

SWP 1/96 PATTERNS OF STRATEGY DEVELOPMENT:

ANDY BAILEY and PROFESSOR GERRY JOHNSON
Centre for Strategic Management and Organisational Change
Cranfield School of Management
Cranfield University
Cranfield
Bedfordshire MK43 0AL
Tel: +44 (0)1234 751122
Fax: +44 (0)1234 750070

The Cranfield School of Management Working Papers Series has been running since 1987, with approximately 420 papers so far from the nine academic groups of the School: Economics; Enterprise; Finance and Accounting; Human Resources; Information Systems; Logistics and Transportation; Marketing; Operations Management; and Strategic Management. Since 1992, papers have been reviewed by senior members of faculty before acceptance into the Series. A list since 1992 is included at the back of this paper.

For copies of papers (up to three free, then £2 per copy, cheques to be made payable to the Cranfield University), please contact Mr. Wayne Bulbrook, Assistant Research Administrator, at the address on the back of this booklet.

Copyright: Bailey & Johnson 1996

ISBN 1 85905 084 0

PATTERNS OF STRATEGY DEVELOPMENT

ANDY BAILEY and GERRY JOHNSON

Centre for Strategic Management and Organisational Change

Cranfield School of Management

Cranfield University

Bedford MK43 0AL Great Britain

Tel: +44 (1234) 751122

Fax: +44 (1234) 750070

Acknowledgements: This work was sponsored by ESRC grant no. R000235100. We would also like to thank Kevin Daniels, J-C. Spender and Cliff Bowman for their useful comments on various stages of the research.

)

)

)

)

PATTERNS OF STRATEGY DEVELOPMENT

SUMMARY

This paper builds on a multidimensional framework of strategy development to more clearly understand the processes by which strategy develops within organisations. It reports on a survey based research project which employs senior executives' perceptions of the strategy development process in their organisations to examine how context specific configurations of dimensions explaining such processes can advance our understanding of strategic management. Six configurations are identified as commonly occurring and are seen to be associated with contextual variables at an organisational and industry level.

Key words: Strategy development; Organisational configurations; Multidimensional process

This paper is concerned with the process by which strategy is developed in organisations. It builds on research which aims to develop a clearer understanding of the strategy development process as perceived by the actors involved within this process - the managers themselves. It takes as its starting point the assertion that the strategy development process is multidimensional in nature and as such an integrated framework for its interpretation is required. A theoretically and empirically derived framework for understanding the process is presented. Using data gathered through a large scale survey, the reliability and validity of the framework is established. This data is then used to develop a numerically based taxonomy of the strategy development process and the common patterns, or configurations, of strategy development identified are examined in relation to contextual variables at the organisational level.

The research reported here is positioned within the strategy process research tradition which focuses on "the actions that lead to and support strategy" (Huff and Reger, 1987), and is concerned with how an organisation, through its systems and processes, deliberate or unintentional, achieves or maintains its position (Chakravarthy and Doz, 1992). Further, there is an acceptance that organisations are open to an array of influences both from inside and outside in the development of strategy and that these influences may be reflected in different processual patterns observable in different organisations.

THE STRATEGY DEVELOPMENT PROCESS

Different explanatory theories as to the nature of the strategy development process have been postulated. Much of the literature in the field emphasizes a deliberate process of managerial choice (Child, 1972). Ansoff (1965), Steiner (1969) and others who advocate a *planning* approach suggest that strategy formulation is an intentional process involving a logical, sequential, analytic and deliberate set of procedures. The notion of *logical incrementalism* (Quinn, 1980) has it that strategy formulation, though purposeful and intentional cannot be explained in such sequential terms. Given the complexity of strategic issues, managers cannot analyse all aspects of the environment or establish precise objectives. Rather, strategic choice takes place through what Lindblom (1959) refers to as "successive limited comparisons". Others have emphasized the role of top management as leaders, exercising "*command*" (Bourgeois and Brodwin, 1984) through a clarity of "*strategic intent*" (Hamel and Prahalad, 1989) or the creation of a "*vision*" (Westley and Mintzberg, 1989). Here, then strategy development is primarily associated with an individual leader, past leader or top team who direct the organisation's strategy and may, in effect, represent the desired future state of the organisation.

Others argue that strategy development needs to be seen, less as a planned or deliberate process; but more in terms of the outcome of decision making processes rooted in the social fabric of organisations (Mintzberg and Waters, 1985). Organisations are *political* entities and, as such, strategies are susceptible to both internal and external influence (Hickson, Butler, Gray, Mallory and Wilson, 1986) from stakeholders. These stakeholders or interest groups, are likely to have different concerns (Feldman, 1986; Pfeffer and Salancik, 1978) and attempt to achieve their own ends (Cyert and March, 1963), which may be in conflict. These differences are resolved through bargaining, negotiation and compromise with the

result that goals and objectives, strategic issues and strategies themselves are derived from this process rather than objective, analytical assessment and evaluation.

The strategies an organisation follows can also be attributed to *cultural* influences. Shared frames of reference, which are the organisation's taken for granted beliefs and assumptions, enable the organisation and the world in which it operates to be understood. These frames of reference enable new situations to be perceived in ways which are not unique (Schon, 1983) and well established routines provide ready organisational responses (Nelson and Winter, 1982). Such frames of reference and routines exist at the organisational level (Johnson, 1987) but also on an industry wide basis (Huff, 1982; Spender, 1989), in the form of commonly accepted "recipes" and also within institutional types (DiMaggio and Powell, 1983).

Those who take an *ecological* perspective would, however, argue that managers in organisations have little or no control over the choice of strategies they follow. Factors in the environment impinge on the organisation in such a way as to select and encourage the adoption of organisational structures and activities which best fit that environment (Hannan and Freeman, 1989). These external constraints operate to prescribe strategies and limit the role organisational members play in their selection (Aldrich, 1979). So strategies tend to be common within industries, with changes coming about through variations in organisations' processes and systems which may occur unintentionally (Aldrich, 1979) or through imperfect imitation.

An Integrated Approach to Strategy Development

There is a growing recognition of the limitations of normative, often unitary, explanations of the strategy development process. Rather, it is recognized that the strategy development process is likely to be multifaceted (Derkinderen and Crum, 1988; Eisenhardt and Zbaracki, 1992; Fredrickson, 1983): indeed studies which have examined strategy development in context have demonstrated as much. The case studies of Bower (1970), Pettigrew (1973, 1985), Mintzberg and Waters (1982), Bartunek (1984), Pondy and Huff (1985), and Johnson (1987) and the historical studies by Mintzberg (1978) and Grinyer and Spender (1979) have provided rich insights into the process of strategy development. However, given their context specificity, generalisability is problematic.

An area of growing importance in strategy process research has been the conceptual development of more integrated frameworks to explain the strategy development process. This has been accomplished on a theoretical basis (eg Chaffee, 1985; Eisenhardt and Zbaracki, 1992; Hart, 1992; Mintzberg, 1990; Rajagopalan, Rasheed and Datta, 1993; Schwenk, 1988); by applying theoretical perspectives to case studies (eg Allison, 1971; Johnson 1987); through interviews (Nutt, 1984; Shrivastava and Grant, 1985) or in a questionnaire form to managers (eg Hart and Banbury, 1994; Hickson *et al*, 1986). In all these cases researchers have employed explanatory dimensions of the strategy development process which are rooted in the sort of theories summarized above. Such research has demonstrated that through the use of an integrated framework a clearer understanding of the strategy development process and its complexity can be achieved. Much of this

research, however, must be qualified by the situation in which the strategy development process has been explored, whether in terms of the industry sector (Nutt, 1984), a concentration on a particular type of strategic issue (Shrivastava and Grant, 1985), or a reliance on only one respondent per organisation as the source for understanding the process (Hart and Banbury, 1994). Nonetheless the value of exploring strategy development processes through integrated multiple frameworks is clear.

By adopting a configurational approach (Dess, Newport, and Rasheed, 1993; Meyer, Tsui, and Hinings, 1993) to the exploration of strategy development in this research our aim was to identify groups of organisations distinguished by their similarity in strategy development process such that the explanatory characteristics of such configurations might be explored. The development of such configurations can be either deductive, with grouping being based on theory, or inductive, where classes emerge from a data set which reflects the similarities and dissimilarities between organisations. This research employs an inductive approach to develop an empirically grounded taxonomy of strategy development processes: that is configurations are defined through empirical classification based on dimensions of strategy development.

Research Propositions

Whilst the empirical component of the paper is inductive in nature it is structured around an exploration of three deductively derived propositions. These are now discussed.

First, on the basis of both theory and empirical evidence, a number of writers (Derkinderen and Crum, 1988; Eisenhardt and Zbaracki, 1992; Fredrickson, 1983) have argued that unidimensional explanations of strategy development are unrealistic and unhelpful in developing research into such processes. Building on their arguments we recognize that it is unlikely that the sort of explanations advanced earlier are mutually exclusive; rather it is probable that, to the extent that they exist, they do so in combination. This gives rise to the first proposition:

***Proposition 1:** The strategy development process in organisations will typically be characterised by multiple dimensions.*

The multidimensional nature of strategy development means, as with other multidimensional phenomena, that the possible combinations of attributes which could exist is infinite. This variety of combination though is likely to be "limited by the attributes' tendency to fall into coherent patterns" (Meyer *et al*, 1993:1176). Consequently, it may be hypothesized that common patterns or configurations of the process occur. This gives rise to the second proposition:

***Proposition 2:** There will be discernible configurations of strategy development processes.*

Whilst identifying the possibility of configurations of the strategy development process is, in itself, of interest, a search for explanation of different patterns must seek to relate these differences to context. Pettigrew (1985) has argued convincingly that it is necessary to

consider strategy development within context because context will influence the way in which strategies come about. For example, managers in different industry sectors are faced with different environmental contexts; and it might, therefore, be expected that they would develop strategy in different ways. This contingency notion of strategy development may be explored by being more specific about the nature of such contexts. For example, differences might be expected which relate to the competitive intensity of markets, the extent of industry growth, the stages of industry life cycle and so on. There are also different types of organisation within the same industry in terms of size, ownership structure, market share, scope and so on. Again it might be expected that differences could relate to such factors, thus:

Proposition 3: Configurations of strategy development will relate to contextual variables both at an industry level and an organisational level.

The paper therefore attempts to establish if the strategy development process is characterised in a uni or multi dimensional manner, and determine if there are empirically derived patterns of strategy development which are associated with context.

METHODOLOGY

This research is based on the perception of the process of strategy development by the actors involved in such processes - the managers themselves. Indeed managerial input has played an integral part across the duration of this research project; it has also involved the critique of theoretical perspectives on the process of strategy development derived from the literature and, validating and assessing the integrated framework and the research measure.

A limitation of some previous research in this field has been the reliance on a single respondent, usually a chief executive or another senior executive, as the source of information pertaining to the strategy development process. The use of single respondents as the source of data has been questioned by a number of researchers (Phillips, 1981; Venkatraman and Grant, 1986). Indeed, awareness of issues pertaining to strategy has been seen to differ with organisational level (Hambrick, 1981). To gain a fuller understanding of the process of strategy development within organisations and reduce the potential for bias due to a reliance on a single viewpoint the use of multiple respondents is useful. Consequently assessment of the process has been developed to reflect the views of a cross section of organisational members at different managerial levels, though all respondents had a detailed knowledge of the strategy development process.

Development of the Research Instrument

This research, as with other studies (eg Hart and Banbury, 1994; Hickson et al, 1986; Johnson, 1987), utilises a multiple perspective or dimension approach in exploring the strategy development process. The six explanatory dimensions of strategy development employed have been derived from the literature and generally fit those described above. These dimensions have been modified and validated statistically and through academic and managerial assessment. The procedure by which this was achieved is summarized below;

but for a full discussion of the development of the research instrument and underlying framework see Bailey and Johnson (1993). The dimensions used were the *planning dimension* (strategy development as a rational, analytical, and intentional process); the *incremental dimension* (an iterative process of limited comparison); the *political dimension* (a process of bargaining, negotiation and influence between internal interest groups); the *cultural dimension* (a process directed by the cultural and cognitive aspects of the organisation and its members); the *command dimension* (a process directed by a powerful individual and their desires for the organisation's future state); and the *enforced choice dimension* (a result of prescriptive external pressures limiting the organisation's ability to determine its strategies).

The research was carried out using a self completion questionnaire. The development of this instrument involved a number of stages. Each of the six strategy development dimensions was operationalised by identifying characteristics singularly attributable to each of the dimensions. These characteristics were then used to develop a pool of items or statements suitable for a self completion questionnaire. To ensure content validity, the item pool was presented to an expert panel of 10 academics active in the field of strategy process research who assessed each item to determine which of the six dimensions, if any, it was characteristic of, and subsequently the extent to which it characterised that dimension. The responses from the expert panel were analysed to identify those items which were allocated to the same dimensions at a level of inter-judge agreement of 70% or higher. A mean score was computed from the characteristicness scale for each of these selected items in order that the items could be ranked by the degree to which they characterised their attributed dimensions. Those items consistently attributed to the same dimension by the expert panel and which were seen to be most characteristic of that dimension formed the basis of the questionnaire items.

Face validity was also established through two forms of managerial assessment. The first involved face to face interviews with senior managers about strategy development in their organisations. The second form of managerial assessment involved the completion of a pilot questionnaire. Based on responses to this questionnaire, by 408 managers in 80 organisations, profiles of the managers' perception of the strategy development process relating to their own organisations were developed (Bailey and Johnson, 1992). These strategy development profiles and the underlying theoretical perspectives were then presented to managers. Managers were typically able to distinguish unidentified profiles of their own organisation from profiles of other organisations, suggesting high levels of face validity.

By combining the results from the expert panel with those from the pilot survey and the follow up managerial assessment, a final selection of items for inclusion in the strategy development questionnaire, were identified. Six multi-item scales were developed from the items.

41 items were used to operationalise the dimensions. 8 items related to the planning dimension (example item; 'We make strategic decisions based on a systematic analysis of our business environment'), 6 to the incremental dimension (eg. 'Our strategy develops

through a process of on-going adjustment'), 7 to the political dimension (eg 'The vested interests of particular internal groups colour our strategy'), 7 to the cultural dimension ('The strategy we follow develops from "the way we do things around here"'), 6 to the command dimension ('The chief executive determines our strategic direction'), and 7 to the enforced choice dimension ('Our freedom of strategic choice is severely restricted by our external business environment'). These items were located within a larger questionnaire concerning strategy development, organisational context and related issues. This questionnaire was then administered to a large sample of executives. Respondents were asked to respond to each item using a 7 point Likert scale ranging from 1 (you *strongly disagree* with the item in relation to your organisation) to 7 (you *strongly agree* with the item in relation to your organisation).

RESULTS

Completed questionnaires were gained from 686 managers in 122 organisations. By gaining information on the strategy development process from multiple sources within the same organisation an estimate could be developed to indicate the process of strategy development occurring within the organisation. Consequently aggregation is applied to move the unit of analysis from that of the individual senior managers to that of the organisation. This inevitably involves some level of simplification. However, it avoids the risk of idiosyncrasy and is justified as the unit of analysis utilised in the remainder of this paper is that of the organisation.

The organisations surveyed were drawn from the manufacturing (34.4%), service (32.8%), and public (32.8%) sectors across the UK. The size of the organisations ranged from 10 to <100,000 employees. Turnover ranged from less than £1M (5%), £1-10M (14%), £11-100M (28.9%), £101-500M (25.6%), £501-1,000M (9.1%), to over £1,000M (17.4%).

An Empirical Test of Dimensions of Strategy Development

A principal components analysis (PCA) with oblique rotation was performed on the 686 managerial responses to the 41 strategy development items to identify the underlying structure of responses. This analytical procedure allows the empirical validation of the relationship between the items and the dimensions. Oblique rotation was employed as it was expected that the dimensions would account for the process operating in combination, and therefore the factors would be correlated. For inclusion of items in the factor model an item factor loading (on basis of the structure matrix loading) of 0.45 or above was required. This level of loading, which accounts for 20% of overlap of variance between the item and the factor on which they loaded, represents a level indicated to be "fair" by Comrey (1973).

To assess the stability of the factor solution a split half procedure was employed. Half the data set was randomly selected and the PCA was undertaken to identify the underlying structure. The remaining data was then used to replicate the exercise. The resulting factor solutions were highly similar. The PCA reported here is based on the data set as a whole.

The number of factors for extraction was estimated using Cattell's scree plot (Cattell, 1966) which indicated a six factor solution (accounting for 48.7% of the variance in the items). Further, a six factor solution would be expected based on the theoretical underpinnings of the research and from which the item pool was derived ¹.

Having extracted the principal components or factors their composition and reliability were examined. Five of the factor scales produced internal reliability (as measured by Cronbach alpha) of greater than 0.7 (Table 1), a level which Nunnally (1967) suggests is appropriate. The factor which did not attain this level of internal consistency produced an alpha of 0.66. However, given the factor structure and the theoretical underpinnings this was retained in the study.

Insert Table 1 About Here

Whilst it is argued that these six dimensions identified through the PCA represent components of the strategy development process, they are not presented here as definitive: it is acknowledged that other accounts of the process may exist. However the resulting framework does represent a rigourously developed, theoretically and empirically grounded basis upon which an examination of configurations of strategy development processes could be examined.

Identifying Configurations of Strategy Development Processes

In this section of the paper we explain the means of searching for configurations of strategy development processes using the dimensions identified above. The section which follows then reports the findings of this search in relation to the propositions put forward at the beginning of the paper; and discusses the meaning and significance of the configurations.

Cluster analysis lends itself well to dealing with problems in the strategy area (Datta, 1980) and the technique has been widely used in strategic management research (eg Dess and Davis, 1984; Galbraith and Schendel, 1984; Hambrick, 1983, 1984; Harrigan; 1985; Kim and Lim, 1988; Miller, 1988). Since cluster analysis operates to identify empirically those cases which are most closely related across a number of variables and locates these within the same clusters or groups, it provides a means through which inductive configurations can be developed.

Strategy development types were developed on an organisational basis. This involved the use of aggregated data from the multiple respondents to develop a set of scores on the six strategy development dimensions for each organisation. These organisational level scores were subsequently employed within the cluster analysis. Hierarchical clustering using Wards method within the SPSS-X package was utilised. Standardised data was used in the cluster analysis. In all subsequent analysis non standardised data was used.

¹ Details of the principal component analysis are available from the authors on request

The cluster solution suggested 6 strategy development types, with a sharp break in the efficiency of classification being identified at the 116th step. The characteristics of each of the clusters (strategy development types) in terms of their means on the six strategy development dimensions are shown in Table 2. The mean of each of the clusters on the dimensions is shown as a reference point for interpretation. Cases where the mean significantly deviates at the 0.05 level or below from the combined mean for the other 5 clusters (as measured using Mann-Whitney U test) on any dimension are highlighted. Those above the mean are under-scored while those below the mean are placed in italics. These are used in the commentary below to highlight the distinguishing characteristics of each of the clusters.

Insert Table 2 About Here

As with any research there is a requirement to establish the accuracy and generalisability of the results. To this end the reliability and validity of the strategy development dimensions have been assessed through statistical analysis (PCA, Cronbach alpha), managerial assessment, and use of an expert panel. The validity and reliability of the cluster solution presents additional concerns.

In the development of clusters there are no clear guide-lines for defining and determining the boundaries of the clusters and the appropriate number of clusters to extract (Punj and Stewart, 1983). Consequently some assessment is required as to whether the resultant groups do indeed differ in reality (Datta, 1980) or represent natural groupings in the data (Punj and Stewart, 1983). To assess this both a MANOVA (Aldenderfer and Blashfield, 1984) and a discriminant function analysis (Kim and Lim, 1988) were performed. The results from both indicated that the clusters significantly differed from each other on the classifying variables, the strategy development dimensions. Indeed, through the discriminant function analysis 93% of organisations could be correctly classified. While these results are not surprising they give support to the notion that the clusters represent meaningful groupings of the data. Although, the statistical significance of clusters is confirmed, there is an additional need to establish context validity. This is demonstrated below.

DISCUSSION OF FINDINGS

In this section the results of the analyses are discussed in relation to the propositions put forward at the beginning of the paper.

Proposition 1, that *the strategy development process will typically be characterised by multiple dimensions* is supported. Only 12.3% of the 122 organisations in the sample were seen to have a strategy development process characterised by one dimension in isolation (Table 3). Of those organisations whose strategy development process was unidimensional, this was most commonly associated with the planning dimension. For the remaining organisations the strategy development process was characterised by multiple dimensions. This supports what has been suggested theoretically and seen in other empirical studies (Hart and Banbury, 1994).

Insert Table 3 About Here

Proposition 2, that *there will be discernible configurations of strategy development processes* is also supported. Through the clustering procedure used it is evident that clear and discernible configurations underlie the strategy development process. These types are seen to be supported statistically in terms of representing real groupings within the data. They are also given support in terms of context validity, from two subjective sources. In the first instance the six types were presented to two separate judges, who were both familiar with the research, the underlying strategy development framework and with using the material in an organisational context. The judges were asked to interpret the configurations and assess whether the patterns made sense in relation to organisational patterns they were familiar with. In both cases they were able to do this with relative ease. They were then asked to describe the types of organisations which they judged would be classified within each type. Again they were able to indicate general characteristics which fitted with the analysis presented later in this paper.

The second level of support for context validity relates to whether the patterns make sense in relation to the strategy development process. This is discussed below where each of the six types is interpreted in relation to theoretical explanations of strategy development processes.

A Description of Strategy Process Configurations

Strategy Development Type 1 - *Planning*. The first cluster is the smallest by organisational membership (3 members), though it represents what may be seen to be the archetypical approach to strategy development, that of planning. Indeed, the cluster is not merely characterised by the highest mean score on the planning dimension of any of the six clusters or types, it is also characterised by the lowest mean scores on the remaining five dimensions.

This process is driven by definite and precise strategic objectives against which potential strategic options are evaluated. A final decision is made only after a systematic analysis of the business environment has been conducted. Once taken, strategy is made explicit in the form of precise plans. Such precision is also seen to exist in the procedures the organisation has in place for achieving it's objectives, and for aiding the search for solutions to strategic issues. This precision is possible because of a clear vision or mission of where the organisation is heading in the future; a mission upheld throughout the organisation by a set of commonly shared beliefs.

The procedural precision of this process is not characterised to the same extent by the remaining five dimensions.

Strategy Development Type 2 - *Logical Incremental*. The second cluster comprises 11 members or 9% of the sample. As with the previous cluster, strategy development is

characterised by the planning dimension but in conjunction with the incremental dimension. The remaining four dimensions are not seen to characterise the process.

As with the previous configuration the process is characterised by standardised procedures to develop potential strategic options which are assessed against objectives before an option is selected. The process centres on the systematic collection and assessment of information and the definition of strategic objectives, though within an iterative adaptive approach to the environment. Strategy is adjusted to match changes in the market place; changes which are sensed through constant analysis. While there are clear strategic objectives the means of attaining these can be altered and refined as changes occur in the operating environment, such that strategy develops through a process of ongoing adjustment and iterative refinements. The resulting small scale changes help keep the organisation in line with changes in the business environment. Consequently, early commitment to a strategy is likely to be tentative and subject to review, only being finalised once a strategy's impact on the organisation is known. Indeed, the iterative nature of the approach to the environment, where planning activities are moderated by a pragmatic resistance to the early commitment to a strategy, would suggest the notion of Logical Incrementalism (Quinn, 1980).

Strategy is not seen to be directed and determined by external forces, though these are recognised and responded to through the adaptive approach described above. Nor is strategy development characterised by a senior figure either driving strategy or imposing their strategic agenda without consultation with the top team. This lack of power based influence is seen further as strategy is not a reflection of the interests of particular groups.

Strategy Process Type 3 - *Rational Command*. This strategy process type, which consists of 36 organisations, representing 29.5% of the organisations in the sample, is associated with both the planning and command dimensions. It is seen to be significantly higher on the planning dimension than the fourth and sixth clusters, though significantly lower than the first cluster on this dimension. On the command dimension it is significantly higher than all other clusters, with the exception of the sixth cluster.

Strategy development within this cluster is very much about a senior figure, who is seen to a large extent to determine strategic direction and subsequently drive strategy. It is the aspirations for the future of the organisation which this individual has, which are seen to provide the focus for strategic direction. This direction may represent a clear view of a future position which this individual holds and in this sense may relate to a notion of vision or mission. Strategy though is not solely related to the desires of a commanding individual, it is also related to the activities of planning. There are likely to exist definite and precise strategic objectives, which form a basis against which potential strategic options can be evaluated. A final decision to follow a particular strategic option, although influenced by the senior figure, will only be made after consideration of both the business and internal environments. Once determined, the resulting strategy will be disseminated throughout an organisation through plans and through a shared purpose and mission.

Strategy is not seen to be driven by cultural or political influences. Neither is it seen to be limited by particular organisational "ways of doing things" and political groups are not seen

to attempt to gain influence over strategy. Nor is strategy imposed by external parties. Strategic changes are seen to be driven from within rather than from outside the organisation. Indeed managers in this mode are likely to see themselves as able to influence the business environment in which they operate.

The first three of the configurations therefore correspond to the notion of strategy development as a deliberate, intentional, rational process. Managers are seen to be in control of their destiny, able to influence the context in which the organisation operates and influence future direction. Items relating to the planning dimension are consistently present; but this does not mean that the rational intentionality of the process is always defined by procedures associated with formal planning. Indeed the fact that there are so few organisations with a "pure" planning approach is worthy of note. Rather strategy development as a rational intentional process is more commonly associated with the concept of "logical incrementalism" and the notion of strategy development being vested in an individual (or small group) who is seen to behave rationally.

Strategy Development Type 4 - *Muddling Through*. The fourth cluster, which consists of 11 organisations or 9% of the sample, is characterised by the cultural, incremental and political dimensions in conjunction with an uncharacteristic planning dimension. Strategy development is influenced by the political processes of the organisation. Strategy develops through a process of bargaining and negotiation between groups or individuals; and compromise which accommodates the conflicting interests of powerful groups and individuals. This final decision, and the political processes through which it is determined, are influenced by the power of those involved. The greater the power a group can exercise the greater their chance of having their favoured strategic option adopted as strategy. Influence and power can be enhanced through the control of resources which are critical to the organisation's activities, and by the control of sensitive information. As such the vested interests of particular internal groups are seen to colour strategy.

These political processes operate in conjunction with cultural influences and past experience. A "way of doing things" and the associated beliefs and assumptions are seen to influence strategic direction. Further, strategy is seen to be directed by routines and procedures which are based on, and are a reflection of, organisational history. Organisational history and its associated culture is also likely to influence the identification of issues and options, and mediate the choice of strategy. This cultural influence is likely to result in a degree of resistance being experienced when strategic changes are implemented which do not sit well with the organisation's culture.

Strategy is also seen to develop through a process of on-going adjustment, strategy emerging gradually in response to changes in the business environment. This helps to ensure that the organisation keeps in line with its marketplace. Commitment to a strategy tends to be tentative and subject to continual review. There are no well defined procedures seen to aid either the formulation of strategy, the search for solutions to strategic problems in the organisation, nor the achievement of its objectives. When deciding on a strategy various alternative strategic options are unlikely to be developed or assessed.

Here, then, there is less of a notion of managers being in control; and certainly not through the sort of analytic, evaluative rationality of the previous three configurations. Whilst the resulting pattern of strategy development is seen to be adaptive and incremental, as observed elsewhere (Johnson, 1988), incrementalism here is the outcome of the political and cultural aspects of an organisation.

Strategy Development Type 5 - *Externally Dependent*. This strategy development type contains 36 organisations (29.5% of sample) and is characterised by two dimensions those of the enforced choice and the political. This cluster is seen to be significantly higher on the enforced choice dimension than any of the other clusters and to be higher on the political dimension than the first, second, and third clusters.

Strategy is not seen to be set from within an organisation, rather it is determined and imposed by external forces. These forces may represent a dominant environment, a parent organisation, legislation, or direct governmental pressure. As such freedom of strategic choice is seen to be severely restricted. Indeed, strategic changes are likely to have been instigated from outside an organisation, not through an active attempt to be sensitive to the need to change but from direct external pressures.

While all decisions are not determined by external bodies, barriers in the business environment significantly restrict the strategies which can be followed, to the extent that common strategies may be followed across an industry. Given the restrictions of the operating environment in this mode of strategy development organisations are limited in their ability to influence their environment but rather operate to buffer themselves from it.

This external influence is seen to operate in conjunction with the political processes of an organisation. Those groups who deal with the external environment and operate as boundary spanners (Jemison, 1981), who control critical resources which are externally derived, and who control information much of which is likely to relate to the imperatives of the external environment attain greater influence over strategy. Access to sensitive information is also seen to increase the influence and decision making power of a group. This political activity means that the vested interests of particular internal groups is seen to colour strategy. Indeed, these groups may interpret external influences to reflect their own strategic agendas, and so increase the chances of a strategic option they are sponsoring being adopted. However this aspect of the process relates to the control and manipulation of peripheral elements of a strategy. The substantive part of strategy is set by those external to an organisation and as such bargaining and negotiation inside an organisation around the strategic agenda or the strategy followed tends not to be seen. As a result changes in strategy may be attained through the restriction and blockage of a strategy's implementation.

This orientation towards externally dependent strategy does not mean that these organisations have no planning systems; indeed organisations in this group are no less likely to have a dedicated planning department than organisations in the other clusters. However, while such systems may be in operation procedurally, it is not perceived that they impact on the strategy being developed.

This configuration is the one that corresponds most obviously to the ecologists' view of how strategies develop in organisations. Only to a very limited extent, are managers able to influence the strategic direction of their organisations: they may set up planning systems; and they may seek to buffer the deterministic influence of external forces through political activity within and between the organisation and those forces; but it is external forces that effectively determine the strategic direction. However, it is interesting to observe that there are other organisations in which managers see similarly intrusive forces at work, but in which they also see more managerial influence on strategy development; these are represented by the next configuration.

Strategy Development Type 6 - *Embattled Command*. The sixth strategy development type (25 members, 20.5% of sample) is process driven. Here strategy is seen to be characterised by the less "intentional" (from a rational view point) dimensions, those of cultural, political, command, and enforced choice, with both planning and incremental being seen to be uncharacteristic. The cluster is seen to be characterised significantly more by the command and enforced choice dimensions than all the other clusters. In contrast to the *Externally Dependent* type organisations, the process of strategy development here is characterised by political and cultural influences with a senior organisational figure having a high level of control over strategy (the command dimension). The process is not seen to be related to planning or a logical adaptive approach; rather the strategy reflects and accommodates the vested and conflicting interests of particular groups which may seek to influence strategy development through the provision of "appropriate" information or the control of resources; and gain influence by blocking or restricting implementation.

The overall strategic direction of the organisation is also seen to be related to powerful individuals or groups, most notably the chief executive officer (CEO). The CEO's view of the organisation's future is seen to impact on the organisation's strategy. The control attained by the CEO is authoritative and results in the imposition of strategic decisions (rather than consulting the top management team). As such, it is apparent that this view of the future or the "vision", is not considered to be either clear, or commonly shared, throughout the organisation. Even though the CEO is seen to have ultimate control, his power is moderated by political and cultural pressures.

However, strategy is not solely related to the exercise of power and influence but also reflects a shared acceptance of a way of doing things which relates to common beliefs about the organisation and what it should be doing. These beliefs which direct the search for information and the assessment of strategic options are not overly tied to the history of the organisation, rather they represent a shared set of values and beliefs which relate to the organisation's future.

Although there is a strong internal orientation to the process, it is not entirely internally driven. Barriers are seen to exist in the business environment which restrict strategic choice. Indeed, forces outside an organisation are on occasions seen to actually determine and impose strategies. Even though internal activity is undertaken organisations are not seen to be able to greatly influence the business environment in which they operate.

It is, of course, important to re-emphasize that these configurations are based on managers' perceptions of the strategy development processes at work in their organisations. It can, then, be argued that there is likely to be an orientation towards concepts of greater, rather than less, managerial influence and control. Whilst this is acknowledged, it is interesting to note the patterns of managerial influence that are perceived to exist; that these do not typically conform to archetypal planning notions; that they do support developing concepts of incremental strategy development (both "logical" and socially constructed); and that they bear out the strong influence of political and cultural processes within most of the explanations of strategy development. Moreover, the explanatory power of the configurations is further enhanced when the contextual factors associated with them are explored.

Relating Configurations to Contextual Factors

The cluster analysis described above has effectively classified the 122 organisations into six strategy development process types on the basis of the characteristics of the six strategy development process dimensions. At this stage we can address proposition 3, that *configurations of strategy development will relate to contextual variables both at an industry level and an organisational level.*

In this section the strategy development types are examined to identify contextual variables against which they are seen to differ. These contextual variables related to industry sector, environmental conditions, and organisational size. Table 4 presents a summary of the descriptive statistics.

Insert Table 4 About Here

As is clear from this table the third proposition is supported, though limitations are acknowledged and discussed below. The primary discriminants between the strategy development process types are associated with perceived environmental stability and perceived environmental growth or decline. Also industry sector is seen to relate to strategy type. Whilst the difference between types is seen to be significant using chi-square, the assumptions of this particular statistical procedure in terms of minimum cell numbers is violated and so can not be used in a confirmatory manner. However it provides some evidence that sector impacts on process.

The first strategy development type - *Planning* - consists of organisations operating in the service sector, however it must be borne in mind that this group consists of only three organisations. These are large organisations in which the operating environment is seen to be relatively stable but with some growth though with a move towards a state of maturity. The market is seen to be more competitive in nature than the markets which characterise the other clusters.

The second type, *Logical Incremental* while not as growth orientated an environment as the first and third types is still characterised by growth and stability. This environment is seen

to be mature. Firms are seen to come from both the manufacturing and the service sectors. While the service firms in this type are seen to operate in competitive markets, the manufacturers are seen to operate in fragmented markets with lower levels of competition. This, then, would seem to describe a more benign market, in which experimentation within an overarching rational and intentional approach can be followed. Indeed, in relation to sales growth and market share, organisations characterised by this strategy development process type tend to see these to be higher than other businesses within the industry.

The third strategy development type, *Rational Command*, is characterised by large manufacturing organisations and financial service organisations. Indeed, 60% of all the manufacturing organisations in the sample fall within this type. These manufacturers differ from the others in that they tend to manufacture consumer goods. They also differ particularly from *Externally Dependent* organisations in that they are less likely to be subsidiaries. Again the nature of the environment is seen to be growing and stable, though it may be competitive - indeed in the manufacturing organisations the environment is seen to be highly competitive. However, the interaction between the leadership role and the planning process is seen to provide an organisational context through which pro-active strategic moves can be made.

The picture which emerges from the descriptions of contexts associated with the first three configurations is that these include organisations with a good deal of autonomy, operating within relatively attractive or benign environments. This does, of course, square with the underlying view of managers having the capacity to directly influence the strategy development process.

The fourth strategy development type *Muddling Through* is made up predominantly of professional service firms (eg consultancy or law). These firms tend to be independent in status and relatively small in size (750 employees) as compared to the other organisations in the sample. In contrast to the previous three strategy process types the perceived nature of the environment is seen to be turbulent and unstable, though the market in which they operate tends to be seen as new and growing. The strategy development process is primarily driven by internal processes with a tendency to do things in a manner in which they have always been done, with the external world being less significant than internal routines in setting strategy.

Unlike many corporations where an individual's involvement in decision making at an operational level may be strongly influenced by role and function, partnerships, which are likely to characterise these professional service firms, operate in a less structured manner. Decision outcomes are more likely to reflect the influence and desires of various individuals and interest groups, the strength of which may change given different issues or projects. Perhaps not surprisingly, then, the process of strategy development is seen to be primarily driven by political and cultural processes and, arguably as a consequence, an adaptive or incremental response to an influential environment. Further, the professional ethos which is likely to permeate these organisations and their members provides a common understanding and an established power structure through which political activity can be exercised.

The strong configuration within this sector may result from the professional nature and professionalism which can produce normative pressures for isomorphic change (DiMaggio and Powell, 1983). The movement of staff between firms, the similarity of recruitment and training process, of promotion criteria, and the restrictions for entry into, and progression through, a profession means that individuals are socialised into "knowing" what is appropriate and expected; and those who reach the top are likely to be similar to each other in managerial style.

The fifth type, *the Externally Dependent*, is characterised by organisations operating in the public sector and by larger manufacturing and financial service subsidiaries. Over 50% of the public sector organisations in the sample are classified by this strategy process type and, of the private sector organisations, these tend to be subsidiaries. Whether from the public or private sectors, organisations within this type operate within threatening, declining, unstable and hostile environments. These organisations then are seen to be under threat whether from their market, a parent corporation, governmental pressure or a combination of these. Not surprisingly given the environment the non public sector organisations tend to have low sales growth and low increases in market share.

The sixth, and final type - *Embattled Command* - is again characterised by an unstable and declining operating environment. Here though the organisations tend to be smaller than in the previous type, the *Externally Dependent* and are typically more specialist manufacturers and financial service providers. In addition a number of public sector organisations are also within this group, though these are operating under more commercial pressures, particularly from the threat of competition (for example local government services facing compulsory competitive tendering). Whether in the public or private sectors competition is seen to be high. The market share commanded by these organisations is seen to be lower than their competitors as is the rate of market share increase. In this situation there is a greater degree of command - reflecting pro-active strategizing - in the form of "battling through". This may reflect a shift in the orientation of the organisation with the introduction of a new senior figure, so often the case in subsidiaries under threat, or public sector organisations facing new challenges.

CONCLUSIONS and FUTURE RESEARCH

A questionnaire, in itself, is a relatively blunt instrument to make sense of complex processes and the contextual variables used in this study have inevitably been restricted due to the exploratory nature of the research. However the results reported here suggest that there is a link between the context of an organisation and the strategy development process which is employed. An extension of this research to explore the process context relationship more closely may enable clearer relationships to be identified to the dimensions of organisational environment: such as uncertainty, change, dynamism, complexity, and munification.

Any consideration of contingent explanations of processual variations quickly runs into the risk of exponential complexity. It is not the suggestion here that the research agenda

should try to build a contingency model sophisticated enough to account for all variations; but it is recognized that if strategy development processes are to be understood, then there must be sufficient questioning of the relationship of process and context to provide meaningful explanation. Hitherto this has been difficult to do using limited case based examples; this framework provides a relatively sensitive instrument by which it can be explored.

The data used in the paper has provided a "snap shot" of the process of strategy development rather than the longitudinal nature of the process. A longitudinal approach employing the questionnaire at intervals of time to assess the process may indicate the stability of the process and the dimensions as perceived by managers; and may be especially useful in illuminating processual issues at times of strategic change in organisations.

Additionally as with much research in the strategic management field there is a tendency to relate organisational aspects to performance (eg Galbraith and Schendel, 1984; Hart and Banbury, 1994) in the hope of finding a universal relationship. Through a configurational approach this may be possible.

Whilst acknowledging limitations in the research, which in themselves inform our future research agenda, our findings do demonstrate that these dimensions are seen to operate in conjunction and are rarely seen by managers to characterise an organisation's strategy development process in isolation. Rather configurations or patterns of the dimensions are identified as commonly occurring and are seen to be associated with particular contextual variables. Moreover, the configurations correspond to theoretical explanations of strategy development processes. However they suggest that such explanations are not necessarily mutually exclusive in theoretical terms; but rather that they may be more or less appropriate in different contexts.

REFERENCES

- Aldenderfer, M.S. and R.K. Blashfield (1984). *Cluster Analysis*, Sage, London.
- Aldrich, H.E. (1979). *Organizations and Environments*, Prentice Hall, Englewood Cliffs, NJ.
- Allison, G.T. (1971). *Essence of Decision - Explaining the Cuban Missile Crisis*, Little, Brown and Company, Boston.
- Ansoff, H.I. (1965). *Corporate Strategy*, McGraw Hill, New York.
- Bailey, A. and G. Johnson (1992). 'How strategies develop in organisations'. In Faulkner, D. and G. Johnson (Eds.), *The Challenge of Strategic Management* pp. 147-178, Kogan Page, London.
- Bailey, A. and Johnson, G. (1993). 'Managerial understanding of strategy development', Paper presented at the Strategic Management Society Conference, Chicago.
- Bartunek, J.M. (1984). 'Changing interpretive schemes and organizational restructuring: The example of a religious order', *Administrative Science Quarterly*, 29(3), pp. 355-372.
- Bourgeois, L.J. and D.R. Brodwin (1984). 'Strategic implementation: Five approaches to an elusive phenomenon', *Strategic Management Journal*, 5(3), pp. 241-264.
- Bower, J. (1970). *Managing the Resource Allocation Process: A Study of Corporate Planning and Investment*, Irwin, Georgetown, Ontario.
- Cattell, R.B. (1966). 'The scree test for the number of factors', *Multivariate Behavioral Research*, 1, pp. 245-76.
- Chaffee, E.E. (1985). 'Three models of strategy', *Academy of Management Review*, 10(1), pp. 89-98.
- Chakravarthy, B.S. and Y. Doz (1992). 'Strategy process research: Focusing on corporate self-renewal', *Strategic Management Journal*, 13, pp. 5-14.
- Child, J. (1972). 'Organisational structure, environment and performance the role of strategic choice', *Sociology*, 6, pp. 1-22.
- Comrey, A.L. (1973). *A First Course in Factor Analysis*, Academic Press, New York.
- Cyert, R.B. and J.G. March (1963). *A Behavioural Theory of the Firm*, Prentice Hall, Englewood Cliff, NJ.
- Datta, Y. (1980). 'New directions for research in business strategy', *Journal of General Management*, 6, pp. 48-60.
- Derkinderen, F.G.J. and R.L. Crum (1988). 'The development and empirical validation of strategic decision models', *International Studies of Management and Organisation*, 18(2), pp. 29-55.
- Dess, G.G. and P.S. Davis (1984). 'Porter's (1980) generic strategies as determinants of strategic group membership and organisational performance', *Academy of Management Journal*, 27, pp. 467-488.
- Dess, G.G., S. Newport, and A.M.A. Rasheed (1993). 'Configuration research in strategic management: Key issues and suggestions', *Journal of Management*, 19(4), pp. 775-795.

DiMaggio, P.J. and W.W. Powell (1983). 'The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields', *American Sociological Review*, 48(2), pp. 147-160.

Eisenhardt, K.M. and M.J. Zbaracki (1992). 'Strategic decision making', *Strategic Management Journal*, 13, pp. 17-37.

Everitt, B.S. (1980). *Cluster Analysis*, Wiley and Son, New York.

Feldman, S.P. (1986). 'Management in context: An essay on the relevance of culture to the understanding of organizational change', *Journal of Management Studies*, 23(6), pp. 587-607.

Fredrickson, J.W. (1983). 'Strategic process research: Questions and recommendations', *Academy of Management Review*, 8(4), pp. 565-575.

Galbraith, C. and D. Schendel (1983). 'An empirical analysis of strategy types', *Strategic Management Journal*, 4, pp. 153-175.

Grinyer, P.H. and J.C. Spender (1979). *Turnaround: Managerial Recipes for Strategic Success: The Fall and Rise of the Newton Chambers Group*, Associated Business Press, London.

Hamel, G. and C.K. Prahalad (1989). 'Strategic intent', *Harvard Business Review*, 67(3), pp. 63-76.

Hambrick, D.C. (1981). 'Environment, strategy and power within top management teams', *Administrative Science Quarterly*, 26, pp. 253-76.

Hambrick, D.C. (1983). 'An empirical typology of mature industrial product environment', *Academy of Management Journal*, 26(2), pp. 213-230.

Hambrick, D.C. (1984). 'Taxonomic approaches to studying strategy: Some conceptual and methodological issues', *Journal of Management*, 10(1), pp. 27-41.

Hannan, M.T. and J.H. Freeman (1989). *Organizational Ecology*, Harvard University Press, Cambridge, Mass.

Harrigan, K.R. (1985). 'An application of clustering for strategic group analysis', *Strategic Management Journal*, 6, pp. 55-73.

Hart, S.L. (1992). 'An integrative framework for strategy-making processes', *Academy of Management Review*, 17(2), pp. 327-351.

Hart, S. and C. Banbury (1994). 'How strategy-making processes can make a difference', *Strategic Management Journal*, 15 pp. 251-269.

Hickson, D.J., R.J. Butler, D. Gray, G.R. Mallory, and D.C. Wilson (1986). *Top Decisions - Strategic Decision-Making in Organisations*, Basil Blackwell, Oxford.

Hirschman, A.O. (1970). *Exit, Voice, and Loyalty*, Harvard University Press, Cambridge, Mass.

Huff, A.S. (1982). 'Industrial influences on strategy reformation', *Strategic Management Journal*, 3, pp. 119-131.

- Huff, A.S. and R.K. Reger (1987). 'A review of strategic process research', *Journal of Management*, 13(2), pp. 211-236.
- Jemison, D.B. (1981). 'Organizational versus environmental sources of influence in strategic decision making', *Strategic Management Journal*, 2(1), pp. 77-89.
- Johnson, G. (1987). *Strategic Change and the Management Process*, Basil Blackwell, Oxford.
- Johnson, G. (1988). 'Re-thinking incrementalism', *Strategic Management Journal*, 9, pp. 75-91.
- Kim, L. and Y. Lim (1988). 'Environment, generic strategies and performance in a rapidly developing country: A taxonomic approach', *Academy of Management Journal*, 31(4), pp. 802-827.
- Lindblom, C.E. (1959). 'The science of muddling through', *Public Administration Review*, 19, pp. 79-88.
- Meyer, A.D., A.S. Tsui and C.R. Hinings (1993). 'Configurational approaches to organisational analysis', *Academy of Management Journal*, 36(6), pp. 1175-1195.
- Miller, D. (1988). 'Relating Porters' business strategies to environment and structure: Analysis and performance implications', *Academy of Management Journal*, 31(2), pp. 280-308.
- Mintzberg, H. (1978). 'Patterns of strategy formation', *Management Science*, 24(9), pp. 934-948.
- Mintzberg, H. (1990). 'Strategy formation: Schools of thought'. In Fredrickson, J.W. (Ed.), *Perspectives on Strategic Management*, pp. 105-235, Harper Business, New York.
- Mintzberg, H. and J.A. Waters (1982). 'Tracking strategy in an entrepreneurial firm', *Academy of Management Journal*, 25(3), pp. 465-499.
- Mintzberg, H. and J.A. Waters (1985). 'Of strategies, deliberate and emergent', *Strategic Management Journal*, 6, pp. 257-72.
- Nelson, R.R. and S.G. Winter (1982). *An Evolutionary Theory of Economic Change*, Belknap Press, London.
- Nunnally, J.C. (1967). *Psychometric Theory*, McGraw-Hill, New York.
- Nutt, P.C. (1984). 'Types of organizational decision-processes', *Administrative Science Quarterly*, 29(3), pp. 414-50.
- Pettigrew, A.M. (1973). *The Politics of Organizational Decision Making*, Tavistock Publications, London.
- Pettigrew, A.M. (1985). *The Awakening Giant*, Basil Blackwell, Oxford.
- Phillips, L.W. (1981). 'Assessing measurement error in key informant reports: A methodological note on organisational analysis in marketing', *Journal of Marketing Research*, 18, pp. 395-415.
- Pfeffer, J. and G.R. Salancik (1978). *The External Control of Organizations: A Resource Dependence Perspective*, Harper and Row, New York.

- Pondy, L.R. and A.S. Huff (1985). 'Achieving routine in organizational-change', *Journal of Management*, 11(2), pp. 103-116.
- Punj, G. and D.W. Stewart (1983). 'Cluster analysis in marketing research: Review and suggestions for application', *Journal of Marketing Research*, 20, pp 134-148.
- Quinn, J.B. (1980). *Strategies for Change - Logical Incrementalism*, R.D. Irwin, Georgetown, Ontario.
- Rajagopalan, N., A.M.A. Rasheed, and D.K. Datta (1993). 'Strategic decision processes: Critical review and future directions', *Journal of Management*, 19(2), pp. 349-384.
- Schon, D.A. (1983). *The Reflective Practitioner: How Professionals Think in Action*, Temple Smith, London.
- Schwenk, C.R. (1988). *The Essence of Strategic Decision Making*, D.C. Heath and Co., Lexington, MA.
- Shrivastava, P and J.H. Grant (1985). 'Empirically derived models of strategic decision making processes', *Strategic Management Journal*, 6, pp. 97-113.
- Spender, J-C. (1989). *Industry Recipes: The Nature and Source of Managerial Judgement*, Blackwell Ltd., Oxford.
- Steiner, G.A. (1969). *Top Management Planning*, MacMillan, New York.
- Venkatraman, N. and J.H. Grant (1986). 'Construct measurement in organizational strategy research: A critique and proposal', *Academy of Management Review*, 11(1), pp. 71-87.
- Westley, F. and H. Mintzberg (1989). 'Visionary leadership and strategic management', *Strategic Management Journal*, 10, pp. 17-32.

TABLE 1
The Internal Consistency of the Dimensions

Dimension	Number of Items	Average Correlation	Coefficient Alpha	Scale Mean
Planning	8	0.69	0.90	4.05
Incremental	6	0.40	0.66	4.40
Cultural	7	0.46	0.75	4.33
Political	7	0.47	0.75	4.30
Command	6	0.62	0.84	4.45
Enforced Choice	7	0.54	0.81	4.21

TABLE 2
Cluster Means on Dimensions

Cluster	Nos	Planning	Incremental	Cultural	Political	Command	Enforced Choice
1	3	<u>1.80500</u>	<i>-1.47447</i>	<i>-1.92953</i>	<i>-1.65377</i>	<i>-1.07053</i>	<i>-1.07810</i>
2	11	<u>.84231</u>	<u>.36495</u>	.09061	<i>-.58346</i>	<i>-.89605</i>	<i>-.71944</i>
3	36	<u>.46291</u>	<i>-.09368</i>	<i>-.02051</i>	<i>-.16600</i>	<u>.49750</u>	<i>-.55386</i>
4	11	<i>-1.36029</i>	<u>.47761</u>	<u>1.07818</u>	<u>.76755</u>	<i>-.29714</i>	<i>-.21291</i>
5	36	.12985	<i>.16347</i>	<i>-.13853</i>	<u>.37081</u>	<i>-.00867</i>	<u>.57660</u>
6	25	<i>-.94548</i>	<i>-.31251</i>	<u>.37413</u>	<u>.64772</u>	<u>1.03601</u>	<u>.78191</u>
Mean	122	<i>-.02115</i>	<i>-.00373</i>	.08767	.16910	.22263	.05636
SD		.92900	.52471	.72501	.71648	.80027	.87558

Significance measured using Mann-Whitney U test

TABLE 3

Number of Dimensions Characterising Strategy Development

No. Dimensions	No. Organisations	
One	15	(12.3%)
Two	38	(31.1%)
Three	35	(27.9%)
Four	31	(25.4%)
Five	4	(3.3%)
Six	0	(0%)
Total	122	

TABLE 4
Cluster Means on Contextual Variables

Contextual Variables	Cluster/Type						Mean	SD
	1	2	3	4	5	6		
Declining/Growing **	5.00	4.73	4.87	4.45	4.27	3.88	4.61	.89
Unstable/Stable **	4.18	4.77	4.54	3.62	3.91	3.71	4.11	.99
Hostile/Benign	3.73	3.84	3.78	4.01	3.64	3.59	3.73	.97
Mature/New	2.23	2.84	3.22	3.62	3.18	3.31	3.20	1.01
Competitive Low/High *	1.88	2.17	2.08	2.83	2.62	2.88	2.47	1.18
Size of Turnover	4.00	3.91	3.92	2.73	3.97	3.40	3.72	1.42
Number Employees	4100	1700	9000	760	13400	1750	7342	26339

* significant at 0.05 level; ** significant at 0.01 level

**CRANFIELD SCHOOL OF MANAGEMENT
WORKING PAPER SERIES
List No 6, 1992**

- SWP 1/92 Mike Sweeney
"How to Perform Simultaneous Process Engineering"
- SWP 2/92 Paul Burns
"The Management of General Practice"
- SWP 3/92 Paul Burns
"Management in General Practice: A Selection of Articles"
- SWP 4/92 Simon Knox & David Walker
"Consumer Involvement with Grocery Brands"
- SWP 5/92 Deborah Helman & Adrian Payne
"Internal Marketing: Myth versus Reality?"
- SWP 6/92 Leslie de Chernatony & Simon Knox
"Brand Price Recall and the Implications for Pricing Research"
- SWP 7/92 Shai Vyakarnam
"Social Responsibility in the UK Top 100 Companies"
- SWP 8/92 Susan Baker, Simon Knox & Leslie de Chernatony
"Product Attributes and Personal Values: A Review of Means-End Theory and Consumer Behaviour"
- SWP 9/92 Mark Jenkins
"Making Sense of Markets: A Proposed Research Agenda"
- SWP 10/92 Mike Sweeney & Ian Oram
"Information Technology for Management Education: The Benefits and Barriers"
- SWP 11/92 Keith Thompson (Silsoe College)
"International Competitiveness and British Industry post-1992. With Special Reference to the Food Industry"
- SWP 12/92 Keith Thompson (Silsoe College)
"The Response of British Supermarket Companies to the Internationalisation of the Retail Grocery Industry"
- SWP 13/92 Richard Kay
"The Metaphors of the Voluntary/Non-Profit Sector Organising"
- SWP 14/92 Robert Brown & Philip Poh
"Aniko Jewellers Private Limited - Case Study and Teaching Notes"
- SWP 15/92 Mark Jenkins & Gerry Johnson
"Representing Managerial Cognition: The Case for an Integrated Approach"
- SWP 16/92 Paul Burns
"Training across Europe: A Survey of Small and Medium-Sized Companies in Five European Countries"
- SWP 17/92 Chris Brewster & Henrik Holt Larsen
"Human Resource Management in Europe - Evidence from Ten Countries"
- SWP 18/92 Lawrence Cummings
"Customer Demand for 'Total Logistics Management' - Myth or Reality?"
- SWP 19/92 Ariane Hegewisch & Irene Bruegel
"Flexibilisation and Part-time Work in Europe"
- SWP 20/92 Kevin Daniels & Andrew Guppy
"Control, Information Seeking Preference, Occupational Stressors and Psychological Well-being"
- SWP 21/92 Kevin Daniels & Andrew Guppy
"Stress and Well-Being in British University Staff"
- SWP 22/92 Colin Armistead & Graham Clark
"The Value Chain in Service Operations Strategy"
- SWP 23/92 David Parker
"Nationalisation, Privatisation, and Agency Status within Government: Testing for the Importance of Ownership"
- SWP 24/92 John Ward
"Assessing and Managing the Risks of IS/IT Investments"
- SWP 25/92 Robert Brown
"Stapleford Park: Case Study and Teaching Notes"
- SWP 26/92 Paul Burns & Jean Harrison
"Management in General Practice - 2"
- SWP 27/92 Paul Burns & Jean Harrison
"Management in General Practice - 3"

SWP 28/92 Kevin Daniels, Leslie de Chernatony & Gerry Johnson
"Theoretical and Methodological Issues concerning Managers' Mental Models of Competitive Industry Structures"

SWP 29/92 Malcolm Harper & Alison Rieple
"Ex-Offenders and Enterprise"

SWP 30/92 Colin Armistead & Graham Clark
"Service Quality: The Role of Capacity Management"

SWP 31/92 Kevin Daniels & Andrew Guppy
"Stress, Social Support and Psychological Well-Being in British Chartered Accountants"

SWP 32/92 Kevin Daniels & Andrew Guppy
"The Dimensionality and Well-Being Correlates of Work Locus of Control"

SWP 33/92 David Ballantyne, Martin Christopher, Adrian Payne and Moira Clark
"The Changing Face of Service Quality Management"

SWP 34/92 Chris Brewster
"Choosing to Adjust: UK and Swedish Expatriates in Sweden and the UK"

SWP 35/92 Robert Brown
"Goldsmiths Fine Foods - Case Study and Teaching Notes"

SWP 36/92 Mike Sweeney
"Strategic Manufacturing Management: Restructuring Wasteful Production to World Class"

SWP 37/92 Andy Bailey & Gerry Johnson
"An Integrated Exploration of Strategic Decision-Making"

SWP 38/92 Chris Brewster
"European Human Resource Management: Reflection of, or Challenge to, the American Concept"

SWP 39/92 Ute Hanel, Kurt Volker, Ariane Hegewisch & Chris Brewster
"Personnel Management in East Germany"

SWP 40/92 Lawrence Cummings
"Logistics goes Global - The Role of Providers and Users"

SWP 41/92 Roger Seaton & Martin Cordey-Hayes
"Interactive Models of Industrial Technology Transfer: A Process Approach"

SWP 42/92 Susan Segal-Horn
"The Logic of International Growth for Service Firms"

SWP 43/92 Mike Sweeney
"Benchmarking for Strategic Manufacturing Management"

SWP 44/92 Paul Burns
"Financing SMEs in Europe: A Five Country Study"

SWP 45/92 Robert Brown
"The Graduate Enterprise Programme - Has it been Worthwhile?"

CRANFIELD WORKING PAPERS List No 7, 1993

SWP 1/93 John Mapes
"The Effect of Limited Production Capacity on Safety Stock Requirements for Periodic Review Inventory Systems"

SWP 2/93 Shai Vyakarnam & Alison Rieple
"Corporate Entrepreneurship: A Review"

SWP 3/93 Cliff Bowman & David Faulkner
"Pushing on a String: Uncertain Outcomes from Intended Competitive Strategies"

SWP 4/93 Susan Baker & Mark Jenkins
"The Role of Values in the Design and Conduct of Management Research: Perspectives on Managerial and Consumer Cognition"

SWP 5/93 Kevin Daniels, Leslie de Chernatony & Gerry Johnson
"Validating a Method for Mapping Managers' Mental Models of Competitive Industry Structures"

SWP 6/93 Kevin Daniels & Andrew Guppy
"Occupational Stress, Social Support, Job Control and Psychological Well-Being"

SWP 7/93 Colin Fletcher, Ruth Higginbotham & Peter Norris
"The Inter-Relationships of Managers' Work Time and Personal Time"

SWP 8/93 Mike Sweeney
"A Framework for the Strategic Management of both Service and Manufacturing Operations"

- SWP 9/93 Colin Armistead & Graham Clark
"The 'Coping' Capacity Management Strategy in Services and the Influence on Quality Performance"
- SWP 10/93 Ariane Hegewisch
"Equal Opportunities Policies and Developments in Human Resource Management: A Comparative European Analysis"
- SWP 11/93 Paula Stanley
"Service to the Courts: The Offender's Perspective"
- SWP 12/93 Mark Jenkins
"Thinking about Growth: A Cognitive Mapping Approach to Understanding Small Business Development"
- SWP 13/93 Mike Clarke
"Metro-Freight: The Automation of Freight Transportation"
- SWP 14/93 John Hailey
"Growing Competitiveness of Corporations from the Developing World: Evidence from the South"
- SWP 15/93 Noeleen Doherty, Shaun Tyson & Claire Viney
"A Positive Policy? Corporate Perspectives on Redundancy and Outplacement"
- SWP 16/93 Shai Vyakarnam
"Business Plans or Plans for Business"
- SWP 17/93 Mark Jenkins, Eric le Cerf & Thomas Cole
"Defining the Market: An Exploration of Marketing Managers' Cognitive Frameworks"
- SWP 18/93 John Hailey
"Localisation and Expatriation: The Continuing Role of Expatriates in Developing Countries"
- SWP 19/93 Kevin Daniels & Andrew Guppy
"Reversing the Occupational Stress Process: Some Consequences of Employee Psychological Well-Being"
- SWP 20/93 Paul Burns, Andrew Myers & Andy Bailey
"Cultural Stereotypes and Barriers to the Single Market"
- SWP 21/93 Terry Lockhart & Andrew Myers
"The Social Charter: Implications for Personnel Managers"
- SWP 22/93 Kevin Daniels, Gerry Johnson & Leslie de Chernatony
"Differences in Cognitive Models of Buyers and Sellers"
- SWP 23/93 Peter Boey & Richard Saw
"Evaluation of Automated Warehousing Policies: Total Systems Approach"
- SWP 24/93 John Hailey
"Training for Entrepreneurs: International Perspectives on the Design of Enterprise Development Programmes"
- SWP 25/93 Tim Denison & Simon Knox
"Pocketing the Change from Loyal Shoppers: The Double Indemnity Effect"
- SWP 26/93 Simon Knox
"Consumers and Grocery Brands: Searching for Attitudes - Behaviour Correspondence at the Category Level"
- SWP 27/93 Simon Knox
"Processing Ideas for Innovation: The Benefits of a Market-Facing Approach"
- SWP 28/93 Joe Nellis
"The Changing Structure and Role of Building Societies in the UK Financial Services Sector"
- SWP 29/93 Kevin Daniels, Gerry Johnson & Leslie de Chernatony
"Similarity or Understanding: Differences in the Cognitive Models of Buyers and Sellers. A Paper outlining Issues in Mapping and Homogeneity"
- SWP 30/93 Habte Selassie & Roy Hill
"The Joint Venture Formation Environment in a Sub-Saharan African Country: A Case Study of Government Policy and Host Partner Capability"
- SWP 31/93 Colin Armistead, Graham Clark and Paula Stanley
"Managing Service Recovery"
- SWP 32/93 Mike Sweeney
"The Strategic Management of International Manufacturing and Sourcing"
- SWP 33/93 Julia Newton
"An Integrated Perspective on Strategic Change"
- SWP 34/93 Robert Brown
"The Graduate Enterprise Programme: Attempting to Measure the Effectiveness of Small Business Training"

**CRANFIELD WORKING PAPERS
List No 8, 1994**

- SWP 1/94 Keith Goffin
"Repertory Grids in Market Research: An Example"
- SWP 2/94 Mark Jenkins
"A Methodology for Creating and Comparing Strategic Causal Maps"
- SWP 3/94 Simon Knox
"Re-engineering the Brand"
- SWP 4/94 Robert Brown
Encouraging Rural Enterprise in Great Britain - Britain's "Venturecash" Competition
- SWP 5/94 Andy Bytheway, Bernard Dyer & Ashley Braganza
"Beyond the Value Chain: A New Framework for Business Modelling"
- SWP 6/94 Joe Nellis
"Challenges and Prospects for the European Financial Services Industry"
- SWP 7/94 Keith Thompson, Panagiotis Alekos & Nikolaos Haziris
"Reasoned Action Theory applied to the Prediction of Olive Oil Usage"
- SWP 8/94 Sanjoy Mukherjee & Ashley Braganza
"Core Process Redesign in the Public Sector"
- SWP 9/94 Mike Sweeney
"A Methodology for the Strategic Management of International Manufacturing and Sourcing"
- SWP 10/94 Ariane Hegewisch & Henrik Holt Larsen
"European Developments in Public Sector Human Resource Management"
- SWP 11/94 Valerie Bence
"Telepoint: Lessons in High Technology Product Marketing"
- SWP 12/94 Andy Bytheway
"Seeking Business Improvement: A Systematic Approach"
- SWP 13/94 Chris Edwards & Ashley Braganza
"Classifying and Planning BPR Initiatives: The BPR Web"
- SWP 14/94 Mark Jenkins & Malcolm McDonald
"Defining and Segmenting Markets: Archetypes and Research Agendas"

SWP 15/94 Chris Edwards & Joe Peppard
"Forging a Link between Business Strategy and Business Re-engineering"

SWP 16/94 Andrew Myers, Andrew Kakabadse, Colin Gordon & Siobhan Alderson
"Effectiveness of French Management: Analysis of the Behaviour, Attitudes and Business Impact of Top Managers"

SWP 17/94 Malcolm Harper
Micro-Credit - The Benign Paradox

**CRANFIELD WORKING PAPERS
List No 9, 1995**

SWP 1/95 Andy Bytheway
"Information in the Supply Chain: Measuring Supply Chain Performance"

SWP 2/95 John Ward & Joe Peppard
"Reconciling the IT/Business Relationship: A Troubled Marriage in Need of Guidance"

SWP 3/95 Kevin Daniels, Gerry Johnson, & Leslie de Chernatony
"Collective Frames of Reference, Recognition, and Managers' Mental Models of Competition: A Test of Two Industries"

SWP 4/95 Alison Rieple
"Staffing as a Lever of Strategic Change - The Influence of Managerial Experience, Behaviour and Values"

SWP 5/95 Grafton Whyte & Andy Bytheway
"Factors Affecting Information Systems Success"

SWP 6/95 Andy Bailey & Gerry Johnson
"The Processes of Strategy Development"

SWP 7/95 Valerie Bence
"The Changing Market for Distribution: Implications for Exel Logistics"

SWP 8/95 Valerie Bence
"The Evolution of a Distribution Brand: The Case of Exel Logistics"

SWP 9/95 Andy Bytheway
"A Review of EDI Research"

SWP 10/95 Andy Bytheway
"A Review of Current Logistics Practice"

SWP 11/95 Joe Peppard
"Broadening Visions of BPR: The Imperative of Strategic Integration"

SWP 12/95 Simon Knox & David Walker
“Empirical Developments in the Measurement
of Involvement, Brand Loyalty and their
Structural Relationships in Grocery Markets”

SWP 13/95 Ashley Braganza & Andrew Myers
“Issues and Dilemmas Facing Public and
Private Sector Organisations in the Effective
Implementation of BPR”

SWP 14/95 John Mapes
“Compatibility and Trade-Off Between
Performance: An Alternative View”

SWP 15/95 Mike Sweeney & Marek Szwajkowski
“Manufacturing Standards of Performance for
Success”

SWP 16/95 Keith Thompson, Nicholas Thompson &
Roy Hill
“The Role of Attitudinal, Normative and
Control Beliefs in Drink Choice Behaviour”

SWP 17/95 Andy Bytheway
“Information Modelling for Management”

SWP 18/95 Mike Sweeney & Marek Szwajkowski
“Manufacturing Strategy and Performance: A
Study of the UK Engineering Industry”

SWP 19/95 Valerie Bence
“St.James’s Hospital and Lucas Engineering
Systems Ltd - A Public/Private Sector
Collaboration in BPR Project A - Elective
Admissions”

SWP 20/95 Valerie Bence
“St.James’s Hospital and Lucas Engineering
Systems Ltd - A Public/Private Sector
Collaboration in BPR Project B - The Re-
Organisation of Purchasing and Supplies”

SWP 21/95 Simon Knox & David Walker
“New Empirical Perspectives on Brand
Loyalty: Implications for Segmentation
Strategy and Equity”

CRANFIELD WORKING PAPERS
List No 10, 1996

SWP 1/96 Andy Bailey & Gerry Johnson
“Patterns of Strategy Development”