

# Managerial characteristics, strategy and performance in local government

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## Summary

**Purpose** – This paper aims to investigate strategy at the functional level, in Dubai local government. Using Miles and Snow's strategy typology, it seeks to concentrate on the relationship between the alignment of managerial characteristics with strategy type and performance.

**Design/methodology/approach** – Senior executive managers were interviewed and a questionnaire developed, based on the extant literature and issues arising from the interviews. This was distributed to functional managers within Dubai local government, and sought information regarding their personal characteristics, perceptions of requirements for implementing strategic initiatives and actual implementation approaches used. All alignments with the strategy adopted, the strategy required, and managerial characteristics and independent assessments of performance were then analysed statistically to assess the extent of alignment and congruency with performance.

**Findings** – Prospector managers have, on average, higher educational status than that of defender managers, with alignment of several demographic characteristics with strategic orientation leading to enhanced performance. Whilst alignments of educational attainment and organisation and job tenure with strategy are desirable, age has no effect.

**Practical implications** – By understanding the alignment relationships, more appropriate allocation of personnel will lead to increased strategic performance.

**Originality/value** – Previous studies have looked at the alignment of managerial characteristics with strategic type and aspects of performance. In all cases, the focus has been on corporate strategy, and predominantly in private-sector organisations. The study combines these objectives and investigates the alignment between characteristics, strategy and perceived performance. It focuses on management at the functional level in a local government setting and demonstrates that classical upper-echelon theory is also relevant at the functional level of management.

**Keywords** Public sector organizations, Strategic management, Managers, Local government

**Paper type** Research paper

## 1. Introduction

Strategy research has highlighted the crucial role of senior executives in initiating and implementing the strategy development process. Andrews argued that “there is no way to divorce the decision determining the most sensible economic strategy from the personal values of those who make the choice” (Andrews, 1971, p. 34). Previous research has concentrated on the relationship between strategy and leadership. In their study of upper-echelon theory, Hambrick and Mason (1984) considered the organisation as a reflection of the demographic characteristic traits of its top managers and argued the importance of matching these with the organisation's strategy. Matching characteristics of top managers to strategy, at the corporate (Miller and Toulouse, 1986) and business unit levels (Govindarajan, 1989; Thomas *et al.*, 1991), has subsequently been investigated.

By customising an extended model (Hambrick and Mason, 1984; Pegels and Baik, 2000; Strandholm *et al.*, 2004) to accommodate the public sector, this paper investigates congruency between characteristics of functional managers and strategy, and the impact on

successful implementation of functional strategy. This models multiple demographic managerial characteristics, strategy, performance and executive influence at the level of functional managers. The managerial characteristics to be considered included age, level of education, and tenure. Two research questions are addressed:

1. Are certain managerial characteristics or attributes associated with specific functional strategy types?
2. Does alignment of appropriate managerial characteristics, in conjunction with strategic type, improve performance?

Research combining these issues and related hypotheses will be tested using data from functional managers for the departments of Dubai local government.

## 2. Functional strategy

The three hierarchically ordered levels of strategy are:

1. corporate;
2. business; and
3. functional.

Top management specifies the corporate strategy, designed to realise the overall aims and objectives of the organisation. Business strategies are formulated by the management of individual business units or strategic business units and focus on how the business should compete in a particular industry or product/market segment. Functional strategies are the plans and activities of functional units such as marketing, production, finance, etc., and aim to achieve business objectives and corporate goals (Bourgeois, 1980). As business strategy underpins corporate strategy, supported and operationalised by functional level strategies, strategies at the lower levels of management should be consistent with the higher corporate levels to foster the successful accomplishment of these higher levels (Hofer and Schendel, 1978).

## 3. Research model

Miles and Snow's (1978) typology for strategic orientation has been shown to have wide applicability and is based on the premise that organisations follow behaviour patterns classified into four fundamental strategic types:

1. A *prospector* organisation is a creator of change in their industry with innovation as the key to their success. Therefore, they focus their efforts more consistently than other strategic types on growth and innovation.
2. *Defender* organisations direct their products or services towards a clearly defined market. They have a stable set of products and customers, striving to update their technology to maintain efficiency. Innovative change, growth and diversification are achieved incrementally through market penetration.
3. *Reactor* organisations typically react to market demands. They have little involvement in research and development and do not seek to be innovative.
4. The *analyser* organisation is an intermediate type, located between the prospector organisation and the defender organisation.

We are interested in functional units in public sector organisations that typically deal with conflicts that have competing goals, more so than functional units in non-public sector organisations (Pollitt and Bouckaert, 2004; Kickert, 2008). It is therefore unlikely that the analyser strategic type could be successfully pursued in any public sector environment and so is not included in our study (Andrews *et al.*, 2007).

The model is based on the assumption that different strategies require different managerial characteristics to increase the prospect of success; when characteristics and the requirements of their strategies are aligned, performance will be enhanced. From the



literature, we propose the model in Figure 1 for modelling the performance of implemented functional strategies as a consequence of this alignment between the characteristics of managers from functional units and functional strategy.

When alignment does not exist, performance may be disappointing. As the functional manager has the pivotal role in implementing functional strategy (Floyd and Woolridge, 1992), we argue that these assumptions are plausible.

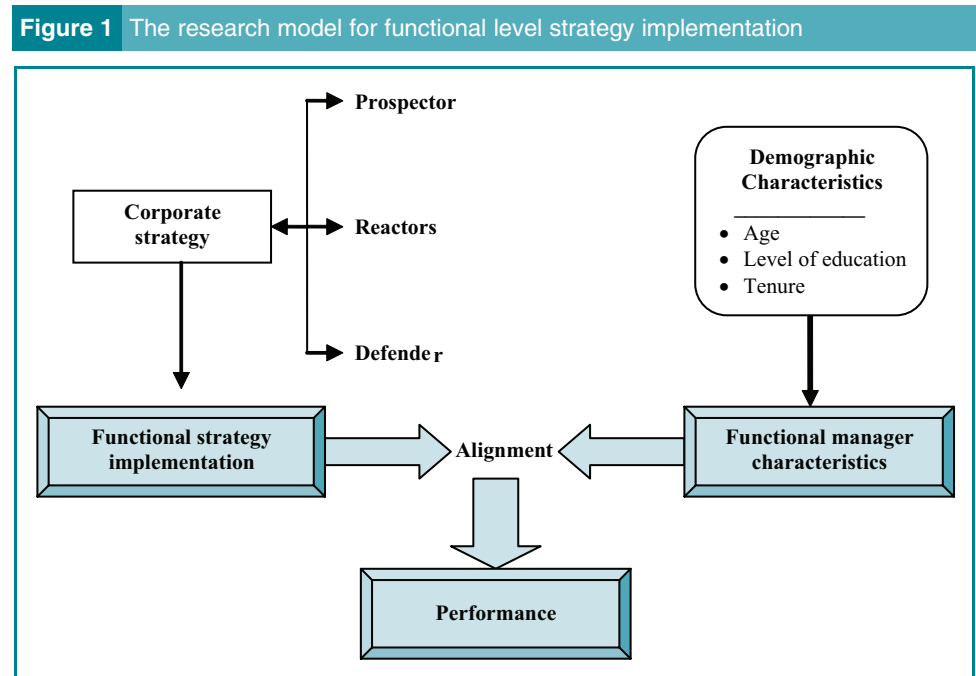
#### 4. Hypotheses

Most previous studies concentrate on background characteristics (age, gender, tenure, formal education, and experience). Though the ethnic background of employees in the United Arab Emirates is highly varied, few females hold senior managerial positions. We therefore exclude gender as a determining characteristic due to a lack of cases. In addition, performance for the reactor functional manager is expected to be somewhat arbitrary, due to the lack of strategic focus. As a consequence, we also do not investigate this strategy type. The model used for this study consequently includes the demographic characteristics of age, level of education, tenure and experience. We now justify inclusion of these characteristics and develop testable hypotheses for relationships between these.

##### 4.1 Age

Previous studies have examined the age of managers in relation to change, innovation and risk taking. Age has been found to correlate negatively with receptivity to change (Wiersema and Bantel, 1992), innovativeness and innovation (Bantel and Jackson, 1989), willingness to take risk (Hambrick and Mason, 1984), and organisational growth (Ellis and Child, 1973). From the literature, we propose that prospector and defender organisations will approach strategic direction differently and will reflect this in the selection of their managers. Prospectors will seek younger leaders, with fresh perspectives conducive to change and innovation. Defenders will seek older leaders to ensure valued core efficiency and control competencies. Specifically, we suggest:

- H1.* Functional managers of successful prospector units will be, on average, younger than functional managers of successful defender units.



#### 4.2 Education levels

Education level is known to be positively associated with receptivity to innovation (Bantel and Jackson, 1989; Hambrick and Mason, 1984; Wiersema and Bantel, 1992; Finkelstein and Hambrick, 1996). From the literature, we can conclude that education level is positively correlated with receptivity to innovation, change and growth. From the definition of Miles and Snow's typology, prospector organisations focus their efforts on growth and innovation, whereas defender organisations are more conservative. We therefore hypothesise:

- H2. Functional managers of prospector units will have, on average, higher educational levels than functional managers of defender units.

#### 4.3 Tenure

Tenure is defined in a number of ways (Patrick *et al.*, 2006). Job tenure is defined as the time a person has been the manager of a functional department, whereas organisation tenure is the time that a manager has been employed in any capacity by their current organisation. Relationships have also been identified between managerial characteristics and behaviour, and managerial behaviour and tenure (Thomas *et al.*, 1991; Hambrick and Mason, 1984; Ellis and Child, 1973; Wiersema and Bantel, 1992; Bantel and Jackson, 1989). Hambrick and Mason (1984) argued that managers who have worked for a long period in one organisation are likely to have limited perspectives and to avoid radical changes. Ellis and Child (1973) also found that longer tenure is associated with a conservative, more risk-averse outlook. Thomas *et al.* (1991) found that long-tenured executives tend to pursue defender strategies, whereas short-tenured executives are more likely to pursue prospector strategies.

Organisations associated with defender strategies are more closely associated with stability and resistance to change. Thus, organisations adopting the defender strategic type are likely to value long tenure (Miles and Snow, 1978). However, prospector organisations are innovative, accepting of change, and shorter tenure has been shown to be associated with organisational change, willingness to accept risk and openness to fresh, diverse information (Finkelstein and Hambrick, 1996). Functional managers pursuing a prospector strategy will therefore have, on average, shorter tenure than their counterparts pursuing a defender strategy:

- H3a. Functional managers of prospector units will have average organisational tenure that is shorter than that of functional managers of defender units.
- H3b. Functional managers of prospector units will have average job tenure that is shorter than that of functional managers of defender units.

#### 4.4 Alignment and performance

We have argued that firms will perform better when the functional manager's demographic attributes align with the functional strategy. Therefore, it is expected that functional managers who are young, more educated, and have shorter job and organisational tenure will perform better, on average, in functional units pursuing a prospector strategy. In contrast, functional managers who are older, less educated, and have longer job and organisational tenure will perform better, on average, in functional units pursuing a defender strategy.

These observations are represented in the following hypotheses:

- H4. Prospector functional units will show higher performance, on average, when led by younger managers.
- H5. Defender functional units will show higher performance, on average, when led by older managers.
- H6. Prospector functional units will show higher performance, on average, when led by more educated managers.
- H7. Defenders functional units will show higher performance, on average, when led by less educated managers.



- H8. Prospector functional units will show higher performance, on average, when led by a shorter-tenured manager.
- H9. Defender functional units will show higher performance, on average, when led by long-tenured managers.

## 5. Research methodology

The target population for our research was functional managers from 18 local government organisations in Dubai. A survey was conducted involving in-depth interviews with one board member manager from each organisation. To ensure participation was informed, each was a manager of their organisation's strategy unit, responsible for measuring the organisation's strategy. The interviews were analysed using content analysis.

Depending on the study objectives, two separate questionnaires were further developed and sent to two different levels of managers in each organisation. The first questionnaire examined the organisation's strategies and was sent to five to seven board members in each organisation, depending on size of the organisation. A total of 98 board member managers were approached with 48 responding with the desired minimum of two responses from each of the 18 organisations being achieved.

The second questionnaire was sent to 683 functional managers of the 18 organisations. This contained questions informed by interviews and a questionnaire from the strategy unit board member managers and relevant questions from the extant literature. To increase the response rate, the selected functional managers were contacted personally prior to receiving the questionnaires. The objectives of the research were explained and they were notified of the complete support for the survey from senior management of Dubai's local government and given assurances of confidentiality. Owing to cultural issues and the demographic nature of the residents of Dubai, this is the contact protocol preferred by public sector managers.

A total of 255 completed responses were received, with an additional 39 responding to a reminder, making a total of 294 usable responses. This is a response rate of 43.4 per cent, consistent with other questionnaire-based surveys conducted in the region (Hossam, 2008).

## 6. Research variables

In this study, we measure functional strategy, managerial demographics and performance.

### 6.1 Measurement of strategy

A single nominal variable (Miles and Snow, 1978) was used to classify functional strategy. Strategic orientation was measured in four ways:

1. self-typing;
2. objective indicators;
3. external assessment; and
4. investigator inference (Snow and Hambrick, 1980).

Combinations of these four approaches were used.

The *self-typing* measure is typically obtained in two ways. In the "paragraph" approach, the respondent is presented with short, descriptive paragraphs of each strategic style. The description that most closely resembles their organisation is selected. This approach is efficient but does not appraise all nuances of the adaptive cycle (Snow and Hambrick, 1980). The other approach involves a multi-item scale relating to aspects of the adaptive cycle. The four possible responses to each question equate to Miles and Snow's strategic types. The use of multiple indicators does provide for more detail in strategic response (Conant *et al.*, 1990). Both approaches for the self-typing method are widely used as they provide the best way to categorise the strategy type being pursued.



*Objective indicators* were used by Hambrick (1983), where organisations were classified by strategic type, using percentage of sales of new products relative to the same measure from the firm's three largest competitors. The major disadvantage of this is the difficulty in finding appropriate data reflecting strategic orientation from competitors (Snow and Hambrick, 1980).

*External assessment* entails using the same instrument as for self-typing but administering it to a panel of expert judges within the industry rather than internally (Meyer, 1982). Although external measures provide impartial "expert" assessment, the expert may not have current knowledge of the strategic orientation of all the organisations of interest to the researcher (Snow and Hambrick, 1980), or their opinions may be inaccurate.

*Investigator inference* is based on interviews with company officials (Walker and Ruekert, 1987). It can provide an accurate assessment of strategic orientation if the researcher thoroughly understands the inner workings of the organisation(s) being investigated, and possesses current information. These conditions impose limits on the size of the sample that can be analysed effectively and highlight the importance of up-to-date data. Owing to these limitations, this method is the least reliable of the four examined (Snow and Hambrick, 1980).

The *self-typing* method and *investigator inference* methods were used here to gain the most accurate measure of strategic orientation. In applying the self-typing method, we targeted the two strategic levels of interest. We combined both approaches in the drafting and administration of the board members' and functional managers' questionnaires. The paragraph approach was used in the functional managers' questionnaire as it facilitated assessing their preferred functional strategy.

Since the board member has an informed view of strategy implementation, it was deemed appropriate to use a more detailed approach to examine their perceptions. The multi-item scale therefore considered more suitable than the paragraph approach. Consequently, respondents were asked 12 questions adapted from the survey instrument reported by Andrews *et al.* (2008) that has been used for local authorities.

The prospector strategy was assessed through four measures of innovation and market exploration. The specific measures are derived from the works of Snow and Hrebiniak (1980) and Stevens and McGowan (1983). To explore the defender strategy, three questions assessing whether the approach to service delivery was focused on core activities and achieving efficiency were included (Snow and Hrebiniak, 1980; Stevens and McGowan, 1983; Miller and Toulouse, 1986). In contrast, reactors are expected to lack a consistent strategy and to await guidance on how to respond to environmental change. Five questions about the existence of definite priorities in the service they provide, and the extent to which their behaviour was determined by external pressures were present in the questionnaire. We again based these measures on prior work (Snow and Hrebiniak, 1980), taking particular care to avoid leading questions.

The second method used to measure the strategy type was the investigator inference method, implemented by conducting interviews with the board member managers of the strategy units. The interviews were semi-structured so as not to restrict the researcher to specific prepared questions. Face-to-face interviews were used as these generally achieve higher response rates than interviews by telephone, especially when targeting managers in the public sector. Moreover, the interviewer can benefit from tracing any possible body language and investigate this further, if required.

## 6.2 Demographic characteristics measures

The demographic characteristics include age, level of education and tenure of the functional managers. Age was simply measured by number of years. Education has been measured as a continuous variable in many studies. For example, Thomas *et al.* (1991) measured level of education by adding years of college experience to the number 12, which represents a high-school diploma. In this study, managers were asked to indicate the highest level of education they had attained:

- some high school;
- high school diploma;



- some college;
- Bachelor's degree;
- Master's degree; and
- doctoral degree.

These were then transformed to a number grading using a six-point ascending scale, (i.e. 6 = doctoral degree).

Job and organisation tenure were also measure in years of service. Here, the survey asked the functional managers for the number of years already spent in their current organisation and their tenure, in years, as a manager of their current position.

### 6.3 Measurement of the performance of the functional units

Performance for business organisations is typically measured from accounting data such as profit growth, profit margin, sales increase, market share, return on investment, etc. However, given the nature of the target organisation, some adaptation of measures was required for a public sector environment. A robust measure of performance for public sector organisations should be a comprehensive measure that covers many of the concerns of public management researchers, such as quality, efficiency, effectiveness, responsiveness, and equity (Venkatraman and Ramanujam, 1986; Carter *et al.*, 1992; Boyne, 2002). The study used the Core Service Performance (CSP) measure, a measure that has been used successfully in English local government (Andrews *et al.*, 2007). It covers six dimensions of performance:

1. quantity of outputs;
2. quality of outputs;
3. efficiency;
4. formal effectiveness;
5. value for money; and
6. consumer satisfaction.

These embrace all the main areas of local government activity.

Here we used ten questions from this instrument for the questionnaire for functional managers. These are Likert-type questions and the average value was used to measure the performance of the functional units.

## 7. Data analyses

To test *H1*, *H3a* and *H3b*, independent-sample *t*-tests were conducted. This is appropriate as the samples are large in all instances. *H4*, *H5*, *H8* and *H9* were appraised using one-tailed tests for the Pearson correlation coefficient. For *H6* and *H7*, a one-tailed (directional) test of the Spearman correlation coefficient was undertaken as education is measured on the ordinal scale. *H2* was tested using a Mann-Whitney test, again as education is an ordinal variable.

## 8. Results and discussion

Summary statistics for the demographic characteristics are present in Table I. All standard deviations for corresponding prospector and defender data are similar and subsequent tests for equality of the variances confirmed this. The independent-sample *t*-tests consequently assumed equal variances and were one-tailed to reflect the directional nature of the hypotheses they were testing.

Results for tests for *H1*, *H3a* and *H3b* are exhibited in Table II. The mean age of functional managers from prospector units is not significantly different from that of their counterparts in defender units, and so we have evidence to support *H1*. However, functional managers of



**Table I** Summary statistics for demographic characteristics

Characteristic	Strategy	Sample mean	SD
Age	Prospector	34.90	6.672
	Defender	34.43	6.609
Education	Prospector	3.73	1.112
	Defender	3.43	1.197
Organisation tenure	Prospector	9.38	5.679
	Defender	11.06	5.827
Job tenure	Prospector	5.29	2.835
	Defender	6.10	2.702

Note: Sample size: prospector = 178; defender = 82

**Table II** *t*-statistics for independent samples tests

Characteristic	Hypothesis	<i>t</i> -statistic
Age	<i>H1</i>	-0.532 (NS)
Organisation tenure	<i>H3a</i>	2.197*
Job tenure	<i>H3b</i>	2.160*

Notes: NS, not significant at  $\alpha = 0.05$ ; \* $p < 0.05$

prospector units have significantly shorter organisation and job tenures than those of defender units, supporting *H3a* and *H3b*. From the Mann-Whitney test, functional managers employed in prospector units have significantly higher levels of education, on average ( $p = 0.024$ , 3 d.p.) than functional managers of defender units, which lends support to *H2*.

The effect of strategy type and managerial characteristic alignment on performance was tested using one-tailed tests for the resultant correlation coefficients (Spearman for *H2*). As shown in Table III, age is not a significant characteristic in determining higher performance for either prospector or defender functional managers. Education did prove to be highly significant for either strategy type, thus providing strong support in favour of *H6* and *H7*. Finally, both organisation tenure and job tenure were significant for prospectors and defenders, providing significant support for *H8* and highly significant support for *H9*.

## 9. Conclusions

Our research confirms the traditional view that prospector managers have, on average, higher educational status than defender managers in local government in Dubai. We further demonstrate that overall increases in performance can be achieved at the functional management level by alignment of demographic characteristics with strategic orientation. We identify educational attainment and organisation and job tenure as instances of

**Table III** Hypothesis and correlation coefficients for performance and demographic characteristics

Characteristic	Strategic orientation	Hypothesis	Correlation coefficient
Age	Prospector	<i>H4</i>	-0.111 (NS)
Age	Defender	<i>H5</i>	0.091 (NS)
Education	Prospector	<i>H6</i>	0.226**
Education	Defender	<i>H7</i>	-0.255**
Organisation tenure	Prospector	<i>H8</i>	-0.176*
Job tenure	Defender	<i>H8</i>	0.244**
Organisation tenure	Prospector	<i>H9</i>	-0.137*
Job tenure	Defender	<i>H9</i>	0.330**

Notes: NS, not significant; \* $p < 0.05$ ; \*\* $p < 0.01$



demographic characteristics where alignment is desirable. Age was not shown to be relevant, however. This study consequently supports the view that upper echelon theory also applies at the functional level, emphasising the role of functional managers in strategy implementation at lower management levels in organisations.

The study is limited in that it has been conducted at a single destination, in a single organisation, and at a public sector employer, albeit in a rapidly expanding economy. The case may therefore have limited external validity other than for public sector administrations in rapidly developing economies.

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