective by dividing the list into product-market categories in order to double-check if there are any new products which appeared, under a different name, more than once.

5.7.5 Factors influencing speed to market

As we have indicated in Chapter 2, there is now a rich body of literature to explain the reasons behind product development success. A multitude of variables has been identified as determining performance at the individual project level, with an almost as long list of variables having been suggested at influencing success at the program level.

Although there are commonalities in the findings of the many studies consider the principal inputs of marketing and technology in product development decision taking, there are also inconsistencies. These inconsistencies are to be expected in cases where authors have investigated quite different types of product development success and have then, unreasonably, sought to generalize from specialist studies (Hart, 1993; Hart & Craig, 1993).

There are few empirical studies which have stressed either the importance of being first to market (Reinertsen, 1983) or the relationship between first to market and product development success (Easingwood & Storey, 1991; Cooper & Kleinschmidt, 1993). However, none of these empirical studies have focused explicitly on factors contributing to early market entry. Specifically, no empirical study has used early market entry as their dependent variable with prime purpose to make comparisons between successful and less successful projects or product programs for identifying success factors. Actually, the state of development of literature in this area is at a stage where analysts acting as cheer-leaders in advocating faster product development. This is based on the fact that by speeding up the product development process, companies can achieve early market entry - enter first to market with new products ahead of competition.

Specifically, Wolff (1987) has identified that faster new product development can be achieved with skunk works. Gold (1987) has identified that managers need to speed up the implementation of their product strategies to achieve faster new product development. Gold has taken a broader view of the available mechanisms and combines these into three major groups: (i) using external sources (such as licensing or buying in advances); (ii) intensified internal efforts (such as the product rugby approach where the entire product development team rushes through the entire new product development process without pause); and (iii) innovative management of internal efforts (such as using peer review,

responsibility transfer and personnel transfers).

Rosenau (1988a,1988b) drawing from experience, suggested that the following factors contribute to faster product development: (i) short sequential development phases, each of which has a very specific goal, and avoid lost time between the phases; (ii) top management support; (iii) improve teamwork - share data within the product development team; (iv) reducing distractions; (v) avoidance of changes to specifications; (vi) using time-based critical path network schedules. Dumaine (1989) in a study of 50 major U.S. companies deduced that the following factors influence speed to market: (1) avoiding "start from scratch developments"; (2) giving more authority to the persons involved with the development of new products; (3) putting emphasis on efficient distribution; (4) putting speed on the cultural agenda; (5) establishing teams which work simultaneously; (6) sticking to schedule. Cordero (1991) and Smith & Reinertson (1991) have argued that speedy development can be achieved by: (i) making speed a central objective; (ii) incremental rather than major product changes; (iii) applying computer-aided techniques for speed; (iv) managing human resources for speed - facilitate cooperation and flexibility rather than competition and specialization; and (v) top management support. Millson, Raj and Wilemon (1992) and Starr (1992) have indicated that faster product product development can be achieved by: (i) staff empowerment; (ii) round the clock project scheduling; (iii) concurrent engineering; (iv) simplify operations; (v) eliminate delays and stages; (vii) speed-up-operations; (viii)

parallel processing. McDonough III & Barczack (1991) and McDonough III (1993) have suggested that the speed with which new products are developed is affected by the kind of work undertaken on the project and the project leader style of leadership.

There are also studies which have focused on identifying the importance and the benefits of getting to the market first (Gomory, 1989; Kerin, Varadarajan, and Peterson, 1992; Kerin, Nahajan and Varadarajan, 1990; Nevens, Summe and Utal, 1990; Stalk, 1988; Tufano, 1992).

5.8 Independent variables

As no previous empirical studies into factors determining the speedy introduction of either manufactured or services products had been identified by us it was necessary to develop our own conceptual model for the purpose of testing hypotheses. The model is depicted in Figure 5.2.

It postulates that success or lesser success is influenced by two sets of variables: (i) exogenous and (ii) endogenous. The exogenous variables, in the short run, are outside of the control of management. Such variables are sudden market changes, rate of technological change, nature of competition, intensity of competition, governmental legislation. The endogenous variables are under the control of management. Based on the McKinsey 7Ss analytic framework (Peters & Waterman, 1982) such variables are: (i) strategy; (ii) structure; (iii) systems; (iv) style; (v) shared values; (vi) staff; and (vii) skills. This framework analyses

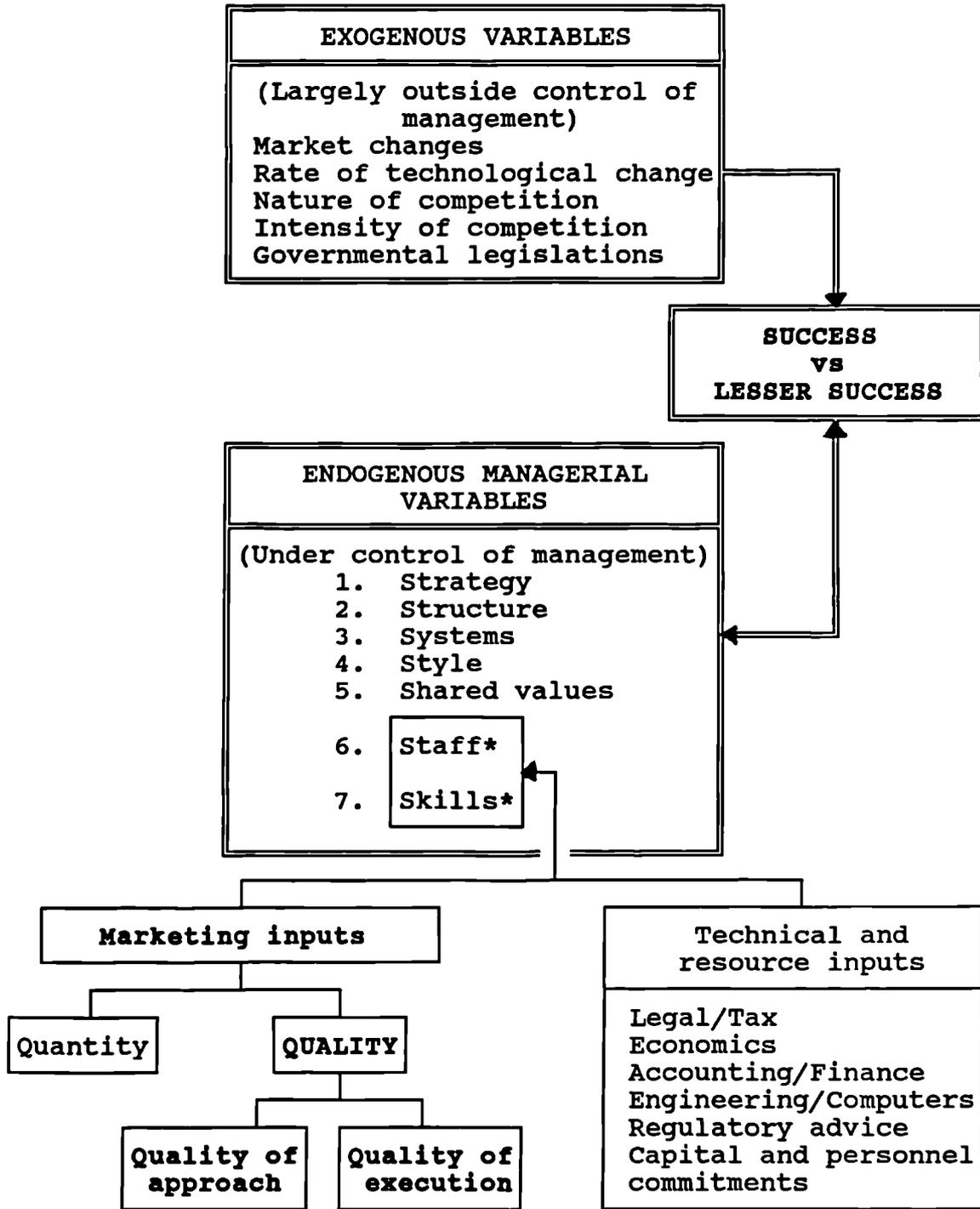
managerial performance under the above seven headings - all of which are relevant to decision taking and are also readily understood by managers.

Our research study focuses on staff and skills as is indicated in Figure 5.2. The reason is that in our experimental context product development success is assumed to be influenced heavily by the quality and quantity of two sets of inputs: (i) technical and resource inputs, such as finance, legal, accounting, regulatory and tax advice; time spent educating the issuers, investors and traders; investments in computer systems; capital and personnel commitments; and (ii) marketing inputs.

Of these two sets of inputs our study concentrates on the quality of marketing inputs - consisting of the quality of approach and quality of execution. For the purpose of measuring this main independent variable use was again made of the McKinsey 7Ss framework.

Finally, in order to be able to comment on the strength of the relationship between the dependent variable and the main independent variable, control was exerted over other endogenous variables which may influence success. These were: (i) the quantity of marketing inputs; and (ii) the quantitative and qualitative aspects of technical and resource inputs. In addition, the strategy; the structure; the systems; other staff and skill issues; and kind of management style were assessed.

Figure 5.2
Model of the phenomenon: speed to market



* In our experimental context product development success is assumed to be influenced heavily by staff and skills. Importantly, from the quality and quantity of two sets of inputs: (i) marketing; and (ii) technical/resource.

Source: Marketing and product development literatures. Peters and Waterman (1982).

5.9 Unit of analysis

The unit of analysis in this research study is the group of persons in a commercial, investment and merchant bank which has been involved on a full-time basis in the development of new financial risk management products. These persons will also have executed some sort of marketing activity during the product development process.

To adopt a unit of analysis other than the one we have chosen would have deflected from the way in which marketing inputs were actually applied - managed - during the new product development process. For example, if we had used single new product development projects as a unit of analysis it would have been possible to misinterpret the ways in which marketing inputs lead to success, and associate successful results with chance and not with common practice. And as we have also shown success at the project level of analysis does not guarantee success for the program (Cooper, 1984, 1985; Johne & Snelson, 1988, 1990). On the other hand there is an opposite viewpoint which argues that program success does not always guarantee project success. But since in our experimental context long term success is a prime objective, examining what has actually happened during the development of a group of products is necessary. Another unit of analysis that could have been used was the bank itself. But it was rejected as inappropriate. Banks are divided into many different business units which serve different markets with different customer needs. As a result, different product development and marketing practices are followed.

Of these different units of analysis, the group of persons involved on a full-time basis in the development of new financial risk management products was judged the most appropriate. It is also considered as very important in this research study to use this unit of analysis since the business environment in the financial risk management market suggests that success in almost all of the cases has a common definition, which is profitability. This suggests that all the products that have been developed have as their target to be profitable.

5.10 Unit of study

The unit of study in this research is the company in the form of a commercial, investment and merchant bank.

5.11 Sample

The first step to be taken before sampling is to define the universe. Our universe consisted of all (around 130) foreign and U.K. banks with established risk management operations in London. The next step is to define the population being studied. During our review of the literature in Chapter 2, we discussed that previous research studies had defined their populations very widely. However, these market-wide (cross-sectional approach) studies, appeared to be unreliable regarding the generalisations that can be drawn from their findings. The argument here is one of validity. This is due to the fact that different markets have unique consumer needs and operate in different environments. To

limit this problem, a more narrow approach has to be considered for the definition of the population of this research study. This narrow approach has also been adopted by Easingwood (1986) and Cowell (1988). They have drawn their conclusions by investigating a specific industry and they have also argued that for effective empirical results it is necessary to use this narrow approach.

However, in our research study we exerted control not only on the industry but also on the markets. There are two reasons for doing that: (i) different customer needs and different regulatory environments exist in the corporate banking industry; and (ii) the importance of new product development is different for different types of markets. Thus, our research study investigated a specific market: the financial risk management market. As well as the above mentioned two reasons, the selection of this market was also based on (i) the financial risk management being an unexplored area for new product development; and (ii) the intense competitive situation in the market which mean that new product development is very important to them.

In defining our population, the following controls were adopted. All units - banks - in the population have developed their new financial risk management products in U.K. and in particular in London which is considered to be the biggest market for these types of products. The second most important control was that all units were active product developers.

As a result of these two controls the population was defined as banks which are active product developers in the

financial risk management market in London. To identify our population we used peer evaluation. A number of industry experts (five bankers and two academics) were asked to identify active product developer banks in this market. By active is meant that they are known by these experts to engage in product development on a regular, on-going, basis.

Before identifying these banks in our population, we would like to indicate that the real names of the banks will appear only in this section of the thesis. Subsequently the real names will be replaced by nicknames for reasons of confidentiality.

Thus, the population of this research study consisted of:

1. BARCLAYS
2. CHASE MANHATTAN
3. CHEMICAL (being merged)
4. CITIBANK
5. CREDIT SUISSE FIRST BOSTON
6. FIRST CHICAGO
7. GOLDMAN SACHS
8. HAMBROS BANK
9. JP MORGAN
10. MIDLAND MONTAGUE
11. MORGAN STANLEY
12. NATIONAL WESTMINSTER BANK
13. NOMURA BANK
14. SALOMON BROTHERS
15. SOCIETE GENERALE
16. SWISS BANK CORPORATION
17. UNION BANK OF SWITZERLAND

Based on this population we selected our final sample.

5.11.1 Sample frame

From the population of the seventeen active product developer banks eight agreed to participate in the research study. Of these three were commercial banks, four were

TABLE 5.11.1.1

PERFORMANCE OF BANKS IN THE SAMPLE*

<u>The successful banks</u>	<u>Number of firsts to market</u>
1. "HELVETIA" BANK	7
2. "TREE" BANK	5
3. "FIRST" BANK	4
4. "MISTER" BANK	4

TOTAL	20
 <u>The less successful banks</u>	
5. "OCTAGON" BANK	3
6. "GIANT" BANK	3
7. "EAGLE" BANK	2
8. "SOCIAL" BANK	0

TOTAL	8

* A t-distribution test performed on the scores achieved by the successful and the less successful banks indicates that we can be 97.6 per cent certain that the dichotomisation between the banks achieving number of firsts and those achieving a lesser number has not occurred by chance (t-statistic=3.00; probability=0.024 is the highest probability at which difference can be significant; degrees of freedom=6)

investment banks and one a merchant bank (the difference between a merchant and an investment bank is blurred). Ideally we would have preferred a larger sample, but this was difficult because of the sensitive nature of the study. Many banks which were approached firmly declined to participate on the grounds of confidentiality, despite promises of anonymity. Those that did participate did so on the understanding that their bank's name would not be disclosed.

Also, we would like to indicate that even though our final sample has been selected in such a way that all members have a known chance of selection (characterised as random), based on the selection rules of the universe and the population the final sample is eventually characterised purposive.

The main activities of these eight banks included all the main activities of corporate banking (such as corporate finance, foreign exchange, etc.). All of these banks had active financial risk management operations with very active new product development in the financial risk management area. Based on the results on our computation tests concerning the dependent variable "HELVETIA" BANK is ranked first because it had seven new financial risk management products first to market; "TREE" BANK is second with five firsts; "FIRST" BANK and "MISTER" BANK are third and fourth respectively with four firsts; "OCTAGON" BANK and "GIANT" BANK fifth and sixth with three firsts accordingly; "EAGLE" BANK seventh with two firsts; and "SOCIAL BANK" is eighth with no new financial risk

management products first to market, as is shown in Table 5.11.1.1.

As we have previously discussed, for the purpose of a comparative scientific experiment we identified the top four banks as successful product developers and the last four as less successful product developers. This way we had the opportunity to make comparisons between successful product developers and less successful product developers and draw conclusions on the associations between the dependent variable and our independent variables (See Chapter 7).

CHAPTER 6: THE FIELD INVESTIGATION

The objective of this chapter is to describe the field investigation which was carried out in two stages. In the first stage, preliminary fieldwork was undertaken with the prime purpose of examining the practical importance and the respondents' interest in the phenomenon; defining the unit of study and the unit of analysis. The results of the preliminary fieldwork were used to prepare for the second stage: the main field investigation.

The issues which are going to be discussed in this chapter are the questions asked in the preliminary fieldwork concerning the points which we have addressed at the beginning of this chapter; a brief description of the adopted research design based on our previous discussion on methodology; a description of the data collection method and the data collection instrument including justification for each section of the instrument; examination of the validity and reliability of the constructs developed; description of the pilot study; how banks were approached to request participation in this research study; and description of the data analysis method used for testing the stated hypotheses.

6.1 Preliminary fieldwork

In the preliminary fieldwork three objectives were addressed. These objectives are: (i) to examine the practical importance of the phenomenon and (ii) to define the experimental context for the investigation.

All three objectives had as a target to specify the scope of the investigation. This was done in two stages. The first stage was targeted around this research study and the second stage was focused on the selected experimental context of corporate banking and, particularly, the financial risk management market.

6.1.1 The practical importance of the phenomenon

Before the preliminary fieldwork, a thorough review of the literature was conducted. In this review it was evident that studies investigating managerial factors contributing to successful new product development, at the project and program level of analysis, have been far more extensively undertaken in the manufacturing sector than in the service sector. In particular, in the context of banking, there were very few studies investigating success at the program level. Thus, it was necessary to draw evidence from the product development literature. The justification for doing so was based on the argument that when people purchase products, they are not motivated solely by the physical attributes of the product, but also by the benefits that particular products bring with them (Davidson, 1987; DeBruicker & Summe, 1985; Enis & Roering, 1981; Foxall, 1984; Levitt, 1981, 1986; Lovelock, 1984; Mathur, 1986; Quinn, Doorley and Paquette, 1990). This is not to deny that there are differences in the shape and form of services on the one hand, and products on the other. However, concentrating on the physical similarities and

differences between products and services is likely to be limiting from an operational viewpoint because customers do not chose between alternative offerings on the basis of physical features alone. Both new products and new services are likely to be bought on the basis of how customers perceive the offering made available to them. We would go further and argue that concentrating attention on the unique attributes of services will, in most circumstances, be a dangerous diversion. Assuming that successful service development is something quite different from the development of new physical products can cause analysts to ignore important lessons which have already been learned in the field of product development. Customers are still motivated by benefits, whether those benefits are offered by a product or service.

Based on the evidence drawn from the product development literature many research designs and many analytical perspectives were considered. One of these analytical perspectives was marketing inputs, in one form or another, as a key managerial factor contributing to new product development success. As we have discussed in Chapter 3 the role of marketing inputs in these studies has normally been investigated by focusing on the trappings of marketing inputs rather than on the substance or quality of marketing inputs. Thus, our preliminary fieldwork was conducted with the prime purpose of finding out if the phenomenon that we were to investigate is of any practical importance to corporate banking managers involved in new product development.

Our preliminary fieldwork was conducted through semi-

structured interviews with senior managers in corporate banking who are involved in new product development. These persons were contacted by letter which was addressed to the head of corporate banking which explained the aim of the study and requested a meeting.

The letters were sent to commercial, investment and merchant banks known in the field of corporate banking for their activity in new product development. After the letter a telephone conversation was conducted in which we were mainly asked to delineate the purpose of the study and of the interview. The type of the questions asked in these interviews were open-ended in order to create further discussion on the subject. The questions were formed in such a way as to identify: (i) how important is continuous new product development (i.e. a sustained program of new product developments) to corporate banking; (ii) how important is successful new product development for them; (iii) the interviewee's definition of new product development and how it is processed; (iv) by what criteria new product development success is measured; (v) how important is marketing as a business function for their corporate banking division; (vi) how important are marketing inputs to new product development success; (vii) how important is an investigation concerning the substance or quality of marketing inputs; (viii) which of the different markets in the corporate banking area is the most important to be investigated for its new product development activity.

The answers to these questions prepared the ground for

decisions on the scope of investigation and the experimental context. By examining the given answers we found out that new product development was considered to be as a most important activity in the bank, among the different senior managers interviewed. Senior managers also recognised the need for continuous new product development, especially in the financial risk management market where competition is fierce. We have also observed that there are some banks which follow a strategy that continually introduces new products in the market ahead of the competition in relation to other banks which are continually second. One senior manager from Credit Lyonnais stressed that "we are followers and one of the main reasons for not being continually first in markets ahead of the competition is our lack of skill in marketing".

There seemed to be two types of new product development that are both important to consider in the study. As one senior dealer from Citicorp Investment Bank said "there is the "blockbuster" product which is a completely new product for the bank and the market and second is the "vanilla" product which is an old product offered in a different way. These two types defined under the heading of new product development have no differences in their development processes. These definitions were important in refining the experimental context in our study.

As senior managers described their new product development processes we observed that they execute four key product development activities. First is the idea generation stage which mainly involves either the account

officer or the relationship officer or the originator coming up with an idea - solution - that has been originated mainly from the market or the financial engineers coming up with ideas originated from the resources available. Second is the idea evaluation stage where senior managers and product specialists evaluate the suggested ideas. Third is the actual development stage where the product specialists - financial engineers - are involved in the development of the product - financial instrument. Fourth is the commercialisation stage. We might consider this to be a typical new product development process in the corporate banking area. We have argued in previous chapters for the importance of ideas being primarily originated from the market rather from existing resources; something that does not happen often. Ideas should flow from the market as corporate banking is mostly relationship banking, and continual contact with the market is crucially important.

Since the overall objective of this study was to investigate the role of marketing in successful new product development, all the answers were taken into consideration. Analysis of the answers showed that marketing input, in one form or another, was broadly accepted as an important factor in the new product development process. Even so, in most of these banks there are not many persons with marketing titles. As one senior manager of the corporate banking division in Nomura Bank International revealed "we understand a lot of marketing activities. We do try to form a marketing team, but the persons involved will not necessarily take marketing

titles".

Many interviewees stressed that "we have to make the most of our limited marketing resources", pointing to the practical importance in investigating the substance or quality of marketing inputs. These responses confirmed that it would be extremely interesting to concentrate on what the substance or quality of marketing inputs are as an analytical perspective.

6.1.2 The experimental context

Before selecting as our analytical perspective the way marketing inputs are applied qualitatively a decision had to be made on the business - experimental - context that has to be investigated. Before the preliminary fieldwork had been executed, we had a general idea concerning our experimental context - corporate banking. From discussions with senior managers in corporate banking it was evident that although new product development was generally important, its significance is different for different market needs. In particular, new product development was important in these markets where competition was fierce and profit margins were small. In these markets new product development activities have played a major role for the key players who were looking for customer satisfaction and higher profit margins.

Thus, the next step was to examine a specific market to investigate. This market was chosen from the corporate banking area. Furthermore, the unit of analysis; the dependent variable; and the interest in the analytical perspective were examined.

Taking into consideration what we have already found during the review of the literature, and from the answers of senior managers, we decided that the market for financial risk management products is of crucial importance to banks. Based on this decision we contacted some senior treasurers of major banks. The reason for mainly contacting treasurers and senior dealers was that in many banks financial risk management activities come under the treasury management or the derivatives desk. We used the same letter as the one sent to senior managers of corporate banking, and interviews with five treasury managers were arranged.

Based on the responses from the unstructured interviews we formed the opinion that: (i) the financial risk management market was a market with intense competition between the big banks, something which has resulted in the boosting of new products in the markets; (ii) the financial risk management market is composed of different markets with different customer needs and external environments - e.g regulatory; (iii) the financial risk management market is a market where new product development is of immense importance for survival; (iv) new product development is important for the following product market categories in the financial risk management area: futures, FRA's, caps/floors, options, swaps; (v) profitability is the main criterion for measuring success; (vi) being ahead of your competition is very important; (vii) marketing is important as a function during new product development processes; (viii) available data exist on new financial risk management products, and on which of those new

products were introduced first to market ahead of the competition; (viii) confidentiality may cause problems in collecting the necessary data for testing.

The results of the preliminary fieldwork were successful in deciding and refining the subject of this research study, and securing our intentions concerning an investigation in the financial risk management market. Furthermore, all the necessary answers were given and adequate information was provided for developing the final research design of this study.

6.2 Method of data collection

The method of data collection adopted in this research study is based on: (i) the aims of the study; (ii) the nature of the problem investigated; (iii) the kind of population sampled and the sample size. Considering these three points, we decided to employ a self administered questionnaire to permit comparisons between successful and less successful product developers.

As Galtung (1967) has illustrated by employing a self administered questionnaire in a study, the following advantages exist: (i) its structured responses facilitate comparability; (ii) it yields precise versions of the questions; and (iii) it has a high degree of reliability. Another main advantage for using a self-administered questionnaire is its effective response rate.

Chisnall (1986) defended this data method of collection:

"In some instances it may be possible to deliver questionnaires personally and invite cooperation in the

study, leaving respondents to complete questionnaires at a later time. This strategy would not be feasible with a very large and widely dispersed sample population, but it may be a practical and highly efficient method of attracting high response rates in clustered and relatively small samples which are homogeneous".

The disadvantages of using a self-administered questionnaire are common to all types of structured questionnaires. In particular, they do not allow for more insight into the investigation of a problem and are based on the truthfulness of the respondent's answer. The first limitation is a considerable one but we have tried to overcome that problem with a more thorough review of the literature and the preliminary fieldwork. The second limitation in this research study was faced by reassuring the respondents of the anonymity of their answers.

However, we had to take two more steps before using the self-administered questionnaire method. The first step was the approach letter which was sent to the head of the treasury division or the head of the derivatives desk of the banks of our population. The second step was a small presentation that was given to those who had initially been interested in our research topic.

6.3 Description of the data collection instrument

The self administered questionnaire employed in this research study is divided into three parts. The first two parts gather information for control purposes and the third part gathers information for testing hypotheses. The questionnaire is reproduced in Appendix C.

In particular, Part 1 is designed to gather background information from each of the banks investigated. Part 2 is designed to gather information about the importance of the financial risk management business to the bank, measuring the dependent variable and identifying independent variables, other than quality of marketing inputs, which are likely to contribute to the successful development of new financial risk management products. Part 3 was designed to collect data concerning the way in which marketing inputs are applied for new product development purposes qualitatively. This data is used to test our hypotheses. The 7Ss McKinsey framework was the basis for developing part 2 and 3 of the questionnaire.

Data concerning Part 1 and Part 2 was collected from the head of the treasury division or the head of the derivatives desk. This was done after a small presentation was given. In case the respondents wanted more time we left the questionnaire with them and asked them to fill it as soon as possible and return it (as occurred in four banks).

The data concerning Part 3 was collected from two members of the product development team who have been involved on a full-time basis for the development of new products and have executed some sort of marketing activity. These persons were nominated by the head of treasury or the head of the derivatives desk during the completion of the first two parts of the questionnaire. The head of the treasury division or the head of the derivatives desk had the responsibility in distributing these questionnaires to these two members that he has been previously identified. Pre-paid envelopes were

provided. Further, a telephone call was made to each of them to secure their response. The respondents answering Part 3 of the questionnaire were two from each bank. In total, we had sixteen responses. The reason for choosing two respondents from each bank was that in our pilot study we found that it was very difficult to find more than two respondents who had been involved in almost all the new product developments in the last 4 years.

Before we proceed with the actual description of each part of the questionnaire we would like to state that there was an extensive use of closed questions in the first two parts of the questionnaire and use of five-point Likert type scales in Part 3.

One reason for extensive use of closed questions is that with this type of questioning, respondents answer more quickly and easily. And this was very important in our study since our respondents were very busy people with very limited time to answer to the questionnaires. Another reason was that at the end we did not have any writing to do and quantification was straightforward. This was important since we had statistical tests to run and we needed the data. The problems, however, with this type of questions are: (i) loss of spontaneity and expressiveness from the respondent's side; and (ii) the necessity of the respondent to choose between given alternatives. As we discussed in the previous chapter the only way to limit these problems is to conduct a thorough review of the literature for the purpose of identifying all possible alternatives.

6.3.1 Bank background data

This section of the questionnaire involves four questions examining the background of the unit of study. We did not find any problem from the respondents concerning the type of the bank and their main activities. However, we found problems in gathering information regarding the sizes of the banks since most of the banks investigated were subsidiaries of foreign-owned banks.

6.3.2 Financial risk management business importance to the bank

To every respondent it was indicated that we were interested only in the financial risk management operations of the treasury division or of the derivatives desk. The word treasury was used as a common point of reference. This part of the questionnaire involves questions posed in such a way as to collect data concerning the importance of the financial risk management business in each of the banks investigated. The reason was that with such a small sample it was essential to ensure that the performance of similar and similarly orientated banks was being measured.

6.3.2.1 General questions regarding the treasury (financial risk management) business

This sub-section of the questionnaire involves four factual questions. These questions collect information regarding: (i) the importance of the financial risk management business to the overall businesses of the bank (this is

measured by the % of current total bank income coming from the financial risk management business) in the period between 1988-1992; (ii) the growth of the financial risk management business in the period between 1988-1992; (iii) newness of the financial risk management operations for the bank; (iv) the level of research and development expenditure in the period between the period 1988-1992.

6.3.2.2 New product requirements

This section involves two questions which helped us to collect data for measuring the dependent variable of this research study. The first question asks the banks to identify all the new financial risk management products developed by them in the period between 1988-1992 for the U.K. market. New product, as we have previously discussed, is any product which involves a supplier making a new offering to the customer.

The second question asks which one of these new products were first in the market - ahead of the competition for the purpose of classifying these active bank product developers into successful and less successful product developers.

6.3.2.3 Endogenous managerial variables

In order to be able to draw any conclusions concerning the strength of the association between quality of marketing and program success, if it exists, we should control for other independent variables which are likely to have contributed to our criterion (first to market) of program success. For that purpose as we have already indicated in Chapter 5 the 7Ss

McKinsey framework was used.

Specifically, the following independent (endogenous managerial) variables were examined: (1) business strategy (questions concerning the adoption of an expansion or differentiation strategy); (2) business structure (questions concerning the adoption of a functional or product structure); (3) business systems (questions concerning the establishment of formal systems); (4) shared values in the business (question concerning the conviction by the unit in developing new products); (5) management style in the business (questions concerning supportive or let-alone leadership by the head of the product development); (6) staff; (questions concerning the number of technical and marketing staff [questions asked concerning the number of persons with formal marketing titles and also is there an established marketing department]; (7) skills (questions concerning the number of qualified technical and marketing staff).

All the questions asked in this part of questionnaire were dichotomous questions (respondents had to answer with a simple "Yes" or "No") and emanated from the review of the related literatures.

6.3.2.4 Technical and other resource inputs

In order to be able to draw any conclusions concerning the strength of the association between quality of marketing and program success, except the measurement (control) of the endogenous managerial variables we should also control for other technical and resource inputs. For that reason the

contribution (in terms of adequacy or not) of these inputs (legal, economics, tax, finance, computing, engineering, accounting) to the product development process was measured. In addition, the availability of adequate capital and personnel commitment was also measured.

6.3.2.5 Team members involved with the new product development process

This section of the questionnaire addressed information on the team members involved in the development of the new products. Thus, we collected information concerning: (i) the names and titles of these persons; (ii) if they are involved on a part-time or full-time basis; (iii) if they have executed any type of marketing activity during the new product development process; and (iv) their selection basis to the product development team. The reason was to contact them and ask them to fill out the third part of our questionnaire. Getting the names of the team members proved very difficult in the actual field study because of confidentiality problems. However, this problem did not stop us from collecting the data for Part 3. We asked the head of the treasury division or the head of the derivatives desk to distribute the questionnaire to these persons. It proved a right decision since we got back all the questionnaires.

6.3.3 The way in which marketing inputs are applied for new product development purposes.

The prime purpose of this part of the questionnaire is to

collect data needed to test the posited hypotheses. However, to ensure that the data secured from respondents is accurate and comparable, we needed scaling (Baker, 1991; Boyd, Westfall and Stasch, 1985). Data collected with the aid of such scales can then be analysed to test the hypotheses of this research study.

Kerlinger (1973) have indicated that most of the hundreds of objective tests and scales can be divided into the following groups: (i) intelligence and aptitude tests; (ii) achievement tests; (iii) personality measures; (iv) attitude scales; and (v) miscellaneous objective measures (rank-order scales, forced choice items and scales, ipsative and normative measures). The first two groups are widely used in order to measure school achievement. The third group is correlated with the measurement of personality traits (major problem for this group is validity).

In this research study we decided to collect our data through attitude scales. The logic behind this decision is based on two reasons: (i) that attitudes have objective reference rather than subjective reference; (ii) that the attitudes on the object - statement - are believed determine future action (Oosthuizen, 1991). In this respect, Baker (1991) have argued that:

"In order to help predict how people will behave in the future it is necessary to gather information on their prevailing attitudes and the factors which underlie and condition them".

Attitudes reflect a person's value judgement of an object, based upon beliefs, feelings, preference motives and

opinions about that object. The objects in this research study are statements - items - which were developed to capture the quality of approach adopted and the quality of execution for product development purposes, based on the McKinsey 7Ss framework. So the differences in the quality of approach adopted and the quality of execution in this research study is measured through the attitudes of the respondents on the statements developed. Their level of agreement or disagreement with the stated statements is not based on their belief of what should be done but on what has actually happened during the development of these new financial risk management products.

There are three types of scales used to collect attitudinal data: (i) the summated rating scales (Likert type); (ii) equal-appearing interval scales; and (iii) cumulative scales (Kerlinger, 1973). For our research purposes the use of the five-point Likert type scale is adopted.

The Likert type scales are popular because they have been shown to have good reliability. They are simpler to construct and give rather better information about the degree of the respondent's feelings (Boyd, Westfall and Stasch, 1985). Likert type scales have been used by many marketing scholars and especially in the field of new product development (Bart, 1991; Cooper, 1984a; Cooper & Kleinschmidt, 1986, 1987; Dwyer & Mellor, 1991; Edgett & Jones, 1991). Further, marketing scholars have found out that there are no differences in the results between different types of scales (Churchill & Peter,

1984; Gaito, 1980; Labovitz, 1970). Thus, in this research study all statements in this part of the questionnaire were constructed based on a scale of five standardised responses ranging from strongly agree to strongly disagree.

Having said that, respondents were asked to indicate the level of agreement or disagreement with the statement. Each level of agreement or disagreement was given a number score ranging from 5 for strongly agree to 1 for strongly disagree. So, our five-point scales had the following form:

- 5 Strongly Agree
- 4 Agree
- 3 Don't Know
- 2 Disagree
- 1 Strongly Disagree

Examining the scales we see that a neutral point was introduced. The reason is that many marketing scholars have shown that use of a neutral point in a scale results to higher reliability in relation to forced choice scales (Churchill, 1980). Also, for higher reliability of the scales we have labelled all the points from five (5) to one (1) (Churchill & Peter, 1984).

6.3.3.1 General data

The use of Likert type statements usually involves two inherent possible errors arising from the wording of the questions. These two errors are leading questions and questions with implicit assumptions (Oosthuizen, 1991).

Leading questions drive respondents towards a certain response and as a result to a biased answer. However, if the respondents have very concrete feelings about the subject then

it becomes very difficult to be biased by the way the statements were worded (Oosthuizen, 1991). Based on this argument in the general data section of Part 3 we have included a neutral filter question in our questionnaire asking about the importance of marketing as a business function. From the findings it was established that 56% of the respondents regarded marketing as an extremely important business function, 38% as very important and 6% as somewhat important. Therefore a total of 94% of respondents have indicated a positive feeling towards the subject of marketing. That means that respondents are unlikely to be biased to a great extent by loaded wordings.

As far as questions with implicit assumptions the problem is that these questions can greatly influence the respondent if they do not have the same frame of reference (Oosthuizen, 1991). Thus, we had to ensure a common frame of reference to all of our respondents with the prime purpose of getting significant answers and draw valid conclusions from them. To identify if such a common frame of reference exists we had to include in our questionnaire a question from which we had to determine if respondents "qualify" for answering the statements (Oosthuizen, 1991). For the purposes of this study a very general definition of marketing was selected in order to establish a common frame of reference:

"Marketing is an important business function with prime purpose of encoding the changes in the environment and then influencing the organization to interact more proficiently and profitably with this environment".

It was found that 44% strongly agreed, 38% agreed and 17% neither agreed nor disagreed with our definition of marketing. Therefore a total of 82% of the respondents may be considered as having the same basic presumption about the object in question.

6.3.3.2 Specific Data

Churchill (1979) has argued that:

"In order to qualify the results of a qualitative work we needed to arrive at a list of statements representing the universe of content".

Our universe of content in this research study is to capture how marketing inputs are applied qualitatively for product development purposes. For that purpose we have developed constructs, each one corresponding to each hypotheses of the research. The constructs were based on multi-item or multistatement measures. All the items - statements - were generated from the review in the literature, both from theoretical and empirical research. This is also supported by Churchill (1979) who argued that for this type of research study items should be generated from the review of the literature. In addition, Oppenheim (1966) argued that all statements "should be about one thing at a time". As a result of this argument, the statements in our research study were developed to measure one thing at a time. The statements developed also helped us to collect the necessary data, through five-point Likert type scales for testing our hypothesised associations.

Thus, the quality of approach was measured together by

hypothesis 1 and hypothesis 2 and the quality of execution was measured together by hypotheses 3-10. Particularly:

Hypothesis 1 was measured by using 10-items or scales
Hypothesis 2 was measured by using 4-items or scales
Hypothesis 3 was measured by using 2-items or scales
Hypothesis 4 was measured by using 2-items or scales
Hypothesis 5 was measured by using 6-items or scales
Hypothesis 6 was measured by using 4-items or scales
Hypothesis 7 was measured by using 3-items or scales
Hypothesis 8 was measured by using 3-items or scales
Hypothesis 9 was measured by using 10-items or scales
Hypothesis 10 was measured by using 2-items or scales

The working hypothesis was measured by using 46-item or variable scale which represents the total of items or variables of the ten supporting hypotheses.

As we have previously mentioned the scales used were five-point Likert-type scales. For each statement every respondent was asked to indicate his or her level of agreement or disagreement with that statement. The criterion of consistency for these Likert-type scales was not applied because all the statements were considered to be sensitive enough for the subject investigated.

6.4 Reliability and validity of the data collection instrument

There are two characteristics to assert if a data collection instrument is considered to be a good measurement device. These are: (i) reliability; and (ii) validity.

McDaniel and Gates (1991) have argued that "a measurement scale that provides consistent results over time is reliable". Thus, the most important question is; if we measure our

phenomenon over and over again with the same data collection instrument, will we get the same results? To answer this question we have used the internal-consistency reliability test (McDaniel and Gates, 1991). This test examines the "homogeneity of a set of measures". In particular, "the ability to produce similar results using different samples to measure a phenomenon during the same time period". To execute this test we can use the split-half technique or the Cronbach Alpha technique. The latter is rejected since it can be used only in the case of interval scales. Thus, we have decided to use the split-half technique to test reliability.

As McDaniel and Gates (1991) have argued this technique is "a method of assessing the reliability of a scale by dividing into two the total set of measurement items, and correlating the results". The only problem with this technique is that "different splits result in different correlations, but should not". Even though we do the test to examine if we have similar results with a different sample of items, what really matters is if the correlation coefficient is high in all cases. For our purposes, we have randomly assigned items to one half or the other. We divided the 46 items in two halves of 23 items. This split was executed several times with different items in each half each time. The results showed that in all cases the two halves were highly correlated (0.75-0.80).

McDaniel and Gates (1991) have argued that validity "addresses the issue of whether what we tried to measure was actually measured". They have also suggested that validity

can be examined from a number of different perspectives such as face, content and construct. As far as the face and content validity of our data collection instrument we have thoroughly reviewed the related literatures and we have asked academics and bankers if the developed items are measuring what are supposed to measure. As far as construct validity, during our pilot study, we asked respondents to explain what is their interpretation of each one of the 46 items. This way we were absolutely sure that all the items have the same meaning for all the interviewees.

6.5 Pilot Study

In this research study the questionnaire was pilot tested by five persons involved in the development of financial risk management products. The whole set-up of our questionnaire was given a trial run in order to see whether "things were working out" as planned. This trial run included a small presentation explaining the objectives of the study and testing our questionnaire. Three of the persons used in this pilot study were senior managers from banks that were product developers but not characterised as innovative. The reason for using them as pilot respondents was to avoid any biases on our final results. The other two of the pilot respondents were academics, one in the field of marketing and the other in the field of banking with great interest in marketing.

Converse and Presser (1986) have suggested ten areas for testing the design of a questionnaire. These are: (1) variation; (2) meaning; (3) task difficulty; (4) respondent

interest and attention; (5) "flow" and naturalness of the sections; (6) the order of the questions; (7) skip patterns; (8) timing; (9) respondent interest and attention overall; (10) respondent well-being. In this research study we have looked at the same areas.

The general comment that we got from all the respondents was that the topic was interesting and the questionnaire interesting and well constructed. All the respondents were impressed by the conciseness and clarity of our small presentation explaining the aims of the study. Three of them commented that "it was a professional and very helpful presentation for understanding the aims of the study". Further, the problem of confidentiality again was raised since financial risk management is a very sensitive area as far as presentations of real figures are concerned. This general opinion of our questionnaire was confirmed in a high response rate to the study.

In particular, we found that almost all the questions have an accepted level of variation. The meaning given by the respondents in most of the questions was the same, except 15% of the questions where changes were needed. After we had carried out these changes we re-tested the unclear questions and their meanings was found to be clear. The respondents' interest and attention was found to be very high since the quality of approach and execution of marketing inputs is an important issue for them. Another important issue was to check the accuracy of the time that we initially set for the presentation (five minutes) and for the interview with the

head of the treasury division or the head of the derivatives desk (thirty minutes).

6.6 How the banks were approached

In Chapter 5 we discussed how our population was selected. Also, we discussed how all the banks selected in that population had the same chance of being included in the study. This section describes: (i) the way the approach letter was targeted to gain access to the seventeen active bank product developers; (ii) the presentation given for getting their full participation; and (iii) their response.

6.6.1 Letter to the head of the treasury division or the head of the derivatives desk

The letters were sent to the head of the treasury division or the head of the derivatives desk of the seventeen active bank product developers, to gain immediate access and attention. This was achieved since the head of the treasury division or the head of the derivatives desk were able to discuss new financial risk management products, which is our area of interest. This letter was the basis for our initial contact. It was short and concise. The topic of the research and the benefit to the banks for participating were noted. Based on the findings of our preliminary fieldwork we emphasised the confidentiality of the respondents' response (See Appendix A).

After the letter was sent, each of the respondents was contacted in order to arrange a date for a meeting. All the

respondents appreciated our way of contact. However, in five cases we had the problem that respondents were very busy with restructuring problems and there was no interest, nor enough time to participate in the study at the time. Our belief is that they did not want to participate in the study because they did not want to divulge any information regarding their product development practices.

Faced with that problem we contacted them again and repeatedly assured of the confidentiality of their responses. We even indicated to them that we would use disguised names for the banks that would participate in our study. However, their answer remained the same.

The reason why our approach letter did not describe the topic specifically was in order to make our respondents curious about the subject of our research study. In this way we would not be easily rejected without having the opportunity to fully explain to them our topic of research and the benefits for participating. We believe this was a good strategy since we convinced twelve banks to accept a presentation for our study.

6.6.2 Presentations

Twelve banks initially agreed to a meeting and presentation to discuss our study. The presentation was the most important step towards getting the full participation of these innovative banks. The same presentation was given to each of the twelve.

Our presentation was short and concise. We had divided

it into five sections. These sections were: (i) topic of research; (ii) the aims of the research; (iii) the business context; (iv) the dependent variable; (v) benefits for the participating banks. The general opinion of our presentation was that it was very professional and that it thoroughly explained the topic of our research study.

6.6.3 Response

The comments on our presentation translated into a full participation from eleven banks. However, three of the eleven, later sent us letters stating that after further consideration and because of confidentiality reasons they could not take part in this research study. Of the remaining eight, only five had sent their responses back.

Taking this into consideration we decided to send a second letter and also another copy of our questionnaire to each of the three remaining banks (See Appendix B). This letter explained the importance of their participation in the study and asked them to send their responses back. The reason we included another copy of our questionnaire was in case the first copy had been misplaced. As a result of this action we gathered the remaining responses. The next step was to decide what statistical test we had to use in order to test our hypotheses and controls.

6.7 Data analysis method

This section gives a brief description on the tests that were used for the analysis of the data. More information on

the type of tests used in this study is provided in the following chapter together with the actual statistical results.

Elliott and Christopher (1973) argue that two basic decisions must be made in selecting the appropriate data analysis method: (i) the type of problem and (ii) the kind of data. In this research study our main objective is to test the associations between the dependent and independent variables. The data used for testing these associations was ordinal data. In our research study, for examining the associations (relationships) between our dependent variable and the independent variables, we used differences analysis. The reason is that all differences are useful for studying associations, which is the main objective in this research study (Freund and Williams, 1984; Hayslett and Murphy, 1967; Kerlinger, 1973, Emory, 1976). In these tests, we start by assuming that any difference between two sample measurements is not statistically significant and is due to chance until we can find a good basis for rejecting this assumption. If we *can reject the null hypothesis* we say that our result is "significant" (Crimp, 1990). This significance concludes that there is a relation between dependent and independent variables.

An appropriate test to use for testing the statistical significance of differences between the means of two sample measurements is the t-test (Clarke, 1969; Elliott and Christopher, 1973; Galtung, 1970; Haysett and Murphy, 1967; Huber and Runyon, 1977; Kerlinger, 1973; McDaniel and Gates,

1991). This test is also known as "student's" t-distribution. The t-distribution depends on a single factor known as the number of degrees of freedom (Hayslett and Murphy, 1967) which are based on the number observations used. For using this test we have assumed that (1) the two populations are normal; and (2) the two populations have the same variances.

In this research study, as we have already indicated, the two populations are the successful and the less successful product developers. They were divided based on our measure of program success which has already been discussed in Chapter 5. Each one of the two populations included four banks from each of which we had two observations. Thus, in effect we had eight observations for the successful product developers and eight for the less successful product developers. This is very important since we are using the t-test where the number of degrees of freedom is an important parameter for calculating the differential value and also obtaining the critical value. The data for each one of the hypotheses tested was collected using a five-point Likert type scales. This way we had the opportunity to compute a total score for each one of the hypotheses for the successful and less successful product developers. This total score, then, is used to do the necessary computations and identify if the differences of the means of the two populations were statistically significant or not.

Particularly, in our research study we used the one-tailed t-test with the one-sided alternative that the difference of the two mean populations is greater than 0,

rejecting the null hypothesis only for small values or equal to 0. Thus, if the difference is less than or equal to 0 then there is no significant difference and, thus, meaning that there is no association between the dependent and the independent variables. On the other hand if there are statistically significant differences between the two means, meaning the difference is greater than 0, then the null hypothesis is rejected, meaning that an association exists between the dependent variable and the independent ones.

One-tailed T-tests and the Pearson product moment correlation coefficient were also used to identify associations between the different items-scales used to measure each hypothesis and program success. This created the opportunity to indicate which one of the statements (variables), for each one of the hypotheses, is related to success, and enabled us to draw useful comments for the differences between successful and less successful product developers. Each t-test is presented based on Emory's (1976) six-step sequence: (i) state the null hypotheses; (ii) choose the statistical test; (iii) select the desired level of significance; (iv) compute the calculated difference value; (v) obtain the critical test value; (vi) make the decision (See chapter 7).

Finally, chi-square distribution tests were used to test the associations between the control variables and our dependent variable. To do all these tests the Minitab Release 6.6.1 statistical program was used (Ryan, Joiner, Ryan, 1985).

CHAPTER 7: ANALYSIS OF RESULTS

7.1 Introduction

The objective of this chapter is (i) to describe the statistical tests for measuring controls (mainly endogenous managerial variables) and for testing hypotheses; and (ii) to present the results of these tests.

7.2 Controls

For the purpose of conducting a rigorous scientific experiment controls had to be established in order to be able to comment on the strength of the relationship between successful early market entry and quality of marketing inputs.

Consequently, as we have argued in Chapters 5 and 6, we needed to control for other endogenous managerial variables, which may have influenced our dependent variable. That means we needed to statistically examine if there was any relationship between these variables and successful early market entry. This way we would be able to give a better indication on how strong the relationship between our dependent variable and quality of marketing inputs is.

Each one of the control variables was statistically tested based on a dichotomous question of "Yes" and "No". We collected eight answers for each of the control variables, from which four were the answers of successful banks and four were the answers of less successful banks.

However, in order to be able to draw any conclusions concerning the existence of an association between the control variables and our dependent variable, statistical tests were undertaken. Thus, we examined the frequency (F) differences between successful and less successful banks. An appropriate test for this type of differences analysis is the chi-square distribution test (Hayslett and Murphy, 1967).

Each test was undertaken against a 0.05 level of statistical significance. That means, that for the frequency difference between successful banks and less successful banks to be statistically significant the chi-square value of the actual test has to exceed 3.841 which is the chi-square value shown on statistical tables for one degree of freedom (D.F) at the 0.05 level of significance. Thus, if our obtained chi-square (chi-sq) result in any of our tests exceeded 3.841, then we rejected the null hypothesis (Ho). If it was not then we accepted it. All chi-square tests values were computed with the use of the Minitab Release 6.6.1 statistical program.

The following test results for each one of the controls were recorded:

(1) **Business Strategy:**

Respondents were asked to give an answer of "Yes" or "No" to two questions regarding the business strategy their financial risk management business is following:

- (i) Is your division following an expansionistic business strategy; that is to say, a strategy which focuses in the development of new products for expanding existing product markets?

(ii) Is your division following a differentiating business strategy; that is to say, a strategy which focuses in the development of new products for differentiating from existing product markets?

We call the former "strategy 1" and the latter "strategy 2".

With the use of the chi-square distribution test, the following null hypotheses were tested in tables 7.2.1 and 7.2.2:

- Ho: Frequency of successful banks for strategy 1 - frequency of less successful banks for strategy 1 = 0.
- Ho: Frequency of successful banks for strategy 2 - frequency of less successful banks for strategy 2 = 0.

Table 7.2.1		
<u>RELATIONSHIP BETWEEN PROGRAM SUCCESS AND STRATEGY 1</u>		
	<u>YES</u>	<u>NO</u>
Frequency of successful banks	3	1
Frequency of less successful banks	4	0
Chi-sq: 1.143 Degrees of freedom= 1		

The tests in Table 7.2.1 show us that the chi-square test value - 1.143 - does not exceed 3.841 and as a result the null hypothesis for strategy 1 is accepted.

Table 7.2.2		
<u>RELATIONSHIP BETWEEN PROGRAM SUCCESS AND STRATEGY 2</u>		
	<u>YES</u>	<u>NO</u>
Frequency of successful banks	4	0
Frequency of less successful banks	2	2
Chi-sq: 2.667 Degrees of freedom= 1		

The test in Table 7.2.2 also show us that the chi-square test value - 2.661 - does not exceed 3.841 and as a result the

null hypothesis for strategy 2 is accepted. These two results indicate that there are no significant statistical differences between successful and less successful banks on the business strategy followed by their financial risk management business. Thus, there is no relationship between the type of business strategy followed by the banks and our type of program success. Also, these responses show us that six out of the eight banks following both strategies.

(2) Business Structure:

Respondents were asked to give an answer of "Yes" or "No" to two questions regarding the way that they structured their product development activities in their business:

- (i) Are your new product development activities organized along functional lines?
- (ii) Are your new product development activities organized along product lines?

With the use of the chi-square distribution test, the following null hypotheses were tested in tables 7.2.3 and 7.2.4 accordingly:

Ho: Frequency of successful banks for functional structure - frequency of less successful banks for functional structure = 0.

Ho: Frequency of successful banks for product structure - frequency of less successful banks for product structure = 0.

The test in Table 7.2.3 show us that the chi-square test value - 8.00 - exceeds 3.841 and as a result the null hypothesis for functional structure is rejected. That means that there is a significant difference on the way successful and less succesful banks organise their product development activities. It is interesting to note that there is also a

statistically significant relationship for the product structure.

Table 7.2.3		
<u>RELATIONSHIP BETWEEN PROGRAM SUCCESS AND FUNCTIONAL STRUCTURE</u>		
	<u>YES</u>	<u>NO</u>
Frequency of successful banks	0	4
Frequency of less successful banks	4	0
Chi-sq: 8.00 Degrees of freedom= 1		

The test in Table 7.2.4, show us that the chi-square test value - 8.00 - exceeds 3.841 and as a result the null hypothesis for product structure is rejected. That means that there is a statistically significant difference on the way successful and less successful banks organise their product development activities.

Table 7.2.4		
<u>RELATIONSHIP BETWEEN PROGRAM SUCCESS AND PRODUCT STRUCTURE</u>		
	<u>YES</u>	<u>NO</u>
Frequency of successful banks	4	0
Frequency of less successful banks	0	4
Chi-sq: 8.00 Degrees of freedom= 1		

What these two tests strongly indicate is that less successful product banks organise their product development activities along functional lines and successful banks along product lines. That means that the type of business structure influences program success. Why this is happening is not the

purpose of this study. Further research is needed to investigate how different types of structure are related to product development success.

(3) Business Systems:

Respondents were asked to answer with a "Yes" or "No" to a question regarding the establishment of formal business systems for controlling product development activities:

- (i) Is your division establishing systems in which the prime purpose is for controlling the different product development activities continually?

The following null hypothesis is tested:

H_0 : Frequency of successful banks for formal systems - frequency of less successful banks for formal systems = 0.

However, as we have previously argued in order to identify if a relationship exists between a control variable and our type of program success the frequency difference between the successful and less successful banks has to be significant. However, in this control variable no chi-square distribution tests were needed since there was not any frequency difference between the successful and less successful banks. This was happened since only two banks a successful one and a less successful one, established formal systems for controlling the product development activities performed.

(4) Management Style:

Respondents were asked to give an answer of "Yes" or "No" to a question concerning the kind of management style

practised during the new product development process:

- (i) Does the head of the division offer strong support for those taking part in key product development activities?
- (ii) Does the head of the division practice a kind of management style in which individual functions are left alone to find solutions between themselves?

The following null hypotheses were tested:

H₀: Frequency of successful banks for supportive style - frequency of less successful banks for supportive style = 0.

H₀: Frequency of successful banks for let-alone style - frequency of less successful banks for let-alone style = 0.

However, in both these control variables, no chi-square distributions tests were needed since there were not frequency differences between the successful and less successful banks in both types of management styles investigated. This was happened because six banks three successful ones and three less successful banks have adopted a supportive style of management. The remaining one successful and one less successful have adopted a let-alone style of management.

That means there is no relationship between our types of management style practised by the heads of treasury divisions or heads of derivatives desks and our type of program success. Further, based on the responses we strongly indicate that the heads of the division of both successful and less successful banks offer strong support for those taking part in the product development process, since they consider new product development as a most important process.

(5) **Shared Values:**

Respondents were asked to answer with a "Yes" or "No" to

a question concerning the existence of a shared belief for expanding their business through new product development:

- (i) Is there a shared belief for expanding the treasury (risk management) business through new product development?

The following null hypothesis needs to be tested:

H₀: Frequency of successful banks for shared values - frequency of less successful banks for shared values = 0.

As we have previously argued (for the business systems and management style control variables), however, in order to identify if a relationship exists between two variables the frequency difference between successful and less successful banks has to be significant. However, concerning this control variable we found out all respondents answered "Yes", so the the chi-square distribution test cannot be performed since there is no frequency difference between successful and less successful banks. By definition we accept the null hypothesis since the difference is absolute 0. The eight "Yes" responses strongly indicate that all banks have a shared belief in pursuing new product development. Thus, we did not find a relationship between shared values and program success.

(6) **Staff:**

Respondents were asked to answer with a "Yes" or a "No" to two questions concerning the kind of staff used for product development purposes:

- (i) Do you have persons with formal marketing titles?
- (ii) Do you have an established marketing department?

With the help of the chi-square distribution test the following null hypotheses need to be tested:

Ho: Frequency of successful banks for persons with formal marketing titles - frequency of less successful banks for persons with formal marketing titles= 0.

Ho: Frequency of successful banks for established marketing department - frequency of less successful bank for established marketing department= 0.

TABLE 7.2.5		
<u>RELATIONSHIP BETWEEN PROGRAM SUCCESS AND PERSONS WITH FORMAL MARKETING TITLES</u>		
	<u>YES</u>	<u>NO</u>
Frequency of successful banks	1	3
Frequency of less successful banks	0	4
Chi-sq: 1.143 Degrees of freedom= 1		

The test in table 7.2.5 show us that the chi-square test value - 1.143 - does not exceed 3.841 and as a result the null hypothesis is accepted. That means there is no a statistical significant difference between successful and less successful banks as far as the number of persons with formal marketing titles is concerned.

TABLE 7.2.6		
<u>RELATIONSHIP BETWEEN PROGRAM SUCCESS AND ESTABLISHED MARKETING DEPARTMENTS</u>		
	<u>YES</u>	<u>NO</u>
Frequency of successful banks	1	3
Frequency of less successful banks	0	4
Chi-Sq: 1.143 Degrees of freedom= 1		

The test in Table 7.2.6 show us that the chi-square value - 1.143 - does not exceed 3.841 and as a result the null hypothesis is accepted. That means there is no a statistical

significant difference between successful and less successful banks as far as the number of established marketing departments is concerned. Thus, there is no relationship between program success and established marketing departments.

From these two tests it is indicated that there were no significant differences concerning the kind of functional specialists used for product development purposes between successful and less successful banks. As a result we strongly indicate that there is no relation between the staff selected and our type of program success. Also these two results showed us that this particular quantitative aspects of marketing inputs did not influence our type of program success. This indication gave us the opportunity to be more positive on our comments concerning the influence of the quality of marketing inputs and our type of program success.

(7) Skills

Respondents were asked to answer with a "YES" or "NO" to five questions concerning the knowledge and expertise (qualifications) of the functional specialists involved.

- (i) Is your product development staff drawn from a technical educational background?
- (ii) Is your product development staff drawn from a technical professional background?
- (iii) Is your product development staff drawn from a marketing educational background?
- (iv) Is your product development staff drawn from a marketing professional background?
- (v) Do the persons involved in new product development have any training? Have they received a formal training? Have they received an internal training?

However, in this control variable no chi-square

distribution tests were needed since there were not frequency differences between the successful and less successful banks in all the types of skills investigated. This happened because all eight respondents answered that: (i) their product development staff was drawn from a technical educational and professional background; (ii) their product development staff was not drawn from a marketing educational and professional background; (iii) their product development staff trained not only formally but also internally. That means there is no statistical significant difference between successful and less successful banks as far as their qualifications is concerned.

Specifically, the finding that there is no statistical significant difference on the number of qualified (degrees) marketing people between successful and less successful banks gives us the opportunity to indicate that this particular quantitative aspect of marketing input does not influence our type of program success. This indication gave us the opportunity to be more positive concerning the relationship between quality of marketing and our type of program success.

Technical and other resource inputs

Respondents were also asked to answer with a "YES" or "NO" to two questions concerning the adequacy and the commitment of the technical and resource inputs involved.

- (i) Is your product development team involve (or get advise from) staff with adequate legal (regulatory), economics, accounting, tax, engineering, computing and finance expertise?
- (ii) Does the bank's capital and personnel commitment is adequate for product development purposes?

Also, in these control variables no chi-square distribution tests were needed since there were not frequency difference between the successful and less successful banks. This happened because all eight respondents answered that: (i) their product development teams involve (or get advise from) staff with adequate legal (regulatory), economics, accounting, tax, engineering, computing and finance expertise; and (ii) their capital and personnel commitment was adequate for their product development purposes.

That means there is no statistical significant difference between successful and less successful banks as far as the contribution of technical and other resource inputs. These results also gave us the opportunity to be more positive concerning the relationship between quality of marketing and our type of program success.

The above mentioned results (concerning the contribution of technical and other resource inputs to the product development process) together with the results on the measurement of the skill variable (concerning quantity and quality of technical skills) indicated to us the great importance of the technical and other resource inputs to development of new financial risk management products.

Even though our test results (concerning the contribution of the technical and other resource inputs) do not give us a detailed picture, they provide us with enough information to indicate that all participating banks involve in their product development teams people with "adequate": (i) technical professional and educational background; and (ii) legal, tax,

economic, accounting, finance, computing and engineering expertise and knowledge. Also, the test results indicated to us that all participating banks not only have "adequate" capital for product development purposes but also have "adequate" personnel commitment. We believe that these are very important issues for future empirical research, but their detailed investigation is outside of the scope of this study.

To summarise (see Table 7.2.7), before conducting statistical tests on the collected data we investigated the frequency scores for the control variables. With such a small sample it was essential to ensure that the performance of similar and similarly orientated banks was being measured. The analysis of the control data was revealing in so far as it is showed remarkable similarities between the successful and less successful banks. Only in the case of structure was there a clear and statistically significant difference between the two group of banks. Thus, further research is needed on the way that successful active bank product developers organise their product development activities.

Additional questions (section 2.1 of the questionnaire) were asked on factors not embraced by the 7Ss framework which might have an influence on our type of program success. For these additional control factors the results were as follows: (i) all the banks had almost the same percentage (50%-60%) of their current total bank income coming from the risk management business in the period between 1998-1992; (ii) all the banks had almost spend the same percentage (around 6%) of money for R&D from their turnover (commission fees) in the

Table 7.2.7			
SUMMARY OF SCORES FOR THE CONTROL VARIABLES			
	<u>sb</u> <u>Frequency</u> <u>scores**</u>	<u>lsb*</u>	<u>Chi-square</u> <u>statistic***</u>
BUSINESS STRATEGY:			
(a) "There is heavy emphasis on the development of new products for expanding existing product markets"	3	4	1.143
(b) "There is heavy emphasis on the development of new products for differentiating from existing product markets"	4	2	2.667
BUSINESS STRUCTURE:			
(a) "We are organised predominantly on the basis of functional inputs"	0	4	8.000
(b) "We are organised predominantly on the basis of product inputs"	4	0	8.000
BUSINESS SYSTEMS:			
"There is heavy emphasis on continuous control of the product development activities"	1	1	0.000
SHARED VALUES:			
"There is widespread acceptance of expanding the financial risk management business through NPD"	4	4	0.000
MANAGEMENT STYLE:			
(a) "The head of the division offers strong support for those taking part in key product development activities"	3	3	0.000
(b) "The head of the division leaves alone the different functions to find solutions for themselves"	1	1	0.000
STAFF:			
(a) "There are persons with formal marketing titles"	1	0	1.143
(b) "There is an established marketing department"	1	0	1.143
(c) "There is adequate technical staff"	4	4	0.000
(d) "There is adequate capital and personnel commitment for product development purposes"	4	4	0.000
			continued

SKILL:

(a) "The product development staff is drawn from a technical educational and professional background"	4	4	0.000
(b) "The product development staff is drawn from a marketing educational and professional background"	0	0	0.000
(c) "There is heavy emphasis on formal and internal training"	4	4	0.000

- * Indicates the successful banks (sb) and the less successful banks (lsb)
- ** Indicates the number of banks in which the head of the treasury division or the derivatives desk answered "yes" to the question posed.
- *** The chi-square test was used to examine differences between the Sb and the Lsb. This statistic must exceed 3.841 for us to be 95% certain (with one degree of freedom) that the difference is statistically significant. Only in the case of business structure was this so.

Source: Field study data

period between 1988-1992; (iii) on average, all the banks were the same number of years active in the market (15 to 20 years, meaning from the first opening of the market).

7.3 Results of hypotheses tested

Before presenting the results of hypotheses tested we would like to indicate that each testable hypothesis is stated in two forms: (i) substantive; (ii) and statistical. A "substantive hypothesis is the usual form of hypothesis in which a conjectural statement of the association between two or more variables is expressed" (Kerlinger, 1973). As Kerlinger (1973) pointed out "the statement of the relation is

a substantive hypothesis". The reason for stating the substantive hypothesis and putting it in a statistical form is because the substantive hypothesis cannot be tested. A statistical hypothesis is a conjectural statement, in statistical terms, of statistical relations deduced from the relationships of the substantive hypotheses, and it also expresses an aspect of the original substantive hypothesis in quantitative and statistical terms (Kerlinger, 1973).

In addition, our testable hypotheses will also be given the negative H_0 - null hypothesis - format. The reason is that the statistical hypothesis must be tested against an alternative hypothesis called the null hypothesis. This is an alternative hypothesis which expresses, mainly, that there is no relationship between the variables - dependent and independent. Thus, if we obtained sufficient evidence to refute the null hypothesis with an acceptable level of confidence, then we are justified in accepting the statistical hypothesis.

Finally, as we previously mentioned in Chapter 6, a six-step sequence is followed. First we state each statistical hypothesis in its null format. Second we choose the appropriate statistical test - which in our case is the one-tailed t-distribution test. Third we select the desired level of significance - which in our case is 0.05. What that means is that we establish the probability of rejecting the hypothesis if it is true at 0.05. Fourth we compute the calculated difference value - the t-statistic. Fifth we obtain the critical value - which in our case is 1.771 for 13

degrees of freedom at the 0.05 level of significance. Sixth based on the critical value and the calculated value we make the decision to accept or reject the null hypothesis. For ease of reading the tables the following abbreviations used: (i) n is the number of observations for each of the two samples; (ii) STDEV is the standard deviation of each of the two samples; (iii) t is t-statistic; (iv) P is the highest probability at which the difference can be significant; (v) DF is the number of degrees of freedom. A summary of the hypotheses tests is presented on Table 7.3.

The same one-tailed t-tests were also performed for each of the items or variables which constitute each hypothesis. Also, apart from the t-test results there will be correlation coefficient results for each item or variable of each one of the hypotheses, which will show us the strength of the relationships identified by the t-test results. For ease of reading these tables the following abbreviations were used: (i) s is the successful banks; (ii) ls is the less successful banks; (iii) t is the t-statistic; (iv) p is the probability that the t-value arose by chance; (v) r is the Pearson product moment correlation coefficient which it only measures the strength of linear relationships (this is the reason why sometimes it is possible to find a high degree of correlation of one variable with high program success when actually there is no relationship).

7.3.1 The approach

In this section we want to examine the relationship

Table 7.3

SUMMARY OF TESTS FOR HYPOTHESES FOR MARKETING INPUTS

	sb*	lsb	t-test**	p***
	<u>Means scored</u>			
THE APPROACH:				
H1: Strategy (Market-based focus in the identification of new opportunities)	40.25	33.75	1.79	0.049
H2: Shared values (Strong use of internal marketing in promoting the case of a market-orientation)	14.75	11.12	1.99	0.034
THE EXECUTION				
H3: Structure (Marketing activities were predominantly organised on the basis of market features)	7.13	6.25	1.15	0.135
H4: Systems (Formal marketing planning procedures were used)	7.00	4.25	3.45	0.002
H5: Systems (More systematic control of existing and new markets)	21.87	17.88	2.40	0.017
H6: Style (Top marketing staff retains a supportive role inside the product development team)	14.00	10.38	2.48	0.014
H7: Style (Top marketing staff co-ordinate and control the marketing planning effort inside the product development team)	10.50	7.75	1.98	0.034
H8: Skills (Ability to monitor and to co-ordinate the product development effort)	9.37	7.00	1.90	0.040
H9: Skills (Efficient collection and interpretation of market-related information)	31.38	25.75	1.61	0.065
H10: Staff (Staff with strong ability in analysing new market opportunities)	7.25	5.37	3.19	0.003

- * Indicates the successful banks (sb) and the less successful banks (lsb).
- ** T-tests (one-tail) were used in order to identify statistically significant differences between the sample means scored. Within the confines of the experiment the t-statistic has to exceed 1.771 - the t-value for 13 degrees of freedom at the 0.05 level of significance.
- *** This statistic indicates how confident we can be that the result did not occur by chance. For the first value 0.049 - we can be 95.1% certain that the difference between the means has not occurred by pure chance.

Source: Field study data

between strategy and program success and also between shared values and program success. The reason is that both these two factors measure the quality of approach adopted.

7.3.1.1 Marketing strategy

Based on our responses the relationship that exists between program success and the quality of marketing strategy applied is shown in Table 7.3.1.1.1.

TABLE 7.3.1.1.1		
<u>RELATIONSHIP BETWEEN PROGRAM SUCCESS AND QUALITY OF MARKETING STRATEGY*</u>		
	Successful banks	Less successful banks
MARKET-BASED STRATEGY	3	0
ASSET-BASED STRATEGY	1	4

* This table is developed by computing the mean scores (of hypothesis 1, 10 item-scales) of both successful and less successful banks and identifying which ones are above the mean score or not. The numbers are the number of banks who exhibited the joint characteristics indicated by the variables on the top and the side of the table. The scores of four banks are above the mean score. From these four -"HELVETIA" BANK, "TREE" BANK, "MISTER" BANK- with high program success applied market-based strategy.

Hypothesis 1 investigates the association between program success and market-based strategy. Ten five point Likert scales were used to measure hypothesis 1:

1. Markets were principally segmented on the basis of customer benefits.
2. Sufficient resources - time, people and money - were used for market research purposes.
3. By the time we decided to develop a particular product, we investigated the factors that influenced customer-buying decisions with this product.
4. We focused primarily on a package of values including product performance, service and applications.

continued

5. A very detailed analysis of customer benefits, which involved determining the benefits that people look for in the products and the kind of people who look for each benefit, was conducted.
6. We continually strive for knowledge in the strategy of our major competitors.
7. We continually strive for knowledge in the structure of our major competitors.
8. We continually strive for knowledge in the objectives of our major competitors.
9. We put customer satisfaction at the top of our agenda.
10. Information on customers and competitors is communicated to all people involved in the product development process.

Having shown the ten items:

We state hypothesis 1 (H1) in a (i) substantive and a (ii) statistical format.

(i) H1: Successful product developers pursue a market-based strategy in identifying new opportunities.

(ii) H1: Mean score of successful banks - mean score of less successful banks > 0.

vs

Ho: Mean score of successful banks - mean score of less successful banks < or equal to 0.

In Table 7.3.1.1.2 we observed that there is a difference between the means of successful and less successful banks.

TABLE 7.3.1.1.2			
<u>MARKET-BASED STRATEGY INFLUENCE TO PROGRAM SUCCESS</u>			
	<u>n</u>	<u>MEAN</u>	<u>STDEV</u>
Successful banks	8	40.25	6.73
Less successful banks	8	33.75	7.78
t=1.79	P=0.049	DF=13	

However, we did not know if this difference is greater than 0 or not in order to make a decision for accepting or rejecting

the null hypothesis (Ho). This decision is based on the differential value and the critical value. Based on the t-test in Table 7.3.1.1.2 the calculated differential value of the t is 1.79 - exceeded the critical value of 1.771. As a result the null hypothesis is rejected and the alternative hypothesis (H1) is accepted. Particularly, this test result showed that a relationship exists between high program success and market-based marketing strategy in identifying new opportunities.

We also ran t-tests, with the same prerequisites as in the t-test in hypothesis 1, to see which one of the items (variables) used to measure hypothesis 1 influenced program success (See Table 7.3.1.1.3 and for reference see the items previously stated in this section).

TABLE 7.3.1.1.3					
<u>MARKETING STRATEGY VARIABLES IMPACTING ON PROGRAM SUCCESS*</u>					
<u>Item or variable</u>	<u>Sample means</u>		<u>t</u>	<u>P</u>	<u>r</u>
	<u>s</u>	<u>ls</u>			
Item 1	4.25	3.00	2.76	0.011	0.939
Item 2	3.50	2.88	1.21	0.125	0.389
Item 3	4.50	3.25	3.42	0.029	0.476
Item 4	4.25	3.62	1.53	0.075	0.897
Item 5	3.50	2.62	1.90	0.040	0.560
Item 6	4.13	3.87	0.38	0.355	0.950
Item 7	4.00	3.62	0.66	0.260	0.940
Item 8	4.00	3.63	0.60	0.280	0.940
Item 9	4.25	4.00	0.68	0.255	0.465
Item 10	3.87	3.25	1.33	0.105	0.712
Total:	40.2	33.7	1.79	0.049	

Table 7.3.1.1.3 strongly indicates that the differences between the means of items 1, 3 and 5 are significantly different. That means that these marketing strategy variables

strongly influenced program success. These variables showed that the significant differences between successful and less successful banks are: (i) that successful product developers principally segmented their markets on the basis of customer benefits (item 1); (ii) by the time they decided to develop a particular product, successful banks investigated the factors that influenced customer buying decisions with this product (item 3); (iii) a very detailed analysis of customer benefits, that involved determining the benefits that people look for in the products and the kind of people who look for each benefit, was conducted by successful product developers (item 5).

From these t-tests, it is also strongly indicated that less successful banks give less emphasis on the detailed analysis of markets, even though it is strongly indicated that they put customer satisfaction at the top of their agenda. They acquire market knowledge just for keeping up with the latest changes in the strategy and structure of their major competitors. Their use of market knowledge as an important tool for the identification of new opportunities is limited; preferring to use their internal resources (asset-based) for that purpose.

Furthermore, based on the Pearson correlation coefficient of the three marketing strategy variables that have strongly influenced program success, in hypothesis 1, the strongest of the three relationships is between program success and successful product developers principally segmenting their markets on the basis of customer benefits.

7.3.1.2 Shared values

Based on our responses the relationship that exists between program success and the use of internal marketing in promoting a market orientation (shared values) is shown in Table 7.3.1.2.1. Hypothesis 2 investigates the relationship between program success and the stronger use of internal marketing in promoting the case of a market orientation in identifying new opportunities.

TABLE 7.3.1.2.1		
<u>RELATIONSHIP BETWEEN PROGRAM SUCCESS AND QUALITY OF SHARED VALUES*</u>		
	Successful banks	Less successful banks
STRONGER USE	3	2
WEAKER USE	1	2

* This table is developed by computing the mean scores (of hypothesis 2, 4 item-scales) of both successful and less successful banks identifying which ones are above the mean score or not. The numbers are the number of banks who exhibited the joint characteristics indicated by the variables on the top and the side of the table. Particularly, four banks, are above the mean score. From these, three - "TREE BANK", "MISTER BANK", "FIRST BANK" - with high program success strongly use internal marketing in promoting a market-orientation. However, there are two banks - "GIANT BANK", "SOCIAL BANK" with low program success which strongly use internal marketing in promoting a market orientation.

Four five-point Likert type item-scales were used to measure hypothesis 2:

1. Key-decision makers were constantly reminded by marketing staff that the market is the primary source for identifying new opportunities.
2. All key decision-makers involved in the new product development process were persuaded by the marketing staff that scanning the market was essential to the success of the business.

continued

3. There was a strong effort from the marketing staff to gain support towards a market orientation from the personnel involved with customers.
4. The significance of identifying opportunities primarily from the market was well spread - promoted - by the marketing staff at all levels in the division.

Having shown the four items:

We state hypothesis 2 in a (i) substantive and a (ii) statistical format.

- (i) H2: Successful product developers' make stronger use of internal marketing in promote the case of a market-orientation.
- (ii) H2: Mean score of successful banks - mean score of less successful banks > 0.
vs
Ho: Mean score of successful banks - mean score of less successful banks < or equal 0.

TABLE 7.3.1.2.2			
<u>INTERNAL MARKETING INFLUENCE TO PROGRAM SUCCESS</u>			
	<u>n</u>	<u>MEAN</u>	<u>STDEV</u>
Successful banks	8	14.75	3.65
Less successful banks	8	11.12	3.64
t=1.99	P=0.034	DF=13	

Based on the results in Table 7.3.1.2.2 the differential value - $t = 1.99$ - exceeded the critical value of 1.771. As a result, we reject the null hypothesis. Thus, this test result gave a strong indication that successful banks make stronger use of internal marketing in promoting the case of a market orientation.

We also ran t-tests, with the same prerequisites as in the t-test in hypothesis 2, to see which of the internal

marketing variables used to measure hypothesis 2 influenced program success (See Table 7.3.1.2.3 and for reference see the statements-items previously stated in this section).

TABLE 7.3.1.2.3					
<u>INTERNAL MARKETING VARIABLES IMPACTING ON PROGRAM SUCCESS</u>					
<u>Item or variable</u>	<u>Sample means</u>		<u>t</u>	<u>P</u>	<u>r</u>
	<u>s</u>	<u>ls</u>			
Item 1	4.25	3.25	2.26	0.025	0.887
Item 2	3.00	2.38	0.89	0.195	0.975
Item 3	4.25	2.88	2.71	0.013	0.887
Item 4	3.25	2.62	1.06	0.155	0.991
Total:	14.7	11.2	1.99	0.034	

Based on the t-tests in Table 7.3.1.2.3 we strongly indicate that the differences between the means of items 1 and 3 are significantly different. That means that these internal marketing variables strongly influenced program success. These variables showed that the significant differences between successful and less successful product developers are: (1) successful product developers' key decision makers are constantly reminded by marketing staff that the market is the primary source for identifying new opportunities; and (2) there was a strong effort from the successful product developers' marketing staff to gain support towards a market orientation from the personnel involved with customers. Furthermore, the Pearson correlation coefficient strongly indicated that both variables had the same strong relationship with program success. On the other hand, it is indicated that less successful product developers' marketing

staff give less emphasis in internal marketing in promoting a market-based orientation for the identification of new opportunities.

7.3.2 The execution

In this section we want to examine the associations between program success and structure, systems, style, skill and staff. The reason is that all these factors measure the quality of execution.

7.3.2.1 Marketing structure

Based on our responses the relationship that exists between program success and quality of marketing structure is shown in Table 7.3.2.1.1.

Hypothesis 3 investigates the association between program success and organising marketing activities on the basis of market features.

TABLE 7.3.2.1.1		
<u>RELATIONSHIP BETWEEN PROGRAM SUCCESS AND QUALITY OF MARKETING STRUCTURE*</u>		
	Successful banks	Less successful banks
MARKET STRUCTURE	3	0
PRODUCT STRUCTURE	1	4

* This table is developed by computing the mean scores (of hypothesis 3, 2 item-scales) of both successful and less successful banks and identifying which ones are above the mean score or not. The numbers are the number of banks who exhibited the joint characteristics indicated by the variables on the top and the side of the table. Particularly, four banks are above the mean score. From these, three - "HELVETIA" BANK, "TREE" BANK, "MISTER" BANK - with high program success structured their marketing activities on the

basis of market features.

Two five-point Likert type item-scales were set up to measure hypothesis 3:

1. The main marketing activities - selling, advertising, pricing - were organised on a market basis.
2. A market-based structure was facilitating the search for new market opportunities.

Having shown the two items:

We state hypothesis 3 in a (i) substantive and a (ii) statistical format.

(i) H3: Successful product developers organise their marketing activities predominantly on the basis of market features.

(ii) H3: Mean score of successful banks - mean score of less successful banks > 0.

vs

Ho: Mean score of successful banks - mean score of less successful banks < or equal to 0.

The statistical format of hypothesis 3 and its null hypothesis (Ho) shows that our statistical test should examine if the difference between the successful and less successful banks' means is greater than 0 or whether it is less than or equal to 0.

TABLE 7.3.2.1.2			
<u>MARKET STRUCTURE INFLUENCE TO PROGRAM SUCCESS</u>			
	<u>n</u>	<u>MEAN</u>	<u>STDEV</u>
Successful banks	8	7.13	1.55
Less successful banks	8	6.25	1.49
t=1.15	P=0.135	DF=13	

Based on the results in Table 7.3.2.1.2 the differential

value - $t = 1.15$ - does not exceed the critical value of 1.771. That means that the difference between the means of successful and less successful banks is less than or equal to 0, and as a result the null hypothesis is accepted and the alternative hypothesis (H3) is rejected. Particularly, this test result indicated no relationship between program success and organising marketing activities on the basis of market features.

We also ran t-tests, with the same prerequisites as in the t-test in hypothesis 3 (H3), to see which one of the marketing structure variables used to measure hypothesis H3 influenced program success (See Table 7.3.2.1.3).

TABLE 7.3.2.1.3					
<u>MARKETING STRUCTURE VARIABLES IMPACTING ON PROGRAM SUCCESS</u>					
<u>Item or variable</u>	<u>Sample means</u>		<u>t</u>	<u>P</u>	<u>r</u>
	<u>s</u>	<u>ls</u>			
Item 1	3.62	3.25	0.92	0.190	0.841
Item 2	3.50	3.00	1.08	0.150	0.845
Total:	7.13	6.25	1.15	0.135	

Table 7.3.2.1.3 indicates that even though the Pearson product moment correlation coefficient identified strong relationship between the two variables and program success, their relationship is not significant.

7.3.2.2 Marketing systems (1)

Based on our responses the relationship that exists between program success and the quality of marketing systems (1) for planning is shown in Table 7.3.2.2.1.

TABLE 7.3.2.2.1		
<u>RELATIONSHIP BETWEEN PROGRAM SUCCESS AND QUALITY OF MARKETING SYSTEMS (1)*</u>		
	Successful banks	Less successful banks
FORMAL	3	0
INFORMAL	1	4

* This table is developed by computing the mean scores (of hypothesis 4, 2 item-scales) of both successful and less successful banks and identifying which ones are above the mean score or not. The numbers are the number of banks who exhibited the joint characteristics indicated by the variables on the top and the side of the table. Thus, three banks identified - "HELVETIA BANK", "TREE BANK", "MISTER BANK" - with high program success and having established formal marketing planning procedures.

Hypothesis 4 investigates the relationship between program success and formalised marketing planning procedures. Two five-point Likert type item-scales were used to measure hypothesis 4:

- | |
|--|
| <ol style="list-style-type: none"> 1. Marketing planning procedures for exploiting emerging market opportunities were predominantly in writing. 2. Our marketing planning procedures for exploiting emerging market opportunities were part of the formal new product development planning system. |
|--|

Having shown the two items:

We state hypothesis 4 in a (i) substantive and a (ii) statistical format.

(i) H4: Successful product developers use predominantly formal marketing planning procedures to exploit new opportunities.

(ii) H4: Mean score of successful banks - mean score of less successful banks > 0.

vs

Ho: Mean score of successful banks - mean score of less successful banks < or equal to 0.

The statistical format of hypothesis 4 shows that our t-

test should examine if the difference between the successful and less successful banks' means is > 0 or $<$ or equal to zero.

TABLE 7.3.2.2.2			
<u>FORMAL MARKETING SYSTEMS INFLUENCE TO PROGRAM SUCCESS</u>			
	<u>n</u>	<u>MEAN</u>	<u>STDEV</u>
Successful banks	8	7.00	1.85
Less successful banks	8	4.25	1.28
t=3.45	P=0.0024	DF=13	

Based on the results in Table 7.3.2.2.2 the differential value - $t = 3.45$ - exceeded the critical value of 1.771. As a result the null hypothesis is rejected and the alternative hypothesis (H4) is accepted. Particularly, this test result indicated that there is a relationship between program success and use of formal marketing systems, in this case planning procedures, to exploit new opportunities.

We also ran t-tests, with the same prerequisites as in the t-test in hypothesis 4, to see which of the marketing systems variables used to measure hypothesis 4 influenced program success (See Table 7.3.2.2.3 and for reference see the items-variables previously stated in this section).

TABLE 7.3.2.2.3					
<u>MARKETING SYSTEMS (1) VARIABLES IMPACTING ON PROGRAM SUCCESS</u>					
<u>Item or variable</u>	<u>Sample means</u>		<u>t</u>	<u>P</u>	<u>r</u>
	<u>s</u>	<u>ls</u>			
Item 1	3.50	2.12	3.45	0.002	1.00
Item 2	3.50	2.12	3.45	0.002	1.00
Total:	7.00	4.25	3.45	0.002	

Table 7.3.2.2.3 indicates significant differences between the means of items 1 and 2. That means that these marketing systems (1) variables strongly influenced program success. These variables showed that the significant differences between successful and less successful banks are:

(1) successful product developers' marketing planning procedures for exploiting emerging opportunities were predominantly in writing; and (2) successful product developers' marketing planning procedures for exploiting emerging market opportunities were part of the formal new product development planning system.

Furthermore, based on the Pearson product moment correlation coefficient we strongly indicate that both variables, have a perfect positive relationship with program success. On the other hand, less successful banks give less emphasis in establishing formal marketing systems and most of their marketing planning procedures are in writing.

7.3.2.3 Marketing systems (2)

Based on our responses the relationship that exists between program success and the quality of marketing systems (2) for control purposes is shown in Table 7.3.2.3.1.

TABLE 7.3.2.3.1		
<u>RELATIONSHIP BETWEEN PROGRAM SUCCESS AND QUALITY OF MARKETING SYSTEMS (2)*</u>		
	Successful banks	Less successful banks
SYSTEMATIC	3	0
LESS SYSTEMATIC	1	4

* This table is developed by computing the mean scores (of

hypothesis 5, 6 item-scales) of both successful and less successful banks identifying which ones are above the mean score or not. The numbers are the number of banks who exhibited the joint characteristics indicated by the variables on the top and the side of the table. Particularly, four banks are above the mean score. From these, three - "HELVETIA BANK", "TREE BANK", "MISTER BANK" - have high program success and systematic control of their markets.

Hypothesis 5 investigates the association (relationship) between program success and the systematic control of the markets. Six five-point Likert type scales were used to measure hypothesis 5:

1. Criteria for identifying possible "gaps" in the market were established before market assessment.
2. A very detailed market assessment - demand, volume, potential sales and profits - was conducted before any decision on a new product development was taken.
3. All possible market segments were scanned for new needs and requirements.
4. A very detailed investigation was conducted on the possibility of adapting what was offered in one market - e.g. a swap developed for a petroleum company - to the needs of another market - e.g. for an electronics company.
5. Criteria for identifying customer benefits, needs and wants were developed.
6. There was a high level of awareness of competitors' products.

Having shown the six items:

We state hypothesis 5 in a (i) substantive and a (ii) statistical format.

(i) H5: Successful product developers monitor markets more systematically to identify and exploit new opportunities.

(ii) H5: Mean score of successful banks - mean score of less successful banks > 0

vs

Ho: Mean score of successful banks - mean score of less successful banks < or equal to 0

The statistical format of hypothesis 5 and its null hypothesis (Ho) shows that our statistical test should examine

if the difference between the successful and less successful banks' means is greater or less than or equal to 0.

TABLE 7.3.2.3.2			
<u>SYSTEMATIC MARKET CONTROL INFLUENCE TO PROGRAM SUCCESS</u>			
	<u>n</u>	<u>MEAN</u>	<u>STDEV</u>
Successful banks	8	21.87	4.05
Less successful banks	8	17.88	2.42
t=2.40	P=0.0175	DF=13	

Based on the results in Table 7.3.2.3.2 the differential value - $t = 2.40$ - exceeded the critical value of 1.771. As a result the null hypothesis is rejected and the alternative hypothesis (H5) is accepted. Particularly, this test result indicated that a relationship exists between program success and a systematic control of the markets in identifying new opportunities.

We also ran t-tests, with the same prerequisites as in the t-test in hypothesis 5, to see which one of the marketing

TABLE 7.3.2.3.3					
<u>MARKETING SYSTEMS (2) VARIABLES IMPACTING ON PROGRAM SUCCESS</u>					
<u>Item or variable</u>	<u>Sample means</u>		<u>t</u>	<u>P</u>	<u>r</u>
	<u>s</u>	<u>ls</u>			
Item 1	3.50	2.12	2.67	0.009	0.973
Item 2	3.12	2.25	1.86	0.042	0.573
Item 3	3.12	2.50	1.21	0.125	0.512
Item 4	3.75	3.87	-0.23	0.410	0.953
Item 5	4.00	3.25	1.95	0.031	0.763
Item 6	4.62	4.00	1.93	0.039	0.721
Total:	21.9	17.9	2.40	0.017	

systems (2) variables used to measure hypothesis 5 influenced program success (See Table 7.3.2.3.3 and for reference see the statements-items previously stated in this section).

Table 7.3.2.3.3 indicates significant differences between the means of items 1, 2, 5 and 6. That means that these marketing systems (2) variables strongly influenced program success. These variables showed that the significant differences between successful and less successful banks are: (1) successful product developers establish criteria for identifying possible "gaps" in the market; (2) successful product developers conducted a very detailed market assessment - volume, potential sales, potential profits - before any decision on new product development was taken; (3) successful product developers establish criteria for identifying customer benefits, wants and needs; (4) there was a high level of awareness within successful product developers' marketing staff, of the major competitors' products. On the other hand, less successful banks scanned markets in a less systematic way, without having a continuous control of the markets. They interested primarily in having established criteria for monitoring markets for technical opportunities than for market opportunities. In addition, based on the Pearson product moment correlation coefficient the strongest relationship is that of between program success and establishing criteria for identifying possible "gaps" in the market.

7.3.2.4 Style (1)

Based on our responses the relationship that exists

between program success and the quality of style (1) by top marketing staff is shown in Table 7.3.2.4.1.

TABLE 7.3.2.4.1		
<u>RELATIONSHIP BETWEEN PROGRAM SUCCESS AND QUALITY OF STYLE (1)*</u>		
	Successful banks	Less successful banks
SUPPORTIVE ROLE	3	1
LET-ALONE ROLE	1	3

* This table is developed by computing the mean scores (of hypothesis 6, 4 item-scale) of both successful and less successful banks and identifying which ones are above the mean score or not. The numbers are the number of banks who exhibited the joint characteristics indicated by the variables on the top and the side of the table. Four banks are above the mean score. From these, three - "HELVETIA BANK", "TREE BANK", "MISTER BANK"- with high program success ensured that top marketing staff retain a supportive role into the product development team. However, one bank -"SOCIAL BANK"- with low program success which also ensured that top marketing staff retains a supportive role.

Hypothesis 6 investigates the association (relationship) between program success and the supporting role of top marketing staff into the product development team over the exploitation of new opportunities. Four five-point Likert type item-scales were used to measure hypothesis 6:

1. Top marketing staff advised the product development team on the establishment of specific market criteria.
2. Background information to provide an insight into the economy, competitors, different market alternatives, customers, etc., was gathered by top marketing staff.
3. Assistance was provided by top marketing staff to install planning and controlling systems for exploiting market opportunities and interpreting their output.
4. Assistance was provided by top marketing staff to the product development team in preparing their marketing plans.

Having shown the four items:

We state hypothesis 6 in a (i) substantive and a (ii) statistical format.

(i) H6: Successful product developers' top marketing staff retains a supportive role inside the product development team.

(ii) H6: Mean score of successful banks - mean score of less successful banks > 0.

vs

Ho: Mean score of successful banks - mean score of less successful banks < or equal to 0.

The statistical format of hypothesis H6 and its null hypothesis (Ho) shows that our statistical test should examine if the difference between the successful and less successful banks' is greater than 0 or whether there less or equal to 0.

TABLE 7.3.2.4.2			
<u>SUPPORTIVE STYLE INFLUENCE TO PROGRAM SUCCESS</u>			
	<u>n</u>	<u>MEAN</u>	<u>STDEV</u>
Successful banks	8	14.00	2.88
Less successful banks	8	10.38	2.97
t=2.48	P=0.014	DF=13	

Based on the results in Table 7.3.2.4.2 the differential value - t= 2.48 - exceeded the critical value of 1.771. As a result the null hypothesis is rejected and the alternative hypothesis (H6) is accepted. Particularly, this test result indicated a relationship between program success and the supporting role of top marketing staff within the product development team over the exploitation of new opportunities.

We also ran t-tests, with the same prerequisites as in the t-test in hypothesis 6, to see which one of the style (1) variables used to measure hypothesis 6 influenced program

success (See Table 7.3.2.4.3 and for reference see the statements-items previously stated in this section).

TABLE 7.3.2.4.3					
STYLE (1) VARIABLES IMPACTING ON PROGRAM SUCCESS					
Item or variable	Sample means		t	P	r
	s	ls			
Item 1	4.00	2.37	4.33	0.000	0.853
Item 2	3.87	2.62	2.85	0.007	0.892
Item 3	2.50	2.25	0.51	0.310	0.889
Item 4	3.63	3.12	0.91	0.190	0.512
Total:	14.0	10.4	2.48	0.014	

Table 7.3.2.4.3 indicates significant differences between the means of items 1 and 2. That means that these style (1) variables strongly influenced program success. The significant differences between successful and less successful banks are: (1) successful product developers' top marketing staff advised the product development team on the establishment of specific market criteria; and (2) successful product developers' top marketing staff gathered background information to provide an insight into economic conditions, competitors, different market alternatives, customer benefits, etc., which was afterwards communicated to the product development team.

Also the Pearson product moment correlation coefficient indicated that the strongest relationship is between program success and successful product developers top marketing staff advising the product development team on the establishment of specific market criteria. Finally, from these t-tests it is strongly indicated that less successful banks' top marketing

staff were less supportive in the systematic analysis and control of markets.

7.3.2.5 Style (2)

Based on our responses the relationship that exists between program success and quality of style (2) is shown in Table 7.3.2.5.1.

TABLE 7.3.2.5.1		
<u>RELATIONSHIP BETWEEN PROGRAM SUCCESS AND QUALITY OF STYLE (2)*</u>		
	Successful banks	Less successful banks
ADMINISTRATIVE ROLE	3	2
LESS-ADMINISTRATIVE ROLE	1	2

* This table is developed by computing the mean scores (of hypothesis 7, 3 item-scales) of both successful and less successful banks and identifying which ones are above the mean score or not. The numbers are the number of banks who exhibited the joint characteristics indicated by the variables on the top and the side of the table. Particularly, four banks are above the mean score. From these, three - "HELVETIA BANK", "TREE BANK", "MISTER BANK" - with high program success their top marketing staff retains an administrative role into the product development team. However, we have two banks - "SOCIAL BANK" - "GIANT BANK" - with low program success which their top marketing staff retains an administrative role.

Hypothesis 7 investigates the association between program success and the administrative role of top marketing staff into the product development team. Three five-point Likert type item-scales were used to measure hypothesis H7:

1. There was a high level of support exhibited by top marketing staff for the marketing planning procedures to be implemented on schedule.
2. There was a high level of accuracy in the communications within the product development team resulting from the strong support of the top marketing staff.

continued

3. Communications within the product development team was rapid due to the strong support of the top marketing staff.

In order to investigate if there is any relationship between two variables we should examine if there is any significant differences between the means of two sample measurements - successful and less successful banks in our case. The previously mentioned six-step sequence is followed:

We state hypothesis 7 in a (i) substantive and a (ii) statistical format.

(i) H7: Successful product developers' top marketing staff retain an administrative role inside the product development team.

(ii) H7: Mean score of successful banks - mean score of less successful banks > 0.

vs

Ho: Mean score of successful banks - mean score of less successful banks < or equal to 0.

The statistical format of hypothesis 7 and its null hypothesis (Ho) shows that our statistical test should examine if the difference between the successful and less successful banks' is greater than 0 or less than or equal to 0.

TABLE 7.3.2.5.2			
<u>ADMINISTRATIVE STYLE INFLUENCE TO PROGRAM SUCCESS</u>			
	<u>n</u>	<u>MEAN</u>	<u>STDEV</u>
Successful banks	8	10.50	3.07
Less successful banks	8	7.75	2.43
t=1.98	P=0.035	DF=13	

Based on the results in Table 7.3.2.5.2 the differential value - t= 1.98 - exceeded the critical value of 1.771. As a

result the null hypothesis is rejected and the alternative hypothesis (H7) is accepted. This test result indicated a relationship between program success and the administrative role of top marketing staff within the product development team.

We also ran t-tests, with the same prerequisites as in the t-test in hypothesis 7, to see which one of the style (2) variables used to measure hypothesis 7 influenced program success (See Table 7.3.2.5.3 and for reference see the items previously stated in this section).

TABLE 7.3.2.5.3					
<u>STYLE (2) VARIABLES IMPACTING ON PROGRAM SUCCESS</u>					
<u>Item or variable</u>	<u>sample means</u>		<u>t</u>	<u>P</u>	<u>r</u>
	<u>s</u>	<u>ls</u>			
Item 1	4.00	2.62	2.99	0.005	0.985
Item 2	3.50	2.62	1.55	0.075	0.853
Item 3	3.00	2.50	0.84	0.210	0.855
Total:	10.5	7.75	1.98	0.035	

Table 7.3.2.5.3 indicates a significant difference between the means of item 1. That means that this style (2) variable strongly influenced our type of program success. This variable showed that the significant difference between successful and less successful banks is that successful product developers' top marketing staff highly coordinated and controlled the effort for marketing planning procedures to be implemented on schedule. The Pearson product moment correlation coefficient indicates an almost perfect relationship between program success and the above variable.

The t-tests indicate that less successful product developers' top marketing staff have a passive (less-administrative) role inside the product development team. They do actually take less action in securing the different marketing planning procedures to be implemented on schedule.

7.3.2.6 Skills (1)

Based on our responses the relationship that exists between program success and quality of marketing skills (1) is shown in Table 7.3.2.6.1.

TABLE 7.3.2.6.1		
<u>RELATIONSHIP BETWEEN PROGRAM SUCCESS AND QUALITY OF MARKETING SKILLS (1)*</u>		
	Successful banks	Less successful banks
SPECIFIC	3	1
LESS-SPECIFIC	1	3

* This table is developed by computing the mean scores (of hypothesis 8, 3 item-scales) of both successful and less successful banks and identifying which ones are above the mean score or not. The numbers are the number of banks who exhibited the joint characteristics indicated by the variables on the top and the side of the table. Thus, four banks are above the mean score. From these, three - "HELVETIA" BANK, "TREE" BANK, "MISTER" BANK - with high program success showed specific marketing skills for exploiting new opportunities. However, one bank - "SOCIAL BANK" - with low program success showed specific skills.

Hypothesis 8 examines the association between program success and marketing staff possessing specific skills for exploiting new opportunities. Three five-point Likert type item-scales were used to measure hypothesis 8:

1. The allocation of resources to plans for the new product product development process was managed by marketing staff.

continued

2. Activities executed throughout the product development process were monitored by the marketing staff.
3. The marketing staff was responsible for a strong co-ordination among people and departments involved in the product development process.

In order to investigate if there is any relationship between two variables we tested if the difference between the means of two sample measurements of the successful banks and less successful banks is greater than 0. Having shown the three items:

We state hypothesis 8 in a (i) substantive and a (ii) statistical format.

(i) H8: Successful product developers' marketing staff possess specific skills for exploiting new opportunities.

(ii) H8: Mean score of successful banks - mean score of less successful banks > 0.

vs

Ho: Mean score of successful banks - mean score of less successful banks < or equal to 0.

The statistical format of hypothesis 8 and its null hypothesis (Ho) shows that our statistical test should examine if the difference between the successful and less successful banks' means is greater than 0 or whether is less than or equal to 0.

TABLE 7.3.2.6.2			
<u>SPECIFIC SKILLS INFLUENCE TO PROGRAM SUCCESS</u>			
	<u>n</u>	<u>MEAN</u>	<u>STDEV</u>
Successful banks	8	9.37	2.33
Less successful banks	8	7.00	2.67
t=1.90	P=0.040	DF=13	

Based on the results in Table 7.3.2.6.2 the differential value - $t = 1.90$ - exceeded the critical value of 1.771. As a result the null hypothesis is rejected and the alternative hypothesis (H8) is accepted. This test result indicated a relationship between program success and the marketing staff possessing specific skills for exploiting new opportunities. More specifically, it is indicated that a relationship exists between program success and the marketing staff co-ordinating and leading the product development effort.

TABLE 7.3.2.6.3					
<u>SKILLS (1) VARIABLES IMPACTING ON PROGRAM SUCCESS</u>					
<u>Item or variable</u>	<u>Sample means</u>		<u>t</u>	<u>P</u>	<u>r</u>
	<u>s</u>	<u>ls</u>			
Item 1	2.75	2.12	1.09	0.150	0.918
Item 2	3.00	2.62	0.60	0.280	0.955
Item 3	3.62	2.25	2.81	0.009	0.402
Total:	9.37	7.00	1.90	0.040	

Also we ran t-tests, with the same prerequisites as in the t-test in hypothesis 8, to see which one of the skill (1) variables used to measure hypothesis 8 influenced program success (See Table 7.3.2.6.3 and for reference see statements-items previously stated in this section).

Table 7.3.2.6.3 indicates (item 3) that the significant difference between successful and less successful banks is that successful product developers' marketing staff possessed coordinating skills and in particular they had the ability to coordinate people and departments involved in the new product development process. On the other hand less successful banks

exhibit less specific skills inside the product development team. That means less successful product developers' marketing staff have less ability in co-ordinating and managing the product development team. The results of the Pearson product moment correlation coefficient show that the only item which had strong influence on program success has the weakest relationship.

7.3.2.7 Skills (2)

Based on our responses the relationship that exists between program success and quality of marketing skills (2) is shown in Table 7.3.2.7.1.

TABLE 7.3.2.7.1		
<u>RELATIONSHIP BETWEEN PROGRAM SUCCESS AND QUALITY OF MARKETING SKILLS(2)*</u>		
	Successful banks	Less successful banks
EFFICIENT	3	1
INEFFICIENT	1	3

* This table is developed by computing the mean scores (of hypothesis 9, 10 item-scales) of both successful and less successful banks and identifying which ones are above the mean score or not. The numbers are the number of banks who exhibited the joint characteristics indicated by the variables on the top and the side of the table. Four banks are above the mean score. From these, three had -"FIRST BANK", "TREE BANK", "MISTER BANK"- with high program success and efficient collection and analysis of market data.

Hypothesis 9 investigates the association (relationship) between program success and the expertise and knowledge (skill) to collect and to interpret market-related information efficiently.

Ten five-point Likert type item-scales were used to measure hypothesis 9:

1. Systems analysis and statistical decision theory were used to analyse market decisions.
2. A very detailed assessment of the market needs was carried out before the actual development of the product.
3. Existing information about the marketplace was thoroughly reviewed.
4. The survey instrument - questionnaire - was due to a well co-ordinated effort of those who collected the information, monitored and interpreted it.
5. Primary data - data collected from a field research - of a representative sample - target population of the product - of the market was collected.
6. A continuous collection of secondary data - company records, libraries, trade publications, data service directories - was always in the agenda.
7. Market information was put into a form capable of being effectively used by the product development team.
8. Descriptive statistics were mainly used for the analysis and description of the data collected.
9. Research questions were developed for every activity to ensure that adequate information was obtained.
10. Market research projects were continually assessed for identifying possible flaws - mistakes.

In order to investigate if there is any relationship between two variables we should examine if the difference between the means of two sample measurements - successful and less successful banks is greater than 0. Having shown the ten items:

We state hypothesis 9 in a (i) substantive and a (ii) statistical format.

(i) H9: Successful product developers' marketing staff are more skilled (efficient) in collecting and interpreting market-related information.

(ii) H9: Mean score of successful banks - mean score of less successful banks > 0.

vs

Ho: Mean score of successful banks - mean score of less successful banks < or equal to 0.

The statistical format of hypothesis 9 and its null hypothesis (Ho) shows that our statistical test should examine if the difference between the successful and less successful banks' means is greater than 0 or whether is less than or equal to 0.

TABLE 7.3.2.7.2			
<u>EFFICIENT COLLECTION/ANALYSIS OF MARKET DATA</u> <u>INFLUENCE ON PROGRAM SUCCESS</u>			
	<u>n</u>	<u>MEAN</u>	<u>STDEV</u>
Successful banks	8	31.38	6.97
Less successful banks	8	25.75	7.01
t=1.61	P=0.06	DF=13	

Based on the results in Table 7.3.2.7.2 the differential value - $t = 1.61$ - did not exceed the critical value of 1.771. As a result the null hypothesis is accepted and the alternative hypothesis (H9) is rejected. Particularly, this test result indicated no relationship between program success and collecting and interpreting market-related information efficiently.

Also we ran t-tests, with the same prerequisites as in the t-test in hypothesis 9, to see which one of the skill (2) variables used to measure hypothesis 9 influenced program success (See Table 7.3.2.7.3 and for reference see statements-items previously stated in this section).

Based on the t-tests in Table 7.3.2.7.3 we strongly indicate significant differences between the means of items 7 and 8. That means that these skill (2) variables strongly

TABLE 7.3.2.7.3					
<u>SKILLS (2) VARIABLES IMPACTING ON PROGRAM SUCCESS</u>					
<u>Item or variable</u>	<u>Sample means</u>		<u>t</u>	<u>P</u>	<u>r</u>
	<u>s</u>	<u>ls</u>			
Item 1	2.75	2.00	1.43	0.090	0.700
Item 2	3.50	3.37	0.27	0.395	0.830
Item 3	3.75	3.50	0.80	0.220	0.830
Item 4	2.62	2.25	0.83	0.215	0.361
Item 5	2.62	2.25	0.83	0.215	0.278
Item 6	2.75	2.50	0.45	0.330	0.752
Item 7	4.12	2.62	3.14	0.004	0.900
Item 8	3.87	2.75	1.87	0.042	0.911
Item 9	2.62	2.38	0.44	0.330	0.710
Item 10	2.75	2.12	1.45	0.085	0.708
Total:	31.4	25.8	1.61	0.065	

influenced program success. These variables showed that the significant differences between successful and less successful banks are: (1) successful product developers put market information into a form capable of being effectively used by the product development team; and (2) successful product developers make use of descriptive statistics to analyse and describe the data collected. However, these two skill (2) variables did not make significant impact in hypothesis 9 which examines the efficient collection and analysis of market data. There is strong indication that the main reason is that active bank product developers consider the process of collecting and analysing market data as important for their new product development process and that is why they are executing it as efficiently as possible. Finally, based on the Pearson product moment correlation coefficient we observe that all the items had a positive relationship with program success but only two of them considered to be significant.

7.3.2.8 Staff

Based on our responses the relationship that exists between program success and quality of marketing staff is shown in Table 7.3.2.8.1.

TABLE 7.3.2.8.1		
<u>RELATIONSHIP BETWEEN PROGRAM SUCCESS AND QUALITY OF MARKETING STAFF*</u>		
	Successful banks	Less successful banks
STRONG ABILITY FOR MARKET ANALYSIS	3	0
WEAK ABILITY FOR MARKET ANALYSIS	1	4

* This table is developed by computing the mean scores (of hypothesis 10, 2 item-scales) of both successful and less successful banks and identifying which ones are above the mean score or not. The numbers are the number of banks who exhibited the joint characteristics indicated by the variables on the top and the side of the table. Particularly, four banks are above the mean score. From these four - "FIRST BANK", "TREE BANK", "MISTER BANK" - with high program success involved staff with strong ability to analyse market criteria.

Hypothesis 10 investigates the association (relationship) between program success and qualified marketing staff, meaning with strong ability for market analysis.

Two five-point Likert type item-scales were used to measure hypothesis 10:

- | |
|---|
| <ol style="list-style-type: none"> 1. Product development teams were staffed with marketing staff who have adequate knowledge of their markets. 2. Marketing staff was chosen for the ability to analyse market criteria. |
|---|

In order to investigate if there is any relationship between two variables we should examine if the difference between the means of two sample measurements - successful and less successful banks in our case - is greater than 0.

Having shown the two items:

We state hypothesis 10 in a (i) substantive and a (ii) statistical format.

(i) H10: Successful product developers involve qualified marketing staff; that it is to say staff with strong ability in analysing new market opportunities.

(ii) H10: Mean score of successful banks - mean score of less successful banks > 0.

vs

Ho: Mean score of successful banks - mean score of less successful banks < or equal to 0.

The statistical format of hypothesis 10 and its null hypothesis shows that our statistical test should examine if the difference between the successful and less successful banks' means is greater than 0 or whether is less than or equal to zero.

TABLE 7.3.2.8.2			
<u>QUALIFIED MARKETING STAFF INFLUENCE TO PROGRAM SUCCESS</u>			
	<u>n</u>	<u>MEAN</u>	<u>STDEV</u>
Successful banks	8	7.25	1.04
Less successful banks	8	5.37	1.30
t=3.19	P=0.0035	DF=13	

Based on the results in Table 7.3.2.8.2 the differential value - t= 3.19 - exceeded the critical value of 1.771. As a result the null hypothesis is rejected and the alternative hypothesis (H10) is accepted. Particularly, this test result indicated a relationship between program success and having qualified marketing staff - staff with strong ability to analyse new market opportunities.

Also we ran t-tests, with the same prerequisites as in the t-test in hypothesis 10, to see which one of the staff variables used to measure hypothesis 10 influenced program success (See Table 7.3.2.8.3 and for reference see the statements-items previously stated in this section).

TABLE 7.3.2.8.3					
<u>STAFF VARIABLES IMPACTING ON PROGRAM SUCCESS</u>					
<u>Item or variable</u>	<u>Sample means</u>		<u>t</u>	<u>P</u>	<u>r</u>
	<u>s</u>	<u>ls</u>			
Item 1	3.75	2.75	1.93	0.037	0.770
Item 2	3.50	2.62	2.08	0.029	0.535
Total:	7.25	5.37	3.19	0.0035	

Based on the t-tests in Table 7.3.2.8.3 we strongly indicate that the differences between the means of both items are significantly different. That means that these marketing staff variables strongly influenced program success. These marketing staff variables showed that the significant differences between successful and less successful banks are that successful product developers staffed their product development teams with marketing staff: (1) who have adequate knowledge of the markets; and (2) with ability to analyse market criteria. Less successful banks' marketing staff know their markets (mainly technical information) but they have less ability to analyse market criteria.

Finally, based on the Pearson product moment correlation coefficient we strongly indicate that the strongest relationship from the two marketing staff variables is between program success and adequate market knowledge.

7.3.3 Working hypothesis: is quality of marketing related to successful market entry?

As it was indicated in Chapter 5 the working hypothesis of this thesis investigates the relationship between program success and quality of marketing inputs. To investigate this proposition we take into consideration the responses of each one of the hypotheses and those related to quality of approach and those related to quality of execution. Based on the responses the relationship that exists between program success and quality of marketing is shown in Table 7.3.3.1.

TABLE 7.3.3.1		
<u>RELATIONSHIP BETWEEN PROGRAM SUCCESS AND QUALITY OF MARKETING*</u>		
	<u>Successful banks</u>	<u>Less successful banks</u>
HIGH QUALITY MARKETING	3	'0
LOW QUALITY MARKETING	1	4

* This table is developed by computing the mean scores (of the ten hypotheses - 46 item-scales in total) of both successful and less successful banks and identifying which ones are above the mean score or not. The numbers are the number of banks who exhibited the joint characteristics indicated by the variables on the top and the side of the table. Particularly, the scores of four banks are above the mean score. From these, three -"HELVETIA BANK", "TREE BANK" and "MISTER BANK" - with high program success applied high quality marketing.

Having shown the relationship between high program success and high quality marketing we would like to examine if the difference between the two population means, successful and less successful banks, is a significant one and as a result accept or reject the working hypothesis (Hw).

Thus, the total scores of the quality of approach and the quality of execution is considered. Thus, forty six five-

Finally, since the quality of marketing is consisted of both the quality of approach and the quality of execution we wanted to find out if the relationship between quality of marketing and program success is actually based on both the quality of approach and the quality of execution. Thus, we ran individual one-tailed t-tests to examine if a market-based approach (hypotheses 1 and 2) is related to high program success and also to see if appropriate implementation skills (hypotheses 3-10) reflecting a market-based orientation are related to high program success (See Table 7.3.3.5 and Table 7.3.3.6 accordingly). For the approach the $t = 2.25$ (See Table 7.3.3.5) and for the execution the $t = 2.50$ (See Table 7.3.3.6). That means that both a market-based approach and appropriate implementation skills are related to high program success. As a result the relationship between high quality of marketing and high program success depended on both: (i) a market-based approach; and (ii) appropriate implementation skills.

Based on our responses we were also able to show the relationship that exists between program success and (i) quality of approach (Table 7.3.3.3); and (ii) quality of execution (Table 7.3.3.4). As far as which one has a stronger relationship with high program success the Pearson correlation coefficient showed that the relationships had almost the same strength (market-based approach was 0.943 and for appropriate implementation skills was 0.987). That means that the contribution of appropriate implementation skills to our type

TABLE 7.3.3.3		
<u>RELATIONSHIP BETWEEN PROGRAM SUCCESS AND QUALITY OF APPROACH*</u>		
	<u>Successful banks</u>	<u>Less successful banks</u>
MARKET-BASED	3	0
ASSET-BASED	1	4

* This table is developed by computing the mean scores (of hypotheses 1 and 2 together, 14-item-scales in total) of both successful and less successful banks and identifying which ones are above the mean score or not. The numbers are the number of banks who exhibited the joint characteristics indicated by the variables on the top and the side of the table. Particularly, the scores of four banks are above the mean score. From these, three - "HELVETIA BANK", "TREE BANK", "MISTER BANK" - with high program success adopted a market-based approach. However, there is one bank - "SOCIAL BANK" with high program success adopted an asset-based approach.

TABLE 7.3.3.4		
<u>RELATIONSHIP BETWEEN PROGRAM SUCCESS AND QUALITY OF EXECUTION*</u>		
	<u>Successful banks</u>	<u>Less successful banks</u>
APPROPRIATE SKILLS	3	1
LESS APPROPRIATE SKILLS	1	3

* This table is developed by computing the mean scores (of hypotheses 3,4,5,6,7,8,9, and 10, meaning 32 item-scales in total) of both successful and less successful banks and identifying which ones are above the mean score or not. The numbers are the number of banks who exhibited the joint characteristics indicated by the variables on the top and the side of the table. Particularly, four banks are above the mean score. From these, three - "HELVETIA BANK", "TREE BANK", "MISTER BANK" - with high program success possess appropriate implementation skills. However, there is one bank - "SOCIAL BANK" with low program success and appropriate skills.

TABLE 7.3.3.5			
<u>MARKET-BASED APPROACH INFLUENCE TO PROGRAM SUCCESS*</u>			
	<u>n</u>	<u>MEAN</u>	<u>STDEV</u>
Successful banks	8	55.00	8.94
Less successful banks	8	44.87	9.03
t=2.25	Probability= 0.021 Degrees of freedom= 13		

* In this t-test the total successful banks' score for the quality of approach computed from the total scores of hypotheses 1 and 2 (14 item-scales). The total less successful banks' score for the quality of approach computed from the total scores of hypotheses 1 and 2 (14 item-scales). This t-test indicates that we can be 97.9% certain that a market-based approach is related to high program success.

TABLE 7.3.3.6			
<u>APPROPRIATE IMPLEMENTATION SKILLS INFLUENCE TO PROGRAM SUCCESS*</u>			
	<u>n</u>	<u>MEAN</u>	<u>STDEV</u>
Successful banks	8	108.1	18.6
Less successful banks	8	85.0	18.4
t= 2.50	Probability= 0.0135 Degrees of freedom= 13		

* In this test the total successful banks' score for the quality of execution computed from the total score of hypotheses 3-10 (32 item-scales). The total less successful banks' score for the quality of execution computed from the total score of hypotheses 3-10 (32 item-scales). This t-test indicated that we can be 98.65% certain that appropriate implementation skills are related to high program success.

of program success and the contribution of a market-based approach to our type of program success is almost the same.

7.4 Discussion

As we have already mentioned, our research study concerned itself with investigating in what ways, if any, successful product developers practice marketing qualitatively differently from less successful banks (see summary of the key differences in Table 7.4.1 below). Our results were unequivocal in this respect: although banks appear to follow a common recipe for managing new developments it is successful product developers which practise a distinctly different type of marketing from less successful product developers. In addition, all successful product developers have now adopted a product focus for new product development purposes, whereas all the less successful product developers continue to steer new product development on a functional input basis.

In particular, the investigation of the endogenous variables other than quality of marketing inputs showed that almost all successful and less successful product developers do not involve persons with marketing titles and marketing educational and professional background. Only one successful bank ("TREE" BANK) with high quality marketing practice had persons with marketing titles and also had an established marketing department which was heavily involved in the identification and exploitation of new product opportunities. The other three successful banks - "HELVETIA" BANK, "FIRST" BANK, "MISTER" BANK - ensure that the necessary marketing

Table 7.4.1

**MAIN DIFFERENCES CONCERNING THE WAY IN WHICH
MARKETING INPUTS ARE APPLIED QUALITATIVELY**

<u>Successful banks</u>	<u>strategy</u>	<u>Less successful banks</u>
Market-based		Asset-based
	Shared Values	
Extensive use of internal marketing in promoting the case of a market orientation		Less emphasis in internal marketing
	Systems	
(a) Formalised marketing planning procedures (b) Systematic control of markets		Less-well established systems for marketing planning and market control
	Style	
(a) Supportive (top marketing staff: (1) advised the PD team on the establishment of specific market criteria; (2) provided an insight into competitors, economic conditions, etc.) (b) Administrative (top marketing staff coordinate the marketing planning effort and support the communications inside the PD team)		Less supportive Passive role (top marketing staff do actually take less action)
	Skills	
Ability to coordinate and manage the PD team		Less ability in coordinating and managing the PD team
	Staff	
Marketing staff with strong ability to analyse new market opportunities		Less ability

Source: Field study data

inputs are provided by those not holding formal marketing titles. The above findings not only indicate that the quantitative aspects of marketing inputs do not influence program success but also make more stronger our indications concerning the relationship between the qualitative aspects of marketing inputs and successful early market entry.

Further, successful and less successful product developers involve in their product development teams staff with adequate technical skills (engineering, finance, tax, legal, computing, etc). This finding, however, does not indicate that there exist no significant differences in the quality of technical skills between the successful and the less successful product developers. We believe, this is an important issue for future empirical research, but its investigation is outside of the scope of this research study.

The analysis of the control variables - pointing as it did to considerable commonality in overall approach on the part of the participating banks - encouraged us to be more positive in our comments concerning the relationship between quality of marketing inputs and successful early market entry. The logic behind this is that there are not many endogenous managerial variables, other than structure, which influence product development success in our experimental context in order to make weaker our indications.

As far as the relationship between quality of marketing inputs and program success the supporting evidence is stronger. Our analysis of the t-test results indicated that

it is not the trappings but the quality of marketing inputs that contribute to product development success. The most important finding is that successful product developers apply higher quality marketing than do less successful product developers.

Specifically, successful product developers give greater emphasis on getting both their approach and execution right than merely having more people with marketing titles or established marketing departments. Also, no significant differences were found between the way marketing activities are organised by successful as opposed to less successful product developers. That means that the way marketing activities are organised (marketing structure) does not influence product development success in our experimental context. As in some other industries, banks appear to follow the industry recipe in organising marketing activities. They prefer to organise predominantly their activities on product features.

Specifically, successful product developers are more likely to adopt a market-based approach in identifying new opportunities (emphasis primarily on market opportunities). They not only adopt a strategy which selects markets on the basis of benefits sought by clients, but they also use internal marketing to reinforce and implement their approach.

On the other hand, less successful product developers predominantly tend to follow an asset-based approach whereby they consider asset capabilities first and market

opportunities second. Typically, they place great emphasis on new technology. In them new developments are often firmly in the hands of the "rocket scientists", as their highly qualified technical experts are usually known internally. Far less emphasis is placed on analysing and skilfully interpreting new customer needs. Internal marketing is hardly in evidence, meaning that new product developments are predominantly seen as internal problems rather than external opportunities with which one has to expand the whole business.

Successful product developers, except the right approach have also the appropriate implementation skills to exploit the identified new market opportunities. They give great emphasis on the establishment of market criteria for assessing new market opportunities. They are experts in analysing market criteria. They use their well-established systems for marketing planning and control to achieve a better execution of the adopted approach. Specifically, they use formal marketing planning procedures (are part of a general formal planning process) and they systematically monitor new and old markets to identify and exploit new opportunities.

Successful product developers' top marketing staff also have the capability in organising and coordinating marketing efforts throughout the product development process. They are particularly interested on marketing planning procedures be implemented on schedule and they are very supportive in the exploitation of new market opportunities. Specifically, successful product developers' top marketing staff continually give advise on what specific market criteria (e.g. measuring

market potential, competitors' strength, etc.) to establish and communicate important background information concerning an insight into economic conditions, competitors, different market alternatives, customer benefits, etc., to the product development team.

On the other hand, less successful product developers have less appropriate skills to exploit the identified new opportunities. Particularly, they give less emphasis to the systematic analysis of markets, since their emphasis is more on establishing criteria in assessing technical opportunities. They predominantly look at markets, in a less systematic basis. Their market analysis primarily is used for testing the market potential to their identified new technical opportunity than for detecting new market opportunities.

Less successful product developers' marketing procedures are not written and in effect are frequently used in a haphazard way, not as a part of formal planning process. Their top marketing staff are less supportive to the product development team concerning the establishment of specific market criteria and background information on different market alternatives, competitors, customer benefits, etc. They are very passive. They are mainly involved in the final stages of the product development process, the commercialisation stage. Their involvement concerning the idea generation and idea evaluation stages is limited. This is attributed to their limited abilities to understand, analyse and exploit new market opportunities.

Having discussed the tests results we can indicate that marketing inputs can be expected to continue to change in banks as these become more market orientated and as marketing skills become more formally organised. The findings of this research study indicated the type of marketing inputs which can assist in achieving successful early market entry. We have not discussed how more skilful marketing might be operationalised over time in commercial, investment and merchant banks investigated. This is atopic for further research.

Finally, in the next chapter we discuss the implications of our findings for product development managers and marketing managers.

CHAPTER 8: MANAGERIAL IMPLICATIONS

8.1 Introduction

This research study has examined the marketing practices of commercial, investment and merchant banks, which have managed to continually develop new products in a highly competitive market. Our analysis shows that it is not the quantity but the quality of marketing inputs that contribute to successful early market entry. In particular, our findings show that there are significant qualitative differences in the way marketing inputs are managed between successful and less successful product developers. The overriding finding is that successful product developers apply higher quality - superior - marketing from the less successful product developers. Particularly, they adopt a market-based approach in identifying new opportunities backed up with appropriate implementation skills.

On the basis of these findings not only important theoretical implications can be drawn but also implications for product development managers and marketing managers in this experimental context. The theoretical implications are discussed in chapter 9.

8.2 The importance of early market entry

It is appropriate to emphasise that the type of program success (sustained product development) investigated in this research study is of great importance to banks which are

active developers in the financial risk management market. All eight banks whose financial risk management operations are considered had, any way, indicated that they placed great emphasis on sustained product development. Evidence of the benefits from sustained product development is that the four successful product developers grew their turnovers (measured in volume terms) in financial risk management products, on average in the period between 1988-1992, at three times the rate achieved by the four less successful product developers. The implications for banks, even though we are not able to provide a definitive answer, are potentially very important.

What this evidence actually implies is that if a bank continually enters the market early with new products, it is possible to achieve an increase of turnover. On the other hand, one can argue that the increased turnover might have been achieved through a tremendous decrease of prices. Even if this were true, it is unlikely; therefore it is reasonable to suggest that achieving early market entry is "a good move" in such highly competitive business environments, such as financial risk management.

Thus, product development managers need to make speed a central objective inside the product development team. For that reason top management support is important. Top management also need to encourage cooperation and flexibility rather than competition among the people involved in the product development process.

8.3 The importance of business structure in the product development process

The investigation of control variables, suggests that there are very few significant differences between successful and less successful bank product developers in overall approach with the exception of organisational arrangements. At the moment product development in successful product developers is organised on a product basis. The implications of a product-based structure are striking. If product development activities are organised on a product basis, that implies that these banks are moving towards a market-based orientation. Specifically, by adopting a product based structure, banks' product managers (for example, swaps and options specialists) not only can have a continuous and direct "feel" of the market but also can react more quickly to needs and wants in the market than a group of different functional specialists.

In future we can expect this to alter as managers need to concern themselves more with outputs than inputs. Banks that continually develop more and more new products entering into many markets face a problem. Product structure will not be enough to satisfy all these divergent markets. Thus, banks will need to adopt a market-based structure to satisfy all these markets. For this new type of structure, banks will need to use "market visioners" or "market managers". The responsibilities of a "market manager" will be not only to discover new "gaps" in existing and emerging markets but also organise the product development effort to exploit these.

8.4 Quantity of marketing: important or not?

In addition, the investigation of control variables, other than quality of marketing inputs, suggests that the trappings of marketing do not influence our type of program success. In particular, our findings suggest that formal marketing departments and persons with professional or educational marketing background do not influence our type of program success (early market entry). As we have already indicated only one successful bank had an established marketing department and the others just "got on with it". The implications of this finding are important. If the quantitative aspects of marketing are not so important in contributing to successful early market entry, it means product development managers need to focus primarily on the qualitative aspects of marketing.

On the other hand, by focusing on the qualitative aspects of marketing, managers cannot ignore completely the quantitative aspects of marketing. We believe that the quantitative aspects of marketing can play a vital role in the product development processes. Particularly, we believe that formal marketing departments need to fulfil two important tasks. First, helping the change from an asset-led approach to new product development to a market-based one. By establishing of a formal marketing department specific marketing activities (market research, selling, offering, etc.) will drive the product development team towards the identification and exploitation of customer needs and wants. Eventually, these activities will nurture a market-vision to

all product development members and market-based orientation will be on the top of the product development agenda. We believe for this to happen depends on how other functional specialists view the marketing department. If they view primarily its use only for selling purposes, they are missing the point. Ideally, marketing staff need to "drive" (make use of internal marketing) the members of the product development team to work towards the market.

Second, a formal marketing department can help in developing visions for better offerings. By establishing a formal marketing department the different specific marketing activities will identify the distinct characteristics of every customer; understand customer's needs and wants; identify customer's benefits; and analyse competitor's competitive advantages. These activities will help banks and product development teams to differentiate their products from their immediate competitors and so allow them to offer a better value product.

8.5 The importance of superior (high quality) marketing

Our findings suggest that quality of marketing inputs influences our type of program success. Both the quality of approach (identifying new opportunities) and the quality of execution (exploiting new opportunities) influence our type of program success. In particular, successful product developers practise a superior marketing (high quality); that is to say, they adopt a market-based approach backed up with appropriate implementation skills. The implications of these findings are

important. To identify and capitalise on new opportunities we cannot risk having only the "right" approach and not the "right" execution. What we suggest is that one needs to get the approach "right" (market-based) and at the same time the execution "right" (appropriate implementation skills).

8.5.1 The importance of a market-based approach

Our findings suggest that successful product developers adopt a market-based marketing approach in identifying new opportunities. In particular, the findings suggest that successful product developers: (i) follow a marketing strategy which focuses on analysing markets on the basis of benefits instead of internal inputs (such as technology); and (ii) use extensively internal marketing to promote a set of shared values which supports the adoption of a market orientation in the search for new opportunities.

The implications of a market-based approach are important. If the approach is market-based, the search for new financial risk management products will not be based on purely on the recognition of a technical opportunity. Instead, new opportunities will primarily come from a recognition of a market opportunity. To achieve that marketing staff need to change attitudes inside the business. One way is through internal marketing. Marketing staff - the account officer or the originator - needs to be responsible for advising, assisting, explaining and at the same time educating other specialists - e.g financial engineers - in the business as to why a market-based approach in identifying new

opportunities is essential. Specifically:

(i) Follow a market-based strategy

As far as the strategy followed by successful product developers our findings suggest that is market-based. The implications of a market-based strategy are important. If a strategy is market-based then predominantly the emphasis needs to be on analysing specific target markets. This way new customer needs and wants will be detected, new market opportunities will not be lost and a bank will be able to position itself and, thus, successfully differentiate its offerings from its immediate competitors. To do that managers need to conduct a very detailed analysis of customer benefits (benefits that people look for in the products and the kind of people who look for each benefit).

Also managers need to principally segment their markets on the basis of customer benefits with prime purpose of creating specific target markets in which they will ultimately compete. Benefit segmentation is the key for future success in highly competitive business environments. A very useful way of looking at benefits is by considering two dimensions of: (1) merchandise and (2) support. Merchandise, refers to the performance features of the product or the service as perceived by buyers. Support is the perceived advice, training and assistance offered to serve performance features (For a detailed discussion on this subject see Mathur, 1986;1988). Further, a very detailed analysis of competitors' offerings and on the different factors which influence customer buying decisions is essential.

(ii) Strong use of internal marketing

Our findings also suggest that successful banks make strong use of internal marketing in promoting the case of a market orientation in identifying new opportunities. This is significantly different from the way less successful product developers do it, where a weaker stance from their marketing staff does not provide as much impetus for promoting the case of a market orientation.

Marketing staff need to make everybody involved in the product development process (such as financial engineers, originators, etc.) understand how the market is the first place in identifying new opportunities. They need to: (i) constantly advise the key decision makers in the business to look to markets as the primary source for identifying new opportunities; and (ii) continually gain market knowledge from the persons who are directly involved with customers (such as account officers). This way, those involved in the product development process not only will consider themselves as "market visioners" having as a prime purpose to scan markets and identify profitable customers that they want to do business with, but also they will be confident that they use their technical capabilities profitably.

8.5.2 The importance of appropriate implementation skills

Our analysis suggests that successful product developers not only adopt a market-based approach (as we have previously discussed) but that they accompany it with the right execution, meaning appropriate implementation skills. Product

development and marketing managers potentially have a vital role in establishing systems in such a way as to analyse, plan and control new market opportunities. Thus, the identified new market opportunities are defined, assessed, and then exploited through the product development planning process. However, to stress and capitalise on these new market opportunities product development and marketing managers also need to find the "right" marketing staff with the "right" expertise and adopt the "right" management style to exploit them proficiently. Of course, we cannot conclude (for our experimental context) that if product development and marketing managers adopt a market-based approach in identifying new opportunities packed with the appropriate implementation skills to exploit them will guarantee program success. However, we are confident that their absence will cause considerably lesser success. In particular:

(i) Establish formalised marketing planning procedures

Our findings suggest that successful product developers use formalised planning procedures. The implications of "formalised" marketing planning procedures are important. Marketing planning should not be treated as an unstructured process, but one which can help the co-ordination of the different marketing activities and better communication between technical staff (such as financial engineers, etc.) and marketing staff, better identification of recent developments in markets and better communication between the

members of the product development team.

Product development and marketing managers potentially can have a vital role in encouraging and persuading the marketing staff to establish written marketing planning procedures for exploiting new market opportunities as a part of the formal product development planning system. This way managers will have the opportunity to control their marketing planning process and also detect their mistakes and make recommendations in the case of failure. At the same time marketing staff also need to advise key decision makers how important it is to have a structured approach to: (i) identifying new opportunities; (ii) formulating marketing objectives consistent with the product development objectives; and (iii) identifying the appropriate marketing activities to support different product development activities.

(ii) Systematic control of the markets

Our findings suggest that successful product developers systematically monitor (meaning the establishment of certain market criteria) markets to identify and exploit new opportunities. With a systematic control of the markets, banks will achieve quicker detection of new market opportunities than competitors, better control over sudden changes in consumer behavior, better assessment of new market opportunities and a better idea of what products are traded in what markets. Clearly, the establishment of criteria for controlling existing and new markets can have a pivotal role

in identifying and exploiting new profitable product development opportunities. For that purpose product development and marketing managers need to establish criteria for: (i) identifying possible "gaps" in the markets; (ii) conducting very detailed market assessment - demand, volume, potential sales, potential profits - before any decision on new product development is taken; and (iii) identifying customer benefits, wants and needs.

(iii) Marketing in a new role: leading the product development effort

Our findings suggest that successful product developers' top marketing staff retain a supportive and administrative role inside the product development team. To assess and capitalise on new opportunities product development teams need criteria to analyse and control the markets, planning procedures and background information which offers an insight into the economy, competitors, different market alternatives, customer benefits, etc. Top marketing staff potentially can take advantage of these needs and assume not only a supportive but also a leading role inside the product development team.

In this role top marketing staff need to: (i) gather market information; (ii) communicate this information to the product development team; (iii) assist in the installation of systems for the exploitation of new market opportunities; and (iv) initiate a rapid and accurate communication between the members of the product development team (our findings suggest

that successful product developers possess unique expertise in getting together people and departments). In this way, technical staff (e.g. financial engineers, etc.) will be able to appreciate the benefits of a market-based orientation and to use market information efficiently to match the needs of the market with the bank's technical ability.

(iv) The importance of qualified marketing staff

Our findings suggest that successful product developers involve qualified marketing staff; that is to say, staff with strong ability in detecting, analysing and exploiting market opportunities. The implications of this finding are important. Selecting marketing staff is not an easy process. On the contrary in this type of banking marketing staff with considerable ability to analyse new market developments and a strong feeling for markets is required, so that systems can be established to be able to fully assess and analyse existing and new market opportunities. Thus, product development and marketing managers need to look for marketing staff with strong knowledge of market analysis techniques and with strong impetus towards markets as the means and the end for the identification of new opportunities.

8.6 Summary

This chapter has presented the managerial implications of the findings of this study. The main points where successful product developers are significantly different from less

successful product developers are summarised below (see also Table 8.6).

Successful product developers adopt a market-based approach in identifying new opportunities backed up with the appropriate implementation skills to exploit them. In particular:

(i) Strategy

Successful product developers implement a market-based strategy which focuses on analysing markets on the basis of benefits instead of internal inputs (such as technology) in identifying new opportunities. Particularly, they conduct a very detailed analysis of customer benefits, that involves determining the benefits that people look for in the products and the kind of people who look for each benefit.

(ii) Shared values

Successful product developers strongly use internal marketing to promote the case of a market orientation in identifying new opportunities. Particularly, their marketing staff encourage key decision makers in the business to look to markets as the primary source for identifying new opportunities; and gain support towards a market orientation from the persons who are directly involved with customers (e.g. account officers).

(iii) Systems

Successful product developers establish marketing systems

Table 8.6

**SUCCESSFUL PRODUCT DEVELOPERS "SUPERIOR"
MARKETING PRACTICE**

(A) MARKET-BASED APPROACH

1. Market-based strategy

- Focusing on the analysis of new and existing markets on the basis of benefits instead of internal inputs (such as technology).
- Strong emphasis on benefit segmentation.
- Investigation of the different factors that influence customer buying decisions.

2. Strong use of internal marketing (shared values)

- Key decision makers are constantly reminded by marketing staff that the market is the primary source for identifying new opportunities.
- Marketing staff should gain support towards a market orientation from the personnel (e.g. account officers, originators, traders) involved with customers.

(B) APPROPRIATE IMPLEMENTATION SKILLS

1. Formalised marketing planning procedures (Systems)

- Marketing planning procedures for exploiting new opportunities were predominantly in writing.
- Marketing planning procedures for exploiting new market opportunities were part of the formal new product development planning system.

2. Systematic control of the markets (Systems)

- Establish criteria for identifying possible "gaps" in the market.
- Conduct a very detailed market assessment before any decision was taken.
- Establish criteria for identifying customer benefits, needs and wants.
- High awareness of the major competitors' products.

3. Supportive and administrative management style by the top marketing staff

- Top marketing staff advised the product development team on the establishment of specific market criteria.

continued

- Top marketing staff gathered background information to provide an insight into economic conditions, competitors, different market alternatives, customer benefits, etc., which was afterwards communicated to the product development team.
- Top marketing staff highly coordinated and controlled the effort for marketing planning procedures to be implemented on schedule.

4. **Specific skills**

- Marketing staff had the ability to coordinate people and departments involved in the new product development process.

5. **Qualified marketing staff**

- Adequate knowledge of the markets.
- Ability to analyse market criteria.

Source: Field study data

for analysis, planning and control to identify and exploit new opportunities. Particularly, they establish written marketing planning procedures for exploiting new market opportunities as a part of the formal new product development planning system; they establish criteria for identifying possible untapped opportunities in the markets; they conduct very detailed market assessment - demand, volume, potential sales, potential profits - before any decision on new product development was taken; they establish criteria in identifying customer benefits and the major competitors' products that were being offered in the markets.

(iv) Style

Successful product developers ensure that their top marketing staff retain a supportive and administrative role in systems for analysing, planning and controlling for new market opportunities. Particularly, they advise the product development team on the establishment of specific market criteria; they gather background information to provide an insight to the economic situation, competitors, different market alternatives, customer benefits, etc., and communicate this information to the product development team; they assist in the installation of planning and control systems for the exploitation of emerging opportunities; they ensure marketing planning procedures are implemented on schedule; they secure rapid and accurate communication between the members of the product development team.

(v) Skills

Successful product developers' marketing staff possess coordinating skills and in particular they have the skill to coordinate people and departments involved in the new product development process.

(vi) Staff

Successful product developers make sure that they involve marketing staff who have adequate knowledge of markets and strong ability to analyse market criteria.

As we show, to tease out these important differences we made use of the McKinsey 7Ss framework popularised by Peters and Waterman (1982). We found the 7Ss framework particularly useful for this purpose because each of the seven Ss represents an aspect of marketing inputs which is worth considering and easily understood by managers. Using the 7Ss framework did permit us to comment satisfactorily on all the hypotheses.

The important issue about the 7Ss framework is not so much that each of the seven 7Ss are useful, although they definitely are in their own right, but that all 7Ss need to interlink functionally in order to achieve the desired results. Having said that, the 7Ss framework can be used by researchers, product development and marketing managers as a "control" mechanism to examine their own quality of marketing practised. It can also be used by researchers both to analyse product development procedures, and as a basis for developing

more analytical frameworks. However, each time we use it we need to take under consideration the specific environment in which each of the variables are operationalised.

CHAPTER 9: CONTRIBUTIONS TO THEORY DEVELOPMENT AND SUGGESTIONS FOR FURTHER RESEARCH

9.1 Introduction

The main objective of the concluding chapter is to describe the limitations of the study concerning not only conceptual but also methodological issues; the theoretical implications generated from the analysis of the results; and suggestions for further research.

9.2 Limitations of the study

All research studies have their limitations. This work is no exception. Thus:

(i) This study is limited to the U.K. financial risk management market. This is due to the fact that different markets have different unique customer needs and different operating environments. This narrow approach also gives us more valid empirical results (Easingwood, 1986; Cowell, 1988).

(ii) This study is also limited to commercial financial products (financial risk management). This is because different marketing practices exist between consumer and commercial financial products.

(iii) The sample itself restricts the generalisability of the findings. The hypotheses have been tested only on active bank product developers. However, because of the good response rate the sample is representative to the population identified, so it should be possible to extend the findings to other active bank product developers. Whether they would

extend to other innovative services companies has not been yet substantiated.

(v) This study is also limited to active bank product developers with established new product development practices in the U.K. All the sample banks develop their new financial risk management products in the U.K. This is because the organisation's ability to innovate is influenced by different market, technological and competitive environments (Goshal and Bartlett, 1987).

(vi) This study is limited to one type of product development. This is because different types of product development are managed differently (Johne and Snelson, 1990).

9.3 Theoretical implications

This research study contributed to theoretical knowledge in the following way. Thus, this research study responded to the need identified by Booz, Allen and Hamilton (1982), Cooper (1979,1980,1982) Johne and Snelson (1985) for further research in successful product development. Particularly, this research study responded not only to the urgent need identified by DeBrentani (1988, 1989a, 1988b), Easingwood (1986), Cowell (1986) and Johne and Snelson (1985, 1988) for additional research in the services area but also to the need identified by Johne and Snelson (1985), Colletti (1988), Scheuing and Johnson (1989), Scarborough and Lannon (1989) for further research in managerial factors contributing to successful product development in financial services and especially in banking. This research study satisfied these

different needs by focusing on the role of marketing in successful product development for corporate banking products and particularly financial risk management products. This research study has also led to recognition that empirical evidence from previous research in manufactured goods can be used for examining new product development practices in the services area.

Ames (1970) identified the need for further research on the substance or quality of marketing inputs. Also, Baker and Hart (1989), Bonoma (1985), Brooksbank (1991), Brown, (1987), Larreche quoted by Lorenz (1985a; 1985b), Doyle (1985), Foster (1982), Hooley, West and Lynch (1984), Hooley and Mann (1986), McKenna (1991), Nevens (1984), Piercy and Morgan (1989), Spillard (1985) have argued that more empirical research in the substance or quality of marketing inputs and its relation to success is needed. This research study has satisfied this need not only by examining how marketing inputs are applied qualitatively during the new product development process but also by examining the relationship between quality of marketing inputs and product development success. The findings indicated that higher quality marketing is related to higher product development success.

Particularly, the findings strongly indicated that in this context substance or quality of marketing is not only concerned with how marketing is actually carried out - the execution - (Baker, Black and Hart, 1988; Baker, Hart, Black and Tawfik, 1986; Baker and Hart, 1989; Bonoma, 1985; Doyle, 1985; Hooley, West and Lynch, 1984; Hooley and Mann, 1986) but

also with the approach adopted (Brown, 1987; Larreche quoted by Lorenz, 1985a, 1985b). Thus, to achieve higher quality marketing businesses should get both the approach right and the execution right at the same time. It is strongly indicated in this research study that successful product developers had both - the right approach and the right execution. Future studies concerning quality of marketing must examine both the quality of the approach and the quality of execution.

Baker and Hart (1989), Bower and Garda (1985), Day (1990), Gronroos (1989), Johne and Snelson (1990), Kotler (1991), Levitt (1977, 1986), Piercy (1991) Shapiro (1988), Schnaars (1991) have also argued that success is linked with a market-based orientation. This argument has found applicability in this experimental context. Particularly, it is strongly indicated that successful product developers, adopt a market-based approach in identifying new opportunities.

Further, Mathur (1988), DeBruicker and Summe (1985), Hamel and Prahalad (1991), Johne and Snelson (1990), McDonald (1988) have emphasised that for businesses to be more successful, they should focus on a bundle of benefits rather than on the inherent quality of the products. This argument has also found applicability in this experimental context. Particularly, it is strongly indicated that successful product developers select target markets primarily through an examination of customer benefits.

Piercy (1985) has also argued that "good" marketing cannot be carried out unless we have a chief marketing executive and an established marketing department. In this research study this argument did not find any applicability. However, we have some reservations about this theoretical implication since only one of the successful product developers had an established marketing department. In our experimental context, successful product developers applied higher quality marketing without having an established marketing department or a chief marketing executive. They recognise the importance of marketing activities albeit that they preferred "banking" titles to "marketing" titles.

Piercy and Morgan (1991) have stressed that internal marketing is very important in the adoption of a market-based orientation. In this research study, we have seen that. Specifically, we found that successful product developers make strong use of internal marketing to promote the case of a market orientation in identifying emerging opportunities.

Finally, Kotler (1991) has argued that there are five stages in the learning process of what bank marketing is all about. These are (i) advertising, sales promotion and publicity; (ii) smiling and friendly atmosphere; (iii) innovation; (iv) positioning; (v) analysis, planning and control. In this research study, we found applicability for this argument. Three out of four successful product developers have moved up from the innovation stage into the higher stages and actually established systems for analysis, planning and control. Further studies in the

implementation of marketing must work from the theoretical basis of the five stages quoted above.

9.4 Suggestions for further research

Several implications for researchers interested in new product development, marketing and strategy arise from the findings of this research study. Thus, this research study has identified that qualitative differences do exist between the marketing practices of successful and less successful product developers. Thus, further research is needed to establish whether these qualitative differences have any applicability in other experimental contexts. Still other research might examine if these qualitative differences exist in different types of product development. Further research could also be conducted in identifying if qualitative differences exist between the marketing practices of successful and less successful product developers at the project level of analysis.

It was also argued in Chapter 3 that the substance or quality of marketing is concerned with the quality of approach and the of execution. Our findings have supported this proposition. Further theoretical work is required to establish whether this proposition has further applicability than this particular research study. Concerning the quality of approach we found that successful product developers adopt a market-based approach in which they give greater emphasis to the analysis of customer benefits for selecting new opportunities. Further research is needed on benefit analysis

and benefit segmentation and their relationship with product development success, and in other experimental contexts. Furthermore, concerning the quality of execution our findings showed that successful product developers establish systems for market analysis and systems for monitoring the markets. Further research is needed to establish whether this proposition has wider applicability than this particular study.

In this research study we also identified that as well as quality of marketing inputs, structure - meaning the way product development activities are organised - has influenced our type of program success. Further research is required to establish in greater depth the relationship between structure and program success. Further research is also needed to examine the relationship between skills and other key variables contributing to new product development success, especially at the program level of analysis.

Also, in this research study, we found out that almost all sample banks involve persons with technical background. Further research is required not only to establish the relationship between program success and quality of technical skills but also the relationship between marketing and technical skills.

Finally, this research study identified the use of internal marketing in promoting a market-orientation for the purpose of identifying new opportunities. Further research is needed to establish in greater depth the role of internal marketing in promoting the case of marketing. Further

research is also needed to establish the relationship between internal marketing and new product development success.

9.5 Conclusion

Eventhough, we have used a small sample and limited statistical tests, we managed to satisfy the research aims. In particular, this research study into marketing's role in successful new product development has:

- * Reviewed three main literatures - product development, marketing and strategy - to draw empirical evidence for supporting the hypotheses developed for this research study.
- * Identified an issue of great importance to senior executives, marketing specialists and product development staff in commercial, investment and merchant banks.
- * Identified what is substance or quality of marketing inputs, and how can it be measured for this and for future research studies.
- * Accomplished an in-depth examination of how marketing inputs are applied qualitatively in the development of new financial risk management products.
- * Identified a number of qualitative differences in the way marketing inputs are applied between successful and less successful product developers.

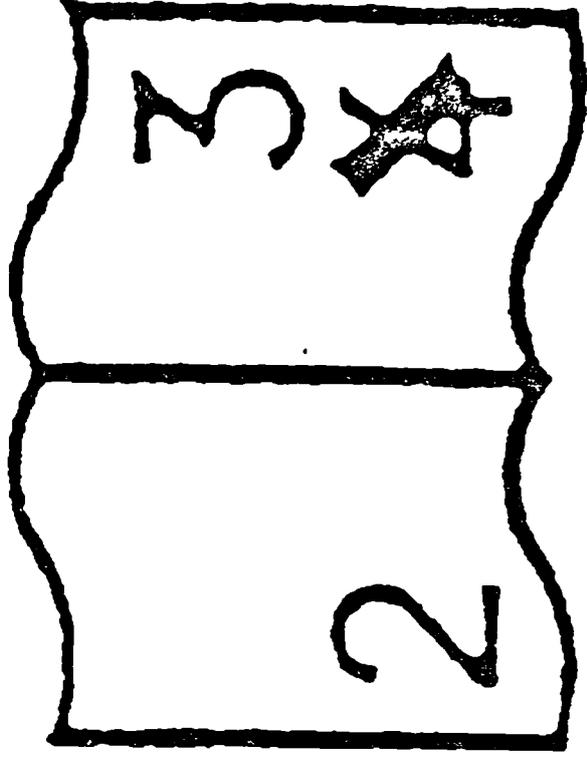
Based on the findings identified by the comparison of successful and less successful product developers, it is shown that successful product developers have adopted a product focus on organising development activities whereas

less successful product developers do so along functional lines. The most important finding, however, is that successful product developers are not those banks which use more marketing in identifying and exploiting new opportunities. Instead success is likely to go to those banks which practise "superior" - higher quality - marketing.

While we cannot claim that program success will be guaranteed from a market-based approach backed with implementation skills for marketing analysis, planning and control which reflect the market-based approach adopted, our evidence lends strong support that their absence will ensure considerably lesser success.

APPENDICES

PAGINATION ERROR



266.

APPROACH LETTER 1:

Name of the bank:

Name:

Title:

Address:

Date:

Dear Sir,

The Innovation Research Unit, as part of continuing research into the product development practices of financial services companies is currently investigating the contribution of marketing to new product development success.

This research cannot be completed without the participation of a business such as yours. Thus, we would be most grateful if you would take 30 minutes to discuss our research. In return for your kind assistance, we will be pleased to give you a copy of the final report.

This research will also enable me to complete the requirements for a PhD degree and is very important to me. I shall contact your office in a few days to take the matter further. I would again like to assure you of the complete CONFIDENTIALITY of your response.

Yours sincerely,

Panayiotis Pavlidis BSC,MBA



Frobisher Crescent
Barbican Centre
London EC2Y 8HB

Switchboard 071-477 8000
Direct Line 071-477
Fax: 071-477 8880

APPENDIX B

APPROACH LETTER 2:

Name of the bank:

Name:

Title:

Address:

Date:



Frobisher Crescent
Barbican Centre
London EC2Y 8HB

Switchboard 071-477 8000
Direct Line 071-477
Fax: 071-477 8880

Dear Mr. ,

Further to our meeting on we would like to remind you that this research cannot be completed without the participation of a business such as yours. So we would like to ask you, if you have not already completed and returned the questionnaires*, to please spare some minutes of your valuable time to assist us in our research.

The Innovation Research Unit, as part of continuing research into the product development practices of financial services companies is currently investigating the contribution of marketing to new product development success.

A copy of the research results will be sent to you as soon as we have completed our study. Complete CONFIDENTIALITY of your response is assured.

If you have already completed and returned the questionnaire, please accept our thanks for your kind co-operation.

Yours sincerely,

Panayiotis Pavlidis BSc,MBA

* Questionnaires: Section 1 and 2 completed by you and two copies of Section 3 to be completed by two members involved in new product development.

APPENDIX C

ADMINISTERED QUESTIONNAIRE

by

PANAYIOTIS PAVLIDIS

Main parts

1. BACKGROUND TO THE BANK

2. THE IMPORTANCE OF THE FINANCIAL INSTRUMENTS DEVELOPED WITHIN IT AND CURRENT SITUATION OF THE TREASURY BUSINESS WITH PARTICULAR REFERENCE TO NEW PRODUCT DEVELOPMENT PROCESSES IN FINANCIAL RISK MANAGEMENT PRODUCTS
 - (I) GENERAL QUESTIONS REGARDING THE TREASURY BUSINESS FOR FINANCIAL RISK MANAGEMENT PRODUCTS
 - (II) NEW PRODUCT REQUIREMENTS
 - (III) ENDOGENOUS MANAGERIAL VARIABLES
 - (IV) TECHNICAL AND OTHER RESOURCE INPUTS
 - (V) TEAM MEMBERS INVOLVED WITH THE NPD

3. THE WAY IN WHICH MARKETING APPLIED FOR NEW PRODUCT DEVELOPMENT PURPOSES
 - (I) GENERAL DATA
 - (II) SPECIFIC DATA

PART 1: BACKGROUND TO THE BANK

1.1 History, ownership and main activities

Name of the bank:

Type of bank:

Size (assets):

Main activities:

PART 2: CURRENT SITUATION OF THE TREASURY BUSINESS WITH PARTICULAR REFERENCE TO NEW PRODUCT DEVELOPMENT PROCESSES OF FINANCIAL RISK MANAGEMENT PRODUCTS

Introductory remarks at the beginning of each individual questionnaire with the head of the treasury division.

I am conducting a study into the role of marketing in the development of new banking products. Its purpose is first to obtain my doctorate and second to ensure that my future professional career is based on current realities and not just theory.

I have selected a sample of commercial, investment and merchant banks active in the financial risk management market because competition is particularly fierce within this market due to the entry of other financial institutions and because successful new product development is a necessary competitive weapon.

My study is totally non-commercial and the case material will be seen only by me and the examiners. Any subsequent publication which intends to mention your bank's name will be cleared officially beforehand.

DATE: _____

RESPONDENT: _____

P: Now, I would like to ask you some general questions regarding the treasury business of your bank with special reference to financial risk management products:

IMPORTANT NOTE: FOR THE PURPOSE OF THIS RESEARCH STUDY THE WORD TREASURY IS DEFINED AS ONLY FINANCIAL RISK MANAGEMENT PRODUCTS.

2.1 GENERAL QUESTIONS REGARDING THE TREASURY BUSINESS
(Special reference to financial risk management business)

2.1.1 What % of your current total bank income comes from the financial risk management business? (between 1988-1992)

..... %

2.1.2 What is the current average annual growth rate, in volume terms, of your bank's financial risk management market in the period between 1998-1992?

..... %

2.1.3 Is your financial risk management market, a new market for your bank?

Years of operation

2.1.4 What percentage of turnover (commission fees) in your treasury division has been spent over the last 4 years on R&D? (R&D includes all the costs for developing new financial risk management products)

1988-1989 1989-90 1990-91

1991-1992

2.2 NEW PRODUCT REQUIREMENTS

2.2.1 Can you identify any new products which have been developed in your bank for the U.K. in the period between 1988-1992?

2.2.2 Which of those were introduced first, that is to say, ahead of the competition?

2.3 ENDOGENOUS MANAGERIAL VARIABLES

2.3.1 Is your division following an expansionistic business strategy; that is to say, a strategy which focuses in the development of new products for expanding existing product markets?

YES:

NO :

2.3.2 Is your division following a differentiating business strategy; that is to say, a strategy which focuses in the development of new products for differentiating from existing product markets?

YES:

NO :

2.3.3 Does the head of the division offer strong support for those taking part in key product development activities?

YES:

NO :

2.3.4 Does the head of the division practice a kind of management style in which individual functions are left alone to find solutions between themselves?

YES:

NO :

2.3.5 Is there a shared belief for expanding the treasury (risk management) business through new product development?

YES:

NO:

2.3.6 Are your new product development activities organized along functional lines?

YES:

NO :

2.3.7 Are your new product development activities organized along product lines?

YES:

NO :

2.3.8 Is your division establishing systems in which the prime purpose is for controlling the different product development activities continually?

YES:

NO :

2.3.9 Do the persons involved in new product development have any training?

YES: (Also answer 2.3.8.1 and 2.3.8.2)

NO :

2.3.9.1 Have they received a formal training?

YES:

NO :

2.3.9.2 Have they received an internal training?

YES:

NO :

2.3.10 Is your product development staff drawn from a marketing educational background?

YES:

NO :

2.3.11 Is your product development staff drawn from a marketing professional background?

YES:

NO :

2.3.12 Is your product development staff drawn from a technical educational background? [e.g. accounting, economics, finance]

YES:

NO :

2.3.13 Is your product development staff drawn from a technical professional background?

YES:

NO :

2.3.14 Do you have persons with formal marketing titles?

YES: (what role those persons have?)

NO :

2.3.15 Do you have an established marketing department?
(marketing department: marketing research;
advertising; sales promotion; customer service; sales
management)

YES:

NO :

2.4 TECHNICAL AND OTHER RESOURCE INPUTS

2.4.1 Is your product development team involve (or get advice from) staff with adequate legal (regulatory), economics, accounting, tax, engineering, computing and finance expertise?

YES:

NO :

2.4.2 Does the bank's capital and personnel commitment is adequate for product development purposes?

YES:

NO :

2.5 TEAM MEMBERS INVOLVED WITH THE NPD PROCESS

2.5.1 Who were involved in the development of new products?
[Please identify name/title/occupied time]

Name	Title	FT	PT
----	-----	--	--

2.5.2 Are those persons selected because of their professional background in that area?

YES:

NO:

2.5.3 Are those persons selected because of their educational background in that area?

YES:

NO :

PART 3: THE WAY IN WHICH MARKETING INPUTS ARE APPLIED FOR PRODUCT DEVELOPMENT PURPOSES

Respondent:
Bank:

Introduction: brief presentation of the research study.
Final statement to the respondents before completing the questionnaire.

I would like you to indicate your level of agreement or disagreement in the statements which I have constructed and reflect various marketing activities undertaken during your product developments.

In general terms, I am particularly interested in finding out if and if so how marketing inputs are used into product development process. Thank you for taking the time to complete this questionnaire.

All answers will be kept strictly confidential.

General data

3.1 Have you any prior marketing professional background?

YES:

NO :

3.2 How important do you consider marketing as a business function to be?

Extremely Important	Very Important	Somewhat Important	Not very Important	Not at all Important
5	4	3	2	1

3.3 Do you agree with the following statement:

Marketing is an important business function with prime purpose of encoding the changes in the environment and then influencing the organization to interact more proficiently and profitably with this environment.

Strongly Agree					Strongly Disagree
5	4	3	2	1	

Specific data

Please indicate your level of agreement or disagreement with the following statements which depict various activities that took place during your product development process.

Strongly Agree: 5
Agree: 4
Don't Know: 3
Disagree: 2
Strongly Disagree: 1

Strategy

1. Markets were principally segmented on the basis of customer benefits. (h1)

Strongly Agree					Strongly Disagree
5	4	3	2	1	

2. Sufficient resources - time, people and money - were used for market research purposes. (h1)

Strongly Agree					Strongly Disagree
5	4	3	2	1	

3. By the time we decided to develop a particular product, we investigated the factors that influenced customer-buying decisions with this product. (h1)

Strongly Agree					Strongly Disagree
5	4	3	2	1	

4. We focused primarily on a package of values including product performance, service and applications. (h1)

Strongly Agree					Strongly Disagree
5	4	3	2	1	

5. A very detailed analysis of customer benefits, which involved determining the benefits that people look for in the products and the kind of people who look for each benefit, was conducted. (h1)

Strongly Agree				Strongly Disagree
5	4	3	2	1

6. We continually strive for knowledge in the strategy of our major competitors. (h1)

Strongly Agree				Strongly Disagree
5	4	3	2	1

7. We continually strive for knowledge in the structure of our major competitors. (h1)

Strongly Agree				Strongly Disagree
5	4	3	2	1

8. We continually strive for knowledge in the objectives of our major competitors. (h1)

Strongly Agree				Strongly Disagree
5	4	3	2	1

9. We put customer satisfaction at the top of our agenda. (h1)

Strongly Agree				Strongly Disagree
5	4	3	2	1

10. Information on customers and competitors is communicated to all people involved in the product development process. (h1)

Strongly Agree				Strongly Disagree
5	4	3	2	1

Shared values

Key-decision makers: We define those persons who have the power of influencing any decision made within the division.
Marketing staff: We define those persons who perform any kind of marketing activity

11. Key-decision makers were constantly reminded by marketing staff that the market is the primary source for identifying new opportunities. (h2)

Strongly Agree					Strongly Disagree	
5	4	3	2		1	

12. All key decision-makers involved in the new product development process were persuaded by the marketing staff that scanning the market was essential to the success of the business. (h2)

Strongly Agree					Strongly Disagree	
5	4	3	2		1	

13. There was a strong effort from the marketing staff to gain support towards a market orientation from the personnel involved with customers. (h2)

Strongly Agree					Strongly Disagree	
5	4	3	2		1	

14. The significance of identifying opportunities primarily from the market was well spread - promoted - by the marketing staff at all levels in the division. (h2)

Strongly Agree					Strongly Disagree	
5	4	3	2		1	

Structure

15. The main marketing activities - selling, advertising, pricing - were organised on a market basis. (h3)

Strongly Agree			Strongly Disagree		
5	4	3	2	1	

16. A market-based structure was facilitating the search for new market opportunities. (h3)

Strongly Agree			Strongly Disagree		
5	4	3	2	1	

Systems

17. Marketing planning procedures for exploiting emerging market opportunities were predominantly in writing. (h4)

Strongly Agree			Strongly Disagree		
5	4	3	2	1	

18. Our marketing planning procedures for exploiting emerging market opportunities were part of the formal new product development planning system. (h4)

Strongly Agree			Strongly Disagree		
5	4	3	2	1	

19. Criteria for identifying possible "gaps" in the market were established before market assessment. (h5)

Strongly Agree			Strongly Disagree		
5	4	3	2	1	

20. A very detailed market assessment - demand, volume, potential sales, potential profits - was conducted before any decision on a new product development was taken. (h5)

Strongly
Agree

5

4

3

2

Strongly
Disagree

1

21. All possible market segments were scanned for new needs and requirements. (h5)

Strongly
Agree

5

4

3

2

Strongly
Disagree

1

22. A very detailed investigation was conducted on the possibility of adapting what was offered in one market - e.g. a swap developed for a petroleum company - to the needs of another market - e.g. for an electronics company. (h5)

Strongly
Agree

5

4

3

2

Strongly
Disagree

1

23. Criteria for identifying customer benefits, needs and wants were developed. (h5)

Strongly
Agree

5

4

3

2

Strongly
Disagree

1

24. There was a high level of awareness of competitors' products. (h5)

Strongly
Agree

5

4

3

2

Strongly
Disagree

1

Style

For the purpose of our study we define as "top marketing staff" those persons who not only perform any kind of marketing activity but also had the responsibility of the marketing effort.

25. Top marketing staff advised the product development team on the establishment of specific market criteria. (h6)

Strongly
Agree

Strongly
Disagree

5 4 3 2 1

26. Background information to provide an insight into the economy, competitors, different market alternatives, customers, etc., was gathered by top marketing staff. (h6)

Strongly
Agree

Strongly
Disagree

5 4 3 2 1

27. Assistance was provided by top marketing staff to install planning and controlling systems for exploiting market opportunities and interpreting their output. (h6)

Strongly
Agree

Strongly
Disagree

5 4 3 2 1

28. Assistance was provided by top marketing staff to the product development team in preparing their marketing plans. (h6)

Strongly
Agree

Strongly
Disagree

5 4 3 2 1

29. There was a high level of support exhibited by top marketing staff for the marketing planning procedures to be implemented on schedule. (h6)

Strongly
Agree

Strongly
Disagree

5 4 3 2 1

30. There was a high level of accuracy in the communications within the product development team resulting from the strong support of the top marketing staff. (h7)

Strongly Agree				Strongly Disagree
5	4	3	2	1

31. Communications within the product development team was rapid due to strong support of the top marketing staff. (H7)

Strongly Agree				Strongly Disagree
5	4	3	2	1

skill

32. The allocation of resources to plans for the new product development process was managed by marketing staff. (h8)

Strongly Agree				Strongly Disagree
5	4	3	2	1

33. Activities executed throughout the product development process were monitored by the marketing staff. (h8)

Strongly Agree				Strongly Disagree
5	4	3	2	1

34. The marketing staff was responsible for a strong co-ordination among people and departments involved in the product development process. (h8)

Strongly Agree				Strongly Disagree
5	4	3	2	1

35. Systems analysis and statistical decision theory were used to analyse market decisions. (h9)

Strongly
Agree

Strongly
Disagree

5 4 3 2 1

36. A very detailed assessment of the market needs was carried out before the actual development of the product. (h9)

Strongly
Agree

Strongly
Disagree

5 4 3 2 1

37. Existing information about the marketplace was thoroughly reviewed. (h9)

Strongly
Agree

Strongly
Disagree

5 4 3 2 1

38. The survey instrument - questionnaire - was due to a well co-ordinated effort of those who collected the information, monitored and interpreted it. (h9)

Strongly
Agree

Strongly
Disagree

5 4 3 2 1

39. Primary data - data collected from a field research - of a representative sample - target population of the product - of the market was collected. (h9)

Strongly
Agree

Strongly
Disagree

5 4 3 2 1

40. A continuous collection of secondary data - company records, libraries, trade publications, data service directories - was always in the agenda. (h9)

Strongly
Agree

Strongly
Disagree

5 4 3 2 1

41. Market information was put into a form capable of being effectively used by the product development team. (h9)

Strongly
Agree

Strongly
Disagree

5 4 3 2 1

42. Descriptive statistics were mainly used for the analysis and description of the data collected. (h9)

Strongly
Agree

Strongly
Disagree

5 4 3 2 1

43. Research questions were developed for every activity to ensure that adequate information was obtained. (h9)

Strongly
Agree

Strongly
Disagree

5 4 3 2 1

44. Market research projects were continually assessed for identifying possible flaws - mistakes. (h9)

Strongly
Agree

Strongly
Disagree

5 4 3 2 1

Staff

45. Product development teams were staffed with marketing staff who have adequate knowledge of their markets. (h10)

Strongly
Agree

Strongly
Disagree

5 4 3 2 1

46. Marketing staff was chosen for the ability to analyse market criteria. (h10)

Strongly
Agree

Strongly
Disagree

5 4 3 2 1

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