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INITIATING INNOVATION IN MATURE FINANCIAL ORGANISATIONS

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To Grace and her father the late Michael D. Murray PhD who both gave me the encouragement and support to complete this journey.

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DECLARATION

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ABSTRACT

This thesis is about innovation in mature organisations and responds to recent demands for research that expands the understanding of how organisations develop the capacity to rejuvenate. The research focuses upon the efforts of chief executives as they attempt to break down barriers to innovation in response to sudden and unforeseen changes in the competitive environment. Specific attention is given to the process of initiating innovation.

The research follows in the hypothetico-deductive tradition. The research sample consists of eight UK insurance companies that sought to grow organically through innovation in response to significant changes in the competitive environment during the period 1989 to 1992. As some had not produced a single new product in over ten years the effort required was considerable. Many organisations in the research sample have only recently completed the rejuvenation process. Using personal interviews, case studies reveal the process of change in each company. Eight case studies are examined, one developed on a real-time basis, the remaining studies being constructed retrospectively.

The findings show that a series of distinctly different organisational structures and management approaches are needed to stimulate innovation in mature organisations. In successful organisations, chief executives implemented three major episodes of change in rapid succession. The first has the objective of challenging cultural barriers, introduces the concept of customer focus and is accompanied by widespread changes to top management staff. The second episode of change encourages experimentation, introduces further increases in customer focus, new staff and skills. In successful organisations this second episode is seen as the point when innovative activities and strategies first develop that actually change the way that the organisation competes in the marketplace. The third and final episode acts to reinforce the organisation's newly found innovative capability. Less successful organisations approach the process of change in a less structured manner, typically attempting firstly to generate new competitive strategies rather than challenging established practices. At the end of the process, less successful organisations are typically characterised by a declining motivation to change and disagreement over the future direction of the organisation.

The findings expand understanding of the dynamic relationship between organisational structure and strategy where it has been an established tenet within the literature that structure follows strategy. Contrary to established expectations, we find that two episodes of structural change are required to stimulate innovative strategies. The findings conclude that a more holistic research approach is needed especially when the definition of strategy and structure is considered. When stimulating innovation in mature organisations, changes to management style and top level staff may be of equal if not greater importance than alterations to the more established dimensions of structure such as the centralisation of decision making and formalisation of procedures.

CHAPTER ONE

INTRODUCTION

1.1 INTRODUCTION

The concern of this research is the process of stimulating innovation in mature organisations. Specific attention is focused upon mature organisations that are faced with sudden and unforeseen changes in the competitive environment.

It is widely held within the strategy, innovation and organisational change literatures that to survive in the face of changes in the competitive environment, organisations must rapidly conceive and implement new and innovative strategies (Booz, Allen and Hamilton, 1982; Cooper and Schendel, 1976; Johne and Snelson, 1990; Peters, 1987; Porter, 1985; Smith and Grimm, 1987). However, these literatures also inform us firstly that the characteristics of the mature organisation, which include the organisational structure, culture and dominant skills, present considerable barriers to the initiation of innovation and that secondly our understanding of the process that mature organisations must go through to dismantle such barriers is limited (Child and Smith, 1987; Dougherty, 1992a; 1992b; Gersick, 1991; Pettigrew, 1985; 1987a; 1987b; 1990).

The principal objective of this study is to examine the process of stimulating innovation in mature organisations as these organisations seek to respond to the challenges of a changing competitive environment. We therefore wish to increase our understanding of how mature organisations develop the capability to innovate, which as Baden-Fuller (1995) holds, is central to the competitive process.

1.2 THE CONTEXT

This research focuses upon the UK general insurance industry which provides property, motor and liability insurances to personal and commercial customers in the UK. During the period 1989 to 1992 this industry simultaneously faced the challenges imposed by new entrants using new business level strategies; the availability of advanced forms of information technology; changing customer demands and an unexpected deterioration in the profitability of core products. This research context is discussed in detail in Chapter 2.

Traditional firms in this industry faced a huge problem. Their established business level strategies had been rendered obsolescent by changes in the competitive environment. Most recognised the need to change the way they compete. However, the process of stimulating innovation was a formidable task for them, as some had not, for example, introduced a single new product for over ten years.

1.3 THE RESEARCH PROBLEM

We have already introduced the assertion that organisations must respond to changes in the competitive environment by developing innovative strategies. It is also widely observed in the literature that the characteristics of the mature organisation present considerable barriers to innovative activity (Chisholm, 1987; Crozier, 1964; Rumelt, 1994; Stopford and Baden-Fuller, 1990). Dougherty and Heller (1994), for example, go so far as to state that the organisational structure and culture of the mature organisation "illegitimises", or acts to inhibit, any innovative activity and that substantial alterations will be required to "legitimise" or enable innovation.

Additionally, it is observed that understanding of the sequential process of change in organisations is limited (Child and Smith, 1987; Greenwood and Hinings, 1987; 1988; Hinings and Greenwood, 1988; Pettigrew, 1985; 1987a; 1987b; 1990; Porter, 1991; Rumelt, Schendel and Teece, 1991; Schendel, 1993; Wilson, 1992). As Gersick (1994) holds, this observation applies

particularly in respect of the process of initiating change. The need to expand our understanding of the sequential process of change in organisations is illustrated by the long established debate centring upon the sequential relationship between changes to organisational structure and strategy. Whilst Chandler's (1962) thesis that "structure follows strategy" has become an established tenet within the literature, this position has recently been challenged, principally by Mintzberg (1990), who argues that strategy and organisational structure develop in a closely inter-linked manner. Although this debate has lasted for over thirty years, Amburgey and Dacin (1994) and Greenwood and Hinings (1988) observe that (i) we have as yet little understanding of the causal linkages that connect individual events that together constitute the process of change; (ii) the measures used to conceptualise changes are limited in scope; (iii) little attention has been given to the magnitude of the changes made and (iv) closer attention is required to the temporal dimension during the process of change. These issues are addressed in this thesis.

Analysis of the literature points to two important and related topics that require investigation. First, there is a need to focus upon business level activities; that is to say, how the organisation competes in its chosen markets as opposed to the broader corporate level direction of the organisation. So far, research examining the relationship, for example, between strategy and organisational structure has focused almost exclusively upon corporate level strategy (Miller, 1986; 1987). Second, it has been strongly indicated within the innovation literature (Damanpour, 1991; Downs and Mohr 1976; Zmud, 1982) that different types of innovation require different organisational characteristics, introducing the proposition that the process of stimulating innovation in mature organisations may vary by innovation type. These areas also require further study.

1.4 THE AIM OF THE RESEARCH

The primary objective of this study is to examine the process of stimulating innovation in mature organisations. In short, what is the sequence of organisational change that is required to stimulate innovation in mature organisations? This issue is specifically examined from the perspective of the actions taken by Chief Executive Officers (CEOs). Examination of this area will expand both the understanding of the sequential process of change and our understanding of how mature organisations gain the capability to innovate.

The **research questions** addressed in this study are:

(a) *"What sequence of organisational change, instigated by chief executive officers, is functional to initiating innovation in mature organisations?"*

(b) *"Are different approaches to initiating the innovation process required for different types of innovation?"*

1.5 THE METHOD OF THE INVESTIGATION

1.5.1 The Methodology

The methodology adopted in this thesis is the deductive approach. As Ackroyd and Hughes (1981) observe, the deductive approach proceeds from the analysis of theories to the development of specific hypotheses which are then subjected to test through observation and measurement. The alternative methodology is the inductive approach, where one proceeds from observations to empirical generalisations and then to theory development. The deductive approach has been adopted in this thesis as it is our objective is to build upon the knowledge presented in the innovation, organisational change and strategy process literatures in order to increase our understanding of the process of stimulating innovation in mature organisations.

1.5.2 The Definitions Used

For the purposes of this research, the following terms have specific meanings:

Strategy We follow the practice of Hofer and Schendel (1978) and note that strategy can exist at three levels within the organisation: (i) at the corporate level; (ii) at the functional level, which is concerned with issues of resource maximisation and (iii) the business level. In this study we focus purely upon how the organisation competes through the use of "business innovation" in its chosen product markets. The concept of business innovation is defined below. In this research we focus upon **business level strategy** and, unless otherwise qualified, all references to strategy relate purely to business level strategy. One further delineation is necessary in the definition of strategy. Mintzberg and Waters (1985) note that strategies can be segregated into three groups; (i) intended, or planned strategies; (ii) emergent strategies, or those that evolve as the organisation learns and (iii) realised strategies, being those that are put into operation. This delineation of business level strategy is maintained in this thesis and references to strategy are qualified accordingly.

Business Innovation Johne (1995); (1996) identifies that business development or innovation, consists of four components. These are (i) *product innovation* embracing improvements to existing products; new to the organisation products; new products that are extensions to existing product lines and finally "new to the world" products; (ii) *product augmentation innovation*, which involves changes to the way a product is offered by way of support to customers (Mathur, 1988; 1992); (iii) *market innovation*, which is concerned with improving the mix of target markets in which the product is sold and (iv) *process innovation* which is concerned with innovation in the systems used to produce products. In the context used within this research, business innovation excludes development through inorganic means, in other words, growth through acquisition, merger or divestment. The four dimensions of business innovation therefore describe the types of business level strategy that organisations can use to grow organically. When used, the term

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offer innovation follows managerial parlance (Johne, 1996) and embraces product and product augmentation innovation.

Success: In this study the successful and less successful organisations are separated by one dividing characteristic. The successful organisations engaged in business innovation that extended beyond improvements to existing products to include either new to the organisation or new to the world products. The less successful organisations failed to progress beyond the improvement of their existing products.

Configuration We follow the practice of Greenwood and Hinings (1988); Hinings and Greenwood (1988); Meyer, Tsui and Hinings (1993) and Ranson, Hinings and Greenwood (1980) and hold that organisations are best understood in terms of an overall configuration of elements, rather than through the analysis of only one or more specific elements, such as the characteristics of decision making. Following an examination of the literature presented in Chapter 3, the configuration of an organisation is defined as having seven properties or elements. These are (i) the formal structure which embraces the formalised methods of control as defined by top managers; (ii) the informal systems or the day to day activities at the business level used to produce the organisation's products; (iii) the intended strategy or plans to reach agreed goals; (iv) staff, being the distribution of staff within the organisation; (v) leadership style used by top management; (vi) the distinctive skills of staff and (vii) shared values being the commitment to the organisation's strategy and the motivation to change. Each element is discussed in Chapter 3.

Change When used in the context of the organisation this refers to change that involves all seven elements of the organisation's configuration and we therefore follow the definition of "second order" change in organisations put forward by Levy (1986) that embraces change "in core processes, in mission and purpose, and in organizational world view or paradigm" (p19). "First

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order" change, on the other hand, "consists of those minor improvements and adjustments that do not change the system's core" (p10).

1.5.3 The Research Strategy

Following Leonard-Barton (1990), a dual case study methodology has been adopted consisting of one real-time longitudinal case study and seven retrospectively constructed case studies. The presence of the author, as a practising manager within the organisation that was to form the longitudinal case study, provided an unusual opportunity to collect data on a longitudinal basis.

The research combines quantitative and qualitative approaches to data collection through the use of questionnaires and interviews respectively. Informants in respect of each case study consisted both of CEOs and staff responsible for day to day business innovation.

1.6 THE LIMITATIONS OF THE STUDY

This research examines changes to the configuration of mature organisations and the stimulation of business innovation within one industry context. Whilst it may be argued that this approach limits the generalisability of the findings, we have followed the approach of McKelvey (1982) and hold that solid findings regarding a narrow population are better than marginal findings regarding a broader population.

As stated above, the dual case study methodology has been adopted using one longitudinal case study constructed on a real-time basis and seven retrospectively constructed. There is no doubt that a greater number of case studies would provide a richer source of data, but we would argue that the chosen research method has enabled us to answer the research questions and in so doing extend our knowledge in this research area. The use of additional real-time case studies would have consumed resources beyond those available.

Possibly the greatest limitation is that the research pays particular attention to methods used to initiate business innovation in mature organisations. The research does provide findings upon the subsequent, more routine actions that may be necessary to sustain business innovation activity, but the question of how the configuration of an organisation should develop in the years after the initiation period will require further research.

1.7 AN OVERVIEW OF THE FINDINGS

This research examines "metamorphic" change (Stopford and Baden-Fuller, 1994), where the process of organisational change cover periods as short as thirty three months. As Stopford and Baden-Fuller (1994) point out, this is a most challenging course to follow.

Against this context, our findings identify that a temporally more "fine grained" approach is required when studying the emergence of innovation in mature organisations in view of the pace of change found in the more successful organisations.

As stated above, eight organisations were studied. The four successful organisations produced radically new products and succeeded in introducing product augmentation, market and process innovations. The remaining organisations failed to stimulate any radical product innovation, product augmentation or market innovation activity.

The research indicates that three episodes of change, instigated by CEOs, contribute to the initiation of business innovation in the successful organisations. These episodes of change clearly differentiate the activities of the successful organisations from the unsuccessful. The three episodes or waves of change that are observed in the successful organisations are:

Episode 1: Simultaneous changes to both the formal structure and the composition of the top management team. These actions challenge existing shared values and stimulate activity to increase the organisation's understanding of its customers' needs and are undertaken by the Chief Executive Officers (CEOs) personally, or with the assistance of a select group of top managers. The objectives of CEOs at this point are purely to remove barriers to change and to challenge existing shared values. Throughout this episode, CEOs adopt a dictatorial management style. No consideration is given before this point to the future intended strategy of the organisation at any level.

Episode 2: Changes consisting of alterations to the formal structure; the hiring of staff from outside the organisation and activities to increase skill specialisation. These changes are accompanied by a shift in CEO management style from "interventionist" to one of supporting learning and experimentation. These alterations encourage the development of product development skills and break down the remaining areas within the organisation that resist change. Informants within the more successful organisations identify these secondary changes as being the key enabling mechanisms for business innovation.

Episode 3: Change which reinforces the ability of the organisation to sustain its newly found innovative capacity. This consists of alterations to the organisation's configuration designed by staff at the business level, as opposed to alterations designed by top managers, which characterised the first two waves of change described above. The locus of design therefore shifts from top management to business level staff during this last episode.

It must be stressed that these changes are executed rapidly in the successful organisations, the three episodes of change being completed over a period of thirty three to forty eight months.

The findings add to our understanding of the relationship between configurational elements within this research context. We find that two episodes of change are required to initiate innovative business innovation in mature organisations. Further, the success of the change process is largely dependent upon the initial actions taken by CEOs. Failure at the outset both to remove those in the top management team who do not support change and to alter the formal structure to challenge established shared values are the hallmarks of the less successful organisations in this study.

We did not find support for a hypothesis that proposes that different methods of initiating innovation are required for offer and market innovation as opposed to process innovation (these terms are defined in section 1.5.2 above). Three issues underlie this finding.

(i) First, at the outset of the change process all the successful organisations faced a strategic vacuum, that was not resolved until the first wave of change described above had been completed. Initially, the CEOs of successful organisations focused upon removing barriers to change. All actions were executed with this objective in mind. None of the first alterations made to the organisation's configuration were intended to stimulate any form of business innovation activity.

(ii) Second, the successful organisations developed the capability to simultaneously generate all forms of business innovation, that is to say product, product augmentation, market and process innovation.

(iii) Thirdly, the literature indicates that the use of formalised procedures may support process innovation. All the successful organisations found it necessary to alter control systems and procedures away from traditional systems that sought to control activities *before* they occurred. These

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systems had proved to be inadequate to control the organisations in times of external change as they had not kept top managers informed of developments within the product markets that the organisations participated in. New control systems, that sought to monitor the *outcomes* of decisions taken at the business level were introduced to replace more traditional controls in all the more successful organisations.

CHAPTER TWO

THE INDUSTRY CONTEXT

2.1 INTRODUCTION

This Chapter has three objectives. First, to provide an overview of the history
and development of the UK general (non-life) insurance industry. Second, to
provide the reader with an understanding of the changes that took place in the
industry between 1989 to 1992, being a period in which the CEOs of the
organisations in our research sample recognised that major change was
required. Third, to demonstrate the need for research that examines the
process of overcoming barriers to innovation in this industry. The Chapter is
divided into the following sections:

2.2 Historical background.

2.3 The Darkest Hour. The competitive environment during the period 1989
to 1992.

2.4 The Innovation Challenge. The barriers to innovation and product
development present within the Industry.

2.2 HISTORICAL BACKGROUND

The relatively complex structure of the UK general insurance industry is the
result of its long history and involvement in international insurance. The
origins of general, that is to say, non-life insurance, can be traced back to the
16th and 17th centuries, when the concept of insurance was brought to the UK
by Italian, Flemish and Hanse traders. The need for insurance was heightened
by the Great Fire of London in 1666 which gave birth to a great number of
mutual fire insurance societies and friendly societies. Some of the insurance
companies in our research sample can trace their origins to this period.

It was not until the 18th century that insurance operations were extended to the international stage. The importance of London as an international trading centre, including the founding of Lloyd's in the late 17th century, gave rise to the formation of a number of insurance companies in the 18th and 19th centuries. The 18th and early 19th century saw the creation of many companies such as the Sun Fire Office, Royal Exchange, Eagle Star, Alliance and Guardian, names which survive until the present day.

Industrialisation in the 19th century brought with it the demand for new forms of insurance, such as liability, loss of profits, personal accident and theft. In 1896 the first motor insurance policy was issued. Aviation insurance emerged after the First World War.

The last quarter of the 20th century has seen many changes including the abolition of pricing tariffs and a much more competitive marketplace. These trends, that are examined below, include entry over the last decade of new low cost entrants using totally new competitive methods (for example Direct Line Insurance) and increasing sophistication amongst large industrial clients who have established their own "captive" insurance companies. These developments have led to a reduction in business available for established insurance companies.

In terms of the provision of insurance, the general insurance market can be put into three broad categories. The first category consists of insurance companies, either proprietary or mutually owned. Lloyd's syndicates form the second, where insurance is provided by syndicates of individual underwriters. The final category relates to captive insurance companies, which are usually confined to carrying one risk, normally that of its parent. The parents of captive insurance companies are typically large multi-national manufacturing organisations.

In this research our attention is purely upon insurance companies in the first category. In 1991 570 such companies were authorised to transact non-life insurance in the UK (Department of Trade and Industry, 1991).

The UK general insurance industry can also be divided by the geographic location of companies or Lloyd's Underwriters, where three categories are again found.

The UK national market forms the first category. This is spread across the UK, where insurance business is passed to the insurers, traditionally by brokers and agents to local offices. The primary focus of this business is in respect of UK domiciled properties, cars and businesses. Practitioners frequently divide this UK national market into two sections, "commercial lines", being the insurance of commercial properties and liabilities and "personal lines", the insurance of privately owned properties and cars.

The second category refers to Lloyd's in the City of London. A considerable volume of business placed at Lloyd's relates to international, marine and reinsurance business. In 1990 64% of Lloyd's business came from outside the UK (IFT Marketing Research, 1993). The "London Market" forms the third category. This is a collection of UK based and foreign insurance companies operating physically adjacent to Lloyd's and transacting similar types of business to that transacted within Lloyd's which is principally of an international nature.

In this research attention is focused upon the first category, the "UK national market", as we wish to examine how companies responded to changes that specifically altered bases of competition within the UK.

2.3 THE DARKEST HOUR.

In this section we turn our attention to developments in the competitive environment that were to lead to the recognition, by all of the CEOs within our sample of companies, that traditional competitive strategies were obsolescent. We focus in particular upon developments in the period 1989 to 1992. Many companies failed to respond to the competitive pressures described below, with the result that six withdrew from the marketplace.

The competitive forces at work both in the UK general insurance industry and the larger UK financial services sector have been reviewed by Ennew, Wright and Thwaites (1993) and Thwaites (1991). These writers group environmental changes under the following headings:

1. Competition, particularly the threat of new entrants;
2. Technology;
3. The European Single Market;
4. Economic;
5. Demographic; and
6. The Product Environment.

We will now discuss each heading in turn to describe the scale of change in the competitive environment faced by the CEOs of organisations in the general insurance industry.

Competition: The UK general insurance marketplace as a whole has become increasingly competitive during the period 1989 to 1996. The total number of authorised insurance companies writing general insurance business in the UK has increased by 16% over the period 1980 to 1991 (IFT Marketing Research, 1993), but the influence of the entry of foreign insurance companies is more significant. During the period 1980 to 1991 the total number of UK owned general insurance companies increased by 8% but the number of overseas owned companies increased by 28% (IFT Marketing Research, 1993). The

majority of entrants during this period relate to US owned organisations. The market share controlled by such foreign owned organisations has increased by 50% in recent years as shown in Figure 2.1.

Figure 2.1 Foreign Owned Share of UK General Insurance Market

Source: IFT Marketing Research (1993)
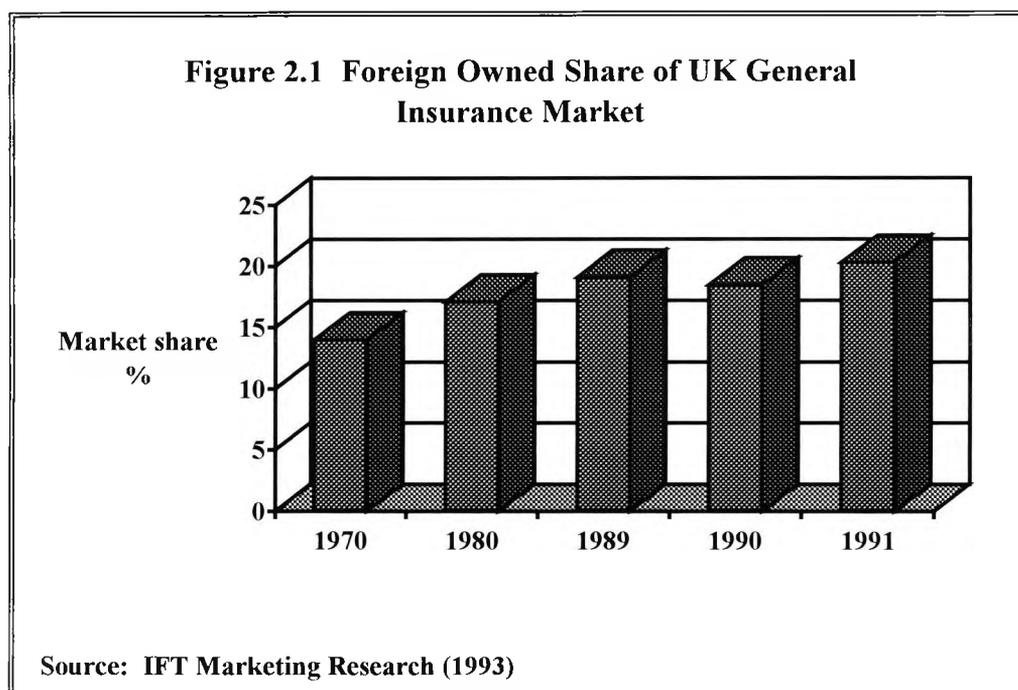
The entry of foreign owned insurers has not been the only change to take place in the competitive environment. Significant changes were also taking place in the distribution of general insurance. Traditionally, insurance companies operating in the UK have distributed their products through independent insurance brokers and intermediaries. The period 1985 to 1991 saw the entry of a number of specialist insurers that bypassed traditional brokers and distributed products directly to customers. These changes were most noticeable in personal lines insurance, that is to say, private car and household insurance as Figures 2.2 and 2.3 demonstrate.

Figure 2.2 Distribution Trends in Personal Lines (Private Car and Household) Insurance
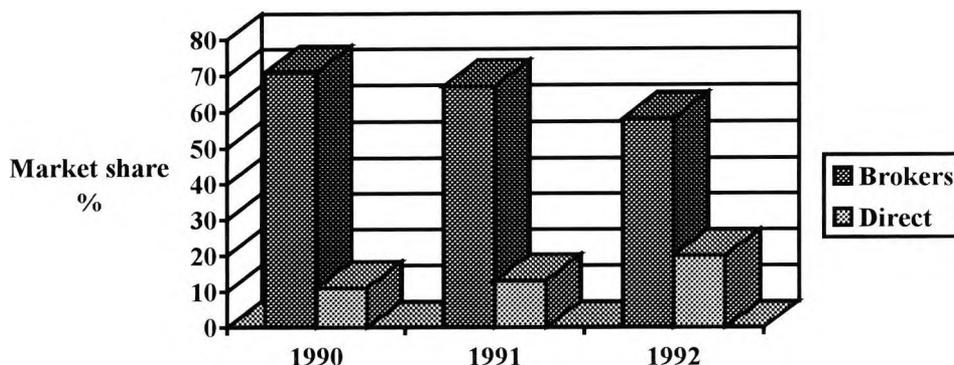
Source: IFT Marketing Research (1993)

Figure 2.3 Direct New Entrants (Personal Lines Insurance) 1985-1992
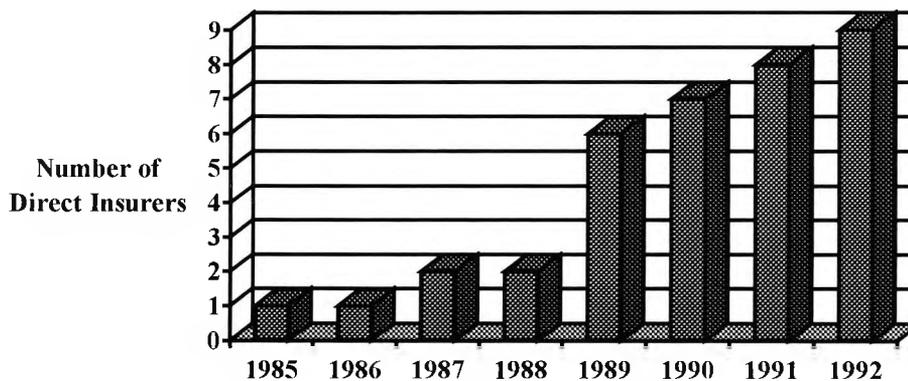
Source: IFT Marketing Research (1993)

New forms of competition were not limited to direct writing specialist insurance companies. As Bergendahl (1995) and Coopers and Lybrand (1993) report, the entry of retail banks ("bancassurance") into the distribution of insurance products could fundamentally alter the structure of the industry:

"External pressures on banks and insurance companies to adopt some form of bancassurance strategy are likely to intensify across Europe."

[Coopers and Lybrand (1993: 30)]

Bergendahl (1995) cites the following pressures that have forced banks to expand into the distribution of insurance products:

A. Insurance sales costs are substantially reduced when insurance products are cross-sold to a bank's customer base;

B. Selling insurance products implies that the customer base will be better protected against competition from other providers of financial services;

C. The demand for ordinary banking products has limited growth potential;

D. Products can be distributed in tandem. Take for example the insurance for the security of a loan; and

E. Customers may demand several products from one outlet.

The entry of the above direct writing specialists, coupled with plans by UK retail banks and building societies to increase their strength in the distribution of general insurance products is seen by many industry analysts (for example, Batey, 1993; Bradshaw, 1993; Leale-Green and Bloomfield, 1994; Southall and Thompson, 1993; Tillinghast, 1993) as being the most important structural change within the general insurance industry and a move that threatens the viability of traditional insurance companies that have historically relied upon brokers and intermediaries as their sole source of business. As Thwaites (1993) has observed, the ability to compete in the future may be dictated by:

1. Access to large customer bases;

2. Control of distribution channels, an anathema for the traditionally broker based insurers within our sample;

3. Access to customer information;

4. Improved sales culture and sales process;

5. Low cost processing;

6. Management expertise; and

7. Skills in product development and pricing.

We have discussed the effects of new entrants principally in the distribution of insurance products. We will now move to discuss the effects of new forms of information technology.

Technology and production costs: Many commentators (City Research Associates, 1991; Collins, 1993; IFT Marketing Research, 1993) predict the effects of new information technology in both reducing the expense base of the industry and influencing the future distribution of insurance products. As Kessler (1991) observes, a number of commentators have raised questions regarding the efficiency of the insurance sector. Shillito (1993); (1994) foresees that new forms of information technology will dramatically streamline both internal operations and the relationship between the insurer and distributor. Watkins (1993) identifies five areas that CEOs feel will be principally affected by information technology (IT):

(a) Information management where improved systems will enable companies to better monitor their businesses in an increasingly competitive environment;

(b) Customer service, where IT will play "an increasingly important role" in providing better customer services;

(c) Technology management which refers to the management challenge of understanding the new competitive rules in markets dominated by the use of IT;

(d) Cost reduction, where IT will be used to cut the costs of delivering services; and

(e) Strategic alliances, developing the capability to manage major IT enabled strategic alliances between competitors and distributors.

However, as Watkins (1993) notes, few insurance companies or the broader financial services sector in general have got to grips with new information

technology:

> "The four major areas of the financial services sector: banking, building societies, life assurance and general insurance are changing their IT systems in response to the changing business environment. They are all facing almost identical problems in such areas as integrated customer management systems and the use of networks for competitive advantage. *In spite of all the hype about major organisational change and leading edge technology, very few companies have got beyond the localised exploitation stage.*"
>
> [Watkins (1993:74) *italics added.*]

The European Single Market: As Boleat (1995) and Ennew, Wright and Thwaites (1993) observe, the financial services sector is presented with yet another challenge as a product of the liberalisation of financial markets within the European Community. Commentators and researchers predict a number of consequences that will follow such liberalisation. Firstly, increasing rates of acquisition and merger activity. City Research Associates (1991) predict a wave of acquisitive activity aimed at the larger UK insurance companies by organisations based inside the European Market. Secondly, Weidenfeld's (1996) survey of CEOs investigates the perceived effects of the European Single Market and reveals (i) a trend towards polarisation amongst insurers with two groups emerging - large, multi-product players and small, specialist "niche" companies; (ii) a demand for products that are differentiated in terms of supplementary services that are provided and flexible enough to meet the demands of individual customers and (iii) an increase in the number of distribution methods that are used. Farny (1990) summaries the challenges that face insurers in the European marketplace:

> "The movements that have occurred - and are still occurring - as a result of the single insurance market and other recognisable changes on the European insurance scene raise the question as to whether the corporate strategy of European insurers will be roughly the same or different. All in all, the strategic options described and the assessments made in respect of them lead to a prediction that a clearly *differentiated corporate strategy* will develop. The traditional old structures are being questioned, the elements of corporate policy are being re-examined and re-defined, and new structures will emerge. But even these will be different because European insurance will not present a uniform picture but will show great variety."
>
> [Farny (1990: 383) original emphases]

The Demographic and Product Environments: As we have observed, both Farny (1990) and Weidenfeld (1996) predict that the single European market will create pressures for increasingly differentiated, flexible products. Others, such as Poortvliet and Laine (1994) have pointed to a combination of demographic changes and the inability of governments to control their social security budgets that will lead to the birth of a new range of insurance related products embracing pensions, sickness and unemployment covers.

Itoh (1994); O'Hare (1994) and Schulte-Noelle (1994) see increasing both customer focus and the understanding of customer requirements as key issues facing insurers in the 1990s. It is O'Hare (1994) who identifies the critical deficiency in insurance companies' approaches to dealing with their customers. O'Hare (1994) observes that the industry has traditionally imposed products upon customers without a firm understanding of their true requirements:

> "Our industry is constantly assessing the regulatory, economic and financial landscapes. We spend precious little time assessing the landscape of our customers and the economic, social and political problems they are facing. We need to redirect our efforts, because these problems define their protection needs and therefore our future opportunities.
> The insurance industry has historically been product driven. We have done an excellent job of developing new products, coverages and packages of coverages, which we have taken to our customers and told them "you need this". Much of the time, they agreed with us.
> This relationship is changing, however."
>
> [O'Hare (1994: 358)]

As Philp, Haynes and Helms (1992) note, the financial services industry has yet to respond, in terms of its product offerings, to the demands of a fragmenting set of customer needs.

The Economic: The period 1991 to 1992 is described as general insurance's "darkest hour" (S. G. Warburg, 1993), industry underwriting losses rising to £7.0 bn. in 1991, trading losses equalling 12.0% of premiums (Association of British Insurers, 1994) being the worst ever losses recorded. The scale of these losses is ascribed to the UK recession; inadequacy of premiums; excessive

competition and the effects of new entrants described above (S. G. Warburg, 1992; Keynote Market Review, 1994; and City Research Associates, 1991).

The industry and the organisations within our research sample faced financial losses on a scale that had not previously been witnessed; some of our organisations suffered financial losses equal to over 30% of their financial reserves in a single year. Figure 2.4 illustrates the scale of the losses faced by the industry:

**Figure 2.4 UK General Insurance: Trading Results
1983 - 1992**

Source: Association of British Insurers (1994)
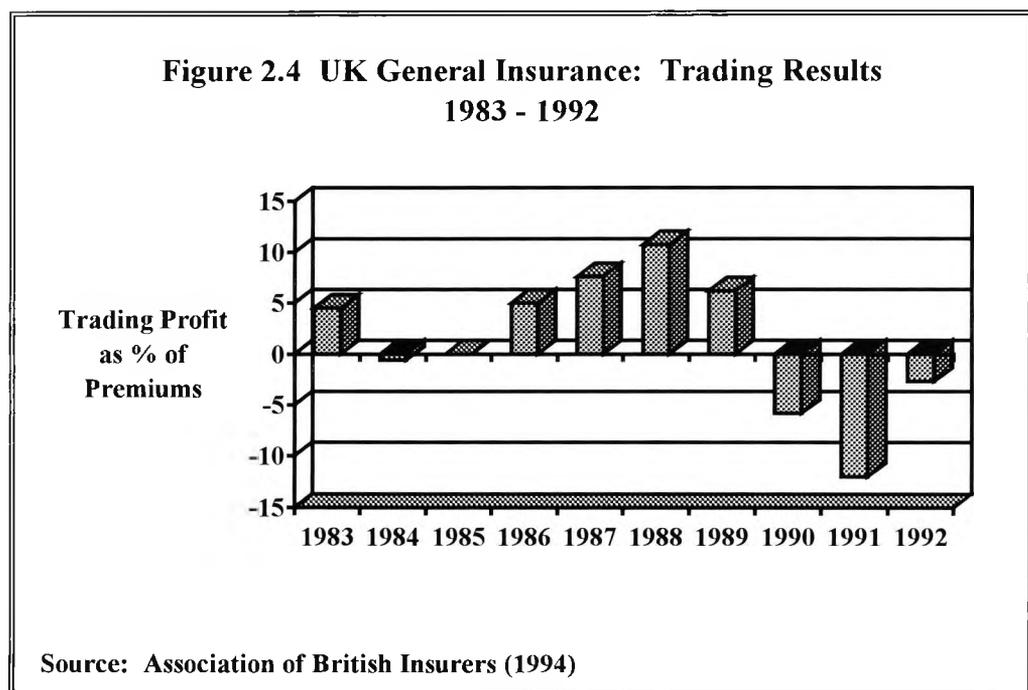
The combination of these structural changes were seen by many commentators such as Bradshaw (1993), as posing a possibly fatal threat both to insurance brokers and the traditional broker based companies that form our research sample.

These changes in the competitive environment are reflected in the five factors reported in 1991 by CEOs of general insurance operations as having the

greatest potential impact on operations during the period 1992 to 1997 (City Research Associates, 1991):

1. Increased competition;
2. New information technology and quality of service to customers;
3. Direct sales to customers;
4. Administration costs; and
5. New product development.

The challenges facing insurers in 1991 are summarised, quite appropriately, by City Research Associates (1991):

> "The past two years' results for general insurance companies in the UK have been poor and most believe the next five years are not going to be easy. The key challenge facing the management of general insurance companies over the next five years is firstly to maintain and secondly to increase share and profitability in a marketplace that is already overcrowded and likely to become more so with the entrance of European competition. The challenge is to increase profitability through regaining control and maximising distribution of competitive products and by providing a high level of customer service.
> *Differentiation in terms of distribution, product design/packaging and quality of service is regarded as one of the key requirements both to ensure future survival and to achieve growth in the increasingly competitive UK general insurance sector, instead of competition by price alone which has been until now the most usual strategy.*"
>
> [City Research Associates (1991: 4) *italics added*]

2.4 THE INNOVATION CHALLENGE

It is widely held in the literature (for example Booz, Allen and Hamilton 1982; Cooper and Schendel, 1976; Foster, 1986; Peters, 1987; Porter, 1985; Skinner, 1986; Wilkinson, 1983) that to succeed organisations must respond to changes in their competitive environment by altering their strategies. Tushman and Nadler (1986) go so far as to stress the need for new business level strategies, stating that there is no executive task more vital than the management of innovation in the face of change.

As Johne (1995) notes, whilst there are other routes to safeguarding the future of any business, such as the use of merger, acquisition or simple cost reduction

strategies, new products can protect an organisation from the threats imposed by more innovative competitors. Further, Johne (1995) holds that organic growth through product development helps to:

(a) build competitive advantage in product markets;

(b) increase market share; and

(c) build a reputation for technical excellence.

However, as we have seen, O'Hare (1994) and Philip, Haynes and Helms (1992) question the ability of the industry to develop products that truly meet the demands of customers. This observation is supported by research conducted at the time the environmental changes described above started to unfold. Investigating the product development practices at this time amongst UK general insurance companies, Johne, Howard and Davies (1991) found that fundamental changes in product development practices were required if these organisations were to successfully engage in anything more than routine, reactive product development. In particular, Johne, Howard and Davies (1991) found:

(i) a top management style that encouraged low risk, incremental product development and that failed to emphasise the need for sustained product development. In short, little evidence was found of the "envisioning, energising and enabling" that Tushman and Nadler (1986) hold is necessary to stimulate innovation. Little evidence too was found of top management's direct support, or involvement in, the product development process. In short, very little emphasis is placed upon more visionary and radical product development:

> "Most of our product development is revamping/repackaging of existing products. Half of what we do is pure reaction to competitors' moves. Most of the other half is trying to steal an edge in the short run. We do devote some time and resources for the longer run. That's the futuristic bit - worrying about the sort of products we are going to need in 10 years time. Unfortunately, this gets quite low priority, because we've got limited resources which tend to get drawn into immediate fire-fighting activities."
> [Johne, Howard and Davies (1991: 9)]

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(ii) little evidence of systematic product development practices;

(iii) an absence of clearly defined organisational arrangements to support product development;

(iv) the use of reactive marketing activities:

> "We are in the early stages of using market research. This is an innovation in itself. In the past we tended to design products based on what we thought customers need, rather than finding out what they really want."
>
> [Johne, Howard and Davies (1991: 18)]

(v) a considerable resistance to change, frequently at senior levels in the organisation, due largely to the success of historic strategies, respondents in smaller companies observing:

> "Our culture stems from an adequate degree of success over many years. This means that we have become a company that is not really equipped to deal with change."

> "The main problem here is to do with attitude. It's about trying to persuade experts, like underwriters who have traditionally wielded all the clout around here, that their way is not the only way, and certainly not the most effective way in which we can prepare for the future."
>
> [Johne, Howard and Davies (1991: 8-9)]

The perspective that a truly marketing-led provider has yet to appear in either the UK general insurance industry or the wider financial services sector is shared by Ennew, Wright and Thwaites (1993); Hooley and Mann (1988) and Morgan and Piercy (1990).

Explaining therefore *the innovation challenge*, the process of dismantling these innovation barriers, must be of central interest to practitioners and researchers alike.

CHAPTER THREE

THE CHARACTERISTICS OF INNOVATIVE
ORGANISATIONS

3.1 INTRODUCTION

The objective of this Chapter is to introduce a review of the characteristics of innovation and innovative organisations. In this Chapter we focus specifically upon the definition of (i) the types of innovation found in the literature and (ii) those elements that together constitute the form or configuration of innovative organisations. Adopting this framework, Chapter 4 will proceed to examine the configurational characteristics required to support different types of innovation and Chapter 5 will identify the configurational characteristics of mature organisations. Chapters 4 and 5 together will therefore allow us to define the barriers to innovation present in the configuration of the mature organisation.

This Chapter addresses the following questions:

1. How are innovations classified within the literature?
2. What are the elements of the organisation's form or configuration that should be considered when the characteristics of innovative organisations are discussed?

This Chapter is divided into the following sections to address the above questions:

3.2 Innovation in organisations: The main types. We will review the divisions of innovation historically adopted in the literature and define a more focused classification.

3.3 Models of innovative organisations. It will be necessary, before proceeding to review the characteristics of innovative organisations in Chapter 4, to present a model defining those elements that together constitute the form or configuration of an organisation. Such a model will then be used to order our review of the characteristics of innovative organisations in Chapter 4 and mature organisations in Chapter 5.

3.2 INNOVATION IN ORGANISATIONS: THE MAIN TYPES

Definitions of innovation presented in the literature have focused upon the adoption of internally generated or purchased devices, systems, policies, programmes, processes, products or services that are new to the adopting organisation (Daft, 1982; Damanpour and Evan, 1984; Zaltman, Duncan and Holbeck, 1973). As Damanpour (1991) and Downs and Mohr (1976) observe, it is necessary to consider the type of innovation as the configurational characteristics of successful innovators may change according to the type of innovation undertaken. From this perspective, Damanpour (1991) and Damanpour and Evan (1984) observe that the innovation literature has historically focused upon three categories or types of innovation. Each category examines a pair of opposing types of innovation: (i) administrative and technical; (ii) product and process and (iii) radical and incremental. We will examine each of these innovation types in turn and then propose an extended definition of innovation that reflects how organisations must compete in increasingly competitive and fragmented environments.

3.2.1 Administrative and Technical Innovations

Administrative innovations involve changes to the organisational structure and processes that directly relate to the organisational structure as defined by top management and may have relatively little impact upon the day to day work of the organisation (Damanpour, 1991; Damanpour and Evan, 1984; Kimberley and Evanisko, 1981; Knight, 1967). As Knight (1967) observes, administrative innovations focus upon formal organisational structures and systems that manage people in the organisation. Cummings and Srivastva (1977) also note

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that administrative innovations include the rules and procedures that relate to the management of employees. We can conclude that administrative innovations focus primarily upon the administrative and management structures in the organisation.

Technical innovations, however, directly effect day to day working practices (Damanpour and Evan, 1984; Knight, 1967). As Damanpour and Evan (1984) observe, technical innovations can embrace both ideas for new products or services and the introduction of new elements in the processes that produce and deliver the organisation's products and services. Damanpour and Evan (1984) define technical innovations as those that occur in the technical system of an organisation and are directly related to the primary work activities. Here, we are therefore concerned with innovation in the structures and systems of the organisation that actually produce the products and/or services that are provided to the organisation's customers.

3.2.2 Product and Process Innovations

Damanpour (1991) defines product innovation to mean new products or services introduced to meet an external user or market need and process innovations as new elements introduced into the organisation's production or service operations used to produce products or services. Product innovations, therefore, relate to innovations in the products or services offered to an organisation's customers. Process innovation focuses upon innovation in the systems used to produce such products or services.

3.2.3 Radical and Incremental Innovations

Damanpour (1991) states that innovations can also be classified by the degree of change that is made to the existing practices in the supplying organisation. Dewar and Dutton (1986) observe however, that there are no established categories within the literature defining the degree of radicalness from the viewpoint of the supplying organisation. Some, (Kaluzney, Veney and Gentry, 1972), identify innovations in terms of the risk that such innovations involve.

A wider group of researchers segregate radical and incremental innovations in terms of the degree of change required to the organisation's existing practices and the knowledge and skill base within the organisation (Duchesneau, Cohn and Dutton, 1979; Dutton and Thomas, 1985; Ettlie, 1983).

3.2.4 Extended definitions of innovation

Our interest is in the organic growth of the organisation through innovation. It has long been held in the literature that the more successful innovators carefully balance their innovation activities. Damanpour and Evan (1984) call for a careful balance between administrative and technical innovations, noting that whilst organisations tend to concentrate upon technical innovations a close relationship exists between administrative and technical innovations, the former acting as an enabling mechanism for the latter. In terms of product innovation, Johne and Snelson (1988b) note that successful innovators carefully balance their efforts between the development of totally new products and the improvement of existing products.

Clearly, all the types of innovation that we have referred to above can help the development of the organisation. We will refer to the use of such innovations to develop an organisation's business as *business innovation*. As Johne (1995) observes, other methods, that we will refer to as *inorganic business development*, may be used to safeguard the future of an organisation. Such inorganic methods include acquisition, divestment and merger. But as Johne (1995) proceeds to note, organic business innovation directly supports three activities which over time contribute to increased business profitability. These activities are:

(i) building competitive advantage in target markets;

(ii) increasing market share in target markets; and

(iii) building reputation for technical excellence in target markets.

Clearly, process and product innovation will help build an organisation's competitive advantage in target markets but we question if this is an adequate description of innovation types to represent the strategies that organisations must construct to compete in the rapidly fragmenting competitive environments described by Huber and Glick (1993).

Johne (1994; 1995; 1996) develops four dimensions of business innovation activity, effectively sub-dividing earlier definitions of product and process innovation. These dimensions provide a richer understanding of the innovative activity that is directly aimed at helping the organisation develop organically. The four dimensions proposed by Johne (1994; 1995; 1996) are:

1. Product innovation;

2. Process innovation;

3. Product augmentation innovation; and

4. Market innovation.

We will now discuss each in turn.

Product innovation: In terms of product innovation, Booz, Allen and Hamilton (1982) identify six forms of activity (improvements to existing products, new to the organisation products for new markets, additions to current product lines for current markets, new to the world products, cost reductions and repositionings where existing products are aimed at new markets). Johne (1994; 1995; 1996) argues that cost reductions and repositionings are not specific forms of product innovation in their own right as they can be applied in combination with any of the four earlier forms of product development described by Booz, Allen and Hamilton (1982). Building upon the observations of Kraushar (1985) and Cardozo et al (1993), Johne (1994;

1995; 1996) recommends a more meaningful sub-division of product innovation activity based upon "newness" of the product innovation firstly to the supplier and more importantly from the perspective of the customer. This approach produces four forms of product innovation activity, "radical", "routine", "new style" and "extended." These terms are described in Figure 3.1 below.

FIGURE 3.1 THE MAIN TYPES OF PRODUCT INNOVATION

	NEWNESS OF THE CUSTOMER BASE (from the viewpoint of the supplier):	
OPERATIONAL NEWNESS (from the viewpoint of the supplier):	LOW	HIGH
HIGH	*RADICAL PRODUCT INNOVATION:* Aimed at existing customers - "new product lines".	*NEW STYLE PRODUCT INNOVATION:* Aimed at new customers - "new to the world offers".
LOW	*ROUTINE PRODUCT DEVELOPMENT:* Aimed at existing customers - "improvements and revisions".	*EXTENDED PRODUCT DEVELOPMENT:* Aimed at new customers - "additions to existing lines".

Source: Johne (1995).

Process Innovation: All four forms of product innovation development described above can benefit from process innovation Johne (1994; 1995; 1996) holds. Process innovation produces reductions in operational costs that can be passed to the customer to gain competitive advantage. Such capacities to reduce production process costs are particularly valuable for more mature products where routine and extended product innovation is no longer possible (Dumaine, 1989; Utterbank and Abernathy, 1975).

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Product augmentation innovation: Product augmentation innovation refers to the degree of support given to a product (Mathur, 1992). Support can, for example, take the form of image, distribution facilities, after sales service and technical support. As Johne (1995) notes, product augmentation innovation can bear heavily on the success of a product innovation, particularly when organisations seek to gain product superiority (Cooper and Kleinschmidt, 1987; Easingwood and Storey, 1993).

Market innovation: Market innovation is concerned with defining and maximising the product markets upon which a new product innovation is targeted (Baker, 1983; Cooper and Kleinschmidt, 1993).

It must be emphasised that in the volatile environments faced by many organisations the challenge is not for the innovative organisation to follow merely one of the above four dimensions of business innovation but, if the demands of selected product markets so require, to have the organisational capacity to implement all four innovation thrusts simultaneously, (Doz and Ghoshal, 1994).

It can be seen that to describe an organisation as "innovative" is to take a too simplistic approach. We need to extend our understanding of innovative organisations by identifying the organisational arrangements that are necessary to support the correct balance of the four dimensions of business innovation identified by Johne (1994; 1995; 1996). The term *business innovation* used in this thesis therefore embraces product, process, product augmentation and market innovation. In the interests of parsimony in this thesis, the term *offer innovation* embraces product and product augmentation innovation, whilst *market and process innovation* obviously relate to market to process innovation respectively.

The organisational characteristics needed to support different types of business innovation will be examined in Chapter 4. It will, however, first be necessary to define those elements or characteristics that together constitute the form or configuration of the organisation before we proceed to examine the literature. Such organisational elements will then be used to order the literature reviews in Chapters 4 and 5. We will now turn our attention to the definition of such organisational elements.

3.3 CONCEPTUALISATIONS OF INNOVATIVE ORGANISATIONS.

Hinings and Greenwood (1988) and Miller and Friesen (1984b) stress that research that focuses upon the functioning of organisations must take a holistic perspective and concentrate upon all the parts that together constitute the organisation, rather than the analysis of only a single element such as, for example, the centralisation of decision making. As Meyer, Tsui and Hinings (1993) observe:

> "an understanding of the parts within an organisation can only be gained by looking at the overall patterning. Organisational structures and management systems are best understood in terms of overall patterns rather than in terms of analyses or narrowly drawn sets of organisational properties."
>
> [Meyer, Tsui and Hinings (1993: 1181)]

Similar conclusions have been reached by Greenwood and Hinings (1993) who conclude that our understanding of organisations must extend beyond simple measures of, for example, decision making and the use of rules and procedures alone to at least embrace the values and interests of organisational members that in turn influence the form and strategies of organisations. Future studies that examine the functioning of organisations must, therefore, use relatively complex models that adopt a configurational approach, where the organisational configuration is defined as:

> "any multidimensional constellation of conceptually distinct characteristics that commonly occur together." [Meyer, Tsui and Hinings (1993: 1175)]

As Meyer, Tsui and Hinings (1993) put it, the concept of the configuration of the organisation must embody the "appropriate pattern" of organisational processes and characteristics that support different strategies. We will therefore now turn our attention to identifying such commonly occurring processes and characteristics that together constitute the configuration of organisations.

3.3.1 The Elements of the Organisational Configuration

Despite a growing interest in organisational configurations, as Greenwood and Hinings (1993) observe, we as yet have no adequate definition of the elements that together comprise such entities. It will therefore be necessary to examine the literature to determine the commonly occurring elements that together may be taken to form the configuration of an organisation.

Whilst there may be some merit in producing a new definition of configurational elements for the purposes of this research, the observations of Johne and Snelson (1988b) are relevant at this point. Johne and Snelson (1988b) point out that research in the innovation field has been restricted by the failure of researchers to use a common analytical approach when conducting their studies. Obvious benefits accrue when using a common analytical framework that will allow the comparison and extension of a series of studies into the practice of innovation.

Within the innovation research field the McKinsey 7S framework, as popularised by Pascale and Athos (1982) and Peters and Waterman (1982), has been applied by Dwyer and Mellor (1991); Johne (1988); Johne and Snelson (1988a); (1988b); (1989); (1990); and Johne and Vermaak (1993). The McKinsey 7S framework has two advantages. Firstly, parsimony (Johne and Snelson, 1988b); secondly, ease of comprehension by practitioners in organisations (Peters and Waterman, 1982). The McKinsey 7S schema defines seven features or elements that, when combined, characterise the organisation. These seven features are shown in Figure 3.2.

The focal point of our research, however, is the study of change in organisations. The approach that we propose to take in the definition of which elements together constitute the configuration of the organisation is how, if at all, the McKinsey 7S framework described in Figure 3.2 must be amended to meet the demands of such research.

FIGURE 3.2 THE McKINSEY 7S FRAMEWORK

Element:	Description:
Strategy:	Plan or course of action leading to the allocation of a firm's scarce resources, over time, to reach identified goals.
Structure:	Characterisation of the organisation chart (i.e. functional, decentralised etc.).
Systems:	Proceduralised reports and routinised processes such as meeting formats.
Staff:	"Demographic" description of important personnel categories within the firm (i.e. engineers, entrepreneurs, M.B.A.s, etc.). "Staff" is *not* meant in line terms.
Style:	Characterisation of how key managers behave in achieving the organisation's goals; also the cultural style of the organisation of the organisation.
Skills:	Distinctive capabilities of key personnel or the firm as a whole.
Shared Values:	The significant meanings or guiding concepts that an organisation imbues in its members.

Source: Pascale and Athos (1981)

To this end we examine the models used by researchers in the organisational change field to identify what extensions or modifications may be required to the McKinsey 7S framework.

Specifically, we examine the work of Child and Smith (1987); Greenwood and Hinings (1988); (1993); Hinings and Greenwood (1988); Levy (1986); Lundberg (1984) Miles and Snow (1978); Mintzberg (1979); (1983); Nadler and Tushman (1989); Pettigrew (1985; 1987a; 1987b); Pettigrew, Ferlie and McKee (1992); Pettigrew and Whipp (1991); Pettigrew, Whipp and Rosenfeld (1989); Ranson, Hinings and Greenwood (1980); and Whipp, Rosenfeld and Pettigrew (1989). These writers have adopted an approach within their research that gives particular attention to the internal context of the organisation. We now turn our attention to this literature to identify if any revisions are necessary to the McKinsey 7S framework.

We commence this task by examining the proposals of Ranson, Hinings and Greenwood (1980).

These authors observe that the principal dimensions of an organisation's configuration fall into four groups being (i) the *formal organisation*; (ii) the *informal organisation*; (iii) *interpretive schemes* and the (iv) *context*. Each is now discussed in turn.

The Formal Structure

Ranson, Hinings and Greenwood (1980) show that a large group of researchers have characterised organisations as formal arrangements of roles, procedures and prescriptions of authority and power. As Lewin and Stephens (1993) note, such formal views of organisations have been influenced by the writings of Weber (1978/1910). As Sathe (1978) proposes, the *formal organisation or structure* centres upon the configurational elements that are defined by top management, and *may not therefore represent the day to day activities at lower levels in the organisation*. Researchers that have

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concentrated upon such formal dimensions include Pugh, Hickson, Hinings and Turner (1968); and Hall (1963). Following Weber (1978/1910), these studies concentrate upon determining the effectiveness of formally described frameworks such as centralisation of decision making and formalisation of procedures in influencing activities within the organisation. These studies therefore, Ranson, Hinings and Greenwood (1980) hold, focus only upon the *formal structure* and do not embrace all the elements that together may determine the future path and configuration of the organisation.

The organisational models presented by Hinings and Greenwood (1988); (1993); Hinings and Greenwood (1988); Mintzberg (1978); (1983) and Tushman and Nadler (1989) all clearly identify the *formal structure*. Hall (1991) notes that measurement of the *formal structure* typically embraces three dimensions being (i) centralisation of decision making, (ii) formalisation of rules and (iii) complexity or specialisation of tasks in the organisation.

The Informal Organisation
Ranson, Hinings and Greenwood (1980) identify that a second group of researchers argue that attention should be focused not upon the *formal structure* as defined by top management but upon day to day activities to produce a more fundamental understanding of the functioning of organisational configurations. Researchers in this group focus upon the *informal organisation*. They include the early critiques of the proposals of Weber (1978/1910) presented by Merton (1940) and Selznick (1943); (1949). Again, Hinings and Greenwood (1988); (1993); Greenwood and Hinings (1988); Mintzberg (1978); (1983) and Tushman and Nadler (1989) all additionally identify the existence of the *informal organisation* reflecting the dimensions of organising used at the business level to produce the organisation's products and services (Sathe, 1978).

Whilst Blau (1974) argues that the study of *formal structure* and *informal organisations* are incompatible, we follow the proposals of Ranson, Hinings

and Greenwood (1980) and hold that both forms of organising must be included within any definition of the organisation's configuration. We therefore include the *informal organisation* within the definition of organisational configuration adopted in this research.

Interpretive Schemes

Ranson, Hinings and Greenwood (1980) propose that any model of organisations must not only embrace the *formal structure* and *informal organisation* but also the values and interests or "interpretive schemes" of organisational members. Ranson, Hinings and Greenwood (1980) argue that interpretive schemes influence both the view of the external context or environment as seen by organisational members and the constitution of the *formal structure*. The view that the more formal elements of organising (such as centralisation of decision making) act to protect established interpretive schemes, particularly those of more powerful groups, is widely supported in the literature (Waterman, Peters and Phillips, 1991; Johnson, 1990; Pettigrew, 1973).

Hinings and Greenwood (1988) isolate two essential components of interpretive schemes for measurement when studying the process of change in organisations. The first identifies the "commitment" within the organisation to a given strategy, the second focuses upon the "motivation to change" within the organisation. Child and Smith (1987): Levy (1986) and Lundberg (1984) also include within their own models of organisations such a motivation to change. Pettigrew, Whipp and Rosenfeld (1989) refer to this as the "internal pressure to change". Pettigrew, Whipp and Rosenfeld (1989) go to some lengths to describe the interpretive schemes within the organisation, referring to "managerial perceptions", "organisational paradigms" and "interpretation of viable strategies".

We refer to such interpretive schemes as *shared values* as it closely related to the element of the same name in the McKinsey 7S framework.

The Organisational Context

Ranson, Hinings and Greenwood (1980) conclude their conceptualisation by observing that the three main components described so far (the formal structure, informal organisation and shared values) do not exist in a vacuum. In this respect it is proposed that organisations must interact with both their internal and external contexts.

A similar concern for context is to be found in the work of Child and Smith (1987); Greenwood and Hinings (1988); (1993); Hinings and Greenwood (1988); (1989); Levy (1986); Lundberg (1984); Mintzberg (1979); (1983); Pettigrew (1985); (1987a); (1987b); (1992); Pettigrew, Ferlie and McKee (1992) and Pettigrew, Whipp and Rosenfeld (1989).

An examination of the works of the above writers reveals a series of common contextual elements. Dealing firstly with the context internal to the organisation, widespread support is found for the following elements:

Management Style: Management style or the presence of "transformational leadership" appears in the work of Child and Smith (1987); Greenwood and Hinings (1988); Levy (1986); Pettigrew (1985) and Pettigrew, Whipp and Rosenfeld (1986).

Staff and Skills: Pettigrew, Whipp and Rosenfeld (1989) refer to the "division of labour at all levels in the organisation". Mintzberg (1983); (1979) takes a similar perspective and focuses both on the presence of specialist skills and the physical distribution of staff throughout the organisation. Ranson, Hinings and Greenwood (1980) refer to both "manpower" and "skills". Greenwood and Hinings (1988); Hinings and Greenwood (1988); (1989) focus upon the issue of skills onto those necessary to design a new organisational configuration and to manage the process of change in the organisation.

Strategy: Whilst the strategy of the organisation is only obliquely referred to within the Ranson, Hinings and Greenwood (1980) paper, the issue of strategy is an explicit component of the McKinsey 7S framework. Pettigrew, Whipp and Rosenfeld (1989) hold that the management of strategy is one of management's especial responsibilities. In the mature organisation, as Child and Smith (1987) note, this is a process of getting back, away from internal issues, to understand the product attributes favoured by the organisation's customers. However, if we refer again to Figure 3.2 we see that Pascale and Athos (1981) when describing strategy refer to a "plan or course of action .... to reach identified goals". This perspective follows the tradition established by Schendel and Hofer (1979) who define strategic management as:

> "Strategic management is a process that deals with the entrepreneurial work of the organization, with organizational renewal and growth, and more particularly, with developing and utilizing the strategy *which is to guide the organisation's operations.*"
>
> [Schendel and Hofer (1979: 11), *italics added*]

Following the observations of Mintzberg and Waters (1985) it is necessary to consider the strategy of an organisation from three perspectives, strategies that are (i) *intended* or planned and (ii) strategies are *emergent* or appear as the organisation learns and (iii) strategies that are *realised* or put into action. This theme is developed by Mintzberg (1987a); (1987b). This distinction between *intended, emergent* and *realised* strategies is a central theme that is developed in this thesis following Pettigrew's (1992) recommendation that the ambition to link the analysis of process to outcomes must be a guiding assumption when conducting strategy process research. When discussing strategy in the context of the elements that together constitute the configuration of the organisation we follow Pascale and Athos (1981) and refer only therefore to *intended strategy.* We will consider *emergent* strategy and *realised* strategy separately when the results of different approaches to the management of change in the organisations in our research sample are considered in Chapter 9.

History: Both Pettigrew, Whipp and Rosenfeld (1989) and Child and Smith (1987) extend the definition of internal context introduced by Ranson, Hinings and Greenwood (1980) by identifying the importance of the organisation's biography or history. In short, Pettigrew, Whipp and Rosenfeld (1989) argue that an organisation's future success is partly dependent upon past decisions and experiences, these arguments being supported by Gersick (1991); Kelly and Amburgey (1991); Miles (1980); Tushman, Newman and Romanelli (1986) and Whipp and Clarke (1986).

At this stage we conclude that the formal structure, the informal organisation, the intended strategy, shared values, staff, skills, and management style, operating in the context of the organisation's past history, constitute the commonly occurring *internal* elements that together constitute the organisation's configuration. These elements, separately or in combination, and working within the context of the organisation's history can influence the future shape and direction of the organisation and of course, its realised strategy.

As Ranson, Hinings and Greenwood (1980) have observed, when considering the forces that can shape change in the organisation it is necessary to consider the external context. If we examine the above literature it is possible again to identify the commonly occurring elements that together form the external environment. Pettigrew, Whipp and Rosenfeld (1989) group elements of the external environment under four headings:

(i)   The economic environment;
(ii) The business environment;
(iii) The political environment; and
(iv) Social and economic trends.

The major components of each are as follows:

The Competitive Environment: The market structure, levels of competition, speed of change and strategies that have historically been dominant within the industry, the power of individual competitors or groups of competitors and the influence of networks of competitors, suppliers, distributors and customers.

The Economic Environment: The position of the industry within the national economy, social, demographic and economic trends that act as enabling or constraining mechanisms.

Political Environment: Patterns of State intervention, policies of separate administrations.

Social and Economic Trends: Social and economic trends relevant to the organisation's trading, including for example availability of resources, inflationary conditions, customers' buying requirements.

3.3.2 The Complete Configuration for Analytical Purposes

We are now in a position to identify the commonly occurring organisational elements that together form the configuration of an organisation. Following Ranson, Hinings and Greenwood (1980), the elements are divided between the contexts internal and external to the organisation. Drawing upon our examination of the literature the commonly occurring elements of the organisation's internal context are as follows:

1. *Formal Structure:* Formalised methods of decision making, control and co-ordination as defined by top management.
2. *Informal Organisation:* The characteristics, in terms of decision making and control and co-ordination procedures, that represent the day to day activities used to produce the organisation's products or services.
3. *Intended Strategy:* The intended strategy of the organisation.
4. *Staff:* The functional location of staff within the organisation.

5. *Style:* The leadership style of top management and the presence of "transformational leadership" within top management.

6. *Skills:* Two perspectives are considered; (i) the distinctive capabilities of staff and (ii) organisational design and change management skills.

7. *Shared values:* Two perspectives are again considered. Firstly, the commitment to the organisation's existing strategy and secondly, the motivation to change.

If we consider these seven elements in conjunction with the McKinsey 7S framework (Figure 3.2) we see that the concepts of *strategy, staff, style, skills and shared values* are commonly adopted. Consideration is however required in respect of the *"structure"* and *"systems"* elements of the McKinsey 7S framework. As can be seen from inspection of Figure 3.2, *"structure"* is defined as the "characterisation of the organisation chart" and therefore characterises the controls used by top managers that are captured within the definition of the formal structure presented above. In terms of *"systems"* within the McKinsey 7S framework these are defined as "proceduralised reports and processes". However, the concept of *"systems"*, adopted in the context of product innovation by Johne and Snelson (1988a), relates to the control and communication mechanisms used for <u>executing</u> product innovation tasks, or in other words, the characteristics of day to day activities. In the interests of maintaining a common nomenclature in the product innovation field, we therefore use the term *informal systems* to relate to the informal organisation.

We therefore hold that the formal structure, informal systems, intended strategy, staff, management style, skills and shared values together constitute the *configuration* of the organisation. These elements are defined in Figure 3.3.

As we have observed, change within the internal context or configuration of the organisation takes place in the settings both of the organisation's history

and its external context which in turn consists of the economic, competitive, political and social environments. This position is illustrated in Figure 3.4.

FIGURE 3.3 THE SEVEN ELEMENTS OF THE ORGANISATIONAL CONFIGURATION

Element:	Description:
Formal Structure:	Formalised methods of decision making, control and co-ordination as defined by top management
Informal Systems:	The characteristics, in terms of decision making and control and co-ordination procedures, that represent the day to day activities used to produce the organisation's products or services.
Intended Strategy:	The plans to reach agreed goals.
Staff:	The functional location of staff within the organisation.
Management Style:	The leadership style of top managers and the presence of transformational leadership.
Skills:	(i) The distinctive skills capabilities of staff; and (ii) The organisational design and change management skills.
Shared Values:	(i) The commitment to the organisation's intended strategy; and (ii) The motivation to change.
Source: Literature review (section 3.3.1).	

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FIGURE 3.4 THE CONFIGURATION AND THE EXTERNAL CONTEXT OF THE ORGANISATION

EXTERNAL CONTEXT

History

Competitive Environment

INTERNAL CONTEXT

Formal Structure

Informal Systems

Economic Environment

Mgt. Style

Intended Strategy

Staff

Political Environment

Skills

Shared Values

Social Environment

Source: Literature review (section 3.3.1).

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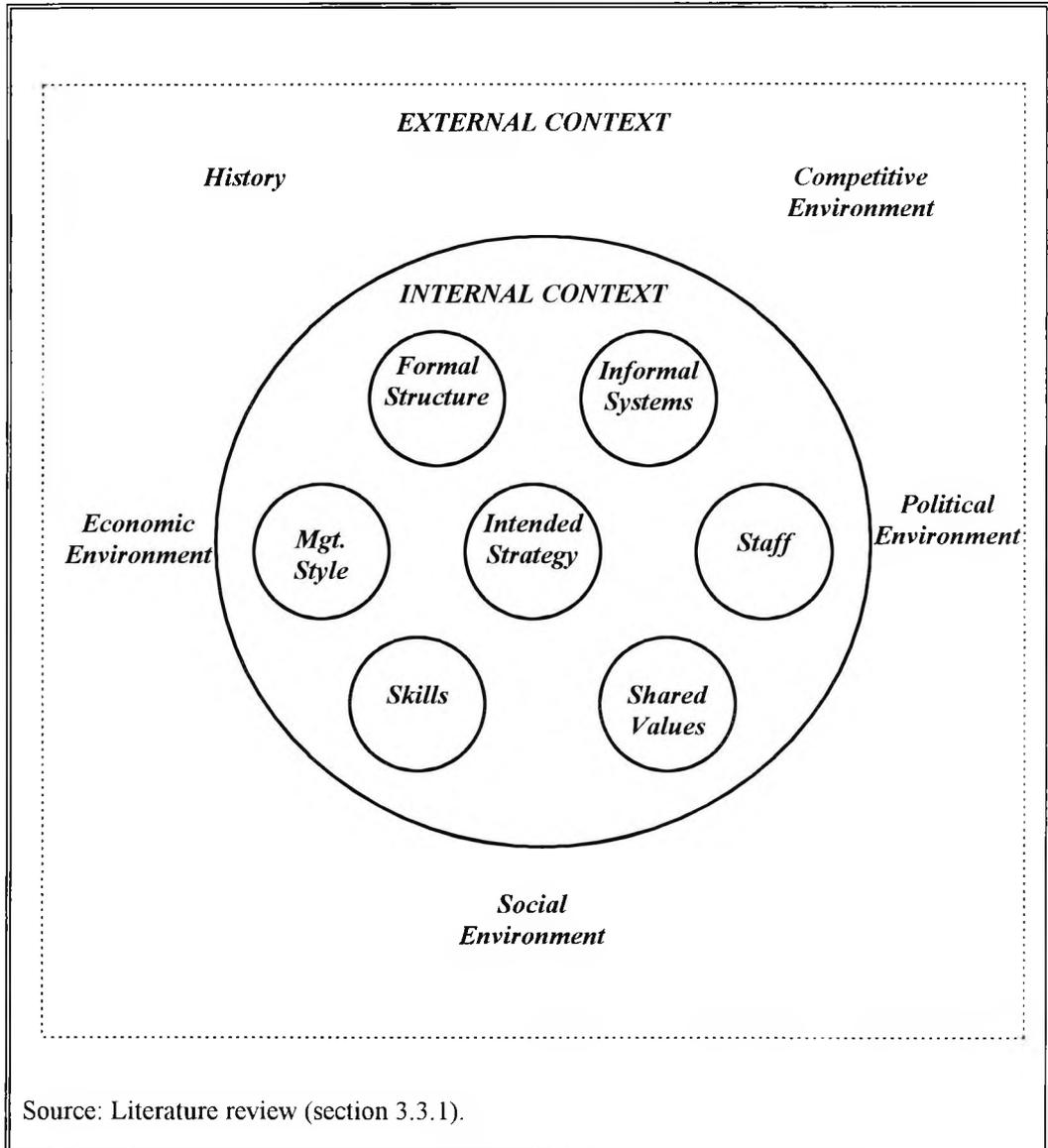
3.4 CONCLUSION

We can firstly conclude that the innovation types traditionally adopted in the literature (administrative and technical; product and process; radical and incremental) are inadequately focused to allow us to understand what organisational characteristics are necessary to support the four dimensions of business innovation proposed by Johne (1994; 1995; 1996). Secondly, any attempt to increase the understanding of the innovative functioning of organisations in terms of realised strategy must take a richly contextual approach and concentrate upon the inter-relationships of commonly occurring organisational elements, as opposed to the examination of a single characteristic, such as the formal structure. In this Chapter we have proposed that seven commonly occurring elements, that together form the configuration of the organisation, must be simultaneously considered within a closely defined external context.

In Chapter 4 we will examine the literature to identify our understanding of the configurational characteristics necessary to support different types of business innovation. To order the literature review we will use the seven configurational elements described above.

CHAPTER FOUR

INNOVATION IN ORGANISATIONS: AN ANALYSIS OF CONFIGURATIONS

4.1 INTRODUCTION

Our interest within this thesis is understanding how mature organisations develop the capability to innovate. An essential part of this process is obviously the task of dismantling the barriers to innovation that may be present within the configuration of the mature organisation.

The purpose of this Chapter is therefore to identify the known characteristics of the configuration of innovative organisations. In short, the literature will be reviewed to identify the configurational characteristics that support different forms of innovation. Chapter 5 will contrast these configurational characteristics with those of the mature organisation hence allowing the innovation barriers to be identified. It is necessary to develop a clear view of the barriers to innovation in mature organisations as such findings will strongly influence the design of the research described in Chapter 6 and 7.

We have divided our literature review into two parts. The first, (section 4.2), concentrates upon the established innovation literature. We refer to this as the "classical" literature. In the second, (section 4.3), we examine an emerging literature dealing with new forms of organising in competitive environments that are in a continual state of flux. We refer to this second group as the "new style" literature. Examination of these literatures provides us with an understanding of the organisational configurations needed to support innovation in a rapidly changing competitive environment.

Each literature review is ordered using the seven elements of the organisational configuration defined in Chapter 3.

4.2 THE CLASSICAL RESEARCHERS: A CONFIGURATIONAL ANALYSIS

4.2.1 The Formal Structure

As we have observed in Chapter 3, research examining the formal structure as a system of top management control typically focuses upon the dimensions of formalisation and centralisation (Hall, 1991). The first principal dimension, formalisation, represents the use of rules in the organisation (Hage and Aiken, 1967a). Pugh, Hickson, Hinings and Turner (1968) take a similar approach and define formalisation as "the extent to which rules, procedures, instructions, and communications are written". The second dimension, centralisation, relates to the distribution of power in the organisation and measures typically seek to locate the point of decision making in the organisation's hierarchy (Hage and Aiken, 1967a).

We will now proceed to examine how the work of classical researchers has added to our understanding of how the formal structure can support business innovation.

The Early Classical Studies

Early research into the innovative characteristics of organisations is dominated by the seminal work of Burns and Stalker (1961) and Hage (1980). These researchers found that innovative, or "organic" organisations adopt low levels of centralisation and formalisation to support their activities. Low levels of centralisation allow decision making to be dispersed to the point within the organisation where the development of innovation is managed. Relatively low levels of formalisation are argued to produce the informal working atmosphere necessary for the initiation of innovative ideas. These findings in respect of centralisation and formalisation receive considerable support from other researchers (Aiken and Hage, 1971; Baldridge and Burnham, 1975; Blau and McKinley, 1979; Daft, 1982; Hage and Aiken, 1967b; Hull and Hage, 1982; Kimberely and Evanisko, 1981; Lawrence and Lorsch, 1967; Pierce and Delbecq, 1977; Thompson, 1965).

It has been observed however, that formalisation and centralisation may not be of equal importance in the innovation process, Hage and Dewar (1973) noting that relatively low levels of centralisation are the most important, formalisation having a lower influence upon the successful development of innovations. Other researchers examining the roles of formalisation and centralisation argue for a more "fine grained" or focused approach to innovation research (for example, Collins, Hage and Hull, 1988; Hull and Hage, 1982 and Zmud, 1982). Hull and Hage (1982), opening this argument, identify shortcomings in the proposition that "organic" organisational forms must be applied in all situations. Hull and Hage (1982) draw attention to the need to examine both the scale of an organisation's production processes and the complexity of such processes, measured in terms of the specialist knowledge required to understand and operate the production process before identifying the organisational characteristics necessary for innovation. Hull and Hage (1982) argue that organisations of any reasonable scale must employ degrees of formalisation and centralisation merely to co-ordinate activities. Whilst these measures can reduce innovation levels, the restrictions can be overcome by establishing separate departments or units to undertake the innovation initiation and development process.

In response to the calls for "fine grained" research, efforts have developed along two paths, the first being an examination of the role of the formal structure during the longitudinal process of innovation development, the second path focusing upon the organisational arrangements needed to support different innovation types. We will now discuss each route in turn.

Classical Research: The Process of Innovation Development
A number of researchers have examined the formal structure at different points between the time of innovation initiation and implementation (Ettlie, Bridges and O'Keefe, 1984; Evan and Black, 1967; Johne, 1984; Takeuchi and Nonaka, 1986; Zaltman, Duncan and Holbeck, 1972; Zmud, 1982). Broadly,

the findings of these researchers are that the innovation process should commence within an "organic" organisational setting (displaying low levels of formalisation and centralisation). As the innovation process proceeds to implementation, increasing levels of formalisation and centralisation are required until established organisational procedures receive the completed innovation. The situation is however made more complex as Zmud (1982) observes. As we will demonstrate below, different levels of formalisation and centralisation are required to support different types of innovation. Zmud (1982), in addition to observing that administrative and technical innovations require different organisational arrangements, also points out that the behaviour of each dimension of the formal structure during the process of innovation development is dependant upon the type of innovation. Figure 4.1 shows a position where apparent tensions exist between the requirements needed to support technical and administrative innovations.

FIGURE 4.1 ASSOCIATIONS BETWEEN CENTRALISATION, FORMALISATION, INNOVATION TYPE AND STAGE OF INNOVATION DEVELOPMENT

Innovation Type:	*Centralisation*		*Formalisation*	
	Technical	Administrative	Technical	Administrative
Innovation Stage:				
Initiation:	Low	High	Low	High
Adoption:	Medium	Medium	High	High
Implement- ation:	High	Low	High	Low

Source: Zmud (1982)

Classical Research: Structure and Innovation Type

As we have observed in Chapter 3, innovation research has focused upon three categories, or opposing types of innovation.

We will now examine the contribution of classical innovation researchers to the study of the above categories of innovation in order to determine if different characteristics within the formal structure are needed to support different types of innovation.

Damanpour and Evan (1984) draw attention to the closely inter-linked relationship between technical and administrative innovations. Whilst organisations have a tendency to embrace technical innovations more rapidly than administrative innovations, administrative innovations (which include changes to human resource systems) act to stimulate technical innovations. Zmud (1982), following Daft (1978), identifies that technical and administrative innovations require opposing and distinct development environments, technical innovations being characterised by lower levels of formalisation and centralisation, particularly at the initiation of the innovation process. Developing the proposals of Hull and Hage (1982), Zmud (1982) argues for parallel organisations (or "organisational overlays" following Pierce and Delbecq, 1977) to manage the tensions imposed by these differing organisational requirements. Certainly, the conflicting organisational requirements for administrative as opposed to technical innovations are supported by Damanpour's (1991) meta analysis of the literature.

The Formal Structure: Conclusion

We have focused upon two dimensions of the formal structure, that is formalisation and centralisation. We can conclude from an examination of this work that within the configuration of the innovative organisation the formal structure should possess the following characteristics:

1. In general terms, low levels of formalisation and centralisation are required to support innovative activities. Administrative innovations are an exception to this general rule, where relatively high levels of formalisation and centralisation are required.

2. A series of "organisational overlays" or parallel structures may be required to overcome the tensions between technical innovations, administrative innovations and the organisation responsible for serving current product markets. Following the observations of Hull and Hage (1982) the necessity for "organisational overlays" may be higher in larger, more mature organisations.

To this point we have only considered one element of the organisation's configuration being the formal structure. We will now turn to examine the characteristics of the informal systems, intended strategy, staff, management style, skills and shared values necessary to support innovation.

4.2.2 Informal Systems

Many studies fail to delineate between the formal structure and informal systems(Ford, 1979; Sathe, 1978). We therefore present a review of the research that has focused upon the description of the informal systems or day to day business activities. From this review we will present our conclusions in respect of the expected characteristics of informal systems within the innovative organisation.

We have already introduced the need for a parallel organisation focusing upon innovation, away from the distractions of managing current business. This perspective is widely supported in the literature (Cooper and Schendel 1976; Lessem, 1985; Quinn, 1985; Smale 1985; Van de Ven, 1986). Emphasising this point, Johne (1988) postulates that the critical issue is to focus upon the measurement of the informal systems (where the innovation process is carried on). Kanter (1989a); (1989b) and Mintzberg (1979); (1983) note that one of

the main objectives of informal systems, as a component of the organisational configuration, must be to break down the barriers of formalisation and centralisation that tend to permeate the formal structure through the use of multi-disciplinary teams, a view supported by Benson and Chasin, (1976); Crawford, (1983); Ettlie and Reza (1992); Gupta, Raj and Wilemon (1985) and Miles and Snow (1978).

Indeed, a close and supportive relationship must exist between the formal structure and informal systems if the latter are to flourish and support innovation. Mintzberg (1979); (1983) describes an elaborate series of measures put in place to support day to day activities that allow both the enhanced flow of information and the allocation of decision making power according to expertise as opposed to hierarchical position. For example, Mintzberg (1979); (1983) notes the existence of formalised planning and control systems that support the lower levels of centralisation and formalisation that characterise day to day activities or informal systems at the business level. These are coupled, Miles and Snow (1978); Mintzberg (1979); (1983) hold, with the existence of managers specifically charged with the duty of encouraging the free flow of information. Indeed, the unrestricted flow of information is seen as being of central importance and must transcend traditional departmental boundaries (Miles and Snow, 1978). Gardner and Rothwell (1985); Gresov (1984); Rikards (1985); Tushman and Nadler (1986) all report extensive and open use of information networks throughout innovative organisations. Such communication flows are seen as being of central importance (Gupta, Raj and Wilemon, 1985), Ettlie and Reza (1992) arguing that communication and integration mechanisms are the prime source of competitive advantage in innovative organisations.

In addition to informal systems that are characterised by relatively low levels of formalisation and centralisation coupled with uninhibited information flows, Damanpour (1991); Hamerish (1986); Johne and Snelson (1990) and Miles and Snow (1978) observe that organisations engaging in product innovation adopt

an organisational focus concentrating upon the customer, whereas a functional focus is needed to support process innovation. This finding may support the findings of Kolodny (1980) that, despite their operational difficulties, matrix structures may encourage multiple forms of innovation.

4.2.3 Intended Strategy

Explicitly stated objectives are expected to guide innovative activities (Ayal and Rothberg, 1986; Crawford, 1983; Day, 1975; Twiss, 1986). Crawford (1983) and Miles and Snow (1978) argue that it is the role of the corporate level strategy to define a new product development "charter".

In terms of business level strategy, the literature observes explicitly stated plans based on objectives set by employees responsible for their implementation (Crawford, 1983). In terms of the speed of introducing new products, drawing upon the findings of Miles and Snow (1978), an over-riding emphasis is expected on being first to the market with a new innovation, even if the organisation sacrifices profits in its quest for this objective.

Commenting upon the decision processes surrounding the development of strategy, Mintzberg (1979); (1983) sees the decision process as spread throughout the organisation with no one organisational level or function dominating the process. In terms of ordering the strategic decision making process, Miles and Snow (1978) note that in innovative organisations the decision steps in respect of any given new opportunity are evaluate, explore, act, plan and decide, advancing the concept of experimentation as opposed to the more cautious and rational plan, evaluate, decide, act process found in organisations that focus upon the defence of current markets.

4.2.4 Staff

The underlying theory found in the innovation literature is if the organisation possesses a large number of specialists (operating with high levels of authority associated with their allotted tasks), then it in turn possesses a broad

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knowledge base (Burns and Stalker, 1961; Hage, 1980; Kimberly and Evanisko, 1981; Mintzberg, 1979; 1983) which can increase the cross fertilisation of ideas between specialists. Following Mintzberg (1983) we expect to see such staff concentrated at the business level in the innovative organisation. Damanpour's (1991) meta analysis of innovation research shows a high correlation between specialisation (defined as the number of different occupational types or job titles) and innovation. The correlations reported by Damanpour (1991) are particularly high for product, process and radical innovations, but the correlations in respect of administrative innovations are noticeably lower. However, as Zmud (1982) observes, both administrative and technical innovations require high degrees of professionalism (measured in terms of the academic qualification of staff), particularly at the initiation stage of such innovations.

4.2.5 Management Style

A wide literature defines the principal role of top managers as giving active support for the innovation process (Booz, Allen and Hamilton, 1982; Conway and McGuinness, 1986; Foster, 1986; Gardner and Rothwell, 1985; Maidique and Zirger, 1984; Rothwell, 1979). Following Tushman and Nadler (1986) it is important to define the role of top managers. The role of such managers is limited to setting the corporate level strategy and climate for business innovation in the organisation. Extensive intrusion into the innovation process outside this role is not seen amongst successful innovators. Meyer and Goes (1988) see the role of top managers as product "champions" as opposed to active project managers. Mintzberg (1979); (1983) takes a similar view and sees the role of top managers as one of fostering innovation, encouraging internal co-operation and scanning the external environment. This view is supported by the later research of Johne and Vermaak (1993) who report that the top level managers within the more innovative organisations (i) project a long-term vision of the competitive environment; (ii) allow the appropriate autonomy for day to day business innovation to pass to managers at the business level and (iii) encourage the development of synergies between related

businesses. Similar findings are reported by Golden (1992a) who observes that the relationship between top management and business level staff must be moderated by the type of competitive thrust employed at the business level. Golden (1992a) holds that where the thrust is purely of an external nature then managers at the business level must have total discretion, but if the business level strategy relies upon intra-organisational co-operation, then the focus of business level managers is expected to be limited to the resources under their direct control, top level managers taking a greater interest.

4.2.6 Skills

The position in the literature is summarised by Dewar and Dutton (1986) who hold that the greater the organisation's knowledge resources, the more easily new ideas can be developed and their commercialisation co-ordinated. As we will note below, the literature divides skills or knowledge into three categories, firstly, the understanding of the external environment, secondly, the understanding of the operation of the organisation itself and the skills necessary to redesign the organisational configuration and thirdly, the technical knowledge to support the design and development of new products.

In respect of product innovation, the literature informs us that an intimate knowledge of the customer's current and latent requirements and the external environment are key success factors (Chagananti and Sanbrahaya, 1989; Parkinson, 1982; Peters and Austin, 1985; von Hippel, 1978). However, as Brockoff (1981); Cooper (1984); Geschka (1983); Tushman and Moore (1982) and Urban and Hauser (1980) point out, knowledge of customer requirements alone is insufficient to encourage innovative activities. In addition, a strong technical knowledge must also exist, closely aligned with the organisation's core capabilities (Leonard-Barton, 1992). The need for externally based skills, as opposed to those gathered merely through long tenure within the organisation is indicated by Damanpour (1991), supporting the observations of Kimberly and Evanisko (1981) that new executives with new perceptions and ideas are more effective than long-tenured managers. In

terms of professionalism (measured in terms of education and experience of managers) Damanpour (1991) reveals positive correlations with all forms of innovation except, surprisingly, product innovation. However, as Miles and Snow (1978) and Takeuchi and Nonaka (1986) report, the customer knowledge must be supported by a thorough understanding of the workings of the organisation, frequently obtained through job rotation.

The need to develop the skills to redesign the organisation's configuration is identified by many researchers. Kanter (1983) extends the view that the organisation must engage innovation leaders to break established patterns of shared values. In a similar vein, Miles and Snow (1978) identify the presence of skills to design and manage the continuously changing organisational configurations that constitute the more innovative organisation.

4.2.7 Shared Values

We will discuss here the profile of shared values dealing principally with the motivation to change and commitment to the organisation's strategy although it must be noted here that our understanding of the role of shared values in general and in respect of the innovative organisation in particular, is limited (Leonard-Barton, 1992; Porac, Thomas and Baden-Fuller, 1988).

In terms of allegiance to innovation, following Abernathy and Wayne (1974) and Booz, Allen and Hamilton (1982), we would expect all levels of the organisation to focus upon similar strategies for growth through business innovation.

In terms of interests or the motivation to change, a large body of writers describe the acceptance at all levels within the organisation of the need to change (Rickards, 1985; Souder, 1981; Tushman and Nadler, 1986). Supporting this position, Damanpour (1991) demonstrates correlations between managers' attitudes towards change and innovation.

The theme of an organisation totally focused on a single strategic path must however be tempered. Following the proposals of Hedburg, Nystrom and Starbuck (1976); Miller (1994); Nonaka (1988) and Weick (1969) the above views may be an over-simplification as these writers describe organisations characterised by equivocality and competing values. This alternative perspective will be discussed in greater detail when the findings of the "new style" researchers are considered.

4.2.8 The Classical Research: Conclusion

The examination of "classical" research has allowed an understanding of the elements of the innovative organisation's configuration to be developed. In terms of the configurational characteristics we can conclude:

1. Innovation activities tend to take place in the informal systems or parallel organisations that are of central importance to the innovation process. In particular, the informal systems adapt to meet the needs of individual innovations.

2. Obvious conflicts exist between the organisational requirements of offer and process innovation. Differences have been identified in the levels of formalisation and centralisation, and the focal point of the organisation, process innovation requiring functional structures, whereas market-based forms are required for offer innovation.

3. The role of top management is to set the climate for innovation, ensure efficient communication both within and outside the organisation, taking a more participative role in innovations where co-operation between organisational units is required.

4. Skills and Staff: Skill specialisation has been ubiquitously supported in the literature, but has been developed to introduce the need for staff with a wider repertoire of skills. Staff are expected to be focused at the business level within the organisation.

5. Shared values. The literature is divided, some arguing for united objectives focusing upon innovation, others calling for equivocality and a series of

counter cultures that effectively enable the organisation to continuously "reinvent" itself.

The above observations are based upon the established innovation literature. However, a new literature is emerging examining the organisational configurations needed to compete in continuously changing environments. This emerging literature will now be examined to complete our understanding of the configurations that innovative organisations need to support innovation in volatile competitive environments.

SECTION 4.3 THE "NEW STYLE" RESEARCHERS: A CONFIGURATIONAL ANALYSIS

As explained above, it is necessary to extend our understanding of innovative organisations in one further dimension. Many writers (Bahrami and Evans, 1987; Bartlett and Ghoshal, 1993; Chakravarthy, 1994; Chakravarthy and Gargiulo, 1994; Clancy, 1994; Delbecq and Mills, 1988; Doz and Ghoshal, 1994; Dumaine, 1991; Ghoshal and Bartlett, 1994a; 1994b; 1994c; Ghoshal and Mintzberg, 1994; Handy, 1990; Hedlund, 1994; Huber and Glick, 1993; Kanter, 1989; Lewis and Stephens, 1993; Miles and Snow, 1986; 1992; Mintzberg, 1991; Mitroff, Mason and Pearson, 1994; Nonaka, 1988; Peters, 1988; Rose, 1990; Siegel, Siegel and MacMillan, 1993; Senge, 1990; Snow, Miles and Coleman, 1992; Useem and Kochan, 1992; Venkataraman and Low, 1994; Zajac, Golden and Shortell, 1991) argue that new approaches to organising are required if organisations are to survive in an increasingly competitive environment. The proposals of such researchers are reviewed here in an attempt to define the expected characteristics of these "new approaches". We will refer to such organisational forms as "new style" organisations. This literature will then be used to supplement our understanding of innovative organisations as developed in the reviews of the findings of the "classical" researchers.

It must be made clear that the requirement for new organisational forms, and the failings of structures designed along Weberian (1910/1978) principles has long been predicted in the literature. Miles and Snow (1978) foresaw the emergence of a new organisational form. Mintzberg (1983) predicted the demise of the multi divisional form. Hedburg, Nystrom and Starbuck (1976) describe a system of dynamic tensions that self-designing organisations require. Grenier (1972) predicts a future organisational crisis as a result of the "psychological saturation" of employees.

As Lewin and Stephens (1993) note, the move to discover new forms of organising has been driven by trends towards globalisation, the destruction of long-lived "macro-markets", the rise of short-lived "micro-markets" and significant changes in technology.

The findings of the "new style" writers and researchers will now be reviewed using the configurational dimensions developed in Chapter 3. As an introduction, the reader is invited to examine Figure 4.2 which provides the overview of "new style" organisational characteristics presented by Lewin and Stephens (1993). It will be noted that the central theme of the "new style" organisation is the demise of the Weberian (1910/1978) control dimensions of formalisation and centralisation. These dimensions are replaced, as Ghoshal and Bartlett (1994a: 1994b; 1994c) observe, by a system of control primarily achieved through strongly articulated patterns of shared values and personal relationships. The formal structure, which forms the focal point for control in more traditional organisations, is replaced by the informal systems. Top managers focus not on designing the formal structure, but encouraging the design and redesign of the informal systems. The informal systems as opposed to the formal structure therefore dominate the organisation's configuration. For this reason, our review of the "new style" literature presented below deals simultaneously with the formal structure and the informal systems.

FIGURE 4.2 ATTRIBUTES OF EFFECTIVE "NEW STYLE" ORGANISATIONS

Overall Effectiveness Attributes:

Global
Hyperflexible and adaptive
Continuously improving and innovative
Stakeholder focused, just (equitable)
Tolerance for uncertainty

Structural Characteristics:

Flatter
Decentralised
- Networked
- Self-organising
- Control through culture and values
Permeable boundaries
- Internal "boundary-less"
- Blurred external boundaries
- Fit between structure and task processes

Information Processing:

Virtual electronic organisations
Integration of telecommunications, office automation, data processing and video technologies
Integration of planning and flow process of work

Job Design:

Individual/group empowerment
- Self-control and self-designed responsibility
- Intrapreneurship
- Multiple organisation members
Cross-functional
- Continuous learning
- Cross training

Management:

Leadership without control
- Less demanding, directing, evaluating or organising
- More facilitating, communicating and networking
- Tolerance for ambiguity
- Trust in people
- Cosmopolitan

Source: Lewin and Stephens (1993)

Throughout the literature review one must bear in mind, as Dumaine (1991) notes, that "nobody knows for sure" what exact form the "new style" organisation will take. As Daft and Lewin (1993) observe, "leadership without control" is a new and untested phenomenon and it

remains to be seen how efficiently top managers can cope with the ambiguity that such actions at the business level will produce. Victor and Stephens (1994) also note a "dark side" to "new style" organisations in the form of the demands placed upon employees who are expected to one the one hand express enhanced commitment and on the other to accept patterns of "flexible employment" in place of long term employment security.

We will now present our findings from the literature in respect of the expected configurational characteristics of "new style" organisations.

4.3.1 The Formal Structure and the Informal Systems

Historically, both organisational control mechanisms and researchers' models have been focused upon the Weberian (1910/1978) dimensions of formalisation and centralisation (Lewin and Stephens, 1993). In "new style" organisations Ghoshal and Bartlett (1994a; 1994b; 1994c) describe a system of control achieved through a pattern of shared values and personal relationships. Bartlett and Ghoshal (1994); Lawler and Galbraith (1994) and Schreuder (1990) place a strong emphasis upon decentralisation in decision making. These observations must be coupled with those of Bartlett and Ghoshal (1993); Ghoshal and Bartlett (1994a; 1994b); Ghoshal and Mintzberg (1994) and Huber and Glick (1993) who note a reversal in terms of control mechanisms in "new style" organisations. Whilst units at the business level are given a wide range of discretion to develop and execute operational plans this is not decentralisation without control. Firstly, the top management closely guides development of the organisation's corporate level strategy and core competencies which in turn act as operational boundaries for decision making

within the informal systems of the organisation (Ghoshal and Mintzberg, 1994). Further, we see a reversal in the flow of the control process. Centralised decision making, where the locus of power is situated at a relatively high point in the hierarchy is a characteristic of the Weberian (1910/1978) organisation and represents a *downward* exertion of control. In the "new style" organisation we see, in effect, an *upward* exertion of control in that sophisticated information and monitoring programmes are developed to allow top managers to monitor the *outcomes* of decisions made within the informal systems of the organisation (Bartlett and Ghoshal, 1993; Huber and Glick, 1993; Ghoshal and Mintzberg, 1994; Ghoshal and Bartlett, 1994a; 1994b). Relatively little influence is placed upon managers when the decisions themselves are made, it is the outcomes that are monitored. Regular strategic review meetings and opportunities for face to face contact provide the opportunity for additional control through personal relationships between top managers and those responsible for day to day activities (Bartlett and Ghoshal, 1994c).

From an external perspective, as Doz and Ghoshal (1994) contend, a market or client focus must be the core element of any "new style" organisational form.

It must be emphasised that the "new style" organisation differs from the strategic business unit (SBU) structures introduced in the last decade along two dimensions. In terms of product markets the focus is finer, Bartlett and Ghoshal (1993) in their examination of Asea Brown Boveri note that this organisation consists of a "federation" of 1,300 companies organised as distinct businesses. Similarly, in the examination of Matsushita, Ghoshal and Mintzberg (1994) note the creation of over 4,000 profit centres. Secondly, in terms of autonomy, strategic business units have frequently been given full autonomy in respect of both decision making and monitoring. In the "new style" configurations, as Bahrami and Evans (1987) observe, decision making is highly decentralised but the establishment and execution of performance monitoring is a complex and centralised process (Bartlett and Ghoshal, 1993; Ghoshal and Mintzberg, 1994). The concept of an organisation consisting of a

large number of client focused team based units growing and dying with the needs of customers in niche markets receives wide support in this literature (Aldrich and Auster, 1986; Bartlett and Ghoshal, 1993; 1994b; Dumaine, 1991; Ghoshal and Mintzberg, 1994; Hedlund, 1994; Kanter, 1983; 1989; Lawler and Galbraith, 1994; Miles and Snow, 1986; 1992; Peters, 1988; Useem and Kochan, 1992).

The objective, as Powell (1987) and Venkataraman and Low (1994) observe, is to combine the merits of larger organisations (principally munificence of resources) with the benefits of smaller organisations (high levels of customer responsiveness and depth of service). This, we can conclude, is possibly an evolution of the original proposals of Pierce and Delbecq (1977) who observed informal "overlays" being used for innovation development within a larger, more formalised organisation.

The provision of inter-group boundary spanners is seen as an essential element in the design of innovative "new style" organisations (Delbecq and Mills, 1988). Writers go further to postulate upon the need for permeable boundaries not just within the organisation itself but between the organisation, its customers and suppliers with such external groups participating even in decision making (De Meyer, 1991; Handy, 1990; Miles and Snow, 1986; Peters, 1988; Powell, 1987).

We therefore see a picture of an organisation as Bartlett and Ghoshal (1993) describe effectively focused around the informal systems where each micro unit is autonomous in terms of its skill requirement and where even the functions of human resources, marketing and finance are devolved to, and form part of, such units. Managers within such units focus upon initiation and implementation of business innovations in respect of their own product areas. Formalised behaviour controls are replaced by reliance upon personal relationships between managers and a strong binding strategic mission or corporate level strategy (Ghoshal and Bartlett (1994c).

Within traditional organisations, the formal structure is used as a control mechanism and acts to freeze or embed organisational paradigms (Dougherty, 1992; Dougherty and Heller, 1994; Waterman, Peters and Philips, 1991). We can conclude that the formal structure within the "new style" organisation has the opposite effect, its primary role is to provide interlinking and communication mechanisms to encourage both the development of the informal systems and the production and exchange of information and views that challenge existing shared values.

4.3.2 Intended Strategy

Within the "new style" organisation, corporate level strategies are limited to setting a broad strategic direction which sets the boundaries within which strategies at the business level are developed (Ghoshal and Bartlett, 1994a; 1994c).

Whilst business level strategies are aimed at meeting the needs of ever increasing "micro-markets" and developing new strategic solutions that break existing competitive rules (Bartlett and Ghoshal, 1993; Doz and Ghoshal, 1994; Ghoshal and Bartlett, 1994b; Ghoshal and Mintzberg, 1994; Nonaka, 1988), the most significant changes are seen in respect of where strategic decisions are made in the organisation.

Changes in the loci of decision making within the organisational form are a significant development to be noted when one compares the "new style" organisational form with that of the traditional organisation. We can conclude from the literature surrounding the "new style" organisation that it is the role of top managers to define the broad corporate level strategy which is limited to a statement of broad corporate strategic intent (Bartlett and Ghoshal, 1993; Siegal, Siegal and MacMillan, 1993) that effectively sets the parameters within which strategy at the business level may evolve. The role of top management extends to ensure that business level strategies in each of the operating units

effectively network the organisation's core competencies and resources in a synergistic manner (Hedlund, 1994; Schreuder, 1990; Hamel and Prahalad, 1994). In terms of the development of functional level strategies (resource decisions), we can conclude from the observations of Bartlett and Ghoshal, (1993) that it is the role of top and middle managers to provide a package of resources to managers at the business level that are in turn responsible for the definition of strategies in individual product markets and the subsequent deployment of resources. Bartlett and Ghoshal (1993); Hamel and Prahalad (1994) and Schreuder (1990) stress that it is the responsibility of staff in the business units to define how the organisation competes within its chosen product markets.

4.3.3 Staff

The use of team based structures, consisting of staff with broad skill sets runs ubiquitously through this literature (for example, Bartlett and Ghoshal, 1993; Peters, 1988) and opposes the position developed by the "classical" researchers where skill specialisation is stressed. Bartlett and Ghoshal (1993) refer to managers at the business level being charged with the responsibility for the initiation and implementation of competitive strategies within the customer segments for which they have responsibility. Middle managers are charged with performance review, definition of best practices, competitive benchmarking and co-ordination issues whilst top managers focus upon the broad strategic direction of the organisation and development of the supporting skills and culture (Hamel and Prahalad, 1994). Following Bartlett and Ghoshal (1993), we expect to witness a dramatic shift in the locus of staff, away from the corporate centre and middle management layers to units at the business level, charged with day to day business activities.

4.3.4 Management Style

The top managers described by Bartlett and Ghoshal (1993) are a relatively small group of specialists. The main role of the CEO is the definition of the organisation's broad mission and competencies, being achieved through a

"reengineering of organisational values" Doz (1994); Ghoshal and Bartlett (1994a). Ghoshal and Bartlett (1994b) describe "process" as the new focus of managers in the "new style" organisation, replacing the controlling dimensions of formalisation and centralisation. In this regard, top managers are concerned with encouraging three ongoing processes; the entrepreneurial process of developing an external focus throughout the organisation; the capacity building process which focuses upon skill development and thirdly the renewal process, encouraging an ongoing process of self-renewal within the organisation. From a similar perspective Doz (1994) sees the role of top managers in established organisations as challenging and renewing the competencies of the organisation.

Criticising such fashionable management panaceas such as "delayering" and "outsourcing" Hamel and Prahalad (1994) conclude that top managers must focus upon the development both of firstly, a future view or scenario of the competitive environment that is shared across the organisation and secondly, the organisational competencies that are necessary to enable the organisation to exploit such a future vision.

Bartlett and Ghoshal (1993) observe that within "new style" organisations, a core of middle managers is maintained to undertake strategic benchmarking, coaching and development of best practice functions. The most important role of middle management is the co-ordination of new business initiatives at the business level together with the provision of coaching, particularly in best practice and project management disciplines (Bartlett and Ghoshal, 1993).

4.3.5 Skills

We will firstly address the dominant skills within the organisation. It is in this dimension of the "new style" organisation's structure that possibly the most dramatic changes are proposed. Changes to staff demography and dispersion are called for in conjunction with a marked reskilling of staff, most notably managers who will operate at the business level.

It can be concluded from the description of the "new style" organisation provided by Bartlett and Ghoshal (1993) that in terms of skill location we are faced with a massive migration in terms of the intellectual centre of the organisation from the corporate level to the units at the business level. The role of top managers shifts from being the designers of corporate, functional and business level strategies and control structures to the moulders of skills and shared values. Similar observations are made by Peters (1988) who notes the development of a multi-skilled workforce with the ability to span organisational boundaries. Ghoshal and Mintzberg (1994) hold that it is essential that skills at the operating edge of the organisation are focused around the organisation's core competencies.

At the corporate level we expect to find managers with exceptional transformational skills (Bahrami and Evans, 1987; Bartlett and Ghoshal, 1993; Doz and Ghoshal, 1994), functionally balanced, coupled with soundly based industry experience (Siegal, Siegal and MacMillan, 1993), with a mission to both change the shared values of staff (Senge and Sterman, 1992) and to encourage the continuous development of new skills (Senge, 1990; Useem and Kochan, 1992; Bartlett and Ghoshal, 1994a; 1994b). Additionally, at the corporate level comprehensive and analytical decision making skills are required to eliminate "shooting from the hip", a trait found in mature organisations (Huber and Glick, 1993).

4.3.6 Shared Values

Few writers, from the perspective of the internal forces within the organisation, provide us with a detailed understanding of why the "new style" organisation must be based upon the fluid and arguably unstable structure that is described above. Examining in more detail the forces within the organisation and following Hedburg, Nystrom and Starbuck (1976); Nonnaka (1988) and Quinn (1985), we propose that if an organisation is to continuously change and

redesign itself as the external environment changes then such organisations must contain a closely controlled equivocal element.

The theory that organisations must create at least a degree of controlled chaos or equivocality in order to make sense of unforeseen changes in the external environment is proposed by Weick (1969). As observed by Nonaka (1988), if organisations are to continue to renew themselves then the configurational form must allow and encourage a free flow of information and opinions across the organisational units that are capable of challenging organisational paradigms and preventing their entrenchment:

> "Bureaucracy represents an organisation from which chaos has been completely eliminated. But for an organisation to evolve continuously, it is necessary to allow freedom among the constituent units in the organisation, to generate creative conflicts between them and to maintain an expanded possibility to take in information. At the same time, it is necessary to keep a coexistence of diverse systems and behavioural patterns that will inevitably connect the different units with one another. For example, the formation of autonomous organisational units (such as divisions), "linking pins," project teams and task forces are formal and informal organisational structures that promote this kind of evolution."
>
> [Nonaka (1988:64)]

The role of the formal structure changes therefore when compared to its position within the more traditional organisation. Within traditional organisations, the formal structure is used as a control mechanism and act to freeze or imbed organisational paradigms (Waterman, Peters and Philips, 1991). The formal structure within the "new style" organisation, it appears, has the opposite effect. Its primary role is to provide interlinking and communication mechanisms to encourage the production and exchange of information and views that challenge existing organisational paradigms.

The literature unanimously supports the requirement for a framework of perceptions and interests that continually promote the need for organisational renewal. In terms of the interpretive framework, paradigm or shared values held by members of the organisation one of top management's principal activities must be to act as a change trigger challenging existing thought sets

(Ghoshal and Bartlett, 1994a; Tichy and Ulrich, 1994; Huber and Glick, 1993; Useem and Kochan, 1992; Senge, 1990). However, the process of how ossification in shared values is avoided is not clearly defined in the "new style" organisational literature. Drawing upon Hedburg, Nystrom and Starbuck (1976); Nonaka (1988) and Weick (1969) we can conclude that it must be the role of top managers to encourage the development of a degree of controlled equivocality in the organisation. Hedburg, Nystrom and Starbuck (1976) describe self-designing organisations that are balanced on six fulcra - minimum *consensus*, minimum *contentment*, minimum *affluence*, minimum *faith*, minimum *consistency* and minimum *rationality*. The issue of a series of carefully balanced tensions may, as we shall conclude below, be at the heart of the "new style" organisation. As Hedburg, Nystrom and Starbuck (1976) indicate, the role of top managers must, on the one hand, be to encourage competing shared values and perceptions but on the other to set the boundaries within which such equivocality exists:

> "Dissension stimulates reconsideration of implicit or conventional assumptions, encourages strategic diversification and deters maladaptive stresses from aggregating into crises. However, excessive dissension debilitates. Autonomous sub-units, ambiguous goals and non-uniform perceptions generate competing claims generate competing claims that have to be settled by assigning authorities......(but) there is a lower bound below which the level of consensus dare not fall if the organisation is to control its coherence."
>
> [Hedburg, Nystrom and Starbuck (1976: 57)]

4.4 THE FINANCIAL SERVICES CONTEXT

We have until now discussed the configurational requirements for business innovation without specific reference to the research context. Chapter 3 introduced the four dimensions of business innovation put forward by Johne (1994; 1995; 1996).

Research conducted within the financial services context would indicate that the pursuit of only one form of business innovation, for example product innovation, may not be a route to competitive success. Easingwood and Storey (1993) found that product innovation on its own may be relatively

ineffective, unless employed in the marketplace in conjunction with product augmentation innovation. In fact, Johne and Storey (1996) hold that product innovation *and* product augmentation innovation, (offer innovation), are the two essential components of business development initiatives in the financial services sector.

A growing literature is exploring the organisational configurations necessary to support business innovation in the service sector which embraces financial services. Indeed, in his review of the innovation literature Damanpour (1991) points to differences in the configurational requirements for innovation between the manufacturing and service sectors, noting that in general terms lower levels of formalisation, but higher levels of direct supervision may be required to support innovation in the services context. Grönroos (1983) examining specifically innovation in the service sector, observes that in view of the fact that a service offering is not pre-produced, but turned into a product in front of the customer, every offering is, to a degree, unique. To support this uniqueness, Grönroos (1983) notes that organisational structures must not inhibit flexibility and ad hoc customer interactions. Therefore it is held that the configuration of the organisation must be more organic than mechanistic.

This perspective is developed further by Drew (1995) who examines the question of innovation, in the face of new competitive pressures, in the financial services sector. Drew (1995) concludes that a configurational approach must be taken to stimulating and maintaining innovation in the financial services sector observing that (i) in terms of management style, it is the role of top managers to create the climate for innovation; (ii) high investment in the development of new skills is required, particularly at the business level in the organisation; (iii) a clear focus in terms of intended strategy at the business level and the overall direction of the organisation's competitive thrust at the corporate level must be developed and (iii) new organisational structures must be created:

"Traditional bureaucracies and functional divisions do not encourage rapid communication and the organizational learning needed for innovation. Cross-functional teams and increased teamwork are not panaceas. However, with careful attention to goal setting and team formation, several financial firms have found these to be supportive of speeding new products to market."

[Drew (1995: 21)]

4.5 CONCLUSION

We are now in a position to amalgamate our findings from the "classical and "new style" literatures and produce conclusions in respect of the expected configurational characteristics of organisations that are capable of sustaining business innovation in rapidly changing and fragmenting marketplaces.

Figure 4.3 summarises our findings from the literature. Drawing upon the above two streams of research our expectations in respect of the configuration of innovative organisations are as follows:

1. *The Formal Structure and the Informal Systems:* The demise of the formal structure as a system of control designed by top managers is the most notable feature of the innovative organisation. As we have observed, the traditional role of the formal structure to control actions through rules, procedures and control of decision making is replaced by a system of control through shared values, personal inter-action and systems that allow top managers to monitor the outcomes of decisions made at the business level. Indeed, one of the primary roles of top management is to encourage the locus of responsibility for the design of working arrangements to shift from the domain of top managers to staff at the business level. Thus, we expect the day to day operations of the organisation to be determined by the informal systems as opposed to the formal structure. It can also be concluded that these proposals are of particular relevance to organisations in the financial services sector where organisations must cope with both uncertainty in the competitive environment and in its interaction with the customer.

2. *Intended Strategy:* The literature points to the development of business level strategies that are designed to meet the needs of ever increasing "micro-markets" and that break existing competitive rules (Bartlett and Ghoshal, 1993; Doz and Ghoshal, 1994; Ghoshal and Bartlett, 1994b; Ghoshal and Mintzberg, 1994; Nonaka, 1988).

FIGURE 4.3 THE CONFIGURATIONAL PROFILE OF THE INNOVATIVE ORGANISATION

Configurational Element:	Description:
1. Formal Structure: 1.1 Formalisation:	Low, with the exception of administrative innovation where high levels are expected. Ceases to be a top management control medium.
1.2 Centralisation:	Low. Again ceases as a control medium.
1.3 Structural Focus:	Client focus, in "micro market" units.
2. Informal Systems: 2.1 Formalisation:	Low
2.2 Centralisation:	Low, power allocated by expertise as opposed to hierarchical position. Informal systems, defined by staff at the business level, carry on all business innovation activities.
3. Intended Strategy:	Clearly stated objectives and plans, that focus upon being first to the market and breaking established industry rules.
4. Staff	Focused within business units. Middle management focus upon coaching and guiding business units as opposed to monitoring and control.
5. Management Style:	Visionary, participative, focus on broad mission and skill development encouraging self-renewal. Personal relationships are a key control medium.
6. Skills: 6.1 Technical:	High customer awareness and technical skills, although a movement to multi-skilling is proposed.
6.2 Transformational:	High, particularly at top management level.
7. Shared Values: 7.1 Motivation to change: 7.2 Commitment to strategic direction:	High High, but a division within the literature proposes a degree of "controlled equivocality".
Source: Literature review (sections 4.2 and 4.3).	

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3. *Staff and Skills:* Possibly the greatest challenges facing mature, established organisations are those presented by the migration of staff from line management and staff functions into the innovative organisation's business units. The "new style" literature points to a trend away from skill specialisation to employees possessing broadly based skills that allow mobility within the organisation. Certainly, a dramatic skill shift is required on the part of middle management as their role shifts from monitoring control systems to one of moulding skills and shared values within business units.

4. *Management Style and Shared Values:* The role of top management and shared values as described within the "new style" literature is closely related to the findings of the more established "classical" literature. The principal roles of top management are seen as threefold: (i) the definition of broad strategic direction; (ii) skill development; (iii) encouragement of self-renewal by acting as "change triggers". Similarly, shared values we are told concentrate on both the broad strategic direction of the organisation and the need for continuous renewal. The "new style" literature is noticeably vague however, on how such a cultural profile is achieved or indeed maintained. Our remarks in connection with shared values or the cultural profile of the organisation lead us to conclude that as Daft and Lewin (1993) note, organisational theorists have failed to keep abreast of the new organisational forms being produced by practising managers and therefore there is a general lack of empirically based research focusing upon how such organisations operate.

In this Chapter we have analysed the innovation literature to identify the configurational characteristics necessary to support innovation in a continuously changing competitive environment. This is a necessary prelude to the definition of the barriers to innovation that exist in the mature organisation.

We will turn our attention to this issue in Chapters 5 and 6.

CHAPTER FIVE

BARRIERS TO INNOVATION IN MATURE ORGANISATIONS: AN ANALYSIS OF CONFIGURATIONS

5.1 INTRODUCTION

As this research centres upon the initiation of business innovation in mature organisations it is necessary to clearly understand the characteristics of the mature organisation; the barriers that may impede the initiation of innovation and the process of change that mature organisations must go through to overcome such barriers.

This Chapter has the following objectives:

1. Present a review of the literature describing mature organisations to identify those configurational characteristics that we expect such organisations to display; and

2. Define the barriers to innovation that one can expect to be present in mature organisations.

Chapter 6 will then identify the possible process of overcoming these barriers.

In preparing this Chapter we have focused upon three literatures. Firstly, the organisational life cycle literature (Grenier, 1972; Miller and Friesen, 1984a; 1984b; Quinn and Cameron, 1983; Smith, Mitchell and Summer, 1985). Secondly, those who have included the characteristics of established bureaucracies and organisations within their research (for example, Crozier, 1964; Chisholm, 1987; Leibenstein, 1987; Selznik, 1957). Thirdly, we refer to the work of those organisational change researchers who have examined the

attempts of organisations to escape the confines of maturity (these include Baden-Fuller and Stopford, 1992; Kanter, 1989 and Whipp, Rosenfeld and Pettigrew, 1989).

5.2 MATURE ORGANISATIONS: A DEFINITION

Whilst the term "mature organisation" has an almost ubiquitous meaning when used in the literature, there is a distinct absence of a single definition that embraces all the configurational characteristics that we wish to study. We therefore present a review of the literature to identify the expected profile of each element of the mature organisation's configuration.

In presenting this review we will adopt the configurational profile defined in Chapter 3, where we held that the configuration of an organisation consists of the following elements:

1. The formal structure;
2. The informal systems;
3. The intended strategy;
4. Staff;
5. Management style;
6. Skills; and
7. Shared values.

Each element will now be discussed in turn.

5.2.1 The Formal Structure and Informal Systems

We discuss here both the formal structure and the informal systems in view of the apparent overarching dominance of the formal structure that will be described below.

Quinn and Cameron (1983) in their review of the organisational life-cycle literature, find that the vast majority of researchers observing the characteristics

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of the mature organisation note extensive use of rules, procedures and decision making controls within the formal structure. These measures have the principal objective of protecting established shared values and power centres as Adizes (1979); Downs (1967); Grenier (1972); Katz and Kahn (1978); Kimberly (1979); Lyden (1975); Scott (1971) and Smith, Mitchell and Summer (1985) show in their research.

Dealing with the issue of the use of rules to control activities, Kanter (1989a) observes a formal structure that has the objective of protecting established power bases. Such attempts to protect positions of power are reinforced through controls and procedures that seek to channel and restrict access to information. Aldrich and Auster (1986); Allison (1972) and March and Simon (1958) propose that such use of procedures is a product of several forces including established routines, vested interests of power groups and homogeneity of perceptions. As Gersick (1991) observes, such routines and interests develop in periods of environmental stability and combine to produce a "deep structure" that resists change and inhibits development of informal systems.

Whilst Thompson (1967) argues that formalisation in mature organisations is an attempt to focus upon operational efficiency, Miller and Friesen (1984a); Norburn, Kingsley and Birley (1988) and Stopford and Baden-Fuller (1990) note an absence of the informal communication flows that are necessary to support innovation. The corollary is that the mutually supportive mechanisms within the formal structure and informal systems, that are, we have observed, essential to support innovation, are absent in mature organisations (Souder, 1987), and the dominant formal structure presents problems on how to organise, procure development funds and gain top management approval for innovation (Dougherty and Heller, 1994).

In response to this finding, some argue for the separation of innovative activities from the central organisation (Galbraith, 1982) or the establishment

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of autonomous sub-units (Venkataraman and Low, 1994) to escape such formalisation.

But as Miller and Friesen (1984a) note, such controls are difficult to remove and allow the power to change to be vested in the hands of veteran managers who would effectively admit incompetence if any significant change in the organisation were to be sanctioned.

Crozier (1964) contends that power and "paralysing structures" are the central barriers to change and innovation in established bureaucracies:

> "The bureaucratic system of organising is primarily characterised by the existence of a series of relatively stable vicious circles that stem from centralisation and impersonality."
>
> [Crozier (1964: 193)]

Crozier (1964) goes on to argue that centralisation of power leads to still further increases in centralised decision making as lower echelons within the organisation become continually more frustrated. Supervisors, bound by the rules of formalisation, increasingly refer problems of control upwards in the organisation. Such high levels of centralisation, Crozier (1964) contends, prevents the organisation from responding to external change:

> "[Bureaucracy] is not only a system that does not correct its behaviour in view of its errors; it is also too rigid to adjust without crises to the transformations that the accelerated evolution of industrial society makes more and more imperative."
>
> [Crozier (1964: 198)]

Chisholm (1987) and Leibenstein (1987) illustrate the paralysing outcome of the use of such formalised controls. Chisholm (1987) observes an underlying philosophy that "one cannot be blamed for a mistake if one sticks to the rules", but the central problem that Chisholm (1987) sees is that such rules are framed in the past and supporting remuneration systems are geared to reward minimally satisfactory performance. Leibenstein (1987) calls upon the "Prisoners Dilemma" to explain the bias towards inactivity, explaining that in

such hierarchies no one player controls the outcome, but it is the combination of players' decisions that determines any outcome.

We can conclude at this stage of our literature review that the formal structure dominates activities at all levels within the mature organisation, with the principal objective of protecting established power bases in the organisation, therefore reducing the pressure for innovation and change.

5.2.2 Intended Strategy

Typically, mature organisations wait for competitors to make any strategic moves then imitate (Miller and Friesen, 1984b) and choose from a limited range of established, generic strategies, (Stopford and Baden-Fuller, 1990). In terms of strategic responses to externally induced crises, Kelly and Amburgey (1991); Tushman, Newman and Romanelli (1986) observe that the pattern of past responses will restrict the choices open to the organisation. The result is that mature organisations tend to produce new products with little strategic fit with the organisation or the competitive environment (Dougherty and Heller, 1994; Miller and Friesen, 1984a). Miller and Friesen (1984b) conclude that few, if any, attempts are made at encouraging product innovation, many organisations failing even to produce basic improvements to existing products. In terms of strategy generation in times of crisis, Grinyer and McKiernan (1990) observe that mature organisations proceed through three phases of strategic inertia:

Phase 1: Tighten existing controls;

Phase 2: Review strategies using existing values and perceptions; and

Phase 3: Change basic shared values (often following symbolic action such as replacement of the CEO).

It is only when the third stage is reached that the development of new business level strategies is considered. Summarising the above research studies and in particular those of Miller and Friesen (1984b); Quinn and Cameron (1983) and Smith, Mitchell and Summer (1985), we conclude that at the corporate level

the strategic direction is focused upon the defence and isolation of current markets emphasising efficiency of internal operations. At the business level, we note that strategies are typified by few major innovations, a tendency to follow competitors in terms of product innovation and to participate in broad, as opposed to more tightly focused product markets.

5.2.3 Staff

As we have observed, staff at the top management level are characterised by periods of long tenure within the organisation (Miller and Friesen, 1984b). Relatively large planning and technical process staffs dominate the organisation together with a middle management layer focusing upon co-ordination of internal activities (Miller and Friesen, 1984b; Quinn and Cameron, 1983; Smith, Mitchell and Summer, 1985).

Certainly, long established, veteran managers are widely cited as impediments to change in mature organisations (Ginsberg and Abrahamson, 1991; Hambrick, 1987; Keck and Tushman, 1993; Miller and Toulouse, 1986; Virany, Tushman and Romanelli, 1992). Whilst established management teams are best equipped to cope with stable environments, Virany, Tushman and Romanelli (1992) note that new, demographically younger, top management teams with heterogeneity of experience are required to effect the reorientation of shared values necessary to rejuvenate the mature organisation, such changes being executed at an early point in the change process (Schreuder, 1993). Hurst, Rush and White (1989) develop the concept of heterogeneity of experience by observing that an injection of more intuitive managers is required in the mature organisation. As Hambrick and D'Aveni (1992) note, the effectiveness, size and functional expertise of the top management team of mature organisations frequently deteriorates as such organisations become more deeply embedded in crises. In short, the quantity and quality of management skills decline when they are needed the most.

5.2.4 Management Style

As we have described, through the use of the formal structure, power is kept within the control of top managers. Managers at this level focus upon co-ordination and monitoring through the rigid enforcement of the formal structure (Miller and Friesen, 1984b; Smith, Mitchell and Summer, 1985). As Baden-Fuller and Stopford (1992) note, finance and accounting staff see their role in mature organisations as controllers and monitors of the "watchdog" management style described by Grenier (1972). Certainly, Smith, Mitchell and Summer (1985) note that in maturity managers' interests shift from synergy, co-ordination and integration to focus upon subordinates' commitment, morale and opinions *within the context of maintaining current formal structures and political support for top managers*. Smith, Mitchell and Summers' (1985) research also reveals a material decline in entrepreneurial or risk taking management styles with the emergence of strict adherence to budgetary and formalised decision making methods.

Both Quinn and Cameron (1983) and Smith, Mitchell and Summer (1985) report that the central focus of top management is upon gaining technical efficiencies and internal political support for the continuation of current activities.

5.2.5 Skills

We have already observed, when discussing staff characteristics, that top management teams are typically devoid of the heterogeneity of experience and skills that are required to induce change.

Supporting this perspective, Dougherty and Heller (1994) report little, if any, creativity or design skills within established organisations. Baden-Fuller and Stopford (1992); Grenier (1972) and Smith, Mitchell and Summer (1985) describe increasing numbers of staff within the top management level or headquarters operation with the mandate to initiate company-wide control programmes. As we have observed, mature organisations are characterised by

top managers with relatively long periods of tenure, Miller and Friesen, (1984b). We can conclude from the findings of Grenier (1972); Miller and Friesen (1984b) and Smith, Mitchell and Summer (1985) that increasing emphasis upon efficiency, formalised planning and control systems will in turn lead to increases in planning, production and accounting skills as opposed to the "feeling" and "intuitive" skills that Hurst, Rush and White (1989) note are necessary for innovation and the management of change.

5.2.6 Shared Values

Shared values are closely bound to the formal structure. Whipp, Rosenfeld and Pettigrew (1989) identify a close link between shared values, the locus of power and strategy:

> "If strategic change is not only an analytical activity, as the rationalists would have it, but also a political process, then the cultural characteristics of a firm have direct relevance to the way management make the critical assessments, choices and changes required by the competitive environment ... corporate strategies therefore shape and are in turn shaped by the political and cultural factions of the organisation."
>
> [Whipp, Rosenfeld and Pettigrew (1989:568)]

Dougherty and Heller (1994), observing the obstacles to innovation in established organisations, note the central role of shared values:

> "To enhance their innovative abilities managers [in established organisations] must weave the activities of product innovation into their institutionalised system of thought and action, not merely change structures or add values."
>
> [Dougherty and Heller (1994: 200)]

Dougherty and Heller (1994) find that the processes of innovation do not fit into, and are not part of, the legitimate systems of thought and actions within mature organisations, such "legitimate systems" or shared values are therefore seen to be the central obstacle to successful innovation in such organisations. As Chisholm (1987); Selznick (1957) and Zucker (1977) observe, such values become deep-rooted in the everyday life of the organisation, making innovative practices "literally unthinkable". Grinyer and Spender (1979) similarly observe

the adoption of industry accepted interpretive "templates" in mature organisations. Similarly, Frederickson and Iaquinto (1989) observe a "creeping rationality" that resists all but modest change.

Furthermore, Dougherty and Heller (1994) go on to note that managers in mature organisations actually perpetuate the established "legitimate systems" in their day to day actions and that no significant change in the success of new initiatives will occur until there are appropriate changes in such managerial actions and systems.

Stopford and Baden-Fuller (1990) note the strength of this relationship:

> "Our firms were failing because their structures and systems had become ossified, making them incapable of responding adequately to the changing environment. We found many examples of bureaucratic strangulation, where old habits of mind and procedure were so firmly embedded in the fabric of the organisation that vested interests defeated initiatives for change. This sense of the "dead hand" of the system was reinforced by little communication across functional boundaries and little sense of teamwork among senior managers."
>
> [Stopford and Baden-Fuller (1990:402)]

Stopford and Baden-Fuller (1990) proceed to observe that within mature organisations there is a "notion" or perception that external competitive conditions change only slowly and that competitive positions are to be chosen from only a small group of established generic strategies such as those described by Porter (1980), whereas successful organisations within similar industries actively seek to break such generally accepted strategic recipes.

Johnson (1987) notes that established organisations are dominated, in their interpretation of the external world, by the views of one function, with a tendency, in times of crisis to focus upon strategies or recipes that produced success in the past. Obviously, there is here further evidence of the formal structure obstructing interpretation of the competitive environment through restrictions in the flow of information with the end result being that mature organisations fail to keep pace with changes in the external environment.

The resulting rigidities in outlook prevent mature organisations from adopting new technologies or even new generations of existing technologies (Henderson and Clark, 1990; Tushman and Anderson, 1986).

In terms of the motivation to change within the organisation, Lawler and Galbraith (1994) note that in mature organisations only a small percentage of employees have direct contact with real customers. The result is that interests within the organisation do not focus upon the customer but upon internal processes. The market place ceases to become a source of control and feedback. In crises managers merely increase formalisation and centralisation. Similar findings are reported by Smith, Mitchell and Summer (1985) who note a declining interest in long-term thinking and overall competitive performance, but an increased interest in political support within the organisation. The theme of placing relatively little importance upon understanding customer needs is supported by Cooper (1979) and Dougherty (1990). Rather than focusing upon the environment and the need to change, Grenier (1972) notes a "watchdog" mentality focusing on internal budgets and financial performance. Any innovation initiatives that do exist are assessed against financial measures as opposed to measures related to the external competitive environment.

To conclude, as Lyden (1975) states, in maturity managerial interests move from innovation to stability and institutionalisation of procedures. Adizes (1979) proposes that such shifts of interests to stability, administration and formalisation will eventually lead to organisational decline.

Rumelt (1994) concisely summarises the five forms of inertia found in mature organisations:

(i) Distorted perceptions;
(ii) Dulled motivation;
(iii) Poor creative responses to change;

(iv) Political deadlocks and

(v) Disconnected actions.

These characteristics combine to support a reactive strategic position, where typically, mature organisations wait for competitors to make any strategic moves and then imitate (Miller and Friesen, 1984b; Stopford and Baden-Fuller, 1990) or defend current markets (Smith, Mitchell and Summer, 1985; Miller and Friesen, 1984b; Quinn and Cameron, 1983). Mature organisations compound these problems by producing new products with little strategic fit with either the organisation or the competitive environment (Dougherty and Heller, 1994; Miller and Friesen 1984a).

5.2.7 The Biography of the Mature Organisation

In Chapter 3, following the propositions of Pettigrew, Whipp and Rosenfeld (1989), we identified the importance of the history or biography of an organisation in influencing its future form and direction. We therefore conclude our review of the configuration of the mature organisation by examining from the literature its expected history.

The argument that organisations become enmeshed early in their lives in complex circles of commitment and interdependence that inhibit possibilities for later change has been articulated by Hannan and Freeman (1977); (1984); Kelly and Amburgey (1991) and Tushman, Newman and Romanelli (1986). This viewpoint proposes that the origins of an organisation determine its activities over time and, as we shall discuss below, the response of the mature organisation in times of crisis.

Grenier's (1972) evolutionary model holds that an organisation's history in terms of patterns of crises and solutions to crises defines its future problems:

"Managers often fail to realise that organisational solutions create problems for the future (i.e., a decision to delegate eventually causes a problem of control). Historical actions are very much determinants of what happens to the company at a much later date."

[Grenier (1972:45-46)]

To illustrate this point, Grenier (1972) proposes that the management actions during phase three of his evolutionary cycle (Delegation) to decentralise decision making produces a crisis of control which leads to increasing centralisation and formalisation which in turn produces a crisis of "red tape" characterising the formation of the mature organisation.

Miller and Friesen (1984a) observe that mature organisations are steeped in a history of successfully competing in stable markets with a high market share, being a perspective that Lawler and Galbraith (1994) develop. Broadly, Lawler and Galbraith (1994) assert that past high performance leads to under-estimation of competitors in general, and in specific terms, a failure to assess competitors' product attributes and capabilities. Past success builds power into those areas responsible for such achievements, building the paradox that the departments or units responsible for past innovations develop power bases that they then seek to defend by adopting insular attitudes.

The complex co-ordination mechanisms within the formal structure that we have described above are, Lawler and Galbraith (1994) hold, a direct result of rapid, but poorly managed growth.

We observe then that mature organisations typically have experienced past periods of substantial and possibly poorly managed growth. Uncontrolled growth produces a demand from top management for control through the reinforcement of mechanisms within the formal structure, which in turn inhibits innovation and the motivation to change. The configurational characteristics of the mature organisation are summarised in Figure 5.1.

FIGURE 5.1 THE MATURE ORGANISATION: A CONFIGURATIONAL PROFILE

Configurational Element:	*Description:*
1. Formal Structure:	
1.1 Formalisation:	High, inorganic [B, C] Planning and control systems are formal, focus upon planning skills [A] Communication through formal communication channels only [A] Large, functionally grouped structures adopted [C]
1.2 Centralisation:	High [A, C] Authority and decision flows are vertically downwards [A, C]
1.3 Structural Focus:	Large functional units. [C]
2. Informal Systems:	
2.1 Formalisation:	Dominated by formal structure, lowest levels of informal communication reported. [A]
2.2 Centralisation:	Again dominated by formal structure, little evidence of project groups at the business level.
3. Intended Strategy:	Reactive, little fit with environment. [C]
4. Staff:	Long tenure, planning and production process staff dominate. [A]
5. Management Style:	Co-ordination, monitoring [A, C, D]
6. Skills:	
6.1 Distinctive skills:	Specialisation of jobs: High [A] Focus upon planning, efficiency. [A, C, D] Training focus upon adherence to procedures. [A, C, D]
6.2 Transformational skills:	Low, internal skill focus [A]
7. Shared Values:	
7.1 Motivation to Change:	Low motivation to change [A, D].
7.2 Commitment:	Dominant coalition's focus upon gaining political support within organisation and increasing technical efficiency. Internally derived performance measures. [A, D]

Notes:

A. See Smith, Mitchell and Summer (1985).
B. See Smith, Mitchell and Summer (1985) measures of structural definition and adherence to defined structure.
C. See Miller and Friesen (1984b).
D. See Quinn and Cameron (1983).

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5.3 BARRIERS TO INNOVATION IN MATURE ORGANISATIONS.

5.3.1 The Principal Barriers

The characteristics of mature configuration are contrasted against those requirements needed for innovation in Figure 5.2. Inspection of Figure 5.2 reveals that significant barriers to innovation exist within mature organisations. Such barriers are present not just within one configurational element, but all seven.

This presents the issue of which of the seven configurational elements provide the greatest barriers to innovation. As we have observed, Stopford and Baden-Fuller (1990) describe a process of "bureaucratic strangulation" in their mature organisations, achieved through a close and protective relationship between the formal structure and shared values. Certainly, Dougherty and Heller's (1994) "illegitimacy" of innovation within the shared values of mature organisations is widely supported in the literature (for example Chisholm, 1987; Selznick, 1957 and Zucker, 1977). Dougherty and Heller (1994) also hold that shared values are embedded in and protected by the control systems within the formal structure, a perspective shared by Adizes (1979); Downs (1967); Grenier (1972); Lyden (1975); Katz and Kahn (1978); Kimberly (1979); Scott (1971) and Smith, Mitchell and Summer (1985). If, as Aldrich and Auster (1986) state, the role of the formal structure is to protect the shared values that in turn illegitimise innovation, we must ask the question to whom do these shared values belong?

The use of controls within the formal structure, Kanter (1989a) holds, acts to protect established power bases, which as Miller and Friesen (1984a) observe, is in the hands of veteran senior managers who would effectively admit incompetence if change were to be sanctioned in the organisation.

FIGURE 5.2 THE MATURE AND INNOVATIVE ORGANISATIONAL CONFIGURATIONS CONTRASTED

Configurational Element:	Mature:	Innovative:
1. Formal Structure:		
1.1 Formalisation:	High, inorganic Formal communication channels only.	Low, organic. Vertical and horizontal communication, much informal communication.
1.2 Centralisation:	Centralised.	Decentralised.
1.3 Structural Focus:	Large, functionally based groups.	Small, market based groups.
2. Informal Systems:		
2.1 Formalisation:	Dominated by formal organisation.	Informal, inorganic organisation dominates innovation process.
2.2 Centralisation:	High	Low, but increases as innovation process progresses.
3. Intended Strategy:	Reactive, products display little fit with environment	Clear innovation "charter", focus on being first to the market.
4. Staff:	Long tenure, planning and production process dominated.	Staff focused in business units.
5. Management Style:	Co-ordination, monitoring.	Encouraging experimentation, risk taking.
6. Skills:		
6.1 Distinctive skills:	Planning, efficiency.	Marketing, innovation leaders.
6.2 Transformational skills:	Low	High
7. Shared Values:		
7.1 Motivation to Change:	Low motivation to change, dominant coalition's focus upon gaining political support within organisation and increasing technical efficiency. Internally derived performance measures.	High degree of focus on external conditions, willing to change "industry rules."
7.2 Commitment:	Focus on maintaining political support for established strategy.	High.

Source: Literature review (Chapter 4, sections 4.2 and 4.3; Chapter 5, section 5.2).

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Whilst therefore we can point to barriers in all seven elements of the organisation's configuration, the most significant barriers exist in an almost incestuous relationship between shared values, veteran top management staff and the formal structure. It is possible to develop a proposition that without the simultaneous dismantling of these three elements, change and innovation will remain illegitimate acts within the mature organisation.

5.4 CONCLUSION

In this Chapter we have identified that substantial barriers exist to business innovation in all seven of the configurational elements of the mature organisation. Chapter 6 will consider the process of dismantling these barriers and development of the research propositions, questions and hypotheses.

CHAPTER SIX

PROPOSITIONS, RESEARCH QUESTIONS, HYPOTHESES

6.1 INTRODUCTION

The objective of this Chapter is to present the research propositions, research questions and hypotheses. It is therefore divided into the following sections:

6.2 The Research Propositions. This section will refine the barriers to innovation in mature organisations identified in Chapter 5. Specifically, the barriers to different forms of business innovation will be explored. The routes that mature organisations can take to overcome such barriers will then be presented. This will then allow definition of the research propositions which in turn act as foundation for the development of the research questions and hypotheses.

6.3 The Research Questions

6.4 The Hypotheses

6.5 Conclusion.

6.2 THE RESEARCH PROPOSITIONS

To this point we have discussed barriers to innovation without reference to innovation type. In Chapter 3 the need to focus upon business innovation was raised. It was held that business innovation itself could be divided into two broad categories that are of interest to us here, (i) *offer* innovation (embracing product and augmentation innovation) together with *market* innovation and (ii) *process* innovation. Here, we address the question of whether barriers to innovation within the mature organisation differ between

offer and market as opposed to process innovation. To assist us, Figure 6.1 (on pages 90 and 91) provides an overview of the configurational characteristics needed to support firstly innovation in general and secondly process innovation.

FIGURE 6.1 CONFIGURATIONAL CHARACTERISTICS AND INNOVATION TYPES

Configurational Element:	Innovation in general:	Innovation Type: Process Innovation:
1. Formal Structure:		
1.1 Formalisation:	Initiation: *Low* Adoption: *High* Implementation: *High*	Initiation: *High* [1] Adoption: *High* Implementation: *Low*
(Formalisation may be dependent upon the scale of operations, Hull and Hage, 1982)		
1.2 Centralisation:	Initiation: *Low* Adoption: *Medium* Implementation: *High*	Initiation: *High* moving to low [1] Adoption: *Medium* Implementation: *High*
1.3 Structural focus:	*Customer*	*Function*

2. Informal Systems:

Organisation overlays [2] are expected providing low levels of formalisation and centralisation and high levels of complexity to initiate offering and process innovation. Such overlays are expected to display increasing levels of formalisation and centralisation as the new product passes through the adoption and implementation phases. Our understanding of organisational overlays for administrative innovations is unclear.

3. Intended Strategy:

Clearly stated "new product charter", "importance of being first to the market" often outweighs profit as being the prime measure of success.

4. Staff:

	High professionalism (academic qualifications)	High professionalism (academic qualifications) Position unclear for administrative innovations.

5. Management Style:

Top managers set long-term vision, the relationship between top management and business units being determined by the degree of intra-organisational co-operation required during the innovation development process.

Continued overleaf.

FIGURE 6.1 (Continued) CONFIGURATIONAL CHARACTERISTICS
AND INNOVATION TYPES

6. Skills:
High specialisation expected for offer and process innovation. Division of skills in respect of administrative innovations are unclear. Market, offering and process innovation require the following skill sets:
1. Organisation design;
2. Process innovation: Technical skills.
3. Understanding of the functioning of the entire organisation and cross-sectional skills;
4. Understanding of customer requirements and developments in the external environment.

7. Shared Values:
Poorly understood area (Leonard-Barton, 1992). Established literature points to unified support of single corporate level strategy. An opposing school (Hedburg, Nystrom and Starbuck, 1976; Nonaka, 1988; Weick, 1969) holds that in conditions of volatility in the external environment competing values are needed to prevent ossification of strategies.

NOTES:
1. It must be noted that Damanpour and Evan (1984) hold that administrative innovation is an important precursor to process innovation. Therefore the structural characteristics required to initiate administrative innovations are also shown.
2. Drawing from the work of Abernathy (1975) we would expect to find that such "organic" organisational overlays are the locus of innovative activities in respect of offering and process innovations. However such overlays may not be relevant in respect of administrative innovations (a precursor to process innovation) as the locus of innovation includes the middle management layers.

Source: Literature review (Chapter 4, sections 4.2 and 4.3).

Inspection of Figure 6.1 shows that our general finding that barriers to innovation exist within all seven elements of the mature organisation's configuration applies for innovation in general.

As Damanpour and Evan (1984) hold, administrative innovation is an important precursor to process innovation. Therefore it is possible to propose that the formal structural arrangements in the mature organisation (in the form of high levels of formalisation and centralisation) may support administrative innovation being the precursor of process innovation, leaving veteran top managers as the principal barrier to process innovation.

We are therefore faced with a proposition that the actions required to initiate business innovation in mature organisations may differ according to innovation type.

To complete the construction of the propositions we now turn our attention to the issue of the change in organisations to gain a deeper insight from the literature into the process of change that mature organisations must undertake to overcome the barriers to innovation. An understanding of this process will enable us to complete a conceptualisation of the problem of overcoming the barriers to innovation in the mature organisation.

Chapter 1 criticised past research in the field of organisational change in view of the insufficient attention that has been given to the process of change in organisations. An examination of both the organisational change and strategy process literatures reveals a demand for research that is contextually and processually specific in nature. Child and Smith (1987), Greenwood and Hinings (1987); (1988); Hinings and Greenwood (1988) and Pettigrew (1985); (1987a); (1987b); (1992), call for research that embraces and defines the context and process of change in the organisation. Researchers in field of strategy process make similar demands, Porter (1991) and Rumelt, Schendel and Teece (1991) calling for research that explains the dynamics of strategy creation and implementation.

However, in advance of any discussion of either the context, process or magnitude of change in mature organisations it is necessary to define a theory or motor that one believes drives the process of change within organisations (Van de Ven, 1992). This issue is particularly relevant when the issue of the power of managers to invoke change is considered.

Van de Ven (1992), discussing process theories, offers the following definition of the theory of process:

"a theory of process consists of statements that explain how and why a process unfolds over time. Such a theory is needed not only to ground the conceptual basis of a process study on strategy formulation, implementation or some other substantive topic, but also to guide the design and conduct of empirical research."

[Van de Ven, (1992:174)]

Unfortunately, as Newton (1993); Poole and Van de Ven (1989) and Wilson (1992) note, there is no uniform agreement within the literature upon either the motor or theory that drives the process of change and strategy formulation in organisations. As Schreuder (1993) states, the unanswered question within the literature is the degree to which organisations can adapt to changes in their environment. Both Newton (1993) and Schreuder (1993) note that the literature is dominated by two extreme positions. At one extreme, it is noted that the population ecology (Aldrich, 1979; Ginsberg and Buchholtz, 1990; Hannan and Freeman, 1977; 1984) and the institutionalist schools (DiMaggio and Powell, 1983; Meyer and Rowan, 1977; Oliver, 1992) hold that the organisation is subjected to strong inertial forces that inhibit any process of change and the ability of the organisation to survive is seen as the result of variation, selection and retention mechanisms in the environment. At the other extreme, managers within organisations assume increasing control over the destiny of the organisation, particularly in the learning school (Nadler, 1980; Senge, 1990) where they are seen as having the power of self determination.

As Gersick (1991); Newton (1993) and Wilson (1992) hold, whilst there may be no agreement upon the degree of an organisation's power for self determination in the face of environmental change, there is the need to acknowledge the hypotheses of each school and set any future research in a richly contextualist setting that captures the forces and constraints described within the above extremes.

If there is no apparent agreement within the literature regarding the issue of managers' power of self determination, there is agreement within the literature regarding the treatment of the scale of change that can face organisations. In

attempting to effectively categorise the scale of change within organisations, Levy (1986) offers definitions of *first order* and *second order* change. Focusing on first order change, Levy (1986) offers the following definition:

> " ... first-order change consists of those minor improvements and adjustments that do not change the system's core, and that occur as the system naturally grows and develops ..."
>
> [Levy (1986: 10)]

In separating first order from second order change, Levy (1986) introduces the issue of the *comprehensiveness* of the change process as a key distinguishing feature, defining second order change as:

> "change in all four dimensions: in core processes, in mission and purpose, in culture and in organizational world view or paradigm."
>
> [Levy (1986: 19)]

Clearly, from our discussion above we are concerned with an examination of second order change that comprehensively involves all seven elements of the mature organisation's configuration. The separation of first and second order change is subjected to further treatment by Laughlin (1991), who, following Greenwood and Hinings (1988) and Hinings and Greenwood (1988), attempts to identify the broad paths or tracks that organisations may proceed through when experiencing first and second order change. Laughlin (1991) introduces four paths that organisations may follow when responding to movements in the external environment. These are defined in Figure 6.2.

As we have observed, mature organisations face second order change, but drawing upon Laughlin (1991) the principal question must be which route ("colonisation" or "evolution") will initiate innovation?

Some, (Dunphy and Stace, 1988; Strebel, 1992) have argued that a contingency approach is required dependent upon the status of the internal and external contexts. The proposals of Dunphy and Stace (1988) are shown in Figure 6.3 below.

**FIGURE 6.2 FIRST AND SECOND ORDER CHANGE PATHS
DEFINED**

1. FIRST ORDER CHANGE:

Rebuttal: No change within the organisation in response to movements in the external environment.

Reorientation: Change occurs in some elements of the organisation's configuration, but shared values remain unaltered.

2. SECOND ORDER CHANGE:

Colonisation: Environmental movements force the organisation to adopt new formal structures and from these flow new shared values and strategic direction.

Evolution: New shared values and strategic direction are developed in response to external change, alterations to the formal structure and other structural elements follow the development of the new shared values and strategic direction.

Source: Adapted from Laughlin (1991)

Inspection of Figure 6.3 reveals that within the research context adopted in this thesis where considerable internal resistance to change can be expected in the face of extreme changes in the external environment, a more dictatorial approach may be needed, suggesting that the initiation of change may focus on the formal structure, as opposed to the development of new strategies or shared values.   Certainly, Pfeffer (1992) questions the applicability of evolutionary or change initiatives that commence with the redefinition of strategy and shared values in such contexts and Johnson (1990) describes symbolic changes to the formal structure and staff that may be made by CEOs in these circumstances to initiate change.

FIGURE 6.3 APPROACHES TO STRATEGIC CHANGE: A CONTINGENCY APPROACH

	First Order Change (Incremental Change):	Second Order Change (Comprehensive Change):
Collaborative Modes:	*1. Participative Evolution:* Use when organisation is in "fit", but needs minor adjustment, or is out of fit, but time is available and key interest groups favour change.	*2. Charismatic Transformation:* Use when organisation is out of "fit", there is little time for extensive participation but there is support for radical change in the organisation.
Coerce:	*3. Forced Evolution:* Use when organisation is in "fit", but needs minor adjustment, or is out of fit, but time is available and key interest groups oppose change.	*4. Dictatorial Transformation:* Use when organisation is out of "fit", there is little time for extensive participation and there is no support for radical change in the organisation, but radical change is vital to organisational survival and fulfilment of basic mission.

Source: Adapted from Dunphy and Stace (1988)

It is now possible to start the process of conceptualising the problem of initiating innovation in mature organisations. Drawing upon Laughlin's (1991) proposals, two approaches are possible to start the process of comprehensive second order change necessary to support innovation in mature organisations. These approaches are "colonisation", where changes to the formal structure precede changes to shared values and strategy, or "evolution", where a change or reorientation in shared values leads to new strategies.

We have identified that innovation is "illegitimised" in mature organisations by a close and protective relationship between top managers, the formal structure

and shared values. It is, therefore, possible to propose that only "colonisation" will lead to the complete reorientation in shared values necessary to support the needed second order change. Attempts to change shared values, without changes to top management staff and the formal structure, will either lead to "rebuttal" (no change) or "re-orientation" (first order change lacking the comprehensiveness necessary for sustainable innovation activities).

Whilst this conceptualisation holds for business innovation in general, as we have observed, different routes may be required to initiate offer and market as opposed to process innovation. We can therefore develop four propositions:

Proposition 1: The comprehensiveness of the change process will differentiate those mature organisations that proceed to produce high, as opposed to low, levels of business innovation.

Proposition 2: Simultaneous changes to the formal structure and top management staff are necessary to initiate all forms of business innovation in mature organisations. This proposition is developed from the conclusions of section 5.3.1 in Chapter 5.

Proposition 3: Changes to top management staff *only* are necessary to initiate *process* innovation in mature organisations.

Proposition 4: Simultaneous changes to the formal structure and top management staff are necessary to initiate *offer and market* innovation in mature organisations.

These propositions will now be used as a basis to develop the research questions and hypotheses that support this study.

6.3 THE RESEARCH QUESTIONS

The propositions developed in the preceding section lead us to present the following research questions:

(a) "What sequence of organisational change, instigated by chief executive officers, is functional to initiating innovation in mature organisations?"

(b) "Are different approaches to initiating the innovation process required for different types of innovation?"

6.4 THE HYPOTHESES

We will now turn to the issue of the hypotheses. Each hypothesis is set in the context of mature organisations that seek to respond to changes in the competitive environment through business innovation. The theoretical justification for each hypothesis is based upon the barriers to business innovation identified in Chapter 5 and the research propositions developed in this Chapter.

In advance of the presentation of the hypotheses one point must be made clear. Testing of the hypotheses will take the form of the examination of both quantitative and qualitative data. In view of the presence of quantitative data it is usual for the working and supporting hypotheses to be presented in the null form. For reasons of simplicity in this Chapter we present all hypotheses in form of the desired outcome. The hypotheses will be represented in the null format when the hypothesis tests are conducted in Chapter 9.

As stated above, the hypotheses presented here are framed against the literature reviews (as concluded in section 5.3) and propositions presented earlier. The conclusions reached from our literature reviews are that, in general, three elements of the mature organisation's configuration act to inhibit innovation:

(a) *Staff: The need to replace veteran managers.* Hambrick and D'Aveni (1992); Keck and Tushman (1993); Miller and Friesen (1984b); Miller and Toulouse (1986) and Virany, Tushman and Romanelli (1992) all note the existence of veteran managers in mature organisations. Ginsberg and Abrahamson (1991); Hurst, Rush and White (1989); Miller and Friesen (1984b); Schreuder (1993) and Virany, Tushman and Romanelli (1992) all call for the replacement of such veteran managers, who according to Miller and Friesen (1984b) would have to admit incompetence if large-scale second order change projects were introduced.

(b) *Shared Values: The need to displace.* Chisholm (1987); Dougherty (1992); Dougherty and Heller (1994); Selznik (1957) and Zucker (1977) all hold that the deeply entrenched shared values in the mature organisation make change and innovation "literally unthinkable". Dougherty and Heller (1994) hold that such deeply embedded shared values cannot be displaced without changes to management practices.

(c) *The Formal Structure: The need to break down.* It is widely reported in the literature (Aldrich and Auster, 1986; Allison, 1972; Chisholm, 1987; Crozier, 1964; Kanter, 1989a; Leibenstein, 1987; Miller and Friesen, 1984a; Norburn, Kingsley and Birley, 1988; Quinn and Cameron, 1983; Smith, Mitchell and Summer, 1985; Stopford and Baden-Fuller, 1990; Zucker, 1977) that the formal structure acts to protect embedded shared values and the power of established managers, that as we have observed, in turn inhibit change.

It can therefore be hypothesised that second order change, (that involves a comprehensive reorientation of all the seven elements of the configuration of the mature organisation) must commence with simultaneous alterations to top management staff and the formal structure, actions that are required to challenge established shared values. Following Laughlin (1991), without a

reorientation in shared values it is impossible to execute the second order change needed to stimulate innovation in mature organisations.

We have already differentiated between first and second order change in terms of "comprehensiveness". We will refer to this "comprehensive" approach when presenting the working hypothesis. The scope of comprehensiveness within the process of change is reflected in the construction of the supporting hypotheses.

The **working hypothesis (H_w)** is:

> **H_w**   *CEOs in mature organisations that achieve high levels of business innovation adopt a comprehensive approach when initiating business innovation, while CEOs that achieve lower levels of business innovation adopt a less comprehensive approach.*

To test the working hypothesis it is necessary to develop supporting hypotheses. The theoretical argument for the supporting hypotheses is based upon the propositions developed earlier in this Chapter. Specifically, these embrace both the comprehensiveness and sequence of the process of change. The supporting hypotheses therefore deal with each of the seven elements of the organisation's configuration and the sequence of change. Following Dawson (1994) we divide the process of change into two episodes, initiation and reinforcement. The supporting hypotheses are divided into three groups accordingly. The first group ($H_{1.1}$ to $H_{1.6}$) deals with the first actions to initiate the process of change. The second group of supporting hypotheses ($H_{2.1}$ to $H_{2.7}$) deal with those actions necessary to reinforce the actions described in supporting hypotheses $H_{1.1}$ to $H_{1.6}$. The final group (supporting hypotheses $H_{3.1}$ and $H_{3.2}$) deal with the initiation of offer and market, as opposed to process innovation.

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We therefore firstly present hypotheses $H_{1.1}$ to $H_{1.6}$ that focus upon the actions of CEOs to *initiate* the process of change:

The Formal Structure ($H_{1.1}$):

$H_{1.1}$ CEOs in organisations that achieve higher levels of business innovation change the formal structure in relation to formalisation, centralisation and customer focus.
CEOs in organisations that achieve lower levels of business innovation do not make changes to the formal structure.

We have observed from our review of the literature that the formal structure of the mature organisation is characterised by high levels of formalisation and centralisation that act both to inhibit innovation and to protect the embedded shared values and power bases of established managers who may inhibit change (Aldrich and Auster, 1986; Allison, 1972; Chisholm, 1987; Crozier, 1964; Kanter, 1989a; Leibenstein, 1987; Miller and Friesen, 1984a; Norburn, Kingsley and Birley, 1988; Quinn and Cameron, 1983; Scott, 1971; Smith, Mitchell and Summer, 1985; Stopford and Baden-Fuller, 1990; Zucker, 1977). We therefore hypothesise that the initial actions of CEOs will be to alter levels of formalisation, centralisation and customer focus to challenge embedded shared values.

Intended Strategy ($H_{1.2}$):

$H_{1.2}$ CEOs in organisations that achieve higher levels of business innovation do not change the intended strategy to focus upon business innovation.
CEOs in organisations that achieve lower levels of business innovation do change the intended strategy to focus upon business innovation.

We have noted the role of the formal structure and top management staff in making change and innovation "literally unthinkable" in the mature organisation (Dougherty, 1992; Dougherty and Heller, 1994). The logic

underlying this hypothesis is that CEOs do not turn their attention to the creation of new intended strategies until the barriers to change present in the formal structure, top management staff and shared values have been removed. As Grinyer and McKiernan (1990) observe, planning on its own is unlikely to produce change.

Staff ($H_{1.3}$):

$H_{1.3}$ CEOs in organisations that achieve higher levels of business innovation do change the top management function to remove those who do not support change.
CEOs in organisations that achieve lower levels of business innovation do not change the top management function to remove those who do not support change.

The expected resistance to be found within the top management team has already been presented. We therefore hypothesise that the first actions of CEOs to change the configuration of their organisations includes the removal of those managers that resist change within the top management function.

Management Style ($H_{1.4}$):

$H_{1.4}$ CEOs in organisations that achieve higher levels of business innovation adopt a dictatorial management style.
CEOs in organisations that achieve lower levels of business innovation do not adopt a dictatorial management style.

This hypothesis is developed from the proposals of Dunphy and Stace (1988); Pfeffer (1992) and Strebel (1992) together with the observations of Johnson (1990). Dunphy and Stace (1988) propose a "dictatorial" management approach when barriers to change within the organisation are high but radical change is necessary for the organisation's survival. Pfeffer (1992) observes that there are situations when top managers just do not have

time to create newly orientated shared values as a prelude to major change. We therefore hypothesise that CEOs in organisations that do proceed to produce higher levels of business innovation initially adopt a dictatorial management style. On the other hand, we expect that CEOs in organisations that achieve lower levels of business innovation do not change their style, but retain the internal, administrative focus that the literature reveals is expected within the mature organisation.

Skills ($H_{1.5}$):

$H_{1.5}$ CEOs in organisations that achieve higher levels of business innovation increase skill specialisation through training in the organisation.
CEOs in organisations that achieve lower levels of business innovation do not increase skill specialisation through training in the organisation.

The literature reveals a focus upon planning and efficiency skills in the mature organisations, with little emphasis on either innovation or transformational skills (Miller and Friesen, 1984a; 1984b; Quinn and Cameron, 1983; Smith, Mitchell and Summer, 1985). We therefore expect to see an emphasis upon increasing specialisation, through training, in respect of innovation and transformational skills.

Shared Values ($H_{1.6}$):

$H_{1.6}$ CEOs in organisations that achieve higher levels of business innovation increase the motivation to change by encouraging a greater understanding of the competitive environment.
CEOs in organisations that achieve lower levels of business innovation do not increase the motivation to change by encouraging a greater understanding of the competitive environment.

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Mature organisations are characterised by a low motivation to change and a focus upon gaining political support for current actions (Quinn and Cameron, 1983; Smith, Mitchell and Summer, 1985). We therefore hypothesise that in the organisations that achieve higher levels of business innovation, CEOs focus initially on developing an increased motivation to change through encouraging an enhanced understanding of the competitive environment. Stopford and Baden-Fuller (1990) note that mature organisations fail to appreciate fast moving competitive environments. Conversely, CEOs in less successful organisations do not increase the motivation to change.

The above supporting hypotheses describe actions to initiate change in mature organisations. Supporting hypotheses $H_{2.1}$ to $H_{2.7}$ focus upon the actions of CEOs taken to *reinforce* these initial alterations to the configuration of the mature organisation.

The Formal Structure ($H_{2.1}$):

$H_{2.1}$ CEOs in organisations that achieve higher levels of business innovation do not make changes to the formal structure.
CEOs in organisations that achieve lower levels of business innovation do make changes to the formal structure to support the new intended strategy developed in the initiation phase.

The Informal Systems ($H_{2.2}$):

$H_{2.2}$ CEOs in organisations that achieve higher levels of business innovation encourage changes to informal systems.
CEOs in organisations that achieve lower levels of business innovation do not encourage changes to informal systems.

Intended Strategy ($H_{2.3}$):

$H_{2.3}$ CEOs in organisations that achieve higher levels of business innovation do change the intended strategy to focus upon business innovation in the reinforcement phase.
CEOs in organisations that achieve lower levels of business innovation maintain the intended strategy developed in the initiation phase.

The theoretical arguments for supporting hypotheses $H_{2.1}$, $H_{2.2}$ and $H_{2.3}$ will now be presented. It has been observed that the relationship between intended strategy and the remaining configurational elements may not be a simple linear question of whether change in strategy precedes of follows changes in other elements of the configuration, particularly the formal structure. Baden-Fuller and Stopford (1992); Dawson (1994) and Miller (1992) all point to the existence of a "cascade" of changes. Miller (1992) in particular points to the need for an organisation to make adjustments to structure to encourage internal alignment *following* the introduction of changes that are aimed at developing *external* alignment between the organisation and its environment. Following Dawson (1994), such subsequent changes may focus upon the informal systems, as opposed to the formal structure. We therefore hypothesise that CEOs in the more successful organisations focus, during this period of reinforcement, upon the creation of new intended strategies and then changes to the informal systems to support such newly developed strategies. Conversely, we hypothesise that the less successful organisations focus upon changes to the formal structure to support the new intended strategy created during the initiation phase.

<u>Staff ($H_{2.4}$):</u>

$H_{2.4}$ CEOs in organisations that achieve higher levels of business innovation increase the proportion of staff employed at the business level.
CEOs in organisations that achieve lower levels of business innovation do not increase the proportion of staff employed at the business level.

The "new style" literature informs us that staff are concentrated within business units (Bartlett and Ghoshal, 1993) and the migration of staff to the business level has clearly been noted in this literature. In the more successful organisations we therefore hypothesise that the proportion of staff employed at the business level increases.

<u>Management Style ($H_{2.5}$):</u>

$H_{2.5}$ CEOs in organisations that achieve higher levels of business innovation change their management style from dictatorial to participative.
CEOs in organisations that achieve lower levels of business innovation maintain an administrative management style.

The innovation literature reports that top managers in innovative organisations have an "envisioning, energising and enabling" style (Tushman and Nadler, 1986). The "new style" literature leads us to expect a highly participative, skill building style (Doz, 1994; Ghoshal and Bartlett, 1994b). We there hypothesise that CEOs in more successful organisations shift their management style from "dictatorial" to "participative" in the reinforcement phase.

<u>Skills ($H_{2.6}$):</u>

$H_{2.6}$ CEOs in organisations that achieve higher levels of business innovation increase skill specialisation in the organisation.
CEOs in organisations that achieve lower levels of business innovation do not increase skill specialisation.

This is an extension of supporting hypothesis $H_{1.5}$. In view of the absence of innovation skills in the mature organisation we expect the process of developing new skills to continue during the period of reinforcement.

<u>Shared Values ($H_{2.7}$):</u>

$H_{2.7}$ CEOs in organisations that achieve higher levels of business innovation increase the motivation to change.
CEOs in organisations that achieve lower levels of business innovation do not increase the motivation to change.

The theoretical arguments for supporting hypothesis $H_{2.7}$ are again based on those presented for supporting hypothesis $H_{1.6}$. We expect a high motivation to change to prevent ossification and retrenchment (Miller, 1994). On the other hand, we expect managers in less successful organisations to focus merely upon support for their own positions and we do not therefore expect to see increases in the motivation to change.

The final set of supporting hypotheses deal with methods to initiate offer and market as opposed to process innovation.

<u>Hypotheses $H_{3.1}$ and $H_{3.2}$: Offer, Market and Process Innovation</u>

As we have proposed in this Chapter, different approaches may be needed to stimulate *process* as opposed to *offer and market* innovation in mature organisations. Dealing firstly with the issue of offer and market innovation,

we have noted in this Chapter that the characteristics of mature organisations are directly opposed to those required to support this activity. However, the position may not hold for process innovation. Damanpour and Evan (1984) have noted that administrative innovation can be a precursor to process innovation. Administrative innovation requires high degrees of formalisation and centralisation as found in the mature organisation (Daft, 1978; Zmud, 1982). Damanpour and Evan (1984) proceed to note that the locus of administrative innovation is at a high point in the organisation's hierarchy and stimulating such innovative activity requires "changes of attitudes." We therefore propose that the more successful organisations differentiate the process of *initiating* change by *innovation type*.

The supporting hypotheses $H_{3.1}$ and $H_{3.2}$ relate to (i) *offer and market* innovation and to (ii) *process* innovation respectively:

Offer and Market Innovation Hypothesis $H_{3.1}$

$H_{3.1}$ CEOs in organisations that achieve higher levels of offer and market innovation initiate *offer and market* innovation by making changes to the formal structure and the top management function to remove those that resist change.
CEOs in organisations that achieve lower levels of offer and market innovation attempt to initiate *offer and market* innovation without making changes to the formal structure or the top management function to remove those that resist change.

Process Innovation Hypothesis $H_{3.2}$

$H_{3.2}$ CEOs in organisations that achieve higher levels of process innovation initiate *process* innovation by making changes to the top management function to remove those who resist change.
CEOs in organisations that achieve lower levels of process innovation attempt to initiate *process* innovation without making changes to the top management function to remove those who resist change.

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The supporting hypotheses attempt to define the sequential relationships between changes made by CEOs to the configuration of the mature organisation as they attempt to initiate business innovation. For ease of assimilation, this sequence is shown, for supporting hypotheses $H_{1.1}$ to $H_{1.6}$ and $H_{2.1}$ to $H_{2.7}$ in Figure 6.4 which will be found overleaf.

6.5 CONCLUSION

In this Chapter we have defined the innovation barriers in mature organisations by innovation type and have presented hypotheses that focus upon the process of initiating and reinforcing changes to the configuration of the mature organisation to stimulate business innovation.

In Chapter 7 the design of the study to investigate these hypotheses will be presented.

FIGURE 6.4 THE HYPOTHESISED SEQUENCE OF CHANGE

A. CHANGE THAT PRODUCES HIGH LEVELS OF BUSINESS INNOVATION:

Formal Structure ($H_{1.1}$):
- *Change formalisation, centralisation & customer focus.*

Formal Structure ($H_{2.1}$):
- *No change*

Informal Structure ($H_{2.2}$):
- *Change to support new strategy.*

Intended Strategy ($H_{1.2}$):
- *No change.*

Intended Strategy ($H_{2.3}$):
- *New strategies for business innovation.*

Staff ($H_{1.3}$):
- *Top management changes.*

Staff ($H_{2.4}$):
- *Increased staff at business level.*

Management Style ($H_{1.4}$):
- *Shift to dictatorial.*

Management Style ($H_{2.5}$):
- *Shift to participative.*

Skills ($H_{1.5}$):
- *Increased specialisation.*

Skills ($H_{2.6}$):
- *Continuing increased specialisation.*

Shared Values ($H_{1.6}$):
- *Increase motivation to change.*

Shared Values ($H_{2.7}$):
- *Motivation to change maintained*

HIGHER LEVELS OF BUSINESS INNOVATION

INITIATION

REINFORCEMENT

FIGURE 6.4 (CONTINUED) THE HYPOTHESISED SEQUENCE OF CHANGE

B. CHANGE THAT PRODUCES LOWER LEVELS OF BUSINESS INNOVATION:

Formal Structure (H$_{1.1}$):
■ *No change.*

Formal Structure (H$_{2.1}$):
■ *Changes to support new strategy*

Informal Structure (H$_{2.2}$):
■ *No change.*

Intended Strategy (H$_{1.2}$):
■ *New strategies for business innovation.*

Intended Strategy (H$_{2.3}$):
■ *No further strategy changes.*

Staff (H$_{1.3}$):
■ *No top management changes.*

Staff (H$_{2.4}$):
■ *No change in staff distribution.*

Manage't Style (H$_{1.4}$):
■ *No change - administrative.*

M'gement Style (H$_{2.5}$):
■ *No change - administrative.*

Skills (H$_{1.5}$):
■ *No change.*

Skills (H$_{2.5}$):
■ *No change.*

Shared Values (H$_{1.6}$):
■ *No change*

Shared Values (H$_{2.5}$):
■ *No change*

LOWER LEVELS OF BUSINESS INNOVATION

INITIATION

REINFORCEMENT

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CHAPTER SEVEN

THE DESIGN OF THE STUDY

7.1 INTRODUCTION

In this Chapter we present the research design to explore the questions and hypotheses presented in Chapter 6. Accordingly, the units of study and analysis, dependent variable, independent variables and the research strategy are presented.

7.2 THE UNIT OF STUDY

The unit of study in this research is the company, in the form of a general insurance company.

7.3 THE UNIT OF ANALYSIS

As Pettigrew, Whipp and Rosenfeld (1989) identify, when studying the issues of organisational change and the competitive ability of the organisation it is necessary to ensure that the unit of analysis embodies the connections between management actions on the one hand and competitiveness on the other.

To state therefore that the unit of analysis was either the configuration of the organisation or the process of innovation initiation would cast both too broad a definition of the unit of analysis and too wide a focus upon the research. The unit of analysis in this study is therefore the actions of CEOs as they seek to manage the process of initiating business innovation in mature businesses. The selection of this unit of analysis allows us to examine the results of actions made by CEOs as the process of creating the organisation's ability to innovate unfolds.

7.4 THE DEPENDENT VARIABLE

The construction of the dependent variable will obviously have a fundamental impact upon both the testing of hypotheses and the interpretation of research findings, as one of poor construction will provide an unsatisfactory basis for discussion and analysis (Bryman, 1989).

If the dependent variable is viewed from the perspective of a measure of "success" or "organisational effectiveness", then an unsatisfactory position exists within the literature (Bryman, 1989; Hauschildt, 1991). Hauschildt (1991) notes, for example, that measures of innovation "success" adopted in research are poorly developed and applied with little consistency. As Bryman (1989) observes, this problem is not limited to the innovation field but permeates through the broader ranging research issue of organisational effectiveness. Reviewing the use of "success" measures in the organisational effectiveness field, Bryman (1989), notes five shortcomings in the past use of "success" measures or dependent variables:

1. There is no universally agreed approach to the measurement of organisational effectiveness;

2. A vast array of indicators have been applied with little consistency;

3. Many measures are questionable in their ability to assess and predict organisational effectiveness;

4. Typically only one measure is used to assess a broadly based dependent variable. Greater use must be made of multiple measures; and

5. Regardless of the measures adopted, the results of research in the organisational effectiveness field are often disappointing, the correlations between variables being relatively small.

Our concern is however deeper than purely a measure of "success" or "organisational effectiveness". The selected dependent variable for this study must be capable of evidencing realised business innovation activity and therefore a change in the realised strategy of the organisation. In Chapter 3,

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drawing upon the observations of Mintzberg (1987a); (1987b) and Mintzberg and Waters (1985), a distinction between intended, emergent and realised strategies was made. Intended strategies were defined as those that are planned and form one of the seven elements of the configuration of the organisation as presented in Chapter 3. Emergent strategies are those that appear in an unplanned manner and evolve as the organisation learns (Mintzberg, 1987a; 1987b; Mintzberg and Waters, 1985). Both intended and emergent strategies combine to form the realised strategy, (or how the organisation competes in its product markets) as Figure 7.1 indicates.

Realised strategy, as Mintzberg (1988) holds, is the result of human action, which in the context of this thesis, are the efforts of CEOs in mature organisations to stimulate business innovation. We therefore argue that the dependent variable in this study should be capable of both evidencing the outcome of the efforts to change the configuration of the mature organisation and provide a measure of realised business innovation strategy. However, as Pettigrew (1985) notes, at any one point in time the strategy of an organisation

FIGURE 7.1 REALISED BUSINESS LEVEL STRATEGY: THE COMPONENTS

Time: The process of change

Source: Adapted from Mintzberg (1987a)
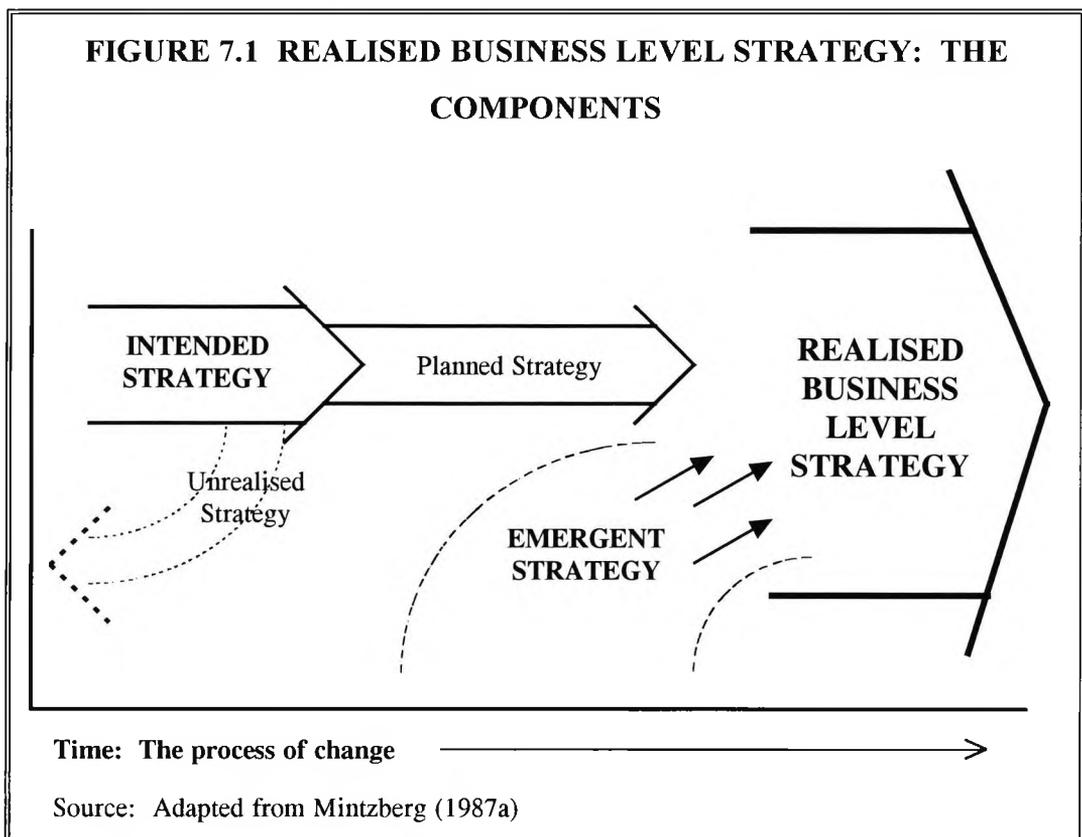
is a mixture of yesterday's and today's strategies. Clearly, in addition to assessing realised strategy, the dependent variable must also be capable of evidencing that a change in realised strategy has occurred as a result of the actions of CEOs as they attempt to stimulate business innovation in their organisations.

This now raises the question of how changes in the realised strategy of an organisation are to be measured. This issue, as MacCrimmon (1993) states, involves the questions of identifying and characterising strategy. In terms of characterising strategy, MacCrimmon (1993) observes two extremes within the literature. On the one hand a set of simple categories is used to characterise strategy (such as the approaches of Miles and Snow, 1978 and Rumelt, 1974). At the other extreme it is held (Donaldson and Lorsch, 1983) that strategy is such a complex issue that it is impossible to describe it. Whilst this second perspective makes tracking changes in strategy an impossible task, the use of simple categories, MacCrimmon (1993) holds, also raises serious methodological questions, for example:

(i) How are meaningful categories decided?
(ii) Would multiple respondents within an organisation identify the same strategic category?

Certainly, MacCrimmon (1993) holds that the categories widely used in the literature (most notably those of Miles and Snow, 1978 and Rumelt, 1974) are not rich enough to track changes in strategy. To compound this problem, MacCrimmon (1993) notes that methods that have historically been used to identify an organisation's strategy too are flawed. Two broad approaches have been adopted, the first, the direct, asks the opinion of informants typically within the organisation and raises the issues of (i) who to ask; (ii) the truthfulness of the responses; (iii) the consistency of the response amongst other members of the organisation and (iv) the problem of distinguishing

between intended, planned and realised strategies. The alternative approach, the indirect, involves inferring strategies from the actions of the organisation and has the advantage on focusing upon what the organisation has done (realised strategy) as opposed to the intentions or opinions of informants (intended strategy). However, it is necessary to focus upon purely objective outcomes to avoid the issue of misrepresentation through the perception of the observer.

In an attempt to resolve the apparent dilemma of identifying changes in realised strategy, we follow MacCrimmon (1993) who suggests that there is evidence of a change in strategy in an organisation if a change in action can be observed in response to significant shifts in performance, resources or, as in our case, the environment. Drawing upon the earlier observations of MacCrimmon (1993), changes in action are best judged using purely objective outcome measures.

To develop the issue of the use of outcome measures, in the context of examining the effectiveness of organisational change, we turn to Pettigrew and Whipp (1991). Pettigrew and Whipp (1991) point out that the need is not only to focus upon discrete outcome indicators, but also to pay attention to how the organisation competes in the marketplace and to how effectively the organisation has developed the capacity to create and maintain different bases of competition. If we are to follow Pettigrew and Whipp (1991), a dependent variable must be constructed that embraces the dimensions of:

(a) Performance as an outcome state;
(b) How the organisation competes in its chosen markets; and
(c) The capacity within the organisation to create and maintain business innovation over time.

The approach to be taken in respect of each dimension will now be discussed.

If we turn firstly to *performance as an outcome state*, as Hauschildt (1991) and Pettigrew and Whipp (1991) note, a number of approaches have been used which include:

(i)   Turnover, changes in sales volumes;

(ii) Profits;

(iii) Market share;

(iv) Financial ratios;

(v)   Cost savings;

(vi) Marketable products, practicable techniques; and

(vii) Patents.

In view of the central importance of the dependent variable we sought the views of industry representatives in respect of each of the above outcome measures. The findings from discussions with such industry representatives are as follows:

(i) Turnover: Industry representatives expressed concern at the use of "success" measures based upon changes in turnover or sales volume. In an industry that has traditionally focused upon price competition, it was felt that such measures may reflect the effectiveness of pricing strategies as opposed to, for example, the quality of the products offered.

(ii) Profits: Industry representatives drew attention to the fact that in general insurance it may take some time to judge the profitability of newly launched products in view of the time that must elapse firstly between the purchase of a new product and the notification of claims and secondly in the settlement of claims once they were notified to an insurer. In respect of new to the organisation products, periods of between three to five years must elapse before the product's true profitability is known.

(iii) Market Share: The observations made in respect of turnover apply also to market share based measures.

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(iv) Financial ratios: The use of financial ratios would, it was observed, be subject to the limitations described for turnover and profits.

(v) Cost savings: Attention was drawn to the fact that cost reductions can be obtained through financial programmes, such as reinsurance (risk sharing with other insurers), or through simple staff reduction. Industry representatives therefore made the recommendation that cost savings should only be used if the cost savings directly attributable to a process innovation could be identified. In practice it was felt that it may be difficult for respondents to attribute exact cost savings to individual process innovations.

(vi) Marketable products: The use of measures focusing upon the introduction of products received wide support although the measure must be capable of distinguishing between simple improvements to existing product lines and the launch of, for example, "new to the organisation" products.

(vii) Patents: It is not practice to protect new products in this industry through the use of patents.

These observations lead us to focus upon simple activity based measures of business innovation. Using activity based measures that focus upon the number of newly launched innovations will allow us firstly to evidence the outputs from the process of organisational change and secondly to provide evidence of changes in realised business innovation strategy. However, it is necessary to address the capability of the dependent variable to embrace both the *bases upon which an organisation competes* in its chosen markets and the *capacity generated to continue business innovation.*

Adoption of Johne's (1994; 1995; 1996) four dimensions of business innovation provides a classification of the means that an organisation may pursue to engage in organic business development, as argued in Chapter 3. Use of these four dimensions of business innovation will allow the competitive actions, or bases of competition, of organisations within the research sample to be contrasted. Moving to the issue of the capacity to maintain business

innovation we argue that the inclusion only of business innovations that involve radical changes to the practices within the organisation will provide evidence that the organisation has progressed to develop the capacity to maintain business innovation. In other words, in terms of product innovation, routine product development will be excluded. In respect of the remaining three dimensions of business innovation, (product augmentation, market and process) innovations will only be included if radical changes to the practices within the organisation were required to operationalise the innovation. Taking this approach, the dependent variable will consist of three measures:

1. The number of product innovations and product augmentations introduced into the market place as a measure of realised *offer innovation* strategy. However, to evidence the capacity that an organisation may have developed to continue business innovation, improvements and extensions to existing product lines are excluded;

2. The number of market extensions introduced into the marketplace as a measure of realised *market innovation* strategy; and

3. The number of projects executed to improve internal processes, that involve a departure from past working practices, as a measure of realised *process innovation* strategy.

In each case, the dependent variable elements are limited to those that are introduced into the marketplace after the process of change has commenced and that involve a departure from past working practices. Initiatives in the course of development before the process of change commenced and improvements to existing product lines being excluded.

7.5 THE INDEPENDENT VARIABLES

As Johne and Snelson (1988) have observed, the factors that influence innovation success have historically been dealt with from four perspectives within the literature:

(i)   the market or operating environment of the organisation;

(ii) the actions or attributes of the organisation as a whole;

(iii) the group of people within the organisation involved in the innovation work; and

(iv) the individuals who should be involved.

Clearly, this research focuses upon the actions of an organisation as a whole. In Chapter 3 we defined the seven commonly occurring elements that together constitute the configuration of the organisation or "the organisation as a whole". These are elements are:

1. *Formal Structure;*

2. *Informal Systems;*

3. *Intended Strategy;*

4. *Staff;*

5. *Management Style;*

6. *Skills; and*

7. *Shared Values.*

As we have identified from the literature, changes in each of these seven elements can influence the innovative capability of the organisation and hence the dependent variable. These seven elements therefore together form the principal independent variables. The measurement instrument used to assess each independent variable will be discussed below.

As the literature widely reports, there are a large number of exogenous factors that can affect the change process (cf. Child and Smith, 1987; Greenwood and Hinings, 1988; Pettigrew, Whipp and Rosenfeld, 1989). These factors have been discussed in Chapter 3, but are restated for convenience in Figure 7.2.

Each factor will be controlled within our research either by definition of the research context or, as in the case of resources and ownership, measurement.

7.6 MEASUREMENT ISSUES

7.6.1 Introduction: Qualitative versus Quantitative Approaches

As Dawson (1994) observes, a major question in the design of research strategies that focus upon change in organisations revolves around the use of qualitative or quantitative approaches to analysing the process of change and this issue therefore requires discussion at this stage.

The arguments for a qualitative approach are summarised by Dawson (1994). Broadly, Dawson (1994) notes that historically the use of quantitative research methods have been seen as being "more scientific," generalisable and systematically more rigorous. On the other hand, qualitative approaches

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FIGURE 7.2: THE EXOGENOUS FACTORS.

Element:	Description:
1. Economic Environment	Competitive status of the industry; Position within the national economy.
2. Business Environment	Market structure, competitive rivalry uncertainty and complexity; Dominant strategies and thought patterns; Power of individual and/or groups of market players; Influence of Industry networks; Speed of change within industry.
3. Political Environment	Pattern of intervention; Policies of separate administrations.
4. Social Trends	Impact upon Industry operations; Impact of demographic changes.
5. Resources	Munificence, ownership and control.

Source: Child and Smith (1987); Greenwood and Hinings (1988); Pettigrew, Whipp and Rosenfeld (1989)

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produce a greater understanding of actors' interpretations (Filstead, 1979), avoid the physical separation of researchers from the field of study (Bryman 1988), encourage the discovery of changing relations and foster academic

debate. In attempt to provide guidance upon the choice of research methodology Dawson (1994) suggests that one focuses upon the research questions being posed, recommending that the study of change at a macro level is suited to *quantitative* analysis, whereas *qualitative* approaches are required to examine the detail of a particular change over time.

We must however address the question of whether the quantitative/qualitative debate places an artificial divide in our path. As Bryman (1988) holds:

> "Quantitative and qualitative research can frequently be found together in particular substantive areas in the social sciences ... the two research traditions can be viewed as contributing to the understanding of different aspects of the phenomenon in question."
>
> [Bryman (1988:170)]

This perspective is echoed by Miles and Huberman (1994) who note the added strength that can be obtained from research approaches that attempt to amalgamate both quantitative and qualitative methodologies. Indeed, this approach, as a future direction of research strategy, receives support in the organisational change and strategy process literatures (Frederickson and Iaquinto, 1989; Ginsberg and Abrahamson, 1991; Miller, 1992). This is therefore the course that we will adopt.

We will now proceed to define the research strategy.

7.6.2 The Choice of Research Strategy

Five major research strategies are available in the social sciences being experiments, surveys, archival analysis, histories and case studies (Yin, 1988). This section will deal with the selection of the research strategy that is appropriate for our investigation.

Yin (1988) states that the choice of research strategy is dependent upon:

1. The type of research questions posed;

2. The extent of control an investigator has over actual behavioural events; and

3. The degree of focus on contemporary as opposed to historical events.

Yin (1988) identifies two situations where a particular form of research strategy (the case study approach) *must* be adopted:

> ".... "how" and "why" questions are more *explanatory* and likely to lead to the use of case studies, histories and experiments as the preferred research strategies. This is because such questions deal with the operational links needing to be traced over time rather than mere frequencies or incidence ... [similarly] if you needed to know how or why the programme had worked [or not], you would lean toward either a case study or a field experiment."
>
> [Yin, (1988:18)]

Our research examines the sequential *links* between the elements of an organisation's configuration that must be *traced over time*, indicating that the case study approach should be taken.

As we have observed above, the research questions are also directed towards the definition of sequential linkages between the elements of the organisational structure during the change process. We can conclude therefore, following Yin's (1988) guidelines with regard to research question categorisation, that the case study methodology must be adopted.

Pettigrew (1985): (1992); Van de Ven (1987); (1992) and Van de Ven and Huber (1990) take a similar approach and state that real-time case longitudinal case studies must be adopted when examining the issue of the sequential process of change in organisations, observing:

1. Prior knowledge of the success or failure of an organisational change project will bias the study's findings;

2. Time itself is a frame of reference that directly affects our perceptions of change;

3. Relatively scheduled and intermittent real-time observations are required to observe if and how changes occur over time; and

4. Without observing the process of change from the perspective of the informant it becomes difficult to understand the dynamics that face managers involved in the process of organisational change.

It would appear obvious, therefore at this point, aggregating the recommendations of Pettigrew (1985): (1992); Van de Ven (1987); (1992); Van de Ven and Huber (1990) and Yin (1988), to design our research around a series of longitudinal real-time case studies.

As has been introduced in Chapter 1, the author's presence, as a practising manager, provided the opportunity to observe the change process on a day to day basis. Whilst the design of a research strategy around one or a small number of detailed longitudinal case studies has its attractions, there are also risks, particularly for the doctoral researcher as Leonard-Barton (1990) observes. The disadvantages include:

(i) Commitment: Longitudinal case studies constructed on a real time basis require an ongoing commitment from the organisation spanning a number of years;

(ii) Sponsorship: The study sponsor can leave the organisation;

(iii) Alienation: The case study findings, particularly at interim stages may threaten powerful individuals within the organisation;

(iv) Continuity: the organisation's fortunes may suffer a blow that either effects its future viability, or renders unwelcome the presence of future researchers.

Leonard-Barton (1990) proceeds to observe that real-time longitudinal analysis may not therefore provide totally satisfactory results and that a combination of longitudinally and retrospectively constructed case studies may offer opportunities to combine the advantages and disadvantages of the longitudinal

and retrospective approaches. The advantages and disadvantages of longitudinal retrospective case studies are summarised in Figure 7.3 below.

FIGURE 7.3 A COMPARISON OF LONGITUDINAL AND RETROSPECTIVE CASE STUDY METHODS		
Research Activities:	**Methodology:**	
	Single-site, in depth, longitudinal:	**Multiple-Site, Retrospective:**
1. Data Gathering: **a. Efficiency:**	Low, danger of data overload; much unusable data.	Relatively high, focused data gathering.
b. Objectivity:	Danger of too deep involvement, developing unconscious biases.	Danger of unconsciously accepting informant bias.
c. Pattern Recognition:	Microscopic examination of details of process.	Recognition of overall pattern in process.
2. Establishing validity: **a. External Validity:**	Low generalisability.	Relatively high generalisability; variety of situations.
b. Internal Validity:	Relatively high; good opportunity to establish cause and effect.	Lower, potential confusion about cause and effect.
c. Construct Validity:	Opportunity to test sensitivity of construct measures to passage of time.	Opportunity to validate stability of construct across situations.
Source: Leonard-Barton (1990)		

Leonard-Barton (1990) describes the advantages of combining longitudinal real-time studies with retrospectively constructed case histories and we now give a summary here grouped under the headings of *data gathering* and *establishment of validity.*

When considering *data gathering* three dimensions are discussed by Leonard-Barton (1990); efficiency, objectivity and pattern recognition. In terms of efficiency, longitudinal case studies, it is proposed, sacrifice efficiency for richness of data. Leonard-Barton (1990), following Van Maanen (1988), observes that often one spends an inordinate amount of time observing non-

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critical issues. In contrast, multiple site retrospective studies are capable of being executed more efficiently.

The second dimension of efficiency is objectivity. In real-time longitudinal case studies Leonard-Barton (1990) proposes that researchers are in danger of losing objectivity and developing biases towards particular organisational groups. This is a particularly relevant point for this study, which is concerned with the process of organising to achieve increasing levels of innovation. As Leonard-Barton (1990) observes, students of innovation are notoriously prone to adopt a "pro innovation" bias and to affiliate with the views of those organisational players who champion such innovative causes. Leonard-Barton (1990) asserts that in her experience retrospective studies assisted in avoiding the development of observer bias. Whilst discussing the issue of bias it must be noted that retrospective studies are more prone to *informant* bias than their longitudinal counterparts as access to corroborating evidence is more restricted. This is a problem common to the construction of any retrospective case study and will therefore be discussed in greater detail below.

The third dimension of data gathering is the issue of pattern recognition. Here, Leonard-Barton (1990) proposes a mutually reinforcing advantage. The use of multiple retrospective case studies allows the identification of macro patterns, often lost in the depth of multiple longitudinal case studies. However, once such macro patterns are identified, the presence of the longitudinal study permits the detailed examination of the forces that drive process patterns.

Having discussed data gathering we will move to examine the effectiveness of the dual case study methodology from the viewpoint of *establishment of validity*. Obviously, when considering the resources at the disposal of the researcher, multiple retrospective case studies clearly have more external validity (i.e. generalisability) than a more limited number of longitudinal case studies. In terms of construct validity, where we are concerned with testing the validity of our research propositions, Leonard-Barton (1990) argues that the

greatest benefit to be derived from the dual methodological approach is the ability to precisely define the consistency of proposed patterns of change at specific points in time that are common to each case study.

Discussing the issue of internal validity and the question of cause and effect relationships the ability to move between the two case study methodologies, Leonard-Barton (1990) holds, provides for better evidence for hypothesis testing and identification of causal relationships than longitudinal or retrospective approaches on their own could ever do, primarily through the ability to formulate possible causal linkages in one methodological setting and to test in the other.

The Dual Case Methodology: Operational Safeguards

Whilst there are advantages in adopting a dual case study methodology a number of problems exist, primarily associated, as we have introduced above, with the construction of retrospective case studies. We will now turn our attention to how these problems may be mitigated to ensure that the data collected is suitable for hypothesis testing.

Golden (1992b) and Huber and Power (1985) note specific dangers when conducting retrospective case studies and surveys. Golden (1992b) found that retrospective errors were common particularly when dealing with issues concerned with organisational change. In such circumstances Golden (1992b) notes that it may be substantially more difficult for the top managers to recall what an organisation's strategy was at a specific point during a period of organisational change. In such circumstances Golden (1992b) recommends:

(a) Motivate informants to provide accurate information. Golden (1992b) provides the example of providing comparative feedback from other organisations who are participating in the research study;

(b) Identify multiple informants within the organisation; and

(c) Seek multiple forms of data to support statements, including retrospective, archival and longitudinal data to support or refute the statements of informants.

Huber and Power (1985) additionally identify five primary reasons why participants in retrospective studies may provide inaccurate or biased data:

(a) They are motivated to do so;

(b) Their perceptual and cognitive limitations result in inadvertent errors;

(c) They lack crucial information about the event of interest;

(d) They have been questioned with an inappropriate data elicitation procedure; and

(e) Attributional bias leads people to attribute outcomes to appealing but often inappropriate causes.

Huber and Powell (1985) offer guidelines for improving the accuracy of retrospective data that include the selection of knowledgeable respondents in comparable positions across the organisations in the sample, the motivation of informants and use of pretested and structured interview techniques. These considerations will be discussed in the next Section.

7.7 DATA COLLECTION METHODS

As we have described above, the dual case study methodology has been adopted to execute this research. We therefore describe data collection methods separately for the longitudinal case study and the retrospective case studies.

7.7.1 The Longitudinal Case Study

As Yin (1988) observes, a variety of methods are available to collect data including documentation, archival records, interviews, direct observation, participant observation and physical artefacts. In order to ensure a rich and

accurate source of data we use multiple data collection methods which embrace:

(i) Participant observation;

(ii) Interviews; and

(iii) Analysis of documents and archival records.

Participant observation within the top management team responsible for organisational change allowed the construction of a time ordered incident log to describe the major incidents that occurred during the process of change. Following the recommendations of Van de Ven and Huber (1990) the incident log focused upon those incidents that had a material impact upon either the configuration of the organisation or the process of innovation. To substantiate the effects of each major incident we made recourse to both interviews and the analysis of documents and archival records. Interviews focused on the CEO, members of the top management team responsible for the change process and managers responsible for business innovation activities. This informant profile matched that used to build the retrospective case studies. The case study incident log was reviewed at periodic intervals by the management group responsible for organisational change.

The above procedures allowed qualitative data to be collected. A questionnaire, described below, was utilised to collect the quantitative data that would allow both the magnitude of change to be assessed and the use of statistical tests. The questionnaire was used to produce census measurements in respect of each element of the organisation's configuration at the commencement and at completion of the change process.

In this, and the retrospective case studies, the commencement of the process of organisational change was defined by the CEO as the point in time when he/she realised the need to respond to the environmental changes described in Chapter 2. The completion point was taken as the point in time when the CEO was

satisfied that the organisational change process to initiate business innovation was complete.

7.7.2 The Retrospective Case Studies

Two data collection methods were used for the construction of the retrospective case studies, structured interviews and questionnaires. Following Doty, Glick, Miller, Doty and Sutcliffe (1990); Huber and Power (1985) and Snow and Hrebiniak (1980) the participants consisted at the top management level of either the CEO or a member of the top management team responsible for the change process. At the business level all respondents had responsibility for business innovation. This approach of questioning informants at the top management and business levels allows data to be collected in respect of the formal structure and informal systems respectively (Ford, 1979; Sathe, 1978).

In all cases, the initial contact was made by a personal approach to the CEO, followed by a description of the study and confidentiality arrangements, presented on University headed paper. Examples will be found in Appendix C. When agreement to participate had been received, questionnaires were issued to top management and business level respondents. These were returned and analysed before the interviews were conducted. Structured interview questions were then issued to informants to allow them to prepare. Following Huber and Power (1985), structured interviews were used with the objective of identifying the major incidents in the change process, together with their causes and effects. Interviews were completed separately, commencing with the top management respondent. The use of multiple informants allowed us to confirm the recollections and interpretations of a single informant. Examples of the structured interview questions will be found in Appendix B. In all cases interviews were tape recorded and transcribed. Copies of the transcripts were given to informants and written confirmation received confirming the accuracy of the content.

7.7.3 The Measurement Instrument

The measurement instrument takes the form of a questionnaire. Examples of the questionnaire will be found in Appendix A.

When constructing the questionnaire we followed the guidelines put forward by Manly (1992) particularly to avoid the issue of biased procedures. In formulating the questionnaire we were also careful to follow the recommendations of Huber and Power (1985) and we adopted, where possible, pre-tested questions. Developing this recommendation we endeavoured to use measures that had received support in the literature, particularly in respect of the measurement of the formal structure and informal systems. In all cases where informants are asked to provide an opinion in response to a question, seven point Likert scales were adopted. Figure 7.4 correlates questionnaire numbering to the seven dimensions of the organisation's configuration defined in Chapter 3. It was our opinion that the research study provided a relatively unique opportunity to collect data for use in future research studies. Certain information was therefore collected which is not used within this research, where this the case the information is identified in Figure 7.4.

Informants were asked to provide responses at two points in time. The first was identified by the top management informant as the point in time immediately before any configurational changes had been made to initiate business innovation. The second reflects the point in time when, in view of the top management informant, the process of organisational change to initiate business innovation was complete.

FIGURE 7.4 THE QUESTIONNAIRE			
Top Management Question No.:	Business level Question No.:	Configurational Element Measured:	Comments:
1(a) - 1(c)	1(a) - 1(c)	The formal structure: Formalisation.	As the formal structure is measured, only the responses from the top management informant are used in this study.
2(a) - 2(i)	2(a) - 2(i)	The formal structure: Centralisation.	As the formal structure is measured, only the responses from the top management informant are used in this study.
N/A	3.	Informal Systems: 3(a) - (e): Centralisation. 3(f) - (l): Formalisation.	
3., 15., 16.	4., 17.	Skills: Specialisation	Questions 3/4 collect quantitative data. Question 15 provides information upon qualifications to support qualitative case studies. Question 16/17 collects qualitative information on principal skill changes to support case studies.
4.	5.	Vertical differentiation (number of management levels)	The literature reviewed in Chapter 3 did not reveal this to be a key measure of either the formal structure or informal systems. In the interests of maintaining parsimony this element was not included.
5., 6.	6., 7.	Corporate level strategy: Futurity and emphasis on business innovation	Not adopted in this study as our attention is specifically upon business level strategy.
7.	8.	Functional level strategy: Resource support given to business innovation.	Not adopted in this study as our attention is specifically upon business level strategy.
9.	10.	Intended Strategy: Focus upon business innovation at the business level.	Adopted in this study.
9.	10.	Formal structure: Structural focus.	Assesses degree of focus within organisation's main operating units upon the customer, functions, geographic areas or other features. Top management responses adopted to assess degree of customer focus in the formal structure.
10., 11., 12, 13., 14., 15.	11., 12., 13., 14., 15., 16.	Shared values.	Assesses commitment to current strategic direction, motivation to change and presence of unified or competing shared values. **Continued overleaf**

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FIGURE 7.4 (Continued) THE QUESTIONNAIRE			
Top Management Question No.:	Business level Question No.:	Configurational Element Measured:	Comments:
16., 18.	18.	Staff	Q16: Distribution of staff. Q18: Qualitative information for case study.
19., 20.	19., 20.	Top management style.	Q19 provides quantitative data. Q20 provides qualitative data . Top management responses only are used in view of the findings in Chapter 3.
21.	N/A	Background information	Age of organisation.
22., 23.	N/A	Background information	Business development activity before and after the process of change to provide supplementary information to support dependent variable calculations.

We will now discus the literature sources for the measurement of each dimension of the organisation's configuration:

1.   The Formal Structure: Following Ford (1979) and Sathe (1978) measurements in respect of the formal structure are based upon responses given by the CEO only, or a member of the top management team responsible for the change process.   Dimensions of formalisation, centralisation and structural focus are measured.   The formalisation and centralisation questions follow those adopted by Doty, Glick and Huber (1993) which are in turn based upon the formats developed by Pugh et al (1968).   The formalisation questions consist of a battery of three questions focusing upon the extent to which the organisation is characterised by the existence and enforcement of written rules and the development of formal procedures.   Centralisation measures identify the degree to which the informant delegates decision making in the areas of business innovation, capital expenditure and staff recruitment.

2.   The Informal Systems: These questions are directed to managers, responsible for business innovation at the business level within the organisation.

Emphasis is placed on measuring centralisation and formalisation in the informal systems, specifically using the battery of questions developed by Hage and Aiken (1967b) that Sathe (1978) observes capture the characteristics of day to day activities in the organisation, as opposed to the formally designed activities as imposed by top level managers.

3. Intended Strategy: To measure intended strategy we focused the emphasis placed within the organisation's plans upon the four dimensions of business innovation. Informants were asked to classify the extent to which plans focused upon each dimension, again using seven point Likert type scales. The scores for the four questions were aggregated to provide an overall measure of the strategic focus upon business innovation.

4. Staff: Following our review of the "new style" organisation literature we wish to determine changes in the distribution of staff within the organisation. A question was therefore introduced to determine the distribution of staff between basic business level operations, middle management, top management and staff positions. A seven point rating scale was adopted to reflect the proportion of staff directly employed at the business level. The scale ranged from a score of 7 where more than 90% of all staff are employed at the business level to 1 where less than 40% are employed at the business level. This information was provided by the top level management informant, purely due to the fact that business level respondents may not have access to this data.

5. Management Style: The approach to the measurement of management style is influence by our review of the "new style" literature where a style dominated by interaction with staff and skill development is observed. Our interest here is therefore in assessing the relative emphasis given by CEOs to:

(i) administrative activities;

(ii) interaction with staff, other managers and customers;

(iii) the development of strategy; and

(iv) the development of skills in the organisation.

In order to assess the emphasis given to each dimension we asked top management informants to estimate the time spent on each of the four activities and how these activities had varied over time. We constructed, by focusing upon the time devoted to customer interaction, strategy and skill development a seven point "administrative - participative" scale to measure top management style. Higher scores reflect increased time devoted to the activities of customer interaction, strategy and skill development, being those activities that the literature would suggest that "new style" CEOs would engage in.

6. Skills: We focused here upon measuring skill specialisation, again using the questions adopted from the Doty, Glick and Huber (1993) study that focus upon the existence of separate skill sets, job titles and work activities.

7. Shared Values: We are interested in assessing two dimensions:

(i) The commitment to the organisation's current strategy; and

(ii) The motivation to change within the organisation.

Examining the measurement of commitment to the organisation's current strategy our approach follows that of Hinings and Greenwood (1988). The research of Hinings and Greenwood (1988) focused upon the management of change in the UK local government sector. Within this sector two basic, or generic strategies were identified and informants asked about their own and other managers' commitments to such generic strategies using Likert style response scales.

Zahra and Pearce (1990) have observed that a large body of literature supports the proposals of Miles and Snow (1978) that four commonly occurring strategic clusters are observed in the commercial environment entitled

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prospectors, analysers, defenders and reactors. Following the approach of Hinings and Greenwood (1988) we firstly adopted the Snow and Hrebiniak (1980) self typing questions to identify the broad strategic direction of the organisation using the Miles and Snow (1979) typology. Supplementary questions were then included to identify the degree of commitment of managers both to the strategic direction of the organisation and any of the three alternative strategies described in the Miles and Snow (1978) typology.

The motivation to change is assessed by the informant, making an assessment of the motivation present among managers at the informant's level in the organisation, again using seven point Likert style scales.

As indicated above, information regarding the measurement of the formal structure, staff and management style is drawn from the responses of top management informants only. The informal systems were measured using the responses from business level informants only. In respect of the remaining dimensions of intended strategy, skills and shared values the mean score of top level management and business level respondents has been adopted. Any major difference in scores was explored and a reconciliation achieved during the interview stage. In respect of the retrospective case studies, six of the seven companies had organised themselves into customer focused divisions (typically one covering personal insurances, the other covering commercial insurances). In these cases business level informants from both divisions were asked to complete questionnaires. To achieve a single business level score in these situations we adopted the mean score of the two informants, having reconciled any major differences during the interview stage.

7.7.4 Pilot Testing

In view of the nature of this study, which involves access to sensitive information, gaining access to an organisation purely to conduct pilot tests of data gathering methods was judged to be inappropriate. However, the existence of the longitudinal case study provided the opportunity to test the

format of the questionnaire and develop structured interview techniques before entering the organisations where case studies were to be constructed retrospectively. With regard to the questionnaire, specific attention was given to the ten areas suggested by Converse and Presser (1986) that must be considered when testing a questionnaire. These are (i) variation, (ii) meaning, (iii) task difficulty, (iv) respondent interest and attention, (v) flow of the sections, (vi) the order of the questions, (vii) skip patterns, (viii) timing, (ix) respondent interest, (x) respondent well being. No adverse information was received during the pilot tests.

7.8 THE SAMPLE

As we have indicated previously, this research has been conceived in response to the demand for contextually specific research (Pettigrew, 1985; Whipp and Clark, 1986). As Pettigrew, Whipp and Rosenfeld (1989) hold, the context of the organisation can be considered in two elements, the external and internal. In discussing the construction of the research sample we will refer to both the external and internal contexts.

In defining the external context, the comments of Pettigrew, Whipp and Rosenfeld (1989) are helpful, as they observe that it is beneficial to consider the behaviour of organisations in relation to the market structures and their position with regard to the "best practice" organisations in an industry who set the tone for strategic and operating concepts. For these reasons this is an industry specific study. The industry sector chosen, (UK general insurance) has been selected following numerous descriptions of it as a mature sector, unaccustomed to major change (City Research Associates, 1991; Farney, 1990) and unprepared for business innovation (Johne, Howard and Davies, 1991).

As stated in Chapter 2, there were 570 insurance companies licensed to transact general (non-life) insurance in the UK in 1991. Our analysis of Department of Trade and Industry returns and discussions with industry

representatives revealed that 37 companies actively participated in the marketplace (the "UK national market" defined in Chapter 2, section 2.2) that we intended to focus upon. Of these 32 had been established for more than 20 years (the mean age of "mature" organisations reported in the Smith, Mitchell and Summer, 1985 study) and could therefore be expected to possibly display symptoms of maturity, in the form of the barriers to business innovation described above.

In 1990 one company agreed to participate on a real-time longitudinal basis. The management of this company acknowledged that fundamental change was required if it were to grow organically in the face of new competitive pressures. The companies that were to form the retrospective case studies were selected in 1995. From the population of 32 companies that we expected may display mature characteristics, we selected a sample of eight organisations, all of which, from analysis of industry publications and discussions with industry representatives, had displayed efforts or intentions to grow organically through business innovation. One declined to participate due to time constraints. Eight organisations therefore agreed to participate (one on a real-time basis, seven on a retrospective basis) in all, subject to confidentiality guarantees.

7.9 DATA ANALYSIS METHODS

We discuss here methods for both constructing the individual case studies and the aggregation of case studies to identify common patterns of sequence and causality in the process of change. The methodology is described below and is an eight step process, following the recommendations of Miles and Huberman (1994) and Van de Ven and Huber (1990). This process will now be described:

A. Individual Case Study Construction:

Step 1 Defining a Datum: Following Van de Ven and Huber (1990) it is necessary to define the characteristics of the incidents that together will form the longitudinal case study whether constructed on a real time or retrospective basis. A datum, again following Van de Ven and Huber (1990), has five characteristics being (i) it is capable of being described as a bracketed string of words; (ii) relates to a discrete event; (iii) that happened on a specified date; (iv) which is entered as a unique entry in the case study and (v) is subsequently coded into an incident.

Step 2: Reliability of Data: Obviously, it is necessary to test the reliability of data. Two methods are used. Firstly, the use of archival records to check dates and descriptions of events. In respect of the underlying causes and effects of incidents, this information was drawn from an incident log in respect of the longitudinal case study which was reviewed by members of the organisation's change management team for accuracy. In respect of the retrospective case studies, data and the underlying causes and effects were drawn from the structured interview transcripts, which were certified as being a true record by informants.

Step 3: Incident Coding: Each piece of data that influenced the configuration of the organisation was coded, described and the underlying causes and effects of the incident noted.

Step 4: Time Ordered Cause and Effect Matrices: All coded incidents in respect of a single case study were then assembled into a time ordered meta matrix that spanned the duration of the change process, following the recommendations of Miles and Huberman (1994).

Step 5: Construction of the Event State Network: Using the meta matrix constructed in Step 4, an event state network was established using the coded incidents to link the states of the organisation at the beginning and end of the changes process. This instrument enables us to identify the major causal linkages through the change process.

B. Case Study Aggregation:

Step 1: Definition of Successful and Less Successful Organisations: Using the dependent variable data, the successful and less successful organisations were identified.

Step 2: Tests of Significance: Using the quantitative data provided by the questionnaires, tests of significance were used to identify the changes to the configuration of the organisations that may be linked to increased business innovation activity. Tests of significance (t-tests) were selected as an appropriate method of determining if significant differences existed between the mean scores of our successful and less successful organisations following Taylor and Dunning (1977). Pearson's correlation coefficients were also calculated to provide an indication of the possible association between an independent variable and the dependent variable. These initial conclusions were used to guide the analysis of qualitative data.

Step 3: Stacking and Pattern Generation: Each case study's cause and effect matrix was "stacked" into two overall meta matrices, divided between the successful and less successful. Similarly, each case study's event state network was "stacked". The resultant matrices and networks were examined to identify common processual and causal patterns between the successful and less successful organisations. This analysis provided the basis for qualitative hypothesis testing.

7.10 CONCLUSION

This Chapter has defined the research strategy. The field investigation and analysis of results, using the framework developed above, will be discussed in Chapters 8 and 9 respectively.

CHAPTER EIGHT

THE FIELD INVESTIGATION

8.1 INTRODUCTION

The objective of this Chapter is to describe the field investigation. We describe the profile of the sample and define the "successful" and "unsuccessful" organisations as a prelude to the analysis of the findings and hypothesis testing in Chapter 9. The field investigation was conducted in two phases. Quantitative and qualitative data were collected in respect of the longitudinal case study during the period 1990 to 1995. In respect of the retrospective studies the field investigation was conducted during the period November 1995 to August 1996.

8.2 THE PROFILE OF THE SAMPLE

In this section we present (i) financial profile of each organisation within our sample; (ii) the key issues as seen by the top management informants before the process of change started and (iii) an assessment of each organisation's configuration again before any attempt was made to initiate change.

As explained in Chapter 7, we asked each of our top management informants to identify the date that they started to instigate change in the organisation in an attempt to stimulate business innovation in response to the alterations in the competitive environment described in Chapter 2. This point was then taken as the start of the organisational change process. The end of this process was taken as the point in time when the top management informant was satisfied that the objectives of the process of organisational change had been achieved.

The periods chosen by each organisation are shown in Figure 8.1.

Figure 8.2 provides details of the size, age, profitability, market participation and ownership of each organisation before the process of change started.

FIGURE 8.1 THE PERIODS OF CHANGE

ORGANISATION:	START:	COMPLETION:
Alpha †	November 1992	November 1995
Beta †	March 1991	January 1994
Gamma †	January 1992	January 1995
Delta †	January 1992	July 1995
Epsilon †	January 1994	June 1996
Zeta †	July 1991	July 1995
Eta †	January 1993	April 1996
Theta ‡	August 1989	December 1993

† Retrospectively constructed case study.
‡ Real time case study.
Source: Field study data.

We will now examine the status of each organisation before any configurational changes were made. We examine the status of each organisation from two angles, firstly the qualitative comments made by the informants and secondly measurements of each organisation's configuration taken from our questionnaires. Figure 8.3 presents a summary of the qualitative statements presented by informants. Examination of Figure 8.3 reveals a common pattern in the responses of our informants.

The problems facing our organisations at before the process of change commenced fell into six groups:

1. No experience of change management ($n = 8$);
2. Power conflicts between individuals and functions ($n = 6$);

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FIGURE 8.2 THE FINANCIAL PROFILE OF THE SAMPLE

Organis ation:	Size†	Age*	Financial result:††	Market participation‡	Ownership:
Alpha	D	1	Pre-tax losses exceed 20% of premium income.	UK General	100% owned by overseas parent.
Beta	C	2	Pre-tax losses reach 30% of gross premiums	UK General, International.	100% owned by overseas parent.
Gamma	B	2.	Pre-tax losses exceed 30% of gross premiums	UK General	100% owned by overseas parent.
Delta	D	3.	Operations achieve financial break even only.	UK General	100% owned by overseas parent.
Epsilon	B	3.	Pre-tax losses exceed 15% of gross premiums	UK General Life	UK plc
Zeta	A	3.	Pre-tax losses reach 14% of gross premium income	UK General Life	UK plc
Eta	D	1.	Losses exceed 30% of premium income.	UK General	100% owned by overseas parent
Theta	D	2.	Losses from current business exceed 20% of premium income.	UK General	100% owned by overseas parent

Notes:

† General Insurance (non-life) premium income. In view of confidentiality income is divided into bands: A: >£900m., B: £200-£900m., C: £100-£200m., D: <£100m.
†† Pre-tax profit from general insurance activities.
‡ Life, pensions, international and reinsurance business have been excluded from this research to limit the context to the UK general insurance (non-life) insurance market.
* Age: Three bands are adopted. 1 = 25 to 50 yrs., 2 = 50 to 100 yrs., 3 = over 100 yrs.

Source: DTI Returns.

FIGURE 8.3 CONFIGURATIONAL ANALYSIS BEFORE INITIATION

CASE:	OPENING STATE:	COMMENTS:
Alpha	1.Poor financial performance. 2.No strategic direction in face of environmental changes. 3.Absence of accountability/responsibility for profit and customers; 4.Poor management systems; 5.Lack of staff confidence in top management. 6.Power focused outside business units. 7.No experience of change.	A matrix structure confused accountability and customer focus. CEO states that on his arrival "the formal structure was definitely screwed up - power centred in IT, Finance and HR."
Beta	1.Poor financial performance, no recovery strategy; 2.Structure conceals accountability and responsibility; 3.Power conflicts between functions; 4.Belief that old ways would "win through". 5.Absence of procedures & low centralisation leave management isolated; 6.No experience of change.	Belief in old ways, lack of accountability and power clashes are substantial barriers.
Gamma	1.Extreme financial pressures lead to take-over by outside group; 2.No product development or improvement for 20 years; 3.Historically isolated target market & poor customer focus; 4.Localised power centres; 5.Poor communication, no lateral or face to face communication; 6.Entrenched attitude that old strategies would work; 7.Low formalisation and centralisation left top management isolated; 8.No experience of change.	Entrenched attitudes and localised power bases prevent organisation developing effective customer focus.
Delta	1.Strategy that top management believe is viable already exists - but parent company prevent implementation and enforce centralisation; 2.Top managers' priority to break away from parent; 3.Business level strategies are under-developed and insufficient skills exist for implementation; 4.No experience of change.	The strategy was originally conceived in 1982.
Epsilon	1. Poor financial performance; 2. Lack of clear strategic direction; 3. Outdated products; 4. No experience of change.	Lack of direction led to appointment of new CEO.
Zeta	1.Financial losses; 2.Imperfect knowledge of competitive environment; 3.No response strategy; 4.Entrenched attitude that old strategies would work; 5.Power vested in traditional profit centres; 6.No experience of change.	Extreme losses threatened the organisation. CEO realised that the view of environment was flawed and the organisation had insufficient information to formulate a new strategy.
Eta	1.Financial losses - under-performing competitors; 2.Strategic "vacuum" following failed expansion strategy; 3.Neglected core products under attack from competitors; 4.Traditional profit centres form "barrier to change"; 5.No experience of change.	Core products - the profit centres of the 1980s had been neglected following an attempt to move into new product areas. The company was left without a strategy for its core products.
Theta	1.Continuing financial losses; 2.Absence of a strategy that in the eyes of the parent company dealt satisfactorily with changes in the competitive environment; 3.Power centred in traditional business areas; 4.Divided views on how to respond to competitive threats; 5.No experience of change.	Divided views on how to respond to environmental changes will prove to be the most enduring barrier.
Source: Field study		

3. Financial losses ($n = 8$). The majority of organisations in this sample faced mounting financial losses on a scale that they had not previously experienced as a direct result of the failure of current and past strategies. In some cases losses in one year exceeded 30% of the financial reserves, being a situation that obviously could not be allowed to continue;

4. No strategic direction ($n = 7$);

5. Absence of accountability/responsibility for profits and customer groups ($n = 5$);

6. Belief that old strategies would work ($n = 5$).

Taking a quantitative approach, the results of the measurements of each organisation, before the process of organisational change took place and taken from our questionnaires are shown in Figure 8.4.

Examination of Figure 8.4 reveals that at the commencement of the change process our sample is characterised by:

1. *Formal structure:* Intermediate levels of formalisation and centralisation (sample means of 3.7 and 4.5 respectively). All organisations were characterised by relatively low levels of customer focus (sample mean 3.2).

2. *Informal systems:* The informal systems were characterised by intermediate to low levels of centralisation (sample mean 3.5) and intermediate levels of formalisation (sample mean 4.3).

3. *Intended Strategy:* Our measures revealed a low emphasis within the organisations' plans on any form of business innovation. A sample mean score representing the overall emphasis on all four forms of business innovation of 3.0 was recorded.

FIGURE 8.4 THE STRUCTURAL DIMENSIONS AT COMMENCEMENT OF THE CHANGE PROCESS

Structural Element:	Organisation:								
	Alpha	Beta	Gamma	Zeta	Delta	Epsilon	Eta	Theta	Sample Mean
1. Formal organisation:									
Formalisation	4.7	3.0	2.0	4.3	4.7	2.3	3.7	4.8	3.7
Centralisation	3.3	3.4	2.2	4.8	4.9	6.9	5.4	4.9	4.5
Customer focus	3.0	5.0	2.0	3.0	3.0	2.0	3.0	4.5	3.2
2. Informal organisation:									
Formalisation	3.6	4.0	2.2	5.2	2.3	5.4	2.9	2.6	3.5
Centralisation	3.9	4.3	2.9	5.4	4.4	5.3	4.2	4.0	4.3
3. Intended Strategy	3.3	4.0	2.4	3.7	3.0	2.2	3.7	1.9	3.0
4. Staff: Business unit focus:	4.0	2.0	6.0	5.0	6.0	7.0	4.0	4.0	4.8
5. Management Style:	2.0	2.0	1.0	3.0	3.0	2.0	2.0	2.0	2.1
6. Skills: Specialisation:	5.5	4.0	3.5	4.8	4.3	3.5	5.0	5.8	4.5
7. Shared values: Support for current strategy:	3.0	4.0	4.0	4.0	6.3	2.0	3.0	3.5	3.7
Motivation to change:	3.3	3.7	3.0	3.0	3.7	2.5	3.0	2.5	3.1

Notes:
1. All measurements are made on 7 point Likert style scales.
Source: Field study.

4. *Staff:* Our measures examined the proportion of staff in business units. Our organisations deployed only some 70% of their staff in basic work activities related directly to the production of products and services. In organisation Beta for example, only 43% of staff were employed in this area, the remainder being in middle management and staff functions;

5. *Management style:* Here we measured top management style by examining the time spent by CEOs and top management informants on specific activities such as interaction with staff, customers and attention to strategic issues. Our interviews revealed an insular attitude, focusing on administrative issues. Using our seven point "administrative-participative" scale we recorded a sample mean of only 2.1;

6. *Skills:* Intermediate levels of skill specialisation are reported (mean 4.5).

7. *Shared values:* Our research uses two scales to assess this dimension being (i) support for the organisation's current strategy and (ii) motivation to change. The following mean measurements were found:

   (a) support for current strategy: 3.7

   (b) motivation to change: 3.1

We interpret these measurements as signs of a dangerous stagnation within our sample; little support for current strategies, coupled with a low motivation to change.

8.3 SUCCESS AND FAILURE

In order to test the hypotheses in Chapter 9, it will firstly be necessary to classify each of the eight case studies into either the successful or less successful categories. We refer to the successful organisations as "Pacesetters" and the less successful as "Followers".

As explained in Chapter 7, the dependent variable is an outcome based measure focusing upon business innovation activity since the start of the change process in each organisation.

At this stage it must be noted that we collected business innovation activity measures over four categories:

A. New products; product improvements (*routine* improvements to existing products);

B. New product augmentation initiatives (increasing the services that surround the core product);

C. Entries into new markets; and

D. Process innovation initiatives.

Following the construction of the dependent variable as described in Chapter 7 we firstly excluded routine product improvement activity. Indeed, when

examining the dependent variable information provided, it became clear that the majority of activity being reported related to improvements or revisions aimed at the organisations' existing customer base, in other words, routine product development. When categorising any initiatives as "extended", "radical" or "new style", we were careful to ensure that the initiatives involved a considerable or radical development effort on behalf of the responding organisation. Where any doubt existed, initiatives were classified as "routine". The result of this screening process was that "radical" and "new style" product development only embraced major initiatives such as the establishment of direct insurance operations (a totally new distribution channel) or the provision of insurance services that were totally new to the organisation. We took a similar approach with regard to information provided in respect of product augmentation, market and process initiatives, ignoring any that were related to "routine" improvement activities and including only those that involved substantial changes to practices within the organisation. For example, in respect of process innovation activities, specific business process review projects were included that focused upon significant areas of the organisation's activities, whilst entries that referred to more minor, routine activities, such as the installation of a new telephone switchboard, were excluded.

The dependent variable scores, after the above treatment, are shown in Figure 8.5 below. In the interests of parsimony for analytical purposes, we sub-divide business innovation into two principal components being (i) offer and market innovation (which in this case embraces product, product augmentation and market innovation) and (ii) process innovation.

Following examination of the information provided we classified Alpha, Beta, Gamma and Zeta as our Pacesetters and Delta, Epsilon, Eta and Theta as Followers. Adopting this classification ensured that Pacesetters and Followers possessed one important distinguishing characteristic. *Only our Pacesetters had engaged in either "radical", "extended" or "new style" product innovation and had succeeded in launching market and augmentation*

innovations. Our Followers activities were limited to "routine" product development.

As an additional precaution is however necessary to assure ourselves that the sample dependent variable mean scores of the two groups, Pacesetters and Followers, are drawn from separate populations as the dependent variable includes a measure of process innovation. The result of the two sample t-test is shown below. To conduct this test, we present two hypotheses, firstly

FIGURE 8.5 DEPENDENT VARIABLE SCORES

CASE STUDY:	PERFORMANCE RATING:		
	Offer & Market Innovation [1]:	Process Innovation [2]:	Total Business Innovation [3]:
Alpha	6	5	79
Beta	8	1	64
Gamma	10	4	100
Delta	0	1	7
Epsilon	0	3	21
Zeta	2	4	43
Eta	0	2	14
Theta	0	4	29
Notes:			
1. Count of extended, radical, new style, market and product augmentation innovations executed since the start of the change process. Routine product development is been excluded.			
2. Sum of major process initiatives.			
3. Sum of offer, market and process innovations expressed as percentage of highest performer in this sample.			
Source: Field study data.			

the null (H_0) hypothesis, holding that there is no difference between the mean performance of Pacesetters and Followers and secondly the alternative (H_{alt}) holding that a significant difference does exist:

H_0 There is no difference between the mean performance of Pacesetters and Followers.

H_{alt} There is a difference between the mean performance of Pacesetters and Followers.

When interpreting this and other tests of significance in this research we adopt a 10% decision rule. The result is shown in Figure 8.6 below

FIGURE 8.6 DEPENDENT VARIABLE SIGNIFICANCE TEST

PERFORMANCE CATEGORY:	MEAN:	T-TEST[1]	P[2]	DEGREES OF FREEDOM:
Pacesetters (n=4): Followers (n=4):	71.5 17.8	4.16	0.013	3
Notes: 1. Within this experiment, the t-statistic has to exceed 1.638 being the t-value for 3 degrees of freedom at the .10 level of significance. 2. This statistic indicates how confident we can be that the result did not occur by chance. For the value reported, .013, we can be 98.7% certain that the performance of Pacesetters and Followers are drawn from different populations.				

We therefore conclude that the performance of Pacesetters and Followers is significantly different and we must investigate why this has occurred. However, it is necessary to ensure that the configurational characteristics of Pacesetters and Followers, before the process of change commenced, were not significantly different. We therefore conducted a two tailed t-test to enable us to accept or reject the null hypothesis that there are no significant differences between the configurational mean scores for Pacesetters and Followers. The results of this test are shown in Figure 8.7.

It can be seen that we are able to accept the null hypothesis for all elements of the configuration with the exception of the centralisation component of the formal structure. This required further investigation. On discussion with the top management respondents it became clear that some had indicated a low level of centralisation where there were no *written* decision making procedures. We then examined responses from business level respondents which included exactly the same battery of centralisation questions as put to the top management informants, but this time asking the business level informants for their *participation* in the decision making process. Responses to these questions would enable us to examine the actual degree of formal centralisation

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of decision making, whether written or otherwise. Analysis of these responses revealed a mean centralisation score of 4.42 for Pacesetters and 5.25 for Followers. The t-test statistic is -1.47, P = 0.22, which is not significant. We therefore concluded that there was no significant difference between centralisation in the formal structure in Pacesetters and Followers.

FIGURE 8.7 SIGNIFICANCE TESTS: PACESETTER AND FOLLOWER CONFIGURATIONAL PROFILES AT THE COMMENCEMENT OF THE CHANGE PROCESS

Configurational Element:	Pacesetters: (n=4) Sample mean:	Followers: (n=4) Sample mean:	t-test	P[1]
1. Formal Structure:				
1.1 Formalisation:	3.50	3.87	-0.44	0.68 (ns)
1.2 Centralisation:	3.43	5.52	-2.95	0.032 (s)
1.3 Customer Focus:	3.25	3.12	0.15	0.88 (ns)
2. Informal Systems:				
2.1 Formalisation:	4.13	4.47	-0.59	0.59 (ns)
2.2 Centralisation:	3.75	3.30	0.48	0.65 (ns)
3. Intended Strategy:	3.35	2.70	1.22	0.28 (ns)
4. Staff (Distribution of staff):	4.25	5.25	-0.88	0.42 (ns)
5. Management Style:	2.00	2.25	-0.52	0.63 (ns)
6. Skills:	4.45	4.65	-0.30	0.77 (ns)
7. Shared values:				
7.1 Support for current strategy:	3.75	3.70	0.05	0.96 (ns)
7.2 Motivation to change:	3.25	2.92	0.99	0.38 (ns)
Notes: 1. (ns) = not significant, (s) = significant. Source: Field study data.				

8.4 THE EFFECT OF EXTERNAL FACTORS

Before proceeding to test the hypotheses it is necessary to consider the possible effect of external factors upon the dependent variable scores reported above. The issue of external factors has been discussed in Chapter 6, Child and Smith (1987); Greenwood and Hinings (1988); Pettigrew, Whipp and Rosenfeld (1989) identifying the five groups of factors shown in Figure 7.1, which is reproduced for convenience as Figure 8.8 below.

Our sample controls for the economic environment, business environment, political environment and social trends in view of our selection methods. However, resources and ownership do vary between organisations in our sample. In terms of ownership two categories can be identified, UK plcs and wholly owned subsidiaries of foreign owned companies. In terms of resources, we follow others in the study of organisational change (for example Keatts and Hitt, 1988) and adopt the turnover of each organisation in our sample at the commencement of the change process as a measure of available resources.

FIGURE 8.8: THE EXOGENOUS FACTORS.

Element:	Description:
1. Economic Environment	Competitive status of the industry; Position within the national economy.
2. Business Environment	Market structure, competitive rivalry uncertainty and complexity; Dominant strategies and thought patterns; Power of individual and/or groups of market players; Influence of Industry networks; Speed of change within industry.
3. Political Environment	Pattern of intervention; Policies of separate administrations.
4. Social Trends	Impact upon Industry operations; Impact of demographic changes.
5. Resources	Munificence, ownership and control.

Source: Child and Smith (1987); Greenwood and Hinings (1988); Pettigrew, Whipp and Rosenfeld (1989)

In respect of ownership, we divided our organisations into the two groups, the UK plcs and the foreign owned subsidiaries. We then conducted a t test to see if the mean dependent variable performance of each group was significantly different. The results of the t test are now given:

FIGURE 8.9 SIGNIFICANCE TESTS: OWNERSHIP

PERFORMANCE CATEGORY:	MEAN:	T-TEST[1]	P[2]	DEGREES OF FREEDOM:
Foreign subsidiaries (n=6): UK plcs (n=2):	48.8 32.0	0.89	0.21	4
Notes: 1. Within this experiment, the t-statistic has to exceed 1.533 being the t-value for 4 degrees of freedom at the .10 level of significance. 2. This statistic indicates how confident we can be that the result did not occur by chance. For the value reported, .21, we can only be 79% certain that the performance of Foreign subsidiaries and UK plcs are drawn from different populations. We therefore conclude that there is no significant difference between the performance of these two groups.				

We conclude from this test that there is no significant difference between the performance of UK plcs and foreign owned subsidiaries. We therefore proceeded to examine the effect of resources.

To conduct this test, we examined whether there was a significant difference between the resources, expressed as turnover, possessed by Pacesetters and Followers. The results of the t test are as follows:

FIGURE 8.10 SIGNIFICANCE TESTS: RESOURCES

PERFORMANCE CATEGORY:	MEAN:	T-TEST[1]	P[2]	DEGREES OF FREEDOM:
Pacesetters (n=4): Followers (n=4):	344.0 126.5	1.16	0.17	3
Notes: 1. Within this experiment, the t-statistic has to exceed 1.638 being the t-value for 3 degrees of freedom at the .10 level of significance. 2. This statistic indicates how confident we can be that the result did not occur by chance. For the value reported, .17, we can be 83% certain that the resources of Pacesetters and Followers are significantly different. We conclude that the resources of Pacesetters and Followers are not significantly different.				

We concluded that there is no significant difference between the resources possessed by Pacesetters and Followers.

Having identified that there are no external factors that may influence the performance of our Pacesetters and Followers we will now proceed to conduct the hypothesis tests, which are the subject matter of Chapter 9.

CHAPTER NINE

ANALYSIS OF THE FINDINGS

9.1 INTRODUCTION

This Chapter is devoted to analysing the results of the fieldwork and hypothesis testing. In order to meet these objectives this Chapter is divided into the following sections:

9.2 Hypothesis testing methodology: A description of the approach used in this Chapter to test the hypotheses.

9.3 The hypotheses tests.

9.4 Discussion.

Throughout this Chapter we continue to refer to the organisations that are classified as successful as "Pacesetters", the term "Followers" being applied to those organisations being classified as less successful.

9.2 THE HYPOTHESIS TESTING METHODOLOGY

As we have identified in Chapter 7, a debate exists in the literature regarding the merits of qualitative and quantitative approaches to the analysis of change in organisations. This issue has been discussed in Chapter 7 and we follow here an approach based on the proposals of Miles and Huberman (1994) and Van de Ven and Huber (1990) which combines quantitative and qualitative methodologies when testing the hypotheses.

In view of the fact that all our case studies, whether constructed on a real-time or retrospective basis, adopt the same dependent and independent variables we follow McPhee (1990) and apply the same hypothesis testing methodology for all case studies.

We adopt the following process to test the hypotheses:

Step 1: *The quantitative tests:* Tests of significance and calculation of the Pearson's correlation coefficient are used to identify those configurational changes that may separate Pacesetters and Followers; and

Step 2: *The qualitative tests:* The use of quantitative techniques allows us to confirm associations between changes to the elements of organisational configuration (the independent variables) and the dependent variable. The objectives of the second, qualitative, stage are to (i) demonstrate the causality between changes to configurational elements and the dependent variable and (ii) describe the relative importance of changes to each configurational element.

The case studies, constructed as described in Chapter 7, will be found in Appendix D (Volume 2). Meta matrices were used to "stack" the results from individual case studies and summaries are reproduced at appropriate stages in the hypothesis tests.

9.3 THE HYPOTHESES TESTS

Each hypothesis test will, as stated above, consist of two components, the quantitative and the qualitative. In conducting the quantitative tests we make reference to the results of one tailed t-distribution tests and the calculation of Pearson's correlation coefficient. We then make a preliminary decision of whether or not the hypothesis should be rejected or accepted. At this point qualitative techniques will be used to ratify or reject this preliminary decision.

We now firstly present tests in respect of hypotheses $H_{1.1}$ to $H_{1.6}$ that focus upon the actions of CEOs to *initiate* the process of change:

9.3.1 Initiation

The Formal Structure ($H_{1.1}$):

$H_{1.1}$ CEOs in organisations that achieve higher levels of business innovation change the formal structure in relation to formalisation, centralisation and customer focus.
CEOs in organisations that achieve lower levels of business innovation do not make changes to the formal structure.

The quantitative tests:

Stated in the statistical format the hypotheses are:

$H_{1.1}$ The mean business innovation score of organisations where the CEO changes the formal structure in relation to formalisation, centralisation and customer focus **MINUS** the mean business innovation score of organisations where the CEO does change the formal structure > 0

H_o The mean business innovation score of organisations where the CEO changes the formal structure in relation to formalisation, centralisation and customer focus **MINUS** the mean business innovation score of organisations where the CEO does change the formal structure $<$ **or** $= 0$

We conduct the statistical tests in two stages. From the data collected in the field we are able to isolate those organisations that commenced the change process with alterations to the formal structure executed by the CEO. These are organisations Alpha, Beta, Gamma, Epsilon and Zeta, which we will refer to in this hypothesis test as **Group 1**. The remaining organisations (Delta, Eta and Theta) are referred to as **Group 2**. We applied a one tailed t-test to Groups 1 and 2 to determine if there is a significant difference in the mean business innovation scores. The result is:

FIGURE 9.1 SIGNIFICANCE TEST: HYPOTHESIS $H_{1.1}$

INITIATION METHOD:	MEAN:	T-TEST[1]	P[2]	DEGREES OF FREEDOM:
Group 1 (n=5):	61.4	2.94	0.016	5
Group 2 (n=3):	16.7			
Notes: 1. Within this experiment, the t-statistic has to exceed 1.476 being the t-value for 5 degrees of freedom at the .10 level of significance. 2. This statistic indicates how confident we can be that the result did not occur by chance. For the value reported, .016, we can be 98.4% certain that the means of groups 1 and 2 are significantly different. We conclude that the initiation methods are significantly different.				

This test gives some support for hypothesis $H_{1.1}$ but it is necessary to identify the role of changes to the components of the formal structure, most notably formalisation, centralisation and customer focus. To identify the possible effects of changes to these components we turn to examine the magnitude of changes made to each element of the organisational configuration over the entire duration of the change process and the possible association with the business innovation scores, our dependent variable. To test for an association between changes to these and other elements of the organisational configuration and the business innovation scores we present one tailed t-tests together with Pearson's correlation coefficient (r). The latter test will provide a measure of the possible relationship between the business innovation scores and a single configurational element or independent variable. The results of these tests in respect of all seven configurational elements are shown in Figure 9.2.

The configurational changes shown in Figure 9.2 show the magnitude over the *entire* duration of the change process. Examination of Figure 9.2 reveals that, within the formal structure, increases in formalisation may have a significant association with increased levels of business innovation, the roles of centralisation and customer focus being weaker. The possible roles of staff, management style, skills and the motivation to change are also noted. It will therefore be necessary to turn to qualitative tests to examine the exact nature of the initial changes made to the formal structure and their effects. We therefore now turn to the qualitative tests.

**FIGURE 9.2 SIGNIFICANCE AND PEARSON'S CORRELATION
COEFFICIENT TESTS - CONFIGURATIONAL CHANGES AND
BUSINESS INNOVATION**

Configurational Element:	Pacesetters: (n=4) Mean change: [4]	Followers: (n=4) Mean change: [4]	t-test	P [1]	r [2]
1. Formal Organisation:					
1.1 Formalisation:	2.25	-0.07	1.88	(0.059) (s)	0.776
1.2 Centralisation:	0.30	-1.00	0.99	0.18 (ns)	0.649
1.3 Customer focus	2.75	1.50	1.17	0.15 (ns)	0.625
2. Informal Systems:					
2.1 Formalisation:	-0.425	0.05	-0.77	0.24 (ns)	0.102
2.2 Centralisation:	-1.45	-0.53	-0.95	0.19 (ns)	0.036
3. Intended Strategy:	2.08	2.48	-0.68	0.26 (ns)	0.141
4. Staff (distribution of staff):	1.27	0.0	1.73	0.073 (s)	0.375
5. Top management style:	3.50	1.50	1.73	0.072 (s)	0.742
6. Skills (specialisation):	0.55	-0.825	1.70	0.082 (s)	0.653
7. Shared values:					
7.1 Support for current strategy:	2.48	1.20	1.54	0.11 (ns)	0.522
7.2 Motivation to change:	2.76	1.50	2.06	0.054(s)	0.567
Notes:					

Notes:
1. (ns) = not significant, (s) = significant.
2. Following Carter (1980) and Taylor and Dunning (1977) a value in the region of 0.50 indicates a "weak" positive correlation between the dependent and independent variables and a value in the region of .8 indicates a "strong" positive correlation.
3. All forms (product, product augmentation, market and process) of business innovation are considered here with the exception of routine product improvement.
4. Read as the mean change of each configurational element over the duration of the change process.

Source: Field study data.

The qualitative tests:

The objectives of these tests are threefold. Firstly, to define the exact nature of the changes made to the formal structure and their relationship with other configurational elements. Secondly to determine the underlying reasons for and the effect of the changes. Finally, we wish to determine if changes to the

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formal structure as defined in this hypothesis are a distinguishing feature that separates Pacesetters from Followers.

Details of each case study, constructed following the approach defined in Chapter 6, will be found in Appendix D (Volume 2). Meta matrices were used to "stack" or aggregate data from individual case studies and the product of the "stacking" procedure in the forms of summarised causal networks for our Pacesetters and Followers, will be found in Figures 9.3 and 9.4 respectively. When interpreting the summary causal networks, "boxes" relates to discrete events, "bubbles" to outcome states. We now concentrate upon providing a commentary to support these causal networks in so far as the tests for hypothesis $H_{1.1}$ are concerned.

Examination of Figures 9.3 and 9.4 reveals that Pacesetters took a very different path to instigating and reinforcing change than the routes adopted by the majority of Followers. The objective of all the CEOs in Pacesetting organisations when commencing the change process, which is our concern here, was to challenge existing strategies and shared values, eradicate established power bases and establish clearer accountability both for profits and customer groups. The formal structure was singled out for special comment by Pacesetting CEOs:

> "Formal structure was definitely screwed up - power was centred in IT, Finance, Human Resources - the business centres appeared to be there for the enjoyment of the central services unit. Informal structure [informal systems] - basically the informal structure and the people within it had no power - they weren't encouraged to take initiatives. All the power was in the administrative centre."
>
> Pacesetter CEO - Alpha.

> "A need to move from structures that had failed - that is the theme that I would like to introduce. It describes the thinking that has dominated our activities here. Even if the structures that we had in place here before had worked, new structures were necessary to change the thought patterns of staff - if we were to successfully recover and introduce a totally new range of products and services. It is for that reason that we brought in new structures and titles right from the start."
>
> Pacesetter CEO - Gamma.

FIGURE 9.3 THE CAUSAL NETWORK: PACESETTERS

PACESETTERS:

INITIATION:

Formal structure:	Staff:	Style:	Intended Strategy:
■ Increased customer focus *(Alpha, Beta, Gamma, Zeta)*; ■ Increased formalised responsibility & accountability *(Alpha, Beta, Gamma, Zeta)*;	■ Top management changes to eliminate obstacles, supporters of past strategies *(Alpha, Beta, Gamma, Zeta)*; ■ Move in barrier breaking managers *(Zeta)*.	■ "Interventionist", *(Alpha, Beta, Gamma, Zeta)*; ■ Increased communication on true state of organisation*(Alpha, Beta, Gamma, Zeta)*;	■ Introduction of pre-designed strategy *(Gamma only)*;

- Uncertainty *(Alpha, Beta, Gamma Zeta)*;
- Inability to produce new business level strategies *(Alpha, Beta, Gamma Zeta)*
- Rapid new product development & short-lived state of euphoria *(Gamma)*;
- Exposure of inadequate planning & product development skills *(Alpha, Beta, Gamma Zeta)*;
- Inability to adapt to new management style *(Alpha, Beta)*;
- Remaining barriers to change are revealed *(Alpha, Beta, Gamma, Zeta)*

REINFORCEMENT:

Formal structure:	Staff:	Style:	Intended Strategy:
■ Project groups to focus on strategy development *(Alpha)* & product development, R&D *(Gamma)*; ■ Secondary changes to increase customer focus & remove remaining barriers *(Beta & Zeta)*.	■ New staff to increase skill & change perceptions *(Beta, Gamma, Zeta)*; ■ Barrier breaking managers replaced with managers to support experimentation *(Zeta)*.	■ Shift from "interventionist" to supporting experimentation *(Alpha, Beta, Gamma, Zeta)*;	■ Corporate level plans conceived to enter major new product markets *(Beta only)*.

- Start of "true innovation"*(Alpha, Beta, Gamma, Zeta)*;
- New business level strategies appear *(Alpha, Beta, Gamma, Zeta)*
- Top level management focus upon longer term strategies *(Zeta)*;
- Increasing confidence, motivation to change & unification in shared values *(Alpha, Beta, Gamma, Zeta)*.

Informal systems:
- Self managed groups emerge to steer business level strategy and product development *(Alpha, Gamma,)*;
Formal structure:
- Changes to formal structure made to reflect experiences of groups in the informal organisation *(Alpha, Gamma)*

- Evidence of competing approaches to interpreting environmental changes *(Alpha, Zeta)*.

Source: Field study.

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FIGURE 9.4 THE CAUSAL NETWORK: FOLLOWERS

FOLLOWERS:

INITIATION:

Formal structure:	Staff:	Style:	Intended Strategy:
■ Unchanged *(Delta, Eta, Theta)*; ■ Geographic centralisation *(Epsilon)*;	■ No changes to remove top managers who may resist change. *(Delta, Epsilon, Eta, Theta)*.	■ "Interventionist", *(Epsilon)* "more caring" *(Delta)*, "administrative" *(Eta)* "challenging" *(Theta)*;	■ Confirmation of existing strategy *(Delta)*. Search for new business level strategy *(Eta, Epsilon, Theta)*.

- Uncertainty *(Eta, Epsilon, Theta)*;
- Increased motivation *(Delta)*
- Search for resources to implement strategy *(Delta)*;
- Exposure of inadequate planning & product development skills *(Epsilon, Eta, Theta)*;

REINFORCEMENT:

Formal structure:	Staff:	Style:	Intended Strategy:
■ No change.	■ New staff to increase skill & change perceptions *(Delta, Epsilon)*; ■ Training *(Delta, Eta)*	■ No change *(Delta, Epsilon, Eta, Theta)*;	■ New corporate & business level strategies developed *(Delta, Epsilon, Eta)*. ■ New corporate strategy *(Theta)*.

- Continued uncertainty *(Eta, Epsilon, Theta)*;
- Increased motivation *(Delta, Eta - latter limited to project group)*
- Implementation plans *(Delta, Epsilon, Eta)*;

Formal structure:	Staff:	Style:
■ New structure to support strategies *(Delta, Epsilon, Eta, Theta)*;	■ New staff to increase skill & change perceptions *(Epsilon)*; ■ Training *(Epsilon)* ■ Those that resist change are removed *(Eta, Epsilon only on a limited scale)*.	■ Shift from "interventionist" to "supportive" *(Epsilon)*.

- *Routine* business development activity *(Delta, Epsilon, Eta, Theta)*;
- Conflicts on organisation's current direction *(Delta, Theta)*
- Conflicts between top managers and business unit staff *(Epsilon, Eta, Theta)*;
- Declining motivation to change *(Delta, Eta, Theta)*.

Source: Field study.

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"It was a structure that was very ill-defined in terms of responsibility and authority - you could never get anyone to put their hand up and say - that's my responsibility....because they weren't - they weren't responsible for marketing, product design - so I brought all of that together..."

Pacesetter CEO Beta.

"I had to demonstrate to the organisation that I was sufficiently serious about customer focus ... I also felt that I couldn't do what I wanted to do if I kept some senior members of the team ... pricing, customer focus and removing senior managers - including a long standing manager - who was replaced with a manager from outside the area who had a reputation for being a big booted policeman type - those were the major changes."

Pacesetting CEO Zeta.

As can be seen from Figures 9.3 and 9.4 alterations to the formal structure to initiate the process of organisational change is one of the characteristics that separate Pacesetters from Followers. Only one Follower, Epsilon, altered the formal structure at this point, but this involved only geographic centralisation. Pacesetting CEOs focused on two elements of the formal structure, customer focus and increasing formalised accountability for customer groups and profit. These alterations were part of Pacesetting CEOs attempts to challenge established shared values in the organisation. The importance of the first alterations to the formal structure are described by business level informants within the Pacesetters:

"I think that the structural issues were of significant importance and from the structural factors came the building of strategy - the changes to structure clearly had a major impact on strategy decisions and the way that the change process was decided."

Alpha personal insurance informant.

"Looking at the seven dimensions of an organisation that we use, which of these do you think created the largest barriers to change?"

"I would say the formal structure. The culture (or shared values) of the organisation also, because we were coming from a situation where the style really was that top management dictated and people further down the organisation did as they were told and that was it. So the culture of the organisation was not a thinking one and initiative at the business level was not as it should have been. The accountability element was an obstacle, because if people felt that they did not have the power to decide what they wanted to do to achieve an objective, then they could not be accountable for it. So that was a barrier to change of culture. The structure of course, was part of that, because that had been formed to accommodate that sort of dictatorial management process."

Beta personal insurance informant.

We are now in a position to identify that Pacesetting CEOs initiated the change process by making two alterations to the formal structure (i) increases in customer focus and (ii) increases in formalisation to ensure greater accountability for customers and profits. No alterations were made to centralisation. The underlying reasoning behind these changes was the need to challenge shared values. These changes, executed by all four Pacesetters are a distinguishing feature. None of the Followers altered the formal structure, with the exception of Epsilon, where changes focused on geographic centralisation only.

The underlying objectives in respect of these changes are, as we have stated, to break established shared values, being the theoretical argument put forward in the construction of hypothesis $H_{1.1}$.

The result of this hypothesis test is **FOUND** but with one qualification:

(i) No changes are made to centralisation of decision making.

Intended Strategy ($H_{1.2}$):

> $H_{1.2}$ CEOs in organisations that achieve higher levels of business innovation do not change the intended strategy to focus upon business innovation.
> CEOs in organisations that achieve lower levels of business innovation do change the intended strategy to focus upon business innovation.

The quantitative tests:

Stated in the statistical format the hypotheses are:

$H_{1.2}$ The mean business innovation score of organisations where the CEO does not change the intended strategy to focus on business innovation **MINUS** the mean business innovation score of organisations where the CEO does change the intended strategy to focus on business innovation > 0

H_o The mean business innovation score of organisations where the CEO does not change the intended strategy to focus on business innovation **MINUS** the mean business innovation score of organisations where the CEO does change the intended strategy to focus on business innovation $<$ or $= 0$

We conduct the statistical tests in two stages. From the data collected in the field we are able to isolate those organisations that commenced the change without altering intended strategy. These are organisations Alpha, Beta and Zeta, which we will refer to in this hypothesis test as **Group 1**. The remaining organisations (Gamma, Delta, Epsilon, Eta and Theta) are referred to as **Group 2** and focused on developing new intended strategies as part of the first actions to initiate change. We applied a one tailed t-test to Groups 1 and 2 to determine if there is a significant difference in the mean business innovation scores. The result is:

FIGURE 9.5 SIGNIFICANCE TEST: HYPOTHESIS $H_{1.2}$

INITIATION METHOD:	MEAN:	T-TEST [1]	P [2]	DEGREES OF FREEDOM:
Group 1 (n=3): Group 2 (n=5):	53.7 35.5	0.75	0.25	4
Notes: 1. Within this experiment, the t-statistic has to exceed 1.533 being the t-value for 4 degrees of freedom at the .10 level of significance. 2. This statistic indicates how confident we can be that the result did not occur by chance. For the value reported, .25, we only can be 75.0% certain that the means of groups 1 and 2 are significantly different. We conclude that the performance of the two groups are not significantly different.				

This test gives us grounds for rejecting this hypothesis. We however turn to the qualitative tests to ascertain if the absence of effort to develop new intended strategies, when initiating the process of change is a distinguishing characteristic of Pacesetters.

The qualitative tests:

None of our Pacesetting CEOs, with the exception of Gamma, concentrated upon the creation of new strategies as a first step in initiating innovation *before* considering changes to the formal structure discussed above. Gamma's CEO had the opportunity to consider a new corporate level direction within the organisation before his appointment as CEO. However, staff failed to develop the business level innovative effort necessary to support this new corporate level direction and further alterations to the formal structure were required before successful innovative activities appeared.

Therefore, within three of the Pacesetters, attention did not focus directly upon the creation of new intended strategies or any innovative effort until the first changes to the formal structure had been completed:

> "At that point there was no long-term plan - if we didn't get through the next year there wouldn't be a long-term so we purely concentrated on the short-term."
>
> Pacesetting CEO Zeta

> "So the question is did I have a preconceived idea where I was going to take it? The answer must be "no" - other than the mission statement that spelt out all I believed in.
> [*Note to the reader:* Mission statement consists of a set of "values".]
>
> Pacesetting CEO Beta.

The CEO of Alpha reveals that he had more pressing issues than new strategies to consider:

> "I didn't know what the organisation looked like. Many people gave me there opinions [*note to the reader: a reference to ideas for new strategies*]. It soon became obvious that there had to be top management changes - and when they were announced the organisation went into a state of shock."
>
> Pacesetting CEO: Alpha.

As we have seen business level respondents have identified the sequential relationship between intended strategy and changes to the formal structure:

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"I think that the structural issues were of significant importance and from the structural factors came the building of strategy - the changes to structure clearly had a major impact on strategy decisions and the way that the change process was decided."
Alpha personal insurance informant.

The Followers took a different route. The top management team within Delta sought to resurrect a strategic direction originally conceived in 1982, and went to great lengths to secure the human and financial resources in order to do so. Eta, faced with a strategic vacuum, created a small management group, led by an outside consultant, to review the strategy of the organisation. Within this organisation no changes were made to the configuration of the organisation until the formulation of a new strategic direction was completed. Theta's new CEO took the opportunity to openly challenge and even ridicule past strategies, throwing down an instruction to existing managers to devise new strategies for growth through innovation. Epsilon's CEO focused simultaneously upon two issues. The first, as we have observed, was geographic centralisation. The second focused upon the formulation of a new strategic direction.

In answer to the issue of whether Pacesetters are characterised by not focusing on the development of new intended strategies when initiating change we conclude that it is a distinguishing feature as:

(i) Three of our four Pacesetters did not focus upon the creation of new intended strategies when initiating change;

(ii) In the case of the only Pacesetter that did, Gamma, the business innovation efforts failed and further configurational changes were required before innovative activities appeared that were seen as successful;

(iii) All four Followers focused initially on the creation of new intended strategies.

The result of this hypothesis test is therefore **FOUND.**

<u>Staff (H$_{1.3}$):</u>

H$_{1.3}$ CEOs in organisations that achieve higher levels of business innovation do change the top management function to remove those who do not support change.
CEOs in organisations that achieve lower levels of business innovation do not change the top management function to remove those who do not support change.

The quantitative tests:

Stated in the statistical format the hypotheses are:

H$_{1.3}$ The mean business innovation score of organisations where the CEO changes the top management function to remove those who do not support change **MINUS** the mean business innovation score of organisations where the CEO does not change the top management function to remove those who do not support change **> 0**

H$_o$ The mean business innovation score of organisations where the CEO changes the top management function to remove those who do not support change **MINUS** the mean business innovation score of organisations where the CEO does not change the top management function to remove those who do not support change **< or = 0**

We conduct the statistical tests again in two stages. From the data collected in the field we are able to isolate those organisations that commenced the change process with changes to the top management function to remove those that resisted change. These are organisations Alpha, Beta, Gamma, and Zeta, which we will refer to in this hypothesis test as **Group 1**. The remaining organisations (Delta, Epsilon, Eta and Theta) are referred to as **Group 2** and retained, during the initiation phase, established top managers. We applied a one tailed t-test to Groups 1 and 2 to determine if there is a significant difference in the mean business innovation scores. The result is:

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FIGURE 9.6 SIGNIFICANCE TEST: HYPOTHESIS H$_{1.3}$

INITIATION METHOD:	MEAN:	T-TEST[1]	P[2]	DEGREES OF FREEDOM:
Group 1 (n=4):	71.5	4.16	0.013	3
Group 2 (n=4):	17.7			
Notes: 1. Within this experiment, the t-statistic has to exceed 1.638 being the t-value for 3 degrees of freedom at the .10 level of significance. 2. This statistic indicates how confident we can be that the result did not occur by chance. For the value reported, .013, we can be 98.7% certain that the means of groups 1 and 2 are significantly different. We conclude that the performance of the two groups are significantly different.				

This test gives us grounds for accepting this hypothesis. We however turn to the qualitative tests to ascertain if the removal of managers who resist change is a distinguishing characteristic of Pacesetters.

The qualitative tests:

It must be noted that changes to the formal structure were accompanied simultaneously by changes to top management staff in all our Pacesetters:

> "The most important thing to do was to purge top management - they may have been good people but they were not - well - they were committed to their own causes - they didn't understand what was happening around them and what needed to be done to change..."
>
> > Beta commercial insurance informant

> *"Looking at the seven dimensions of an organisation that we use, which of these do you think created the largest barriers to change?"*

> "I would say the formal structure. The culture (or shared values) of the organisation also, because we were coming from a situation where the style really was that top management dictated and people further down the organisation did as they were told and that was it. So the culture of the organisation was not a thinking one and initiative at the business level was not as it should have been. The accountability element was an obstacle, because if people felt that they did not have the power to decide what they wanted to do to achieve an objective, then they could not be accountable for it. So that was a barrier to change of culture. The structure of course, was part of that, because that had been formed to accommodate that sort of dictatorial management process."
>
> > Beta personal insurance informant.

Each Pacesetter made substantial alterations to the top management function to remove those who it was thought would not support the process of change.

This is a major distinguishing characteristic between Pacesetters and Followers. Of the Followers, all retained veteran top managers at this stage in the change process. Within Delta, an extended group of veteran managers was formed to confirm and implement the strategic direction of the organisation. In Epsilon, whilst new management was hired, veteran senior managers were retained whilst the strategic direction of the organisation was reformulated. Established members of the top management team that resisted change were not removed until one year after the commencement of the change process. In Eta a similar position is observed. Existing managers are used to formulate the new direction of the organisation. It is only in the period following formulation of new intended strategies that changes are made to the constitution of the top management team. Again within Theta, whilst new managers are included within the top management function, all veteran managers are retained to play a major role in the efforts to conceive new intended strategies.

We therefore observe a key distinguishing characteristic that separates Pacesetters from Followers. Pacesetters make changes to the constitution of the top management function as part of the first changes to the organisational configuration. Followers, however, retain established managers who typically play a key role in the formulation of new intended strategies.

The result of this hypothesis test is therefore **FOUND.**

Management Style (H$_{1.4}$):

> **H$_{1.4}$**   CEOs in organisations that achieve higher levels of business innovation adopt a dictatorial management style. CEOs in organisations that achieve lower levels of business innovation do not adopt a dictatorial management style.

The quantitative tests:

Stated in the statistical format the hypotheses are:

$H_{1.4}$ The mean business innovation score of organisations where the CEO adopts a dictatorial management style **MINUS** the mean business innovation score of organisations where the CEO does not adopts a dictatorial management style **> 0**

H_o The mean business innovation score of organisations where the CEO adopts a dictatorial management style **MINUS** the mean business innovation score of organisations where the CEO does not adopts a dictatorial management style **< or = 0**

Inspection of Figure 9.1 reveals that changes in management style towards a participative style are significant. However the "administrative-participative" scale does not embrace a "dictatorial" management style. For this reason, to test hypothesis H_4 we adopt primarily qualitative approaches.

The qualitative tests:

We examined the case study material for evidence of the management style of CEOs at the point of initiating change. To evidence the existence of a "dictatorial" management style we examined the case study material to determine the degree to which other managers or staff were involved by the CEO in deciding what actions were necessary to instigate change. In respect of our Pacesetters Alpha, Beta, Gamma and Zeta we observed:

(i) In the case of Alpha, Gamma and Zeta the design of the formal structure and the reconstitution of the top management function was carried on by the CEO alone.

(ii) In the case of Beta, only one newly appointed top manager was consulted.

In respect of the Followers a more disparate picture emerges. Within Delta top managers adopt what is described as a "more caring" attitude towards staff. Within Eta no change in management style was detected. Only in Epsilon and Theta is a more directive or "interventionist" style noted in the case studies, but in the case of Epsilon actions are agreed in conjunction with other top managers and in the case of Theta the CEO calls upon middle managers to instigate actions.

In view of the consistent approach taken by Pacesetting CEOs to impose changes designed solely by themselves even without the participation of the whole top management function the result of this hypothesis test is **FOUND.**

Skills ($H_{1.5}$):

$H_{1.5}$ CEOs in organisations that achieve higher levels of business innovation increase skill specialisation through training in the organisation.
CEOs in organisations that achieve lower levels of business innovation do not increase skill specialisation through training in the organisation.

The quantitative tests:

Stated in the statistical format the hypotheses are:

$H_{1.5}$ The mean business innovation score of organisations where the CEO increases skill specialisation through training **MINUS** the mean business innovation score of organisations where the CEO does not increase skill specialisation through training in the organisation > **0**

H_o The mean business innovation score of organisations where the CEO increases skill specialisation through training **MINUS** the mean business innovation score of organisations where the CEO does not increase skill specialisation through training in the organisation < **or =** **0**

Reference again to Figure 9.2 reveals a significant association between increases in skill specialisation and increased business innovation activity. We

must however make reference to the qualitative data to identify when the process of increasing skill specialisation began.

The qualitative tests:

We will examine the actions of Pacesetters and Followers separately.

The Pacesetters:

Alpha: Actions to initiate change do not include any attempt to increase skill specialisation. Alterations to the organisational configuration to initiate change focus upon the formal structure and composition of the top management function only. Within this organisation, actions to increase skill specialisation take place during the reinforcment phase of the change process.

Beta: Actions to initiate change focus upon the formal structure and composition of the top management function. Actions to increase skill specialisation through training and hiring of new staff only appear in the reinforcing phase, some twelve months after the first actions of the CEO to initiate change in the organisation.

Gamma: Changes made by the CEO the organisation's configuration to initiate change do not embrace skill specialisation. Within this organisation, increases in skill specialisation, particularly with regard to the business development process appear some fifteen months after the start of the change process following the failure of the organisation's first attempts to produce new products.

Zeta: Within this organisation increases in skill specialisation, notably with regard to the business development process do not appear until secondary changes are made to the formal structure, approximately two years after the commencement of the change process.

The Followers:

Delta: Changes to skills appear after introduction of the new formal structure. Initial actions to commence the change process focus upon the introduction of a reconfirmed strategic direction.

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Epsilon: Actions by the CEO to initiate change do include increases in skill specialisation, primarily through hiring new staff.

Eta: Increases in skill specialisation do not appear until approximately twelve months after commencement of the change process. Skill specialisation, when it appears, is limited to a small group of middle managers.

Theta: No actions to increase skill specialisation could be detected.

Examination of the case study material does not provide evidence to support this hypothesis.

The result of this hypothesis test is therefore **NOT FOUND**

Shared Values ($H_{1.6}$):

$H_{1.6}$ CEOs in organisations that achieve higher levels of business innovation increase the motivation to change by encouraging a greater understanding of the competitive environment.

CEOs in organisations that achieve lower levels of business innovation do not increase the motivation to change by encouraging a greater understanding of the competitive environment.

The quantitative tests:

Stated in the statistical format the hypotheses are:

$H_{1.6}$ The mean business innovation score of organisations where the CEO increases the motivation to change by encouraging a greater understanding of the competitive environment **MINUS** the mean business innovation score of organisations where the CEO does not increase the motivation to change by encouraging a greater understanding of the competitive environment > 0

H_o The mean business innovation score of organisations where the CEO increases the motivation to change by encouraging a greater understanding of the competitive environment **MINUS** the mean business innovation score

of organisations where the CEO does not increase the motivation to change by encouraging a greater understanding of the competitive environment **< or = 0**

Again inspection of Figure 9.2 reveals a significant difference between the mean increases in the motivation to change between Pacesetters and Followers providing some preliminary support for this hypothesis. It will be necessary to turn to qualitative analysis to determine *when* the increases in motivation to change took place.

The qualitative tests:

To conduct this test we examined the outcome state of each Pacesetter directly after the CEOs had executed the first changes in the initiation phase. In terms of our Pacesetters the results in all cases were described as fear and uncertainty:

> "It soon became obvious that there had to be top management changes and when they were announced the organisation went into a state of shock."
>
> Pacesetting CEO Alpha.

> "There was a culture of fear at that time, although the CEO might not like me to say that. People were very frightened because (a) they did not know what the change would bring and (b) they did not understand what the change would be. The CEO's view and communication with senior management was initially some very straight talking, telling us that the Company was in very poor shape, which we knew, there had to be some major changes, which we knew, but it led to people feeling very insecure - and in some cases quite rightly so."
>
> Personal insurance informant Beta.

> "From the traditional core there was a great deal of concern - a scepticism with regard to the structure ... there was also a great deal of concern because it was obvious that there had not been any changes before."
>
> Business level informant Gamma.

> "an awful lot of the older, more traditional managers were being asked to leave the company. Before this started - I was the only person to have recommended anyone for redundancy and you would have thought the world had ended - then my manager was pilloried - it occurred to us that we had a whole skill set that was obsolete."
>
> Zeta Commercial Insurance Informant.

Inspection of the case study material reveals that the objectives of Pacesetting CEOs *at this point in the change process* was not to increase the motivation to change but to shock the organisation and to challenge existing values and perceptions:

> "The truth was hidden - probably they didn't know the depth of the problems and they felt they could trade out of anything - a traditional response."
>
> Pacesetting CEO Beta

Our conclusion is therefore that Pacesetters focused on breaking existing shared values as opposed to creating the motivation to change.

Followers are characterised by an absence of consistent actions to change or manage shared values within the organisation.

The result of this hypothesis test is therefore **NOT FOUND**

Hypotheses $H_{1.1}$ to $H_{1.6}$: Review of the tests

For the convenience of the reader the result of the tests for hypotheses $H_{1.1}$ to $H_{1.6}$ are summarised in Figure 9.7. These hypotheses focus upon the first actions of CEOs to initiate change in their organisations.

It can be concluded at this stage that during the initiation phase the following actions differentiate Pacesetters from Followers:

(a) Pacesetters make simultaneous changes to the formal structure and top management staff. Alterations to the formal structure focus on increasing customer focus and formalisation. Members of the top management function who are perceived as not supporting the process of change are removed.

(b) Pacesetters do not attempt to develop new intended strategies at this stage in the process of organisational change.

HYPOTHESIS $H_{1.1}$ (Formal Structure) FOUND
Pacesetters change the formal structure to increase customer focus & formalisation

HYPOTHESIS $H_{1.2}$ (Intended Strategy): FOUND
Pacesetters do not change intended strategy during initiation

HYPOTHESIS $H_{1.3}$ (Staff): FOUND
Pacesetters do remove those that resist change from the top management function

HYPOTHESIS $H_{1.4}$ (Management Style): FOUND
Pacesetters do have CEOs that adopt a dictatorial management style.

HYPOTHESIS $H_{1.5}$ (Skills): NOT FOUND
Pacesetters do not increase skills during the initiation phase

HYPOTHESIS $H_{1.6}$ (Shared Values): NOT FOUND
Pacesetting CEOs focus upon challenging existing shared values during the initiation phase

INITIATION

Source: Field study data

(c) Pacesetting CEOs adopt a dictatorial management style. Changes to the formal organisation and top management staff and designed, typically, by the CEO alone.

(d) The primary objective of Pacesetting CEOs is to challenge the existing shared values within the organisation.

9.3.2 Reinforcement

The following hypothesis tests focus upon the actions of CEOs as they attempt to *reinforce* the configurational changes made to *initiate* the process of change.

Formal Structure Hypothesis $H_{2.1}$

$H_{2.1}$ CEOs in organisations that achieve higher levels of business innovation do not make changes to the formal structure.
CEOs in organisations that achieve lower levels of business innovation do change the formal structure to support the new intended strategy developed in the initiation phase.

The quantitative tests:

Stated in the statistical format the hypotheses are:

$H_{2.1}$ The mean business innovation score of organisations that do not make changes to the formal structure **MINUS** the mean business innovation score of organisations that do make changes to the formal structure to support the new intended strategy developed in the initiation phase > 0

H_{o} The mean business innovation score of organisations that do not make changes to the formal structure **MINUS** the mean business innovation score of organisations that do make changes to the formal structure to support the new intended strategy developed in the initiation phase $<$ **or** $= 0$

The quantitative tests:

As we have observed from inspection of Figure 9.1 Pacesetters are characterised by changes in the formal structure. It will be necessary to make reference to qualitative data to determine whether or not any subsequent changes to the formal structure were made to reinforce those referred to in the tests for Hypothesis $H_{1.1}$.

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The qualitative tests:

Inspection of Figure 9.2 will reveal a commonality in approach. Alpha, Beta, Gamma and Zeta (the Pacesetters) all used a *second* wave of configurational alterations, initially in the formal structure, that would stimulate business innovation. The initial changes to the formal structure executed by Pacesetting CEOs proved to be incapable of directly stimulating business innovation:

> "We went away to build a new team - we wanted to discover what we should be doing next to gain greater customer focus .... There was a feeling that we should move to a more finely focused operation - I asked the question: "Do we need a set of businesses below me?"
>
> Pacesetting CEO Zeta

The alterations to the formal structure concentrated on further increasing customer focus, and devolving resources and authority to newly formed business units or "mini businesses":

> "We wanted to create self-contained business units - we said if you want to make people accountable you had to give them the resources. This second structure was again designed by me on my own in a corner - but it all really grew from the ideas we were developing."
>
> Pacesetting CEO Zeta

Within Pacesetters the secondary changes to the formal structure embrace the introduction of cross functional groups with responsibility for business innovation (Alpha, Gamma); dissolution of marketing departments and the transfer of business innovation activities into business units (Beta) and the introduction within Zeta of business units with finer levels of customer focus (described as "mini businesses") to encourage team working. These are described in more detail below.

This second change to the formal structure is seen by informants as the key point for business innovation:

"So we then had a better focused organisation and it was then that things started to happen. One was greater strategic focus - and certain ideas were starting to correlate ..."

<div align="right">Pacesetting CEO Zeta</div>

"It was then that we realised the stupidity of our past actions ... under this new structure we built teams to look after the needs of groups of brokers - we also started from the end of 1994 to do research into what our customers wanted - it was at that point that we discovered what marketing could do."

<div align="right">Commercial insurance informant - Zeta</div>

"The key date was a move to mini businesses in 1994 when customer services was sub-divided. In this period we were becoming a very much more marketing led company we were actually going to do a lot more and to take risks - we had an AGM who was well disposed to experimentation and there were no retributions if things went wrong - there were one or two symbolic projects to shake people up."

<div align="right">Personal insurance informant - Zeta</div>

Figure 9.8 graphically shows the temporal relationship between the major configurational changes within Zeta and business innovation activity.

FIGURE 9.8 BUSINESS INNOVATION ACTIVITY AND CONFIGURATIONAL CHANGE IN ZETA (PACESETTER)

Note: Business innovation activity measured in terms of completed offer and market innovation, including product improvement and process innovation. "A" refers to first half of relevant calendar year, "B" the second.
Source: Field study.
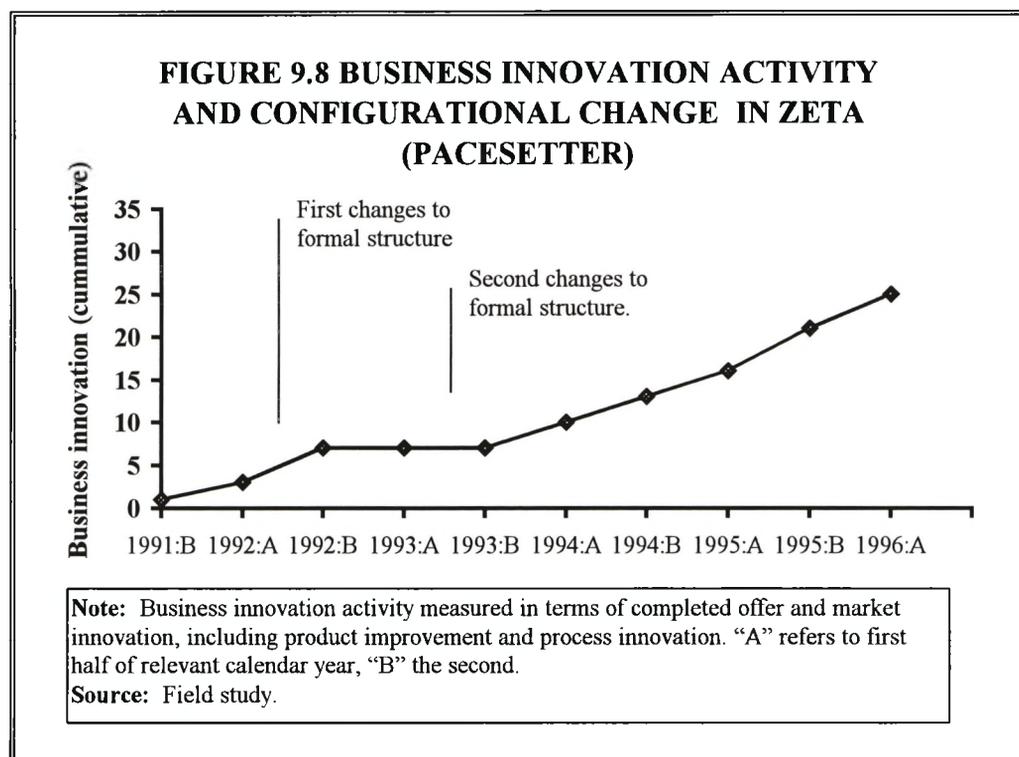
Within Beta, similar structural changes are observed. None of our Pacesetting informants reported that the first changes, during the initiation phase, to the formal structure stimulated business innovation.

Two events are described by business level informants in Beta as being responsible for the initiation of innovation:

1. A period of reskilling followed by the decentralisation of decision making authorities;
2. A second change in formal structure that included (i) the disbanding of the separate marketing department (to overcome the remaining power conflicts) and (ii) further increases in customer focus.

Both the secondary structural changes described above for Zeta and Beta were designed by members of the top management team. Figure 9.9 illustrates the temporal relationships between changes in the formal structure and business innovation activity in Beta.

Within Alpha, secondary changes to the formal structure designed by top management are again evident:

> "In early 1993 we blocked the development of new products for a while because we didn't have the infrastructure in place - so it was pointless building new products until you've got you're act together with internal administration - and that was part of my role - I knew how departments should work."
>
> Commercial insurance informant - Alpha

FIGURE 9.9 BUSINES INNOVATION ACTIVITY AND CONFIGURATIONAL CHANGE IN BETA (PACESETTER)
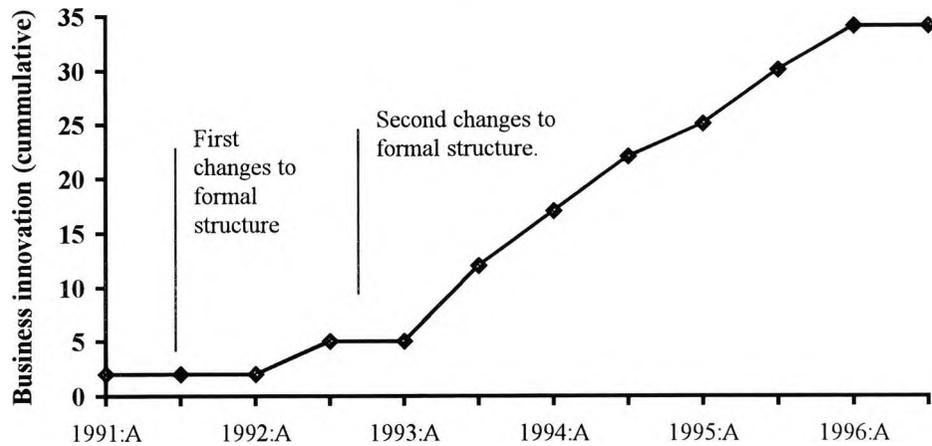
Note: Business innovation activity measured in terms of completed offer and market innovation, including product improvement and process innovation. "A" refers to first half of relevant calendar year, "B" the second.
Source: Field study.

Two routes were taken to reinforce the first changes, (i) skill building and (ii) the establishment of planning groups, initially designed by the CEO, which would eventually evolve into structures to manage and steer business innovation activity. The necessity to clear barriers in the formal structure of the mature organisation is evidenced by business level informants:

> "Without the right structure and environment you can never get the strategy and planning to work properly."
>
> Personal insurance informant Alpha

Again, we demonstrate the temporal relationship between these structural changes and business innovation activity for Alpha in Figure 9.10.

FIGURE 9.10 BUSINESS INNOVATION ACTIVITY AND CONFIGURATIONAL CHANGE IN ALPHA (PACESETTER)
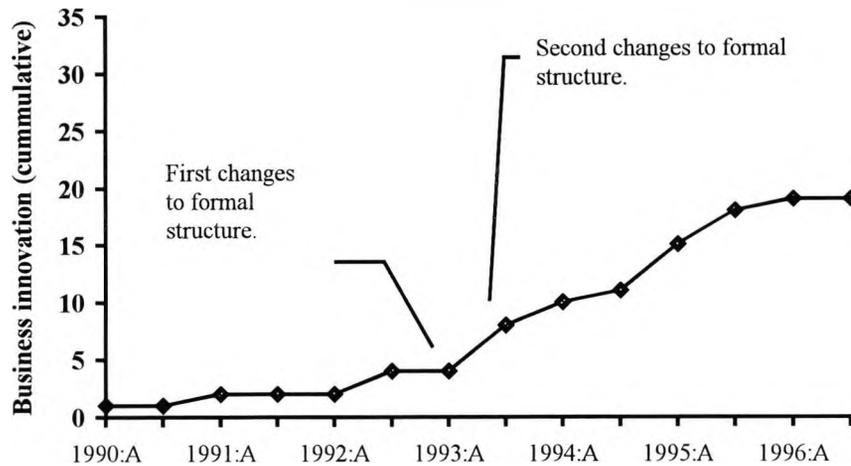
Note: Business innovation activity measured in terms of completed offer and market innovation, including product improvement and process innovation. "A" refers to first half of relevant calendar year, "B" the second.
Source: Field study.

Turning to the final Pacesetter, Gamma, the first changes to the formal structure introduced in the initiation phase failed to stimulate successful business innovation activity:

"But from there we had to move it on and look at the development of products and services - finding out what the customer needed - and that's when we hit problems ... in that first year the sales of the new concept - services - were very poor and we thought there was a conceptual difficulty - some people didn't understand what we had to sell. If the sales people couldn't understand it - how could they sell it to customers?"

Business level informant Gamma

In response to this crisis Gamma turned to skill and structural solutions:

"So we had to take a step back and implement a series of training sessions - a great deal of training - and this is when I began to get involved in the creation of multi-purpose product development teams."

Business level informant Gamma

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The "multi purpose teams", as in Alpha, were conceived and designed by the top management team and are referred to as the key point for business innovation. The temporal relationship between these changes and business innovation activity is shown in Figure 9.11.

FIGURE 9.11 BUSINESS INNOVATION ACTIVITY AND CONFIGATIONAL CHANGE IN GAMMA (PACESETTER)

Note: Business innovation activity measured in terms of completed offer and market innovation, including product improvement and process innovation. "A" refers to first half of relevant calendar year, "B" the second. It should be noted in this case that the products launched before the second half of 1994 failed to meet the company's success criteria.
Source: Field study.

We conclude that, within Pacesetters, there is firm evidence of secondary changes in the formal structure, which are seen by informants as a key enabling mechanism for business innovation.

The result of this hypothesis test is therefore **NOT FOUND.**

<u>The Informal Systems (H$_{2.2}$):</u>

H$_{2.2}$ CEOs in organisations that achieve higher levels of business innovation encourage changes to informal systems.
CEOs in organisations that achieve lower levels of business innovation do not encourage changes to informal systems.

The quantitative tests:

Stated in the statistical format the hypotheses are:

H$_{2.2}$ The mean business innovation score of organisations where CEO does encourage changes to informal systems **MINUS** the mean business innovation score of organisations where CEO does not encourage changes to informal systems **> 0**

H$_o$ The mean business innovation score of organisations where CEO does encourage changes to informal systems **MINUS** the mean business innovation score of organisations where CEO does not encourage changes to informal systems **< or = 0**

Inspection of the quantitative information provided in Figure 9.2 does not reveal significant differences in the alterations to informal systems between Pacesetters and Followers. We therefore revert to analysis of qualitative data to identify if changes within informal systems have taken place that the quantitative measures may have failed to detect.

The qualitative tests:

To delineate between changes to the informal systems as opposed to the formal structure we examined the case study material to determine the locus of design. As introduced in Chapter 3 the formal structure relates to the controls and procedures as laid down by top management whereas the informal systems, as Sathe (1978) observes, is concerned with the actual behaviour of staff at the

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business level as they go about the day to day tasks of producing the organisation's products and services. For the purposes of qualitative analysis, to delineate between changes to the formal structure and informal systems we asked one question: "were the alterations to day to day systems designed by top management or business level staff?" If the latter was the case we take this as evidence of change in the informal systems. On the other hand, changes made at the instigation of top managers are interpreted as alterations to the formal structure.

Analysis of the case study material provides preliminary evidence of changes in the informal systems within three Pacesetters (Alpha, Gamma and Zeta). In the case of Alpha, managers at the business level present plans to introduce new product development and R & D systems some twelve months after the secondary changes to the formal structure described above. The primary enabling mechanisms are seen as an increase in skills, particularly business planning and increasing confidence. Within Gamma, top managers allowed the "multi purpose teams" to become self managed entities that became fully responsible for business innovation activity:

> "Halfway through 1995 I suddenly found that I didn't need to refer to anyone because they had confidence in what we the product development group were doing."
>
> Business level informant Gamma

Experiences within this group led to recommendations for further structural change to reinforce product development activities to be made by members of this group to top management, which were ratified and implemented.

Amongst our Followers, no changes to the informal systems that were encouraged and supported by top management could be detected. Within Delta the product development group was a "work around" the more formal product development group introduced by top managers. In this organisation, business level staff perceived opportunities within the competitive environment and in the absence of direction from top management, established their own

product innovation practices. Within Eta "empowered" groups at the business level lasted for a short period only, possibly due to the absence of any initiatives to encourage a reorientation in shared values across the organisation as a whole. Within Epsilon and Theta no evidence could be found of initiatives emanating from the business level within the organisation to change either working or business innovation practices. Both organisations are characterised by organisational change programmes that focus primarily upon changes to the formal structure.

Although preliminary evidence only exists to support this hypothesis our conclusion is **FOUND**, although in must be noted that changes to informal systems occur after secondary changes to the formal structure.

Intended Strategy ($H_{2.3}$):

$H_{2.3}$ CEOs in organisations that achieve higher levels of business innovation do change the intended strategy to focus upon business innovation in the reinforcement stage. CEOs in organisations that achieve lower levels of business innovation maintain the intended strategy developed in the initiation phase.

The quantitative tests:

Stated in the statistical format the hypotheses are:

$H_{2.3}$ The mean business innovation score of organisations where CEO does change the intended strategy to focus upon business innovation in the reinforcement stage **MINUS** the mean business innovation score of organisations where CEO maintains the intended strategy developed in the initiation phase **> 0**

H_o The mean business innovation score of organisations where CEO does change the intended strategy to focus upon business innovation in the reinforcement stage **MINUS** the mean business innovation score of organisations where CEO maintains the intended strategy developed in the initiation phase **< or = 0**

In terms of the sequence of change, the underlying theoretical assumption is that CEOs will turn their attention to the creation of new intended strategies *after* effecting the configurational changes that it is hypothesised are necessary to *initiate* the process of change. The quantitative analysis presented in Figure 9.2 is inconclusive.

We therefore resort to qualitative analysis to define when new intended strategies for business innovation appeared.

The qualitative tests:

The case study material clearly indicates that the changes made to the configuration of the mature organisation to *initiate* change do not provide an adequate environment for the creation of new intended strategies to focus upon business innovation within Pacesetters. Material drawn from two of our Pacesetters, Alpha and Gamma illustrates this point.

In the case of Alpha, the CEO asked business level managers to prepare new plans, after having made alterations to the formal structure and top management staff to initiate the process of change. The CEO related the results as follows:

> "I had invited the business level managers to give me their plans for 1994 and I told them this must be a bottom up plan. They were going to tell me how we were going to gain competitive advantage. And I was never, I hope, again to be so depressed with the results. In a session set up months ahead for July 1993 the managers were to present their views on a total organisational plan. I expected good results - but at the end of the meeting I said I was very, very depressed about the quality of the presentations and that a considerable effort was needed to get thinking up to the required standard. There was no ownership - it was all very depressing."
>
> Pacesetting CEO Alpha

The failure to produce plans and strategies to the required standard is put down by business level informants to:

1. Absence of planning skills; and

2. Difficulty in adjusting to the creation of plans at the business level, as in the past strategy creation had been the domain of top managers only.

Gamma's situation initially appeared to be different. The first attempts to change the configuration (a new corporate level direction a new formal structure and top management staff firings) had produced, early in the transition stage, product development activity and a state of euphoria. But this was to be followed by the realisation that the new products were not selling and that the organisation was failing to meet its planned objectives. As we have observed, further configurational changes were necessary to introduce more successful business innovation activity. In the cases of Beta and Zeta, neither organisation aimed to produce new plans for business innovation during their first attempts to change the organisation's configuration. Beta's objectives were to remove barriers to change and create an understanding within the organisation of the "truth". Zeta's objectives were to challenge existing values, breakdown barriers and achieve a rapid financial recovery, when these objectives had been achieved, Zeta's CEO realised that a different approach would be needed to stimulate innovation:

> "In the new structure the ideas were coming in from the bottom and the top with the people in the middle being very much squeezed. The middle layer of long standing managers seemed to get in the way for a period ... and we brought new managers into the general insurance operation ... these changes were partly necessary because some of the managers we had brought in 1991/2 were great at instigating change but we needed a different management style to take things forward - the earlier managers were good unblockers - we needed now the men to grow the business."
>
> Zeta CEO

Examination of the case study material in respect of Pacesetters reveals that new intended strategies, at the business, appeared at the following points in the change process:

Alpha: Following introduction of secondary changes to the formal structure, increases in planning and business development skills and a change in top management style from "interventionist" to one of encouraging experimentation..

Beta: Secondary changes to the formal structure, changes in management style to encourage experimentation, dissolution of marketing department and major skill improvement and market research programmes are important precursors to the development of new intended strategies.

Gamma: Enduring business development activity and the creation of new intended strategies at the business level are preceded by secondary changes to the formal structure, skill improvement programmes and the launch of major research programmes to identify the true needs of target customer groups.

Zeta: Five key changes can be identified from the case study. Firstly a period of learning following the first changes to the organisation's configuration. This learning challenged established perceptions of the competitive environment. Secondly, the introduction of new managers and a management style that encouraged innovation. Finally increased activity to improve business development skills accompanied by market research initiatives.

Clearly, further changes to the configuration of the organisation are required in the reinforcement phase before new intended strategies and enduring business innovation activities appear.

The result of this hypothesis test is therefore **NOT FOUND**

Staff ($H_{2.4}$):

> $H_{2.4}$ CEOs in organisations that achieve higher levels of business innovation increase the proportion of staff employed at the business level.
> CEOs in organisations that achieve lower levels of business innovation do not increase the proportion of staff employed at the business level.

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The quantitative tests:

Stated in the statistical format the hypotheses are:

$H_{2.4}$ The mean business innovation score of organisations where the CEO does increase the proportion of staff employed at the business level **MINUS** the mean business innovation score of organisations where the CEO does not increase the proportion of staff employed at the business level **> 0**

H_o The mean business innovation score of organisations where the CEO does increase the proportion of staff employed at the business level **MINUS** the mean business innovation score of organisations where the CEO does not increase the proportion of staff employed at the business level **< or = 0**

Inspection of Figure 9.2 reveals that changes in the distribution of staff towards the business level are significantly different, at the 10% level, but the Pearson correlation coefficient of 0.375 suggests no association between staff movements and business innovation. We therefore turn to qualitative analysis to determine if the movement of staff to the business level is a characteristic of Pacesetters.

The qualitative tests:

Examination of case study material confirms that Pacesetting CEOs concentrated during the reinforcement phase on redistributing staff and hiring new staff from competitors and other industries. Specifically, changes in the distribution of staff took place at the following points in the change process amongst Pacesetters:

Alpha: The size and influence of supporting areas including finance, and human resources were reduced following the first configurational changes to instigate change.

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Beta: Hiring of external staff at the business level commences after secondary changes to the formal structure, approximately nine months after the change process is initiated. The objective of the recruitment programme is to increase pricing and business development skills in the organisation.

Gamma: Staff from this organisation's new parent were brought in immediately after the first configurational changes. The staff brought with them change management and insurance technical skills.

Zeta: A major "delayering" programme commences after the first changes to the configuration. The objective of this programme was to reduce firstly middle and top management layers, secondly to reduce the proportion of established staff in the fifty plus age group. Two years after this programme commences, external staff are brought into the organisation with the objective of increasing business development and pricing skills.

CEOs in Followers took a more disparate approach. Delta did hire new staff at the business level, but focused on increasing the proportion of middle management staff in non business areas. Eta made changes only towards the end of the change process and Epsilon and Theta made no significant changes to the distribution of staff over the entire change process.

The conclusion in respect of this hypothesis test is **FOUND.**

Management Style (H$_{2.5}$):

> **H$_{2.5}$** CEOs in organisations that achieve higher levels of business innovation change their management style from dictatorial to participative.
> CEOs in organisations that achieve lower levels of business innovation maintain an administrative management style.

The quantitative tests:

Stated in the statistical format the hypotheses are:

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$H_{2.5}$ The mean business innovation score of organisations where the CEO does change his/her management style from dictatorial to participative **MINUS** the mean business innovation score of organisations where the CEO maintains an administrative management style > 0

H_o The mean business innovation score of organisations where the CEO does change his/her management style from dictatorial to participative **MINUS** the mean business innovation score of organisations where the CEO maintains an administrative management style $<$ **or** $= 0$

Inspection of Figure 9.2 reveals that changes in management style towards a "participative" focus are significantly different, Pacesetters increasing the focus upon "participative" management to a greater extent than Followers. Whilst there is therefore provisional support for the hypothesis we turn to qualitative analysis again to determine when any shift in management style occurred.

The qualitative tests:

Examination of case study material provides evidence to support a change in management style amongst Pacesetting CEOs at the time of making the secondary changes to the formal structure described above. The shift is described by CEOs in Alpha and Zeta:

"In the new structure the ideas were coming in from the bottom and the top with the people in the middle being very much squeezed. The middle layer of long standing managers seemed to get in the way for a period ...... and we brought new managers into the general insurance operation ... *these changes were partly necessary because some of the managers we had brought in 1991/2 were great at instigating change but we needed a different management style to take things forward - the earlier managers were good unblockers - we needed now the men to grow the business.*"
Pacesetting CEO Zeta (*italics added*)

"We just muddled through until the end of 1993. A year later - we were making progress - it took time for people to develop trust in me - remember I fired a lot of people - also there was skill building going on. The difference in mid 1994 - the situation was totally different. *We gave people the opportunity to make mistakes - they were shot in the old organisation - we don't shoot people here if they make mistakes with the right intention. I guess I encouraged a more participative management style in the problem period. This was very important in skill maturing.*"
Alpha CEO (*italics added*)

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Within the Pacesetters, the following shifts in management style are noted:

Alpha: The objective of the first configurational changes were, as we have observed, to stimulate managers to produce new intended strategies for growth through organic business development. The failure of managers to produce new strategies was identified as an absence of planning skills, lack of information and a history of top managers formulating and directing the strategic direction of the organisation. In response, the CEO resorted to two courses of action. The first was a programme of skill building personally managed and executed by the CEO, the second being the adoption of a "forging and supportive" top management style.

Beta: The CEO describes a shift in style to one of supporting innovation at the point when secondary changes are made to reinforce the configurational changes made to instigate the process of change. The CEO describes one his major roles is as a regular communicator to staff at the business level in the organisation.

Gamma: The CEO describes a shift in style form "interventionist" to "watchman" towards the end of the change process, when it has been demonstrated the performance of new business development initiatives has exceeded plan objectives.

Zeta: A clear shift in management is evident accompanied by secondary changes to the formal structure. Notably, managers introduced with the specific role of breaking down barriers at the commencement of the change process are consciously replaced by those thought capable of encouraging experimentation and innovation.

Again in Followers a clear pattern is not discernible. Only in Epsilon does the case study reveal a shift in the style of the CEO to one of encouraging innovation. In Theta, the real time case study, the process of reinforcement is characterised by an administrative management style with little staff contact. The case study reveals that specific initiatives that may evidence a change in

management style were blocked at a top management level. These include the failure of top managers to support research into new product areas, resistance to the introduction of improved staff communication systems and the absence of initiatives to encourage staff at the business level to produce business plans. Some business level respondents amongst Followers noted an increasing distance between top management and business level staff:

> "I don't know if it was a vacuum throughout the Company or just from where I was, because it was quite obvious that something was going on, at general management level which was occupying their minds. We did not know what it was. So we had to sit back and think of what we should do ourselves."
>
> Personal insurance informant Delta

Of the Followers, only Epsilon effected a shift in management style during the period of reinforcement.

Our conclusion in respect of this hypothesis test is **FOUND.**

Skills ($H_{2.6}$):

$H_{2.6}$ CEOs in organisations that achieve higher levels of business innovation increase skill specialisation in the organisation.
CEOs in organisations that achieve lower levels of business innovation do not increase skill specialisation.

The quantitative tests:

Stated in the statistical format the hypotheses are:

$H_{2.6}$ The mean business innovation score of organisations where the CEO does increase skill specialisation in the organisation **MINUS** the mean business innovation score of organisations where the CEO does not increase skill specialisation in the organisation **> 0**

H_o The mean business innovation score of organisations where the CEO does increase skill specialisation in the organisation **MINUS** the mean business innovation score

of organisations where the CEO does not increase skill specialisation in the organisation **< or = 0**

Inspection of Figure 9.2 reveals that changes in skill specialisation are significantly different, Pacesetters increasing specialisation and Followers reducing skill specialisation. Whilst there is therefore provisional support for the hypothesis we turn to qualitative analysis to determine the sequence of events and the focus of skill specialisation.

The qualitative tests:

Case study material reveals that all Pacesetters are characterised by a focus upon increasing skills in the areas of planning and product development. The process of increasing skills was carried out typically in parallel with the alterations to formal structure and management style implemented during the reinforcement phase. Alpha's CEO placed an emphasis on skill "maturing". Business level respondents report the introduction of new skills as being an important enabling mechanism for business innovation:

> "There were two enabling forces - one was the patronage we had from our general manager at that time *he said these new scientific skills aren't a black art - we're going into the 1990's - he was there helping us to do it and secondly we had a much richer range of disciplines* - they started for new product development in 1994. One of the inhibiting factors was basically we had an antagonistic relationship with other functions and in 1994 these were broken down."
>
> Personal insurance informant - Zeta *(italics added)*

Skill development initiatives on the part of Pacesetters are characterised as follows:

Alpha: Specific programmes led personally by the CEO to increase the planning and analytical skills of business level managers characterise the reinforcement phase during the process of change. These initiatives were to cover a period of one year and took the form of planning and discussion groups that met on a weekly basis supported by management "awaydays". The

planning groups evolved into teams that would generate ideas for new business development under the direction of business level managers.

Beta: A programme to increase the skills and proportion of staff operating at the business level is a significant feature of the process of change in this organisation. As part of the secondary changes to the organisation's configuration a programme of skill testing was executed. This was followed by a major period of skill building and hiring external staff. The skill building operation was specifically aimed at developing product pricing skills.

Gamma: Within this organisation, skill building can be observed in two phases. The first followed immediately upon efforts to instigate the process of change and focused upon increasing change management and product development skills. The second occurred during the reinforcement phase following the failure of Gamma's first efforts at developing business innovation initiatives.

Zeta: Examination of the case study material reveals again two periods of skill development. The first is described as a "period of learning" and relates to the dismantling of established views of the competitive environment following the first changes to the formal structure and composition of the top management function. The second period of skill building follows in the reinforcement phase and focuses upon R & D, product development, planning and structural design skills.

Followers again took different routes. Epsilon and Delta did place an emphasis upon skill development although only Epsilon focused on importing new skills in the areas of R&D and product development. Delta's efforts focused upon the spreading of traditional insurance pricing strategies amongst business level staff. Theta took no effort at all to invest in training. Within Eta, training was limited to a handful of staff within specialist project groups and was not spread to involve the wider organisation.

The conclusion in respect of this hypothesis test is **FOUND.**

<u>Shared Values ($H_{2.7}$):</u>

$H_{2.7}$ CEOs in organisations that achieve higher levels of business innovation increase the motivation to change. CEOs in organisations that achieve lower levels of business innovation do not increase the motivation to change.

The quantitative tests:

Stated in the statistical format the hypotheses are:

$H_{2.7}$ The mean business innovation score of organisations where the CEO increases the motivation to change **MINUS** the mean business innovation score of organisations where the CEO does not increase the motivation to change **> 0**

H_o The mean business innovation score of organisations where the CEO increases the motivation to change **MINUS** the mean business innovation score of organisations where the CEO does not increase the motivation to change **< or = 0**

Figure 9.2 again reveals a significant difference between changes in the motivation to change between Pacesetters and Followers, Pacesetters putting greater emphasis on increasing the motivation to change. This finding supports hypothesis $H_{2.7}$ but we turn again to qualitative analysis to complete the hypothesis test.

The qualitative tests:

When testing earlier hypotheses we have noted a difficulty in determining a common course amongst Followers. This observation does not apply in respect of this hypothesis test where *the omission of action to manage shared values is the key distinguishing feature of all Followers.*

Analysis of Theta case study material shows no attempt to manage shared values and a total reliance upon changes to the formal structure to shape the

future course of the organisation. Specifically, resistance is noted at the top management level in respect of communication projects that could have been used to unify shared values and increase the motivation to change. It was not until four years after the process of change had commenced that regular organisation-wide communication systems were introduced in Theta. This is an important omission as examination of the case study material reveals that Pacesetting CEOs place particularly emphasis upon establishing regular and efficient communication mechanisms to staff, particularly at the early stages in the change process. In Eta the business level informants reported:

> "Culture failed - that failed abysmally. Its being resurrected now - but it says more about the personalities than it does about anything else - it started in July of 1994 and was abandoned in October - we didn't know what type of culture we wanted - we didn't know what it meant. There was a project meeting between our Human Resources manager and some of the executives - it was done at a very high level - no framework, objectives, reference points - they just wanted to create a culture - the reason why it failed was that we hadn't got our heads around what our new business strategy meant in terms of how do we deal with people and what we have to do with people to make relationships successful."
>
> Personal insurance informant Eta.

> "....we still don't manage change. Things still just happen - we don't seem to be learning. We are still very functional, very hierarchical...."
>
> Commercial insurance informant Eta.

Within Delta, even the top management informant noted a declining motivation to change:

> "Basically, the CEO is very conservative. We did set up a project team to look at the structure of the organisation but their recommendation was that no change was needed - it should evolve."
>
> Top management informant Delta

Finally the response of the business level informant in Epsilon reveals a divided set of shared values:

> "I sometimes think the established staff hold grudges and cling to the past and so that sometimes makes things [*note to the reader - a reference to business innovation*] a lot harder."
>
> Business level informant Epsilon.

The result of this hypothesis test is therefore **FOUND**

9.3.3 Offer, Market and Process Innovation

The final set of supporting hypotheses relate to methods to initiate offer and market innovation on the one hand and process innovation on the other.

Offer and Market Innovation Hypothesis $H_{3.1}$

$H_{3.1}$ CEOs in organisations that achieve higher levels of offer and market innovation initiate *offer and market* innovation by making changes to the formal structure and the top management function to remove those that resist change. CEOs in organisations that achieve lower levels of offer and market innovation attempt to initiate *offer and market* innovation without making changes to the formal structure or the top management staff function to remove those that resist change.

The quantitative tests:

Stated in the statistical format the hypotheses are:

$H_{3.1}$ The mean *offer and market* innovation score of organisations where the CEO makes changes to the formal structure and the top management function to remove those that resist change **MINUS** the mean *offer and market* innovation score of organisations where the CEO does not makes changes to the formal structure and the top management function to remove those that resist change **> 0**

H_o The mean *offer and market* innovation score of organisations where the CEO makes changes to the formal structure and the top management function to remove those that resist change **MINUS** the mean *offer and market* innovation score of organisations where the CEO does not makes changes to the formal structure and the top management function to remove those that resist change **< or = 0**

To carry out the quantitative tests we examined the offer and market innovation scores component of the dependent variable. We divided our sample into two groups. **Group 1** consisted of organisations that did initiate the process of change with alterations to the formal structure and top management staff (Alpha, Beta, Gamma, Zeta). **Group 2** consisted of those organisations that chose other methods (Delta, Epsilon, Eta, Theta). All the organisations in Group 2 failed to achieve any form of extended, radical or new style product innovation or any form of product augmentation or market innovation. We therefore concluded that changes in top management and the formal structure to initiate the change process were significant.

The qualitative tests:

Reviewing the qualitative evidence presented in respect of Hypotheses $H_{1.1}$ and $H_{1.3}$ we concluded that alterations to the formal structure and the composition of the top management function to instigate the process of change are characteristics that separate Pacesetters from Followers.

The conclusion of this hypothesis test is therefore **FOUND.**

Process Innovation Hypothesis $H_{3.2}$

$H_{3.2}$ CEOs in organisations that achieve higher levels of process innovation initiate *process* innovation by making changes to the top management function to remove those who resist change.
CEOs in organisations that achieve lower levels of process innovation attempt to initiate *process* innovation without making changes to the top management function to remove those who resist change.

The quantitative tests:

Stated in the statistical format the hypotheses are:

$H_{3.2}$ The mean process innovation score of organisations initiating process innovation with alterations to the top management function to remove those who resist change **MINUS** the mean process innovation score for organisations initiating process innovation without alterations to the top management function to remove those who resist change **> 0**

H_o The mean process innovation score of organisations initiating process innovation with alterations to the top management function to remove those who resist change **MINUS** the mean process innovation score for organisations initiating process innovation without alterations to the top management function to remove those who resist change **< or = 0**

To carry out the quantitative tests we took the same approach as has been described for Hypothesis $H_{3.1}$. We firstly examined the process innovation scores component of our dependent variable. We then divided our sample into two groups. **Group 1** consisted of organisations that did start the change process with changes to top management staff (Alpha, Beta, Gamma, Zeta). **Group 2** consisted of those organisations that chose to start the process by focusing upon other methods to initiate change (Delta, Epsilon, Eta, Theta). The results of the significance test is now given:

FIGURE 9.12 SIGNIFICANCE TEST: HYPOTHESIS $H_{3.2}$

INITIATION METHOD:	PROCESS INN. MEAN:	T-TEST[1]	P[2]	DEGREES OF FREEDOM:
Group 1 (n=4):	3.50	0.93	0.20	5
Group 2 (n=4):	2.50			
Notes:				
1. Within this experiment, the t-statistic has to exceed 1.476 being the t-value for 5 degrees of freedom at the .10 level of significance.				
2. This statistic indicates how confident we can be that the result did not occur by chance. For the value reported, .0.20, we only can be 80.0% certain that the means of groups 1 and 2 are significantly different. We conclude that the initiation methods are not significantly different.				

The test provides support for the rejection of Hypothesis $H_{3.2}$, but we turn to qualitative analysis to ratify the decision.

The qualitative tests:

Reference to the case study material clearly indicates that Delta, Epsilon, Eta and Theta did not remove members of the top management team to initiate the change process, but all achieved varying degrees of process innovation activity, in one case (Theta) reaching 80% of the process innovation performance of the most successful organisation in this research sample.

The result of the hypothesis test is therefore **NOT FOUND**.

Before proceeding to test the working hypothesis, for the convenience of the reader, we present the findings of Hypotheses $H_{1.1}$ to $H_{1.6}$ and $H_{2.1}$ to $H_{2.7}$ in Figure 9.13 The conclusions to be drawn from Hypothesis tests $H_{1.1}$ to $H_{1.6}$ and $H_{2.1}$ to $H_{2.7}$ are as follows:

(i) Pacesetters implement secondary changes to the formal structure. Only after this point does business innovation activity start. Clear plans in respect of business level intended strategy do not exist before this point.

(ii) Secondary changes to the formal structure are accompanied by changes in the distribution of staff, hiring of new staff and increases in skills.

(iii) The alterations described above are accompanied by a shift in top management style form "dictatorial" to "participative" at this point.

(iv) Examination of two case studies, Alpha and Gamma, point to the locus of design shifting from top management to business level staff after the secondary changes in the formal structure referred to above.

(v) Pacesetters maintain a high motivation to change.

FIGURE 9.13 THE RESULTS OF HYPOTHESIS TESTS $H_{1.1}$ TO $H_{2.7}$

Formal Structure ($H_{1.1}$):
FOUND
■ *Changes to Formal
Structure in
Pacesetters*

Intended Strategy ($H_{1.2}$):
FOUND
■ *No change in
Pacesetters*

Staff ($H_{1.3}$):
FOUND
■ *Top management
changes.*

Managem't Style ($H_{1.4}$):
FOUND
■ *Dictatorial style*

Skills ($H_{1.5}$):
NOT FOUND
■ *No skill increases.*

Shared Values ($H_{1.6}$):
NOT FOUND
■ *Existing values
challenged.*

INITIATION

Formal Structure ($H_{2.1}$):
NOT FOUND
■ *Pacesetters do make secondary
changes to formal structure -
important trigger for business
innovation*

*Intended Strategy ($H_{2.3}$): NOT
FOUND*
■ *New strategies for business
innovation appear after second
changes to formal structure*

Staff ($H_{2.4}$): FOUND
■ *Increased staff at business level,
external staff hired.*

Management Style ($H_{2.5}$): FOUND
■ *Shift to participative.*

Skills ($H_{2.6}$): FOUND
■ *Increases in skills start after
initiation.*

Shared Values ($H_{2.7}$): FOUND
■ *Motivation to change increased
& maintained*

REINFORCEMENT

Informal Structure ($H_{2.2}$):
FOUND
■ *Evidence that locus of design
shifts to business level after
second change to formal
structure.*

*HIGHER LEVELS OF
BUSINESS
INNOVATION*

Source: Field study data

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<u>The working hypothesis H_w</u>

> **H_w** *CEOs in organisations that achieve high levels of business innovation adopt a comprehensive approach when initiating business innovation while CEOs that achieve lower levels of business innovation adopt a less comprehensive approach.*

The quantitative tests:

Stated in the statistical format the working hypothesis is:

> **H_w** The mean business innovation score of organisations where the CEO adopts a comprehensive approach when initiating business innovation **MINUS** the mean business innovation score of organisations where the CEO adopts a less comprehensive approach when initiating business innovation **> 0**
>
> **H_o** The mean business innovation score of organisations where the CEO adopts a comprehensive approach when initiating business innovation **MINUS** the mean business innovation score of organisations where the CEO adopts a less comprehensive approach when initiating business innovation **< or = 0**

The question that must be addressed when testing the working hypothesis is:

"Do the CEOs of organisations that achieve a higher business innovation score adopt a more comprehensive approach to initiating business innovation?"

To answer this question we examine the measurements of the configurations of Pacesetters and Followers at the end of the process of change. In Chapter 8 we demonstrated that there were no significant differences in the configurations of Pacesetters and Followers at the start of the change process. Figure 9.14 presents tests of significance for each configurational element and Pearson's correlation coefficient, relating the measurement of individual configurational elements to the dependent variable.

FIGURE 9.14 SIGNIFICANCE AND PEARSON'S CORRELATION COEFFICIENT TESTS - CONFIGURATIONAL MEASUREMENTS AT THE END OF THE CHANGE PROCESS & BUSINESS INNOVATION

Configurational Element:	Pacesetters: (n=4) Mean: [4]	Followers: (n=4) Mean: [4]	t-test	P [1]	r [2]
1. Formal Organisation:					
1.1 Formalisation:	5.73	3.82	3.13	0.026 (s)	0.887
1.2 Centralisation:	3.73	4.50	0.85	0.22 (ns)	-0.052
1.3 Customer focus	6.00	4.62	2.91	0.022 (s)	0.936
2. Informal Systems:					
2.1 Formalisation:	3.70	4.50	-3.31	0.011 (s)	-0.715
2.2 Centralisation:	2.30	2.78	1.36	0.22 (ns)	-0.143
3. Intended Strategy:	5.43	5.17	1.59	0.086 (s)	0.659
4. Staff (distribution of staff):	5.50	5.25	0.36	0.37 (ns)	0.103
5. Top management style:	5.50	3.50	2.19	0.035 (s)	0.704
6. Skills (specialisation):	5.00	3.53	2.43	0.036 (s)	0.791
7. Shared values:					
7.1 Support for current strategy:	6.22	4.92	4.26	0.012 (s)	0.625
7.2 Motivation to change:	5.98	4.42	3.76	0.006(s)	0.664

Notes:
1. (ns) = not significant, (s) = significant.
2. Following Carter (1980) and Taylor and Dunning (1977) a value in the region of 0.50 indicates a "weak" positive correlation between the dependent and independent variables and a value in the region of .8 indicates a "strong" positive correlation.
3. All forms (product, product augmentation, market and process) of business innovation are considered here with the exception of routine product improvement.
4. Read as the mean score of each configurational element at the end of the change process.
Source: Field study data.

The concept of comprehensiveness was introduced in Chapter 5 to differentiate between first and second order changes. In the case of second order change we expect to see comprehensive change to all configurational elements, including most importantly, shared values. Inspection of Figure 9.10 reveals significant differences between Pacesetters and Followers in each configurational element, excluding staff. Importantly, two issues can be observed. Firstly, the Pearson correlation coefficient indicates that Pacesetters have comprehensively moved to adopt a configuration that supports business innovation. Secondly, measurements in respect of shared values reveal

significant differences between Pacesetters and Followers in the dimensions of both support for the current strategic direction of the organisation and the motivation to continue change. Qualitative findings have already been presented in respect of the test for hypothesis $H_{2.7}$ to support this quantitative finding in respect of shared values. We therefore find support for the question of comprehensiveness, based principally on our finding that only Pacesetters have reoriented shared values, which as Levy (1986) points out is the distinguishing characteristic of second order change in organisations.

9.4 DISCUSSION

This discussion will focus upon the key differences between the paths taken during the change process by Pacesetters and Followers. The discussion is ordered following the seven elements of the organisation's configuration used in this thesis.

We will firstly discuss changes to the *formal structure*. As our hypothesis tests have revealed, changes to formal structure do have a material association with business innovation, most notably in respect of formalisation. Our qualitative analysis reveals that changes in the formal structure at two points in time during the change process are important. Firstly, *at the point of initiating the change process*, alterations to the formal structure do have a material role to play by (i) increasing customer focus which is itself a prelude to the organisation increasing its understanding of its customers and breaking established views of how the organisation should compete in the marketplace and (ii) increasing accountability within the organisation for both customer groups and profitability. These moves, when coupled with changes to top management that will be discussed below, form the first moves of our four Pacesetters. It is however clear that these first, formal structures designed by top management, *are ineffective vehicles for directly stimulating business innovation.*

This is clearly demonstrated in Alpha, Beta, Gamma and Zeta, all of which used secondary changes to the formal structure to stimulate business innovation. We have clearly demonstrated during the hypotheses tests the efficacy of secondary changes to the formal structure, when accompanied by shifts in skills and management style from "dictatorial" to "participative" or one of encouraging experimentation.

None of our Followers used the combination of alterations to the formal structure and the removal of members of top managers to initiate the change process. Followers therefore failed, possibly, to achieve a "purging" of shared values at top management level that was to reappear as a declining motivation to change and differences in future direction in Delta, Epsilon, Eta and Theta at the end of the change process. Indeed our longitudinal case study, Theta, gave us the opportunity to examine the effects of maintaining the entire top management team. Our analysis of meeting minutes, internal reports, researcher's interview notes and external consultants' reports all reveal a divided top management team, with the frequency of the divisions increasing as the process of change progressed.

Before leaving the discussion of the formal structure, comment is required regarding the issue of formalisation. Our quantitative analysis reveals an increase in formalisation amongst Pacesetters that may be surprising when we reflect upon past research in the established innovation literature. We probed our Pacesetting CEOs regarding this issue and it became clear that formalised procedures were necessary both to define accountability and scope of authority. All Pacesetting CEOs wanted to move away from formalised controls that sought to define activity before it occurred towards procedures that defined the boundaries within which managers could make decisions without reference to the CEO.

The role of *informal systems* requires greater analysis during the period following episodes of major change than has been possible in this research.

Examination of the paths followed by Alpha and Gamma reveal that groups and teams designed by staff at the business level may be a characteristic of sustained success amongst Pacesetters. The qualitative data collected in respect of our Pacesetters points to a wave of configurational change emanating from staff at the business level that may act to sustain the newly found innovative capability of Pacesetters. Certainly, the measurements of informal systems taken at the end of the change process indicate a less formal working atmosphere emerging in Pacesetters.

As we have witnessed during our literature review of the "new style" organisations, the fundamental difference between the configuration of the traditional and "new style" organisation is the demise in the dominance of the formal structure as the primary mechanism of control. Within the traditional or mature organisation, we have noted the dominance of the formal structure as a control mechanism. Within the "new style" organisation, the design of work related activities is firmly within the control of staff at the business level in the organisation (as opposed to top management staff in the mature organisation). Our research points to the possibility that the shift in the locus of responsibility for the design of systems and processes that deliver the organisation's offerings shifts from top managers to business level staff after the secondary changes to the formal structure that have been described above.

In terms of *intended strategy*, one of the major conclusions to be drawn from this research is the need for both researchers and practitioners to adopt a more temporally "fine grained" approach to the examination of the relationship between changes to intended strategy and the remaining configurational elements.

As introduced in Chapter 1, there is a demand for research that examines the dynamic relationship between strategy and other configurational elements. Certainly, if we focus for a moment upon the relationship between intended strategy and the formal structure, as we have already noted, the first changes to

the formal structure are generally incapable of stimulating intended, emergent or realised strategy at the business level. Further, we have noted that a second "wave of change" to the formal structure is required to stimulate both intended and emergent strategy at the business level. However, both the first and second "waves of change" to the formal structure are possibly ineffective unless accompanied by changes to other configurational elements. In respect of the first changes to the formal structure, we have already pointed in our hypotheses tests to the need for changes in the constitution of the top management team and the adoption of an "interventionist" management style *in addition* to changes in the formal structure. The secondary changes to the formal structure are accompanied by a shift in both management style and changes in the location in staff and increases in skills. Both these observations underline the need to adopt a more holistic definition of organisational structure when studying the relationship between "structure and strategy".

We will now turn our attention to *staff*. Changes to top management staff to initiate the process of change is one of the single most important moves made amongst Pacesetters. All "purged" the top management team as part of the process of initiating change. The efficacy of this as a single course of action is questionable as our Pacesetters combined changes to top management staff with changes to the formal structure and management style. None of the Followers took this route and we would point to this factor as contributing to the conflict and declining motivation to change that characterises our Followers at the end of the change process.

The question of top management *style* must be considered during the longitudinal process of change. In qualitative terms, we note a shift in style amongst our Pacesetters, from "dictatorial" during the initiation stage to "participative" in the introduction of secondary changes to the formal structure to stimulate innovation. In quantitative terms Pacesetting CEOs spend considerably more of their time on skill building and reviewing the strategic direction of their organisations than the CEOs of Followers, which confirms

the observation of Hamel and Prahalad (1994b) that managers that seek to reshape the competitive environment spend considerably more time considering strategic issues. Pettigrew (1985) additionally points to the importance of continuity of top management leadership during the change process. Of our Followers, two (Eta and Theta) had changes of CEOs during the change process and this obviously impeded the process of crafting the shifts in management style that we have seen amongst Pacesetters. The continuity of having one leader in place throughout the change process may be a central success factor, but such a leader needs to be capable of carefully crafting shifts in management style as the process of change progresses.

We will now examine the issue of *skills*. The presence of increasing specialisation amongst Pacesetters has been highlighted by our significance tests. In qualitative terms, our Pacesetters used the secondary changes to the formal structure as the point at which major increases in skills took place particularly both in understanding the needs of customers and how to manage the process of developing business innovation initiatives.

Turning finally to discuss the issue of *shared values*, amongst Pacesetters, as we have observed, initial changes focus upon challenging old, established shared values. Our interviews and questionnaires all reveal a concentration upon the development of strongly unified shared values and the motivation to change during the reinforcement phase amongst Pacesetters. The presence of such strongly unified values through the period of major change is evident in all our Pacesetters. Interviews, particularly with business level informants, did however, detect the beginnings of a shift in values amongst Pacesetters after the end of the period of major change. Evidence exists that a more challenging culture has started to appear amongst our Pacesetters which may play a major role in preventing the ossification of values within these newly rejuvenated organisations. Informants in Alpha and Zeta observed the creation of a more challenging culture, coupled with a high motivation to continue change, as a relatively recent occurrence:

"In terms of challenging the direction of the company? I think we are moving into that phase - that's starting to come about - its been with me for sometime but its starting to appear out there - probably only in 1995 - I have spoken to you earlier about a confidence factor - I think once they've lived through that for a few months - six months it will develop."

<div align="right">Alpha Commercial insurance informant</div>

"I have noticed a shift in the culture - it comes through change in approach - people stop our top boss in the lift and say *I didn't agree with what you said* or *I'm surprised you did that* - now nobody would have said that to one of the old managers - and we're finding Hell, people are asking us questions that we don't know the answers to."

<div align="right">Zeta Commercial insurance informant</div>

If we examine the development of shared values amongst our Followers we see that a more disparate picture emerges. Both Eta and Theta are characterised by a change process that seems to overlook the management and development of culture or shared values. Within Eta, efforts are made to create unified shared values within the project groups only. The only attempt to influence shared values or culture *outside* the project groups abruptly fails. Within Theta we see a total reliance upon the use of one element of the configuration, the formal structure, to manage the process of change. Finally, in Delta we see efforts to initiate the process of change through the development of support for the newly reinforced strategic direction created without firstly a reorientation in shared values, with the result that a declining motivation to change appears at the end of the change process.

We can conclude that, like the remaining six elements of the configuration, shared values may have to be crafted through a series of "waves" or "shifts" as the process of initiating business innovation progresses. Initially, attention is focused upon breaking down established shared values. Then, with the introduction of secondary changes to the formal structure the emphasis shifts to creating motivation to change and support for the new strategic direction. Possibly the characteristic of the successfully rejuvenated organisation is the emergence of more challenging values as the period of major change ends.

Before concluding this discussion it would be beneficial to reflect upon how the business innovation efforts of Pacesetters have supported their position in a competitive marketplace. To do this we will illustrate the *type* of business innovations introduced by Pacesetters and Followers. Figure 9.15 gives examples of the types of business innovation introduced by Pacesetters. When reviewing Figure 9.15 it must be remembered that simple product improvement activity has been excluded. In fact routine product improvement activity in addition to the innovations shown in Figure 9.15 embraced a total of 52 initiatives. Within Followers routine product improvement amounted to a total of 38 initiatives.

FIGURE 9.15 BUSINESS INNOVATION ACTIVITY IN PACESETTERS

BUSINESS INNOVATION TYPE:	DESCRIPTION:
Extended New Product Development:	New home insurance product aimed at customer groups not previously served by the organisation.
Radical New Product Development:	New domestic insurance products using "first in the market" approaches to premium calculation to challenge established pricing approaches.
New Style Product Development	Private car and home insurance products to be sold through direct insurance operations. Commercial insurance products to be sold directly to the customer. Health and Accident Insurances. "First in the market" products for newly privatised industries.
Product Augmentation Innovation:	Extended claims service facilities for policyholders. Risk management and consultancy services.
Process Innovation:	Major business processing re-engineering of operational areas; Introduction of new technology (document image processing to enhance customer service). Improved technology to support given by field staff to customers.
Source: Field Study.	

In respect of Pacesetters the following progress is notable. Firstly, in Alpha business innovations introduced since the start of the change process now account for 50% of turnover and relate primarily to customer groups not previously served by the organisation. Similarly in Beta, new products now

account for 60% of current premium income. Within Gamma the entire product range has been reissued. Within Eta new style product development activity has allowed it to enter the direct insurance marketplace for the first time.

Followers have not however extended their activities beyond the customer and distribution bases served before the change process commenced and have not gained the capacity to introduce more radical business innovation. On average improvements to existing products only account for 13% of Followers' turnover. The failure to generate the capacity for more radical business innovation is probably best illustrated by the case of Theta which has now closed its operations and withdrawn from the marketplace.

9.5 CONCLUSION

We will now summarise our findings from the field study. We will adopt the format that the supporting hypotheses have taken and consider firstly the conclusions that can be drawn from the process of initiating change in mature organisations. We will then move to consider the actions required to reinforce the process of change. Finally, we will consider the question of initiating different types of innovation.

9.5.1 Initiating change

A clear pattern of actions, required to initiate change in mature organisations, that separates Pacesetters from the less successful Followers can be observed. Three actions are simultaneously required on behalf of the CEO. These are (i) alterations to the formal structure to both increase accountability for customer groups and profit and to increase customer focus; (ii) changes to the top management function to remove those who may support the process of change and (iii) the adoption of a management style that we have referred to as "dictatorial". The objective of these actions is to challenge established shared values in the organisation, particularly with regard to the organisation's view of the competitive environment and the viability of existing strategies. It will be

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recalled that one of our Pacesetting CEOs, the CEO of Beta, specifically referred to the need to reveal the "truth" and the frailty of established plans:

> "The truth was hidden - probably they didn't know the depth of the problems and they felt that they could trade out of anything - a traditional response."
>
> Pacesetting CEO Beta.

Clearly, this was not a time for creating new plans and strategies in the Pacesetting organisations. No attention (with the exception of one Pacesetter, Gamma) was given to the future strategic direction of the organisation before any of the actions described above to initiate the process of change were executed. Indeed, the presentation of the findings clearly indicate that the first formal structures introduced by Pacesetting CEOs *do not provide the environment for the either the development of new strategies at the business level or innovative activity*. The approach of challenging established shared values *before* giving any consideration to the creation of future plans is the most obvious and probably important distinguishing characteristic of the paths adopted by Pacesetters and Followers.

9.5.2 Reinforcement

The configurations adopted during the initiation phase are unsuited to stimulate innovation. Changes to the formal structure, typically to encourage greater customer focus, accompanied by increasing skills and an influx of new staff are necessary before the CEO can expect to see any plans or activities that support business innovation. Importantly, these configurational changes are again executed by the CEO ("alone in a corner" as one described), reinforcing the picture of the CEO as the architect of the change process. The CEO must also have the ability to sense when to shift management style from "dictatorial" to one of supporting innovation and experimentation. The changes can be rapid as examination of the case studies for one of the Pacesetters (Alpha) reveals. In this case study the CEO shifted style some four months into the process of change from "dictatorial" to in his words "forging and supportive". All

business level informants clearly see these secondary changes to the configuration of the mature organisation as "the key date for innovation".

Whilst further research is required, it has been possible to detect a third episode of change amongst Pacesetters marked by a greater involvement of managers at the business level in the design of structures and procedures used to deliver the organisation's products and services. These changes, as we have noticed, are accompanied by the emergence of a culture that whilst supporting the broad strategic direction of the organisation, displays more questioning characteristics. This third episode, drawing upon the literature reviews in Chapter 4, may be an important step in preventing retrenchment in the newly rejuvenated organisation.

9.5.3 Initiation and Innovation Type

Whilst we found support for a hypothesis that stated that changes to both the formal structure and the top management function were necessary to initiate the process of stimulating offer and market innovation, we did not find support for a hypothesis that changes to the top management function only were needed to stimulate process innovation.

A number of observations must be raised when interpreting this finding. First, all our Pacesetters, as we have seen, went through a "strategic vacuum" at the initiation phase. None of our Pacesetting respondents could point to any configurational changes that helped stimulate process innovation, the objectives of Pacesetting CEOs were to stimulate business innovation in general. Secondly, the literature informs us that high levels of formalisation may support administrative innovation which may be a precursor to other forms of innovation. This area requires more detailed reflection. All our Pacesetters altered methods of formalisation at an early stage in the change process as such methods, that sought to control actions *before* they were taken, both inhibited flows of information in the organisation regarding the true state of the organisation and concealed accountability. Some of the Followers,

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most notably Theta, the real-time longitudinal case study, achieved high levels of process innovation. Established rules and procedures, although reduced, were retained in this organisation and levels of centralisation increased within the formal structure. This observation may give some support to the observation that relatively "inorganic" settings are required for process innovation, but when one reflects on the declining motivation to change in this organisation one must consider for how long the innovative activity can be continued.

The findings will be subjected to further reflection in Chapters 10 and 11.

CHAPTER TEN

MANAGERIAL IMPLICATIONS

10.1 INTRODUCTION

This research study has widespread implications for Chief Executives, Directors and members of the top management teams, not only of UK general insurance companies, but also of organisations in other business sectors that wish to escape the confines of maturity in the face of sudden and unforeseen changes in the competitive environment.

For practitioners, the most important conclusion that the research presents is that "change" in organisations is not to be thought of a one discrete project, but rather as a series of "waves of change", each continuing to build within the organisation the enduring capacity to innovate. As we have seen, a common pattern of three waves of change is found in Pacesetting organisations. These are shown in Figure 10.1, which is based upon the causal network for Pacesetters presented in the last Chapter. The three waves are entitled "Breaking Down", "Building Up" and "Letting Go". Each requires different combinations of configurational change, driven by a CEO who is capable of subtly changing his or her management style with each wave or episode in the process of change. The remainder of this Chapter will be divided into three sections to discuss the managerial implications of each wave of change.

FIGURE 10.1 THE WAVES OF CHANGE

WAVE 1 BREAKING DOWN

Formal structure:
- Increase customer focus
- Increase responsibility & accountability
- Remove old power centres.

Staff:
- Top management changes to eliminate obstacles, supporters of past strategies
- Move in barrier breaking managers

Style:
- "Leading & Interventionist",
- Increased communication on true state of organisation to *all* staff.

Strategy:
- Have no expectations that these first changes will produce new strategies.

OUTCOMES:
- Uncertainty;
- Exposure of inadequate management, planning & product development skills;
- Remaining barriers to change are revealed;
- A period of learning when organisation discovers the true external world and the extent of its internal problems;

WAVE 2 BUILDING UP

Formal structure:
- Secondary changes to increase customer focus & remove remaining barriers
- Experimental project groups to focus on strategy development & product development, R&D

Staff & Skills:
- New staff to increase skill & change perceptions, reskilling commences for existing staff.
- Barrier breaking managers replaced with managers to support experimentation

Style:
- Shift from "interventionist" to skill development, encouraging experimentation

Strategy:
- Encourage development of new business level plans in this phase through articulation of a broad set of organisational "values".

- Increasing confidence, motivation to change & unification in shared values
- Process of learning product development skills commences
- Start of "true innovation"
- New business level strategies appear

WAVE 3 LETTING GO

Informal systems:
- Self managed groups emerge to steer business level strategy and product development

Formal structure:
- Changes to formal structure made to reflect experiences of groups in informal systems

- High motivation to change continues;
- Responsibility for structural design shifts to business level managers
- Competing shared values emerge to prevent retrenchment.

10.2 WAVE 1: BREAKING DOWN

As we have observed, all our Pacesetting organisations faced similar barriers to change that infiltrated all seven elements of organisational configuration.

The Pacesetting CEOs' first priorities are threefold at the outset of the change process. Firstly, to identify barriers to change within the top management team. Within our Pacesetters, members of the top management team who were forced to leave were frequently those who had been the authors of the organisation's past success and their dismissal typically sent shock waves throughout the organisation. As our analysis has indicated, the removal of top managers who either oppose or are not totally committed to change is one of the most critical steps in the change process. It is therefore critical at this stage that the top management team is united in its objective to break down established barriers to change. Pacesetting CEOs quickly assessed the position of individual members of the top management team and the required changes a were usually executed within three months of the CEO identifying the need to change.

Failure at this stage, it must be stressed, threatens the viability of the entire process of configurational change. Possibly the single most important feature that separates our Pacesetters and Followers, is the failure of Followers to purge top the management team of those not fully committed to change process. Whilst initially the change process may proceed smoothly, differences resurfaced in all our Followers in the form of declining motivation to change and differences at top management level regarding the broad direction of the organisation. The failure to align the top management team therefore renders the rest of the change process, and possibly the subsequent loss of jobs at lower levels in the organisation, a fruitless affair.

Our research questions however the efficacy of changes to the top management team *alone* as the first step in instigating the change process. Simultaneous changes to the formal structure, typically designed by the CEO alone, or with a

close group of trusted managers are also required. Three explicit changes are required to the formal structure:

(i) Increase in customer focus. Typically our Pacesetters were organised in terms of insurance function or by using matrix structures. Both acted to inhibit the organisation's understanding of the true competitive environment and customer needs. These structures therefore helped to protect established strategies and interpretations of the competitive environment. Initial changes in the formal structure, designed by the CEO alone, encouraged a very wide customer focus typically dividing the organisation into two broad business units, personal lines (personal domestic insurances) and commercial lines (insurance for commercial customers). As we shall observe below, further changes to the formal structure will be needed to further refine customer focus to stimulate business innovation.

(ii) Increased accountability. All our Pacesetting CEOs complained that the formal structure hid responsibility both for customer groups and profit. Finding someone to take responsibility for the organisation's major customer groups was a problem repeated by all our Pacesetting CEOs. Actions to increase accountability were closely linked to the changes in the formal structure to increase customer focus.

(iii) Changes to control systems. It is clear from the data collected as part of this research that established control systems that seek to exert a "downward" control of activities through the hierarchy are totally inadequate in fast changing competitive environments. The absence of systems that provided feedback on the results of actions was a major problem for Pacesetting CEOs. Finding the true state of the organisation was a significant initial problem for all Pacesetting CEOs. In line with the introduction of clear accountabilities, Pacesetting CEOs introduced more formalised control systems that monitored the actions of those responsible for defined customer groups. Control systems change therefore from seeking to control actions *before* they occur, to monitoring the results of activities.

The final area to receive initial attention was the issue of communication. All our mature organisations were characterised by a highly administrative top management style. Visits to business level areas were infrequent, and communication was a highly impersonal process. One organisation, for example, insisted that all communications within management levels were written and used different colour memo paper to denote the hierarchical status of the author. A rapid move to regular face to face communication between the CEO and business level staff was a key element in the first moves in all Pacesetters.

As our results clearly show, this is a time to concentrate upon learning about the true status of the competitive environment and the organisation itself. This is *not* a period in which to expect new strategies to emerge or to engage in experimental new business development projects. Even if the CEO presents a clearly defined corporate level thrust it will be impossible for staff to turn these ideas into viable products at this stage, without the skill building that will form an essential part of the next wave of change.

10.3 WAVE 2: BUILDING UP

Figure 10.2 shows the effects of the first wave of change, "breaking down", in our Pacesetting organisations.

The second wave of change, "building up", requires a completely different management approach from the first wave of change. Top management style during the first wave of change, "breaking down", was highly "interventionist", a description of a management style that all our Pacesetting CEOs felt summed up their initial approach. This second wave of change requires a shift in management style from "interventionist" to, as one CEO described, "forging and supportive" as the focus of the change process shifts from breaking down barriers to change to encouraging skill development and experimentation.

FIGURE 10.2 EFFECTS OF WAVE ONE

CASE STUDY	STATUS AFTER INITIATION:	COMMENTS:
Alpha "Pacesetter"	1. Uncertainty - will the organisation survive? 2. Business unit managers unused to decentralised decision making. 3. Under-developed planning skills; 4. Increased communication between top management & business units.	Skill development and use of team working will be major focus of transition stage.
Beta "Pacesetter"	1. Uncertainty & fear; 2. Increasing awareness of the need to change;	No alterations to strategy have been made - "the important thing was to make decisions"..
Gamma "Pacesetter"	1. Fear of the unknown; 2. Polarisation of staff into "believers" & "disbelievers"; 3. Initial new product "successes" produce state of euphoria.	Deep rooted skill & comprehension problems will be revealed in the reinforcement stage..
Zeta "Pacesetter"	1. Financial recovery; 2. Old power bases are dismantled; 3. Realisation that further changes would be needed to stimulate new strategies.	Focus shifts from financial recovery to strategy development.
Source: Field study		

Sensing the timing of the shift, it would appear, is largely determined by the success of the initial efforts to instigate change.

The process of "building up" focuses upon two issues, firstly removing any remaining barriers to change and secondly encouraging the development of business innovation skills. This wave of change is characterised by further alterations to the formal structure, staff, skills and top management style. It is important to note that the CEO retains his/her role as designer of the formal structure. The responsibility for structural change does not yet shift from the domain of the CEO. The principal changes seen at this stage are as follows:

(i) The formal structure. Changes are completed to further increase the customer focus. These changes frequently involve the introduction of "mini businesses" or team based structures focused upon individual segments of the organisation's principal customer groups. Such designs are supplemented by more formalised procedures for business development initiatives. If necessary, areas presenting continued resistance are disbanded. For example, in one of our Pacesetters the marketing

department strived to control the product development process, and was dissolved during the second wave of change, all marketing duties being devolved to the business units.

(ii) Staff. New staff are brought into the organisation to increase the organisation's skill set and to further challenge existing perceptions. In one case, barrier breaking managers used to introduce the process of structural change are replaced by managers capable of encouraging experimentation and skill development.

(iii) Skills. This is a period of experimentation when the organisation "learns" marketing and product development skills. During this period the organisation frequently learns the most about the needs of its customers.

(iv) Style. As we have observed above, this period is characterised by a shift in top management style from intervention to supporting experimentation. Regular and comprehensive face to face communication continues.

(v) Innovation and Strategy. It is only during this stage that the CEO can expect staff at the business level to produce both plans and actions for changes in organisation's products. Expecting either new strategies or innovative activities before this stage is unrealistic.

10.4 WAVE 3: LETTING GO

It is during this last wave of change that it would appear that responsibility for the design of day to day working systems and methods shifts from the CEO and the top management team to the business level staff. In our literature reviews in Chapters 4 and 5 we noted that the principal differences between the mature and "new style" organisational configurations are the roles of formal structure and informal systems.

In the mature, established organisation, the formal structure is dominant, seeking carefully to control all aspects of the organisation's day to day operations. In the new style organisation the position is reversed. The informal systems are dominant, assuming responsibility for the design of the day to day processes that deliver products to the organisation's customers.

The focal point of the third wave of change, "letting go", may be the start of the transfer of responsibility and design of the organisation's configuration away from top managers to managers and staff within the business units. Although further research is required to identify how organisations sustain innovation after periods of major, second order structural change, the process of allowing business level staff to assume greater influence in the designs of the structure of the organisation may be a major step in sustaining the organisation's newly found innovative ability. Certainly, the material gathered during this study pointed towards a cultural shift at this point. During the first two waves of the process of structural change an emphasis was placed upon breaking down established shared values and developing unified support for the new direction for the organisation. In this last stage the case study material notes the emergence in some of our Pacesetters of a more challenging and questioning culture which may prevent ossification. The three "waves of change" together with the associated problems, solutions and timescales are shown in Figure 10.3.

10.5 CONCLUSION

The process of large-scale or second order change to develop the ability to innovate on a sustainable basis is a complex process. It cannot be regarded as one discrete project, where top managers merely manipulate the formal structure to achieve change. The hallmarks of failure are two-fold. Firstly, failure to align the top management team as a first task in the change process. Secondly, failure to appreciate the broad range of elements beyond the formal structure that may be manipulated to stimulate change. As we have demonstrated, the "softer" elements of the organisational configuration, including management style, the continued motivation to change and skills have a mutually supportive role to play.

The Pacesetting CEO manages a series of carefully timed "shifts", the CEO's style moving from "interventionist" to "forging and supportive" through to

"letting go" as the organisation passes through the change process. Change should not be regarded simply as a "strategy to structure" or "structure to strategy" process. Instead it should be thought of as three carefully timed structures; a structure to break down barriers; a structure to learn and a structure to sustain.

FIGURE 10.3 THE WAVES OF CHANGE

WAVE ONE - BREAKING DOWN

Problems:
- No strategic direction in the face of external change.
- No accountability for profits or customers.
- Power focused away from business units.
- Belief that old ways would win through.
- Need to challenge established values.
-

Solutions:
- *Formal Organisation:*
  - Increase customer focus;
  - Introduce systems that define accountability.
- *Staff:*
  - Remove barriers to change in top management team; bring in barrier breaking managers.
- *Style:* Interventionist, but encouraging increased communication.

Expected time frame: *18 months*

WAVE TWO - BUILDING UP

Problems:
- Need to remove remaining barriers to change;
- Need to develop innovation at the business level.

Solutions:
- *Formal Organisation:*
  - Further increases in customer focus;
  - Remove departmental barriers, for example separate marketing depts.
- *Staff:*
  - Remove remaining managers who oppose change;
  - Bring in outside staff;
  - Encourage development of new skills.
- *Style:* Shift management style from interventionist to one of encouraging experimentation.

Expected time frame: *18 - 36 months from start of change process*

WAVE THREE - LETTING GO

Problems:
- Need to sustain early business innovation;

Solutions:
- *Informal Organisation:*
  - Encourage business level staff to experiment with new form of organising. Reflect these experiences in future design of formal organisation.
- *Staff:*
  - Continue skill development.
- *Style:* Encouraging experimentation & development of questioning culture.

Expected time frame: *36 plus months from start of change process*

CHAPTER ELEVEN

CONTRIBUTIONS TO THEORY DEVELOPMENT AND SUGGESTIONS FOR FURTHER RESEARCH

11.1 INTRODUCTION

This concluding Chapter has three objectives. The first is to describe the limitations of the study. The second objective is to describe the contributions made to the literature and the theoretical implications generated from the analysis of the findings. The Chapter concludes with the third objective, suggestions for further research.

11.2 LIMITATIONS OF THE STUDY

In common with the majority of research studies this work has limitations. The major limitations are:

(i) This study has been limited to one sector, the UK general insurance industry. This specific setting has been chosen for three reasons. Firstly, it was an example of a mature industry facing its first major competitive challenge for decades. By focusing upon those organisations that wished to respond to such changes through business innovation it therefore satisfied the objective of this study which is to extend our understanding of how mature organisations initiate innovation. Secondly, one defined setting was selected to meet the demands for contextually specific work (for example, Pettigrew, 1985). Thirdly, following McKelvey (1982), we hold that it is best to produce results that are generalisable within a narrow field, rather than to produce results over a broad range of settings that have far more limited generalisability. This does however mean that the challenge is passed to future researchers to explore the process of innovation initiation in mature organisations in other contextual settings.

(ii) The research methodology. As explained, this study has used a combination of one case study constructed on a real-time basis and seven constructed retrospectively. As we have argued, the chosen methodology has been sufficient both to explore the research questions presented in this study and to extend the current understanding of the initiation of innovation in mature organisations. However, if we are to progress still further in this research area, there may be a demand for research that is based upon multiple case studies, constructed on a real-time basis. The resources required to complete this type of research will of course be considerable and a note of caution is addressed to future doctoral researchers. Whilst the use of retrospectively constructed case studies warrants the use of controls, such as those described in Chapter 7, to ensure that the research data gathered is of a standard that is suitable for hypothesis testing, it is a route that we would recommend to future doctoral students exploring the research area that has been the subject of this thesis. The use of one or more longitudinal case studies exposes the doctoral researcher to the dangers referred to in Chapter 7. Within this research, the longitudinal case study failed to evidence innovative activity of the type that was of interest in this research, despite over four years of data collection on behalf of the author. Carefully constructed retrospective case studies did however provide the quality of field data that was necessary to test the research hypotheses and is therefore the route that is recommended to the doctoral researcher when exploring this research topic.

(iii) Finally, the research has focused upon the process of second order change, involving fundamental changes to the organisational configuration to initiate innovation in mature organisations. The behaviour of Pacesetters as they leave such periods of major change is an area that will be suggested as the subject of further analysis.

11.3 THEORETICAL IMPLICATIONS

We will now turn our attention to the contributions that this research has made to the understanding of how business innovation is initiated in mature organisations.

In Chapter 1 we illustrated the need for research that examines the sequence of change in organisations by focusing upon the relationship between strategy and organisational structure. It will be beneficial to briefly reflect upon the literature that deals with this subject as it will act as basis upon which to identify the contributions that this thesis has made.

If one adopts an entirely rational perspective when explaining activities within organisations it may be concluded that the creation of intended strategy precedes the redesign of the remaining configurational elements. In short, intended strategy precedes and defines other configurational elements. This view is supported by traditional views of the strategic planning process as observed by Huff and Reger (1987) who note that the planning process is typically divided into two distinct stages, firstly strategy formulation and secondly the implementation of the new strategy using new organisational forms.

It can therefore be inferred that strategy formulation initiates organisational design and redesign. In fact, this has been one of the major tenets in management literature since the publication of the findings of Chandler (1962):

> "The thesis deduced from these several propositions is then that structure follows strategy and that the most complex type of structure is the result of the concatenation of several basic strategies."
>
> [Chandler (1962:16)]

Here, Chandler (1962) argues that small, undiversified organisations have simple, centralised structures whereas larger diversified organisations have

divisionalised and decentralised structures. The causal process between this relationship is argued as being one of economic efficiency.

As Amburgey and Dacin (1994) note, this dictum has been so popular that many have sought to replicate the findings. Rumelt (1974) finds substantial support for Chandler's (1962) proposals as do Habib and Victor (1991) and Hamilton and Shergill (1992). Grinyer and Yasai-Ardekani (1981) also find support for this thesis, although the contextual factors of age and size are identified as important moderators. Even more recent research (Amburgey and Dacin, 1994) has sought to extend our understanding of the relationship between strategy and the remaining configurational elements, using similar data to that used by Chandler (1962) and Rumelt (1974). Amburgey and Dacin's (1994) research finds general support for Chandler's (1962) dictum, but the recommendation is made that future research examines the causality between changes in strategy and other configurational elements.

In the face of apparent support for the thesis that strategy formulation precedes the design of other configurational elements it is wise to examine the definitions of "strategy" and "structure" used within this literature. As Miller (1986); (1987) observes, the scope of such definitions is limited. "Structure" typically embraces the formal structure as described in Chapter 3 of this thesis. "Strategy", as Miller (1986); (1987) observes centres upon corporate level strategy as opposed to business level strategy, which has been the subject of this research.

Others has questioned the tenet that "structure follows strategy". For example, Mintzberg (1990) provides a substantial critique of the school that supports Chandler's (1962) dictum. Mintzberg's (1990) position is one of supporting an argument that strategy and structure develop in a closely inter-linked manner:

> "Structure may be malleable, but it cannot be altered at will just because a leader has conceived a new strategy. Many organisations have come to grief over just such a belief.

> "We conclude therefore, that structure follows strategy as the left foot follows the right in walking. In effect, strategy and structure both support the organisation. None takes precedence; each always precedes the other, and follows it, except when they move together, as the organisation jumps to a new position. Strategy formation is an integrated system, not an arbitrary sequence."
>
> [Mintzberg (1990: 183)]

Baden-Fuller and Stopford (1992); Dawson (1994) and Miller (1992) point to a complex relationship, observing that a cascade of changes may take place. As Miller (1992) holds, changes to strategy and other configurational elements to realign the organisation with its *external* environment may be followed by further configurational changes to ensure the correct *internal* alignment and co-ordination of the new configuration.

It is further argued that at certain points in the biography of the organisation changes in elements such as the formal structure must precede changes in strategy as changes in the formal structure are needed to produce changes in the shared values and skills of top managers. As Pettigrew (1985) observes:

> "Finally, within the eras of revolutionary change there was little evidence to support Chandler's (1962) dictum that structure follows strategy. Rather the pattern of change in ICI was a complex mixture of adjustment in core beliefs of the top decision makers, followed by changes in structure, systems, and rewards, with the business strategy changes emerging rather more slowly after the changes in beliefs, structure, systems, and rewards had been legitimated and implemented." [Pettigrew (1985:665)].

As Pettigrew (1985) goes on to state, further research is required to define the relationship of configurational elements during the process of managing organisational change.

Finally, from a behavioural perspective, the comments of Weick (1969) are relevant. Weick (1969) argues that organisations seek to define goals to justify behaviour *after* it has occurred, giving the *illusion* that structure follows strategy:

> "It is as if the persons acted so that they could eventually determine what it was they had done. This sequence in which actions *precede* goals may well be a more accurate portrait of organisational functioning. The common assertion that goal consensus must occur prior to action obscures the fact that consensus is impossible unless there is something tangible around which it can occur. And this "something tangible" may well turn out to be actions *already completed.*"

[Weick (1969:8)]

As Amburgey and Dacin (1994) conclude, far from being a stale research question of some thirty years of age, the dynamic relationship between strategy and other elements of the organisational configuration remains an area that demands further research. In particular, Amburgey and Dacin (1994) highlight the following areas for future attention:

1. The measures of "strategy" and "structure" that have been historically used are limited in scope and require expansion;

2. No direct measures of the causal process linking strategy and other structural elements have been provided;

3. The magnitude of changes to structural elements have not been considered; and

4. A more "fine grained" approach to the temporal dimension of change is required.

We will now examine the contribution that this research has made, specifically making reference to causal linkages, the measurement of the organisational configuration and the temporal dimension.

11.3.1 The causal linkages

Many writers call for research that examines the dynamic relationship between elements of the organisation's configuration (for example, Amburgey and Dacin, 1994; Greenwood and Hinings, 1988; Hoskisson and Johnson, 1992; Keatts and Hitt, 1988).

Figure 9.2, the causal network for Pacesetters, is reproduced as Figure 11.1 below for reference purposes. Examination of Figure 11.1 shows that a more detailed analysis of the relationship between configurational elements is required to describe, using Mintzberg's (1990) analogy, the process of the organisation "jumping" from one position to another. As we will demonstrate, in our research context, the "jump" should be considered as three "hops", each possessing different characteristics which will now be described with reference to Figure 11.1.

As we have already reported, all of our Pacesetters used changes to the formal structure to instigate the process of innovation initiation. Importantly, this study has expanded our understanding, effectively at the "micro" level, of *what* changes are required to formal structure as a first step in the innovation initiation process. In respect of the formal structure the changes introduced by Pacesetting CEOs are (i) increases in customer focus and (ii) increased formalisation to provide greater accountability. These measures are necessary, as we have observed, to challenge existing shared values. These actions are not surprising if we reflect upon the "cultural web" of routines and shared values (for example Johnson, 1990; Weick, 1969) and "deep structure" (Gersick, 1991) that ensnare mature organisations, but this study has added light to the changes that are required to the sub-components of the formal structure. It is interesting to observe the relative ineffectiveness of such changes to the formal structure (the "structure" of the established literature) unless accompanied by changes to top management staff and management style, both elements, as we have observed, being missing from established definitions of "structure".

Changes to the formal structure alone then are clearly not enough to stimulate business innovation. Our research shows that unless changes to the formal structure are simultaneously accompanied by alterations to the top

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FIGURE 11.1 THE CAUSAL NETWORK: PACESETTERS

PACESETTERS:

INITIATION:

Formal structure:	Staff:	Style:	Intended Strategy:
■ Increased customer focus *(Alpha, Beta, Gamma, Zeta)*; ■ Increased formalised responsibility & accountability *(Alpha, Beta, Gamma, Zeta)*;	■ Top management changes to eliminate obstacles, supporters of past strategies *(Alpha, Beta, Gamma, Zeta)*; ■ Move in barrier breaking managers *(Zeta)*.	■ "Interventionist", *(Alpha, Beta, Gamma, Zeta)*; ■ Increased communication on true state of organisation *(Alpha, Beta, Gamma, Zeta)*;	■ Introduction of pre-designed strategy *(Gamma only)*;

- ■ Uncertainty *(Alpha, Beta, Gamma Zeta)*;
- ■ Inability to produce new business level strategies *(Alpha, Beta, Gamma Zeta)*
- ■ Rapid new product development & short-lived state of euphoria *(Gamma)*;
- ■ Exposure of inadequate planning & product development skills *(Alpha, Beta, Gamma Zeta)*;
- ■ Inability to adapt to new management style *(Alpha, Beta)*;
- ■ Remaining barriers to change are revealed *(Alpha, Beta, Gamma, Zeta)*.

REINFORCEMENT:

Formal structure:	Staff:	Style:	Intended Strategy:
■ Project groups to focus on strategy development *(Alpha)* & product development, R&D *(Gamma)*; ■ Secondary changes to increase customer focus & remove remaining barriers *(Beta & Zeta)*.	■ New staff to increase skill & change perceptions *(Beta, Gamma, Zeta)*; ■ Barrier breaking managers replaced with managers to support experimentation *(Zeta)*.	■ Shift from "interventionist" to supporting experimentation *(Alpha, Beta, Gamma, Zeta)*;	■ Corporate level plans conceived to enter major new product markets *(Beta only)*.

- ■ Start of "true innovation"*(Alpha, Beta, Gamma, Zeta)*;
- ■ New business level strategies appear *(Alpha, Beta, Gamma, Zeta)*
- ■ Top level management focus upon longer term strategies *(Zeta)*;
- ■ Increasing confidence, motivation to change & unification in shared values *(Alpha, Beta, Gamma, Zeta)*.

Informal systems:
■ Self managed groups emerge to steer business level strategy and product development *(Alpha, Gamma,)*;
Formal structure:
■ Changes to formal structure made to reflect experiences of groups in the informal organisation *(Alpha, Gamma)*

- ■ Evidence of competing approaches to interpreting environmental changes *(Alpha, Zeta)*.

Source: Field study data

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management team to remove those that resist change, then the long-term motivation to change in the organisation and the success of the entire change effort may diminish. Failure to, in the words of one of our business level respondents, "purge" top management at an early stage in the change process is the hallmark of all our Followers. This study therefore confirms the efficacy in making changes to the top management team observed by Frederickson and Iaquinto (1989); Keck and Tushman (1993); Kelly and Amburgey (1991) and Schreuder (1993).

Our next finding is the inability of initial changes to the formal structure, even when accompanied by changes to top management staff and management style to stimulate business innovation in any enduring form. As we have observed all of our Pacesetters were effectively in a "strategic vacuum" after making the first configurational changes. None of our Pacesetters (with the exception of Gamma) gave any consideration to strategy before effecting the first changes to the configuration. Indeed, the structural changes failed to stimulate business innovation activity beyond routine product improvement. Pacesetters do however use such initial changes as the starting point for the development of new skills within the organisation and increasing confidence amongst business level staff.

Our analysis would indicate, following Baden-Fuller and Stopford (1992) who examined organisational change over longer periods, that a further "cascade" of activities is required to stimulate business innovation and therefore intended and emergent strategies at the business level in the organisation. This "cascade" is, we observe, a series of shifts, not only in the formal structure but also management style, staff and skills. A period of learning is required and changes must be made to the organisation's configuration to support such learning. The secondary changes to the organisational configuration that were to stimulate business innovation embraced (i) further increases in customer focus within the formal structure; (ii) increases in skills; (iii) introduction of new staff and (iv) a shift in top management style from "dictatorial" to one that

supports experimentation and innovation. As we have seen the most dramatic example of this approach is in the case of Zeta, where a new formal structure was introduced to give finer customer focus, *led by managers selected to encourage experimentation, with the managers responsible for initiating change and breaking down barriers being removed.* As we have demonstrated, it is this second episode of configurational change that is regarded by informants as the "key date for innovation".

A third "wave" it would appear is required to sustain the organisation's newly found innovative activity. This wave marks the point when the organisation may loose its last vestiges of maturity and make an important step in progressing to the form of the "new style" organisation described in Chapter 5. In Chapter 4 the dominance of the formal structure was noted in the mature organisation, whereas Chapter 5 introduced a description of "new style" organisations where the informal systems dominated the activities in the organisation. The third wave of change sees staff at the business level having a greater influence in the design of the configuration. This stage may therefore witness the start of a shift in the locus of structural design in the organisation from top management, who have been responsible for the past two waves of change, to managers at the business level. However, as we shall discuss below, the issue of sustaining innovation post periods of second order change will require further analysis.

The failure of attempts to develop new intended strategies before effecting alterations to the other elements of the organisational configuration is clearly demonstrated and supports Grinyer and McKiernan's (1990) observation that planning on its own is unlikely to produce change. Indeed, our results show that there is a great deal more to the process of innovation initiation than preparing new plans.

It has already been noted that we have not found support for hypotheses that propose that different forms of innovation initiation are required to stimulate

offer and market as opposed to process innovation. Three observations must be made at this point. The first is that all Pacesetters entered a period characterised by a strategic vacuum and therefore the structural changes made were not executed to stimulate any one form of business innovation. Secondly, there may be some evidence from this study that the configuration of the mature organisation does indeed support process innovation. Possibly the relatively formal working atmosphere of the mature organisation does aid the development of process innovations whereas considerable effort, as we have described, must be expended in creating the "organic" setting for offer and market innovation. The relatively high process innovation scores achieved by one Follower, Theta, serve as an example. The ability of Followers to sustain such initiatives is however questioned in the light of the relatively low motivation to change that was recorded at the end of the change process. Thirdly, there is the issue of formalisation. Damanpour and Evan (1984) have noted that administrative innovation can be a precursor to process innovation. Administrative innovation requires high degrees of formalisation and centralisation as found in the mature organisation (Daft, 1978; Zmud, 1982). Inspection of the qualitative information gathered reveals a need for the type of formalisation to be altered in the rejuvenated organisation. Past systems of formalisation that sought to control activity *before* it took place hindered vital information regarding changes in the competitive environment from reaching top management. These controls had therefore to be replaced by levels of formalisation that monitored activity *after* it took place.

11.3.2 The measures used to assess strategy and structure

From this perspective, the study adds to the "strategy - structure" literature in two areas:

(i) A comprehensive approach is taken to defining and measuring the "structure" or internal context of the organisation. We have moved away from measures purely of the formal structure, to consider the roles of

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informal systems, staff, management style, skills and shared values. As we have demonstrated above, it is impossible to consider the relationship between the formal structure and strategy without an examination of the role of the remaining elements of a more broadly defined organisational setting. Indeed, if we reflect upon the quantitative tests presented in Chapter 9, changes to management style and skills may be equally as important as changes to "structure" as defined in the established "strategy-structure" literature.

(ii) The use of specific outcome measures to evidence specific changes in innovative activity at the business level has allowed us to focus upon how the organisation generates the ability to innovate strategically within its chosen product markets and to assess, with greater temporal accuracy, when innovative activity and therefore new realised business level strategies appear.

11.3.3 The magnitude of change

We have specifically focused in this study upon second order change in organisations where alterations are required to each element of the configuration of the organisation, including the underlying shared values. Only our Pacesetters embrace those organisations that have undergone second order change and successfully reoriented shared values. In each of our Followers doubt exists regarding the extent of movement in the underlying shared values of the organisation which Laughlin (1991) holds is the central characteristic of second order change. One can conclude that, within our research context, simultaneous changes to the formal structure, top management staff and management style are needed to instigate second order change.

11.3.4 The temporal relationships

The temporal time frame adopted by earlier research has been characterised by annual or five yearly observations. In this study we have adopted a more focused approach to change, examining major changes to the configuration of organisations in the research sample as the process of change unfolds.

This has allowed us to break down what may appear to be one change into three distinct "waves of change". It has also been possible to provide some guidance upon the temporal relationships between configurational changes and the emergence of business innovation. The possible temporal relationship between each "wave of change" and the emergence of business development innovation has been introduced in Figure 10.4. Examining the experiences of our Pacesetters leads us to the following conclusions:

1. Alterations to the configuration of the organisation to *initiate* change will not produce new intended strategies or business development activity;

2. Secondary changes to the configuration of the organisation, some eighteen months after the first changes, are required to stimulate the generation of business innovation activity and therefore the development of new business level strategies;

3. The above secondary changes will require reinforcement some thirty-six months after the change process began to assist the development of the capability to *sustain* business innovation activity within the newly "rejuvenated" organisation.

11.4 SUGGESTIONS FOR FURTHER RESEARCH

This study has examined the process of innovation initiation in mature organisations within a closely defined research context. Our suggestions for further research fall into three areas, (i) the need to extend the research to other contexts; (ii) the need to develop new measures of "new style" organisations and (iii) post second-order change studies. We will discuss each in turn.

11.4.1 Use of other research contexts

Our comments here focus upon the industry context and the scale of change faced by the organisation. Firstly, we need to identify the generalisability of our findings in other contextual settings. Do mature organisations in other industry sectors, facing second order change, progress through the three

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"waves of change" described in this study? Secondly, what is the relationship between strategy and the remaining configurational elements when first order changes to the organisation are required to as the organisation proceeds through periods of relative equilibrium?

11.4.2 Measures of "new style" organisations

We concur with Lewin and Stephens (1993) and observe that organisational researchers need to develop new measures to assess the "new style" organisational configuration.

In particular, measures have to be refined to capture the working characteristics of the informal systems. Our own study focused upon established measures of organisational structure, including formalisation and centralisation. Careful consideration must be given to whether these are the most appropriate dimensions to assess, in the future, the new style organisation.

11.4.3 Post second order change research

As we have stated above, one of the limitations of this research is that we have only examined the period of second order change. We have not focused upon how the configuration needs to evolve after such periods of change to ensure that innovation is sustained, and that the organisation does not ossify as a result of its own success as Baden-Fuller and Stopford (1992) and Miller (1994) warn.

11.5 CONCLUSION

This research has allowed us to examine the process of innovation initiation within a contextual setting that demands rapid or "metamorphic" change, which as Stopford and Baden-Fuller (1994) observe, may be the most difficult path to follow.

We conclude that the past debate focusing upon the relationship between "strategy and structure" is too finely drawn. A more holistic definition of structure is required to capture those organisational elements, such as management style, that we hold have a key part to play in the initiation of business innovation. Additionally, continued attention is required to the timeframe in which changes are made to ensure that the subtle shifts in the organisation's configuration that we have observed are captured.

At their very simplest, our findings show that in this research context innovation initiation is not a question of does "structure follow strategy" or "strategy follow structure" but a case of "structure, structure, strategy, structure". In other words, a structure to break down barriers to innovation, a structure to initiate innovation and a structure to sustain.

This thesis has shown how the successful organisations have applied this route to business innovation in a short period of time, within one industry setting. Whilst the findings are of obvious importance in the field of general insurance, they also provide both guidance in other industry settings and suggestions for further research in this important area.

APPENDIX A: THE QUESTIONNAIRES

THE CITY UNIVERSITY BUSINESS SCHOOL

STUDY OF STRATEGIC CHANGE IN THE UK GENERAL INSURANCE INDUSTRY

General Instructions

This questionnaire contains two types of question. One type asks you to circle one of several numbers. There are no right or wrong answers to these questions; please give us your best judgement. The second type of question asks you to supply basic, descriptive information about your organisation. Many of the questions ask for two replies reflecting the position of your organisation at different points in time. These points in time or census dates are shown below.

Please start by providing the date that you completed this questionnaire in the space below.

DATE: ....

ORGANISATION: ....

CENSUS DATE ONE: ....

CENSUS DATE TWO: ....

Please answer all questions with reference to the organisation mentioned above. If **your organisation** is part of a larger (parent) organisation, ensure that the answers given relate to **your organisation only**.

When you have completed the questionnaire please return it in the envelope provided.

Please turn over for question 1.

The first set of questions ask about the internal functioning and goals of your organisation at the two separate census dates shown on page 1.

	Census Date One:	**Census Date Two:**
	..../..../....	..../..../....

1. To what extent is your organisation characterised by:

(1 = "Not at all" 4 = "To some extent" 7 = "To a great extent")

	Census Date One	Census Date Two
(a) strict enforcement of written rules?	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(b) the existence of written rules?	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(c) the development of formal procedures and / or policies?	1 2 3 4 5 6 7	1 2 3 4 5 6 7

2. To what extent do you delegate decision making authority in each of the following areas?

(1 = "Not at all" 4 = "To some extent" 7 = "To a great extent")

	Census Date One	Census Date Two
(a) entering new markets	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(b) developing totally new products	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(c) improving existing products	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(d) changing policies that effect a major part of the organisation	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(e) changing the way your organisation serves its customers	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(f) making major changes in the way your organisation produces its products / services	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(g) hiring mid-level management personnel	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(h) making capital expenditures greater than 1% of your organisation's annual budget	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(i) altering responsibilities of lower level managers	1 2 3 4 5 6 7	1 2 3 4 5 6 7

Census Date One:
..../..../....

Census Date Two:
..../..../....

3. How strongly do you agree with each of the following statements about your organisation?

(1 = "Strongly disagree" 4 = "Neither agree or disagree" 7 = "Strongly agree")

(a) most people have positions that require a different set of skills than required by other positions

1   2   3   4   5   6   7   1   2   3   4   5   6   7

(b) most people have job titles that apply to very few other

people

1   2   3   4   5   6   7   1   2   3   4   5   6   7

(c) most employees do similar types of work

1   2   3   4   5   6   7   1   2   3   4   5   6   7

4. How many management levels are there?

....

5. To what extent is your organisation characterised by:

(1 = "Not at all" 4 = "To some extent" 7 = "To a great extent")

(a) an explicitly stated organisational strategy?

1   2   3   4   5   6   7   1   2   3   4   5   6   7

(b) a strong sense of organisational mission?

1   2   3   4   5   6   7   1   2   3   4   5   6   7

(c) a clear image of the future?

1   2   3   4   5   6   7   1   2   3   4   5   6   7

6. To what extent does the organisation's strategy and / or mission encourage:

(1 = "Not at all" 4 = "To some extent" 7 = "To a great extent")

(a) the development of new products and / or services?

1   2   3   4   5   6   7   1   2   3   4   5   6   7

(b) the development of new markets?

1   2   3   4   5   6   7   1   2   3   4   5   6   7

(c) the defence of current markets?

1   2   3   4   5   6   7   1   2   3   4   5   6   7

(d) an emphasis upon efficiency?

1   2   3   4   5   6   7   1   2   3   4   5   6   7

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Census Date One:
..../..../....

Census Date Two:
..../..../....

7. To what extent is resource allocation aimed at achieving the following objectives?

(1 = "Not at all" 4 = "To some extent" 7 = "To a great extent")

	Census Date One	Census Date Two
(a) the development of new products?	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(b) the development of new markets?	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(c) the defence of current markets?	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(d) the attainment of operational efficiencies?	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(e) broadening the services that support your products?	1 2 3 4 5 6 7	1 2 3 4 5 6 7

8. To what extent is your product strategy characterised by:

(1 = "Not at all" 4 = "To some extent" 7 = "To a great extent")

	Census Date One	Census Date Two
(a) new products?	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(b) old products that are regularly improved?	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(c) broadening the markets in which your products are sold?	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(d) reducing the cost of supplying your products?	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(e) improving the services that support your products?	1 2 3 4 5 6 7	1 2 3 4 5 6 7

9. To what extent are the main operating units in your organisation designed to focus upon:

(1 = "Not at all" 4 = "To some extent" 7 = "To a great extent")

	Census Date One	Census Date Two
(a) the customer?	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(b) insurance functions?	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(c) geographic areas?	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(d) any other feature (please state)?	1 2 3 4 5 6 7	1 2 3 4 5 6 7

Please turn over for question 10.

The next question describes four different, but equally effective strategies that organisations can use to position themselves relative to other organisations in the same industry. Please read all four descriptions before responding.

Census Date One:
..../..../....

Census Date Two:
..../..../....

10. To what extent do each of the four descriptions characterise the strategy of your organisation?

(1 = "Not at all" 4 = "To some extent" 7 = "To a great extent")

(a) this organisation does not attempt to maintain specific market niche or to be a leader in industry innovation. When competition becomes tight in a product or service area the organisation prefers to eliminate the offering rather to attempt to defend market share. Though the organisation tries to avoid the risks associated with new products or services, it occasionally develops new offerings to keep up with the competition. Generally, the organisation responds to environmental pressures rather than elaborating and implementing single strategic thrust.

1   2   3   4   5   6   7   1   2   3   4   5   6   7

(b) This organisation attempts to locate and maintain a secure niche in a relatively stable product or service area. The organisation tends to offer a more limited range of products or services than its competitors and it tries to protect its domain by offering higher quality, superior service, lower prices and so forth. This organisation is not at the forefront of developments in the industry - it tends to ignore changes that have no direct influence on current areas of operation and concentrates instead on doing the best job possible in a limited product or service area.

1   2   3   4   5   6   7   1   2   3   4   5   6   7

Please turn over for question 10(c).

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Census Date One:

..../..../....

Census Date Two:

..../..../....

(c) This organisation typically operates within a broad product market domain that undergoes periodic redefinition. The organisation values being "first in" in new product areas even if not all of these efforts prove to be highly profitable. The organisation responds rapidly to early signs concerning areas of opportunity and these responses often lead to a new round of competitive action. However, this organisation does not attempt to maintain market strength in all areas it enters.

1   2   3   4   5   6   7   1   2   3   4   5   6   7

(d) This organisation attempts to maintain a stable, limited line of products and services, while at the same time moving quickly to follow a carefully selected set of the more promising developments in the industry. The organisation is seldom "first in" with new products or services. However, by carefully monitoring the actions of major competitors, the organisation frequently can be "second in" with a more cost-efficient product or service that is compatible with its stable product market base.

1   2   3   4   5   6   7   1   2   3   4   5   6   7

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11. How unified are managers **at top management level** in its commitment to the strategy identified in question 10?

(1 = "Not at all" 4 = "To some extent" 7 = "To a great extent")

1   2   3   4   5   6   7   1   2   3   4   5   6   7

Please turn over for question 12.

Census Date One:

..../..../....

Census Date Two:

..../..../....

12. If you scored 4 or under for question 11 what is the alternative strategy that top management wish to follow?

(1 = "Not at all" 4 = "To some extent" 7 = "To a great extent")

(a) paragraph 10(a)   1   2   3   4   5   6   7   1   2   3   4   5   6   7
(b) paragraph 10(b)   1   2   3   4   5   6   7   1   2   3   4   5   6   7
(c) paragraph 10(c)   1   2   3   4   5   6   7   1   2   3   4   5   6   7
(d) paragraph 10(d)   1   2   3   4   5   6   7   1   2   3   4   5   6   7

13. Is there a high degree of motivation among top level managers in the organisation to commence or continue organisational change programmes?

(1 = "Not at all" 4 = "To some extent" 7 = "To a great extent")

1   2   3   4   5   6   7   1   2   3   4   5   6   7

14. When top level managers in the organisation consider changes in the competitive environment are their views on how to respond:

(1 = "Not at all" 4 = "To some extent" 7 = "To a great extent")

(a) highly unified?   1   2   3   4   5   6   7   1   2   3   4   5   6   7
(b) highly competing in nature?   1   2   3   4   5   6   7   1   2   3   4   5   6   7

Please turn over for question 15.

The following questions ask you to provided primarily numerical information regarding your organisation.

	Census Date One: ..../..../....	Census Date Two: ..../..../....
15. Approximately what percentage of your organisation's employees are:		
(a) graduates?	....%	....%
(b) professionally qualified?	....%	....%
(c) have professional management qualifications (e.g. MBA, DMS etc.)?	....%	....%
16. Approximately what percentages of your organisation's employees are:		
(a) employees in line operations performing the basic work activities related directly to the production of products and services?	....%	....%
(b) line managers having positions below upper management?	....%	....%
(c) upper management positions not specified above?	....%	....%
(d) in staff functions such as finance, secretarial and mailroom?	....%	....%
(e) marketing, product research and development specialists?	....%	....%
(f) operations/systems research and development specialists?	....%	....%
(g) training and skill development specialists?	....%	....%

The following questions relate primarily to the *current* status of your organisation and therefore only one response to each question is required.

17. Have you noticed any significant changes to the skill profile within your organisation between the two census dates? If "yes" please briefly describe.

....

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18. Have you noticed any changes to **the locations within the organisation** where marketing and product development specialists are employed? If "yes" please describe.

....

....

19. Please estimate the approximate percentage of your time that you spend on the following activities:
    (a) Top level administrative issues .....%
    (b) Ensuring compliance with statutory regulations .....%
    (c) Inter-acting with other managers .....%
    (d) Examining future industry trends .....%
    (e) Reviewing the strategic direction of your
    organisation .....%
    (f) Inter-acting with staff .....%
    (g) Inter-acting with customers .....%
    (h) Developing the skill base of the organisation .....%

20. Have you noticed any significant changes in the way you spend your time between the two census points? If "yes", please describe, using the activity headings shown in question 19.

....

....

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21. In what year was your organisation founded?   ......

22. Examining the two year period *before* census
    date one:
    (a) *Approximately* what percentage of your premium income   ....%
    related to new products launched in this period?
    (b) *Approximately* how many new products were launched?   ....
    (c) *Approximately* what percentage of your premium income
    related to new markets entered in this period?   ....%

23. Examining the period *after* the second census date:
    (a) *Approximately* what percentage of your premium income   ....%
    related to new products launched in this period?
    (b) *Approximately* how many new products were launched?   ....
    (c) *Approximately* what percentage of your premium income
    related to new markets entered in this period?   ....%
    (d) What percentage improvement have you made in your expense
    ratio (excluding commissions)   ....%
    (e) And comparing it to the two years before census date one
    what is the percentage increase in products that have offered
    extended services to the insured and/or broker?   ....%

THANK YOU FOR COMPLETING THIS QUESTIONNAIRE. PLEASE RETURN IT IN THE ENVELOPE PROVIDED.

THE CITY UNIVERSITY BUSINESS SCHOOL

STUDY OF STRATEGIC CHANGE IN THE UK GENERAL INSURANCE INDUSTRY

General Instructions

This questionnaire contains two types of question. One type asks you to circle one of several numbers. There are no right or wrong answers to these questions; please give us your best judgement. The second type of question asks you to supply basic, descriptive information about your organisation. Many of the questions ask for two replies reflecting the position of your organisation at different points in time. These points in time or census dates are shown below.

Please start by providing the date that you completed this questionnaire in the space below.

DATE: ....

ORGANISATION: ....T...............

CENSUS DATE ONE: ....

CENSUS DATE TWO: ....

Please answer all questions with reference to the organisation mentioned above. If **your organisation** is part of a larger (parent) organisation, ensure that the answers given relate to **your organisation only**.

When you have completed the questionnaire please return it in the envelope provided.

Please turn over for question 1.

The first set of questions ask about the internal functioning and goals of your organisation at the two separate census dates shown on page 1.

	Census Date One:	**Census Date Two:**
	..../..../....	..../..../....

1. To what extent is your organisation characterised by:

(1 = "Not at all" 4 = "To some extent" 7 = "To a great extent")

	Census Date One	Census Date Two
(a) strict enforcement of written rules?	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(b) the existence of written rules?	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(c) the development of formal procedures and / or policies?	1 2 3 4 5 6 7	1 2 3 4 5 6 7

2. To what extent do you participate in decision making in each of the following areas?

(1 = "Not at all" 4 = "To some extent" 7 = "To a great extent")

	Census Date One	Census Date Two
(a) entering new markets	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(b) developing totally new products	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(c) improving existing products	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(d) changing policies that effect a major part of the organisation	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(e) changing the way your organisation serves its customers	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(f) making major changes in the way your organisation produces its products / services	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(g) hiring mid-level management personnel	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(h) making capital expenditures greater than 1% of your organisation's annual budget	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(i) altering responsibilities of lower level managers	1 2 3 4 5 6 7	1 2 3 4 5 6 7

Please turn over for question 3.

Census Date One:
...../...../.....

Census Date Two:
...../...../.....

3.   To what extent do the following statements apply to your organisation?

(1 = "Strongly disagree" 4 = "Neither agree or disagree" 7 = "Strongly agree")

(a) there can be little action taken here until a supervisor approves a decision

1   2   3   4   5   6   7   1   2   3   4   5   6   7

(b)   a person who wants to make his own decisions would be quickly discouraged here

1   2   3   4   5   6   7   1   2   3   4   5   6   7

(c)   even small matters have to be referred to someone higher up for a final answer

1   2   3   4   5   6   7   1   2   3   4   5   6   7

(d) I have to ask my boss before I do almost anything

1   2   3   4   5   6   7   1   2   3   4   5   6   7

(e) any decision I make has to have my boss's approval

1   2   3   4   5   6   7   1   2   3   4   5   6   7

(f) I feel that I am my own boss in most matters

1   2   3   4   5   6   7   1   2   3   4   5   6   7

(g)   a person can make his own decisions without checking with anyone else

1   2   3   4   5   6   7   1   2   3   4   5   6   7

(h)   how things are done here is left up to the person doing the work

1   2   3   4   5   6   7   1   2   3   4   5   6   7

(i) people here are allowed to do almost as they please

1   2   3   4   5   6   7   1   2   3   4   5   6   7

(j) most people here make their own rules on the job

1   2   3   4   5   6   7   1   2   3   4   5   6   7

(k)   the employees are constantly being checked on for rule violations

1   2   3   4   5   6   7   1   2   3   4   5   6   7

(i)   people here feel as though they are constantly being watched to see that they obey all the rules

1   2   3   4   5   6   7   1   2   3   4   5   6   7

4. How strongly do you agree with each of the following statements about your organisation?

(1 = "Strongly disagree" 4 = "Neither agree or disagree" 7 = "Strongly agree")

(a) most people have positions that require a different set of skills than required by other positions

1   2   3   4   5   6   7   1   2   3   4   5   6   7

(b) most people have job titles that apply to very few other

people

1   2   3   4   5   6   7   1   2   3   4   5   6   7

(c) most employees do similar types of work

1   2   3   4   5   6   7   1   2   3   4   5   6   7

5. How many management levels are there?

……………………………   ……………………………

6. To what extent is your organisation characterised by:

(1 = "Not at all" 4 = "To some extent" 7 = "To a great extent")

(a) an explicitly stated organisational strategy?

1   2   3   4   5   6   7   1   2   3   4   5   6   7

(b) a strong sense of organisational mission?

1   2   3   4   5   6   7   1   2   3   4   5   6   7

(c) a clear image of the future?

1   2   3   4   5   6   7   1   2   3   4   5   6   7

7. To what extent does the organisation's strategy and / or mission encourage:

(1 = "Not at all" 4 = "To some extent" 7 = "To a great extent")

(a) the development of new products and / or services?

1   2   3   4   5   6   7   1   2   3   4   5   6   7

(b) the development of new markets?

1   2   3   4   5   6   7   1   2   3   4   5   6   7

(c) the defence of current markets?

1   2   3   4   5   6   7   1   2   3   4   5   6   7

(d) an emphasis upon efficiency?

1   2   3   4   5   6   7   1   2   3   4   5   6   7

Please turn over for question 8.

Census Date One:
..../..../....

Census Date Two:
..../..../....

8. To what extent is resource allocation aimed at achieving the following objectives?

(1 = "Not at all" 4 = "To some extent" 7 = "To a great extent")

	Census Date One	Census Date Two
(a) the development of new products?	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(b) the development of new markets?	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(c) the defence of current markets?	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(d) the attainment of operational efficiencies?	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(e) broadening the services that support your products?	1 2 3 4 5 6 7	1 2 3 4 5 6 7

9. To what extent is your product strategy characterised by:

(1 = "Not at all" 4 = "To some extent" 7 = "To a great extent")

	Census Date One	Census Date Two
(a) new products?	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(b) old products that are regularly improved?	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(c) broadening the markets in which your products are sold?	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(d) reducing the cost of supplying your products?	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(e) improving the services that support your products?	1 2 3 4 5 6 7	1 2 3 4 5 6 7

10. To what extent are the main operating units in your organisation designed to focus upon:

(1 = "Not at all" 4 = "To some extent" 7 = "To a great extent")

	Census Date One	Census Date Two
(a) the customer?	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(b) insurance functions?	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(c) geographic areas?	1 2 3 4 5 6 7	1 2 3 4 5 6 7
(d) any other feature (please state)?	1 2 3 4 5 6 7	1 2 3 4 5 6 7

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The next question describes four different, but equally effective strategies that organisations can use to position themselves relative to other organisations in the same industry. Please read all four descriptions before responding.

Census Date One:
..../..../....

Census Date Two:
..../..../....

11. To what extent do each of the four descriptions characterise the strategy of your organisation?

(1 = "Not at all" 4 = "To some extent" 7 = "To a great extent")

(a) this organisation does not attempt to maintain specific market niche or to be a leader in industry innovation. When competition becomes tight in a product or service area the organisation prefers to eliminate the offering rather to attempt to defend market share. Though the organisation tries to avoid the risks associated with new products or services, it occasionally develops new offerings to keep up with the competition. Generally, the organisation responds to environmental pressures rather than elaborating and implementing single strategic thrust.

1 2 3 4 5 6 7   1 2 3 4 5 6 7

(b) This organisation attempts to locate and maintain a secure niche in a relatively stable product or service area. The organisation tends to offer a more limited range of products or services than its competitors and it tries to protect its domain by offering higher quality, superior service, lower prices and so forth. This organisation is not at the forefront of developments in the industry - it tends to ignore changes that have no direct influence on current areas of operation and concentrates instead on doing the best job possible in a limited product or service area.

1 2 3 4 5 6 7   1 2 3 4 5 6 7

Please turn over for question 11(c).

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Census Date One:
..../..../....

Census Date Two:
..../..../....

(c) This organisation typically operates within a broad product market domain that undergoes periodic redefinition. The organisation values being "first in" in new product areas even if not all of these efforts prove to be highly profitable. The organisation responds rapidly to early signs concerning areas of opportunity and these responses often lead to a new round of competitive action. However, this organisation does not attempt to maintain market strength in all areas it enters.

1   2   3   4   5   6   7   1   2   3   4   5   6   7

(d) This organisation attempts to maintain a stable, limited line of products and services, while at the same time moving quickly to follow a carefully selected set of the more promising developments in the industry. The organisation is seldom "first in" with new products or services. However, by carefully monitoring the actions of major competitors, the organisation frequently can be "second in" with a more cost-efficient product or service that is compatible with its stable product market base.

1   2   3   4   5   6   7   1   2   3   4   5   6   7

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12.   How unified are managers **at your level** in their commitment to the strategy identified in question 11?

(1 = "Not at all" 4 = "To some extent" 7 = "To a great extent")

1   2   3   4   5   6   7   1   2   3   4   5   6   7

Census Date One:
..../..../....

Census Date Two:
..../..../....

13. If you scored 4 or under for question 12 what is the alternative strategy that managers **at your level** wish to follow?

(1 = "Not at all" 4 = "To some extent" 7 = "To a great extent")

(a) paragraph 11(a)	1	2	3	4	5	6	7		1	2	3	4	5	6	7
(b) paragraph 11(b)	1	2	3	4	5	6	7		1	2	3	4	5	6	7
(c) paragraph 11(c)	1	2	3	4	5	6	7		1	2	3	4	5	6	7
(d) paragraph 11(d)	1	2	3	4	5	6	7		1	2	3	4	5	6	7

14. Is there a high degree of motivation among managers **at your level** to commence or continue organisational change programmes?

(1 = "Not at all" 4 = "To some extent" 7 = "To a great extent")

1   2   3   4   5   6   7   1   2   3   4   5   6   7

15. When managers **at your level** in the organisation consider changes in the competitive environment are their views on how to respond:

(1 = "Not at all" 4 = "To some extent" 7 = "To a great extent")

(a) highly unified?	1	2	3	4	5	6	7		1	2	3	4	5	6	7
(b) highly competing in nature?	1	2	3	4	5	6	7		1	2	3	4	5	6	7

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Please turn over for question 16.

Census Date One:
..../..../....

Census Date Two:
..../..../....

16. Are the views of managers **at your level** in the organisation when considering changes to the product strategy:

(1 = "Not at all" 4 = "To some extent" 7 = "To a great extent")

(a) highly unified?

1 2 3 4 5 6 7   1 2 3 4 5 6 7

(b) highly competing in nature?

1 2 3 4 5 6 7   1 2 3 4 5 6 7

The following questions relate primarily to the _current_ status of your organisation and therefore only one response to each question is required.

17. Have you noticed any significant changes to the skill profile within your organisation between the two census dates? If "yes" please briefly describe.

....

....

18. Have you noticed any changes to **the locations within the organisation** where marketing and product development specialists are employed? If "yes" please describe.

....

....

Please turn over for question 19

19. Please estimate the approximate percentage of your time that you spend on the following activities:

    (a) Administrative issues ....%
    (b) Ensuring compliance with statutory regulations ....%
    (c) Inter-acting with other managers ....%
    (d) Examining future industry trends ....%
    (e) Reviewing the strategic direction of your organisation ....%
    (f) Inter-acting with staff ....%
    (g) Inter-acting with customers ....%
    (h) Developing the skill base of the organisation ....%

20. Have you noticed any significant changes in the way you spend your time between the two census points? If "yes", please describe using the activity headings shown in question 19.

    ....
    ....

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THANK YOU FOR COMPLETING THIS QUESTIONNAIRE. PLEASE RETURN IT IN THE ENVELOPE PROVIDED.

APPENDIX B: THE INTERVIEW SCHEDULE

ORGANISATION "X" INTERVIEW NOTES

INTRODUCTION

Here we give an overview of the questions that will be asked during the interview. Seeing the questions now will allow some time for preparation.

The interview has the following objectives:

- To gain a longitudinal definition of the change process, focusing particularly on how the change process was initiated and how these initial effort were reinforced.
- To produce a picture of the current shape of the organisation.

The interview will take the form of a semi-structured session as the broad direction of the questioning is defined in advance.

You will find that the questions are divided into three broad groups:

1. The history of the organisation;
2. Starting the change process and
3. Looking at the current shape of the organisation.

The questions are:

1. The History of the Organisation:

1.1 Looking at the seven dimensions described in the covering letter, which dimension(s) do you think presented the highest barrier(s) to commencing the process of change?

2. Starting the Change Process:

2.1 How did you realise that change was needed?
2.2 Using the seven dimensions shown in the covering letter - how did the change process start? Who was involved?
2.3 What effect did these initial efforts have? How did staff at the business level respond?

3. The Change Process:

3.1 How and when did the business level strategy of the organisation develop? Who was principally involved?
3.2 What were the major stimuli or enabling mechanisms (refer to the seven dimensions)?
3.3 Have staff at the business level started to design their own structures and strategies? If so what were the enabling mechanisms?
3.4 How is product development managed?

4. After the Change Process:

4.1 How is the organisation changing, if at all?

4.2 What part(s) of the organisation is responsible for initiating any change at the business level?

4.3 Where in the organisation are future business level strategies conceived?

4.4 Do you think that this strong sense of direction:

      4.4.1 Prevents or encourages individual initiatives?

      4.4.2 Enables or constrains collective experiments among groups and functions?

4.5 What are your main priorities now (making reference to the seven dimensions)?

4.6 When did innovative activities really start in the organisation?

THE NEXT STEPS

The questionnaires and interviews will be used to construct a case study. This will be passed to you for comment and final approval as an accurate record.

When the entire study has been completed a full report on the findings and management implications will be provided.

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