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Making strategy at different stages of the industry life cycle – the effect on small firm performance

Short title: Strategy-making and performance in small firms

ABSTRACT

This article argues that individual small firms, just like large firms, may use different approaches to make strategy. An explanation of the nature of these processes in small firms and hypotheses regarding their relationship to performance is offered. It also examines how these relationships differ depending on the industry life cycle stage. The article then describes the results of an empirical study of the strategy-making processes of small firms. Analysis of the data (n=320) identifies three such processes in small firms, indicating that the simplistic, participative and adaptive approaches to strategy-making may have a significant effect on firm performance, but that the importance and impact of these relationships will change when accounting for the effects of industry life cycle stage.

Subject classification: M10

Keywords: strategy-making process; firm performance; industry life cycle stage, small firms
BACKGROUND

Performance differences in small firms are often the subject of research, government policy and media attention. The importance of identifying those factors that may provide small firms with a competitive advantage cannot be overstated. Small firms are often faced with restrictions such as skill shortages, problems attracting staff, funding issues and continuous changes in the supply chain and industry and therefore need to utilise all potential factors that may help to overcome these restrictions. The strategic management literature is replete with examples of such strategic, managerial, industry and process elements that may improve firm performance (Anderson & Zeithaml, 1984; Covin & Slevin, 1989; Hart, 1992; Keeley & Roure, 1990; Robinson & McDougall, 2001). One such element is the strategy-making process(es) that a firm uses and this article sets out to investigate the influence of these processes on performance in small firms.

The concept of strategy-making process was first examined in the late 1960s and early 1970s by Henry Mintzberg (1973) who wrote the first significant article that uses the term ‘strategy-making’. Defined as ‘a process that involves the range of activities that firms engage in to formulate and enact their strategic mission and goals’ (Dess, Lumpkin and Covin, 1997, p. 679), it promulgates the idea of different approaches for a firm to make strategy. Instead of only the traditional rational approach, Mintzberg’s article discussed the planned (similar to rational), adaptive and entrepreneurial modes. Extending the approach introduced by Mintzberg, other authors described additional approaches to strategy-making such as symbolic (Hart, 1991), simplistic (Lumpkin & Dess, 1995, 2006) and participative (Dess et al., 1997). These authors typically present their modes of strategy-making in the form of typologies that include a ‘menu’ of approaches that are available to firms.
Firms can use one of these approaches exclusively, but it is more likely that firms will use a combination of approaches (Hart, 1992). For example, Mintzberg and Waters (1982) illustrate how a firm changes its approach to strategy-making as it matures. It is, however, also possible that a firm can use more than one approach in combination or, in larger firms, that different approaches may be used in different parts of the firm. The typologies of strategy-making processes (e.g. Ansoff, 1987; Dess, et al. 1997; Hart, 1992, Nutt, 1984) therefore identify approaches used within one firm, as well as approaches used in different firms. Most authors recognise that rational strategy-making is the process which is most likely to enhance firm performance (Hart, 1991; Mintzberg, 1973; Robinson & Pearce, 1983) or at least have a greater effect on performance than other approaches (Hart, 1992).

Nevertheless, as argued by Verreynne (2006), this notion of rationality in strategy-making is questionable in a small firm environment, especially within those firms with fewer than 100 employees. The rational mode of strategy-making assumes that strategic decision-making takes place in a number of steps, usually including an exhaustive analysis of the environments, comprehensive formulation and evaluation of alternatives, and the choice of one or more of these alternatives for implementation. If rationality is viewed as a process which is comprehensive, with a high level of information processing, separated means and ends and an organisational structure that follows strategy (Hart, 1991; Hart & Banbury, 1994), it is unlikely that many of the small firms studied in this research will use rational processes. As indicated earlier, small firms often face resource, time and other restrictions which limit their ability to engage in resource and time intensive rational approaches. Furthermore, doubt has been shed on the success of rational processes in small firms (Robinson & Pearce, 1983). This article therefore argues that even though rational approaches may not be suitable to small
firms, it does not mean that these firms do not make strategy, but rather that small firms use approaches that are more suitable to their unique circumstances. Furthermore, it has been shown that the nature of strategy-making processes may change depending on a number of contextual factors such as organisational structure (Chaston, 1997), environmental uncertainty (Covin & Slevin, 1989; Hart, 1991) and the industry life cycle stage (Lumpkin & Dess, 2001) of a firm. Whereas the moderating influence of factors such as organisational structure and environmental uncertainty has been investigated in small firms, such studies were not uncovered for industry life cycle stage.

This article therefore aims to confirm the existence of such processes in small firms, and to investigate their relationship with firm performance. It then compares the nature of this relationship during different stages of the industry life cycle to provide insight into the changes that firms may experience as industries mature, and which practices are most likely to have a positive effect on firm performance. It does so by first providing a background for the notion of strategy-making. Thereafter, this study is conducted in two phases. In the first phase the hypothesis that participative, adaptive and simplistic strategy-making are used by small firms is investigated. In the second phase, the key relationships between these processes, firm performance and industry life cycle are explored. Lastly, a discussion and conclusion are provided.

BACKGROUND AND HYPOTHESES

Strategy-making processes
Robinson and Pearce (1984: 128) call small firm strategy-making research ‘woefully inadequate’ and 20 years of research have done little to change that assertion with the literature on strategy-making in small firms remaining sparse (e.g. Frese, van Gelderen & Ombach, 2000) and commonly exploratory (e.g. Gibson & Cassar, 2002). The words ‘strategy-making’ are seldom used in a small firm context; rather the term that seems to be prevalent is ‘planning’. With the exception of a few recent advances (e.g. Alpkan, Yilmaz & Kaya, 2007), researchers who explore planning in small firms focus on the presence or absence of rational processes (e.g. Robinson & Pearce, 1984), rather than the exploration of the nature of these processes, their relationship with firm performance and the contexts in which each process is more likely to enhance firm performance.

This research therefore draws from those processes identified by researchers in large firms, as briefly indicated in the introduction. It argues that three processes in particular, are more likely to be used in small firms. These are the adaptive (Alpkan, et al., 2007; Chen & Hambrick, 1995; Harris, Forbes & Fletcher, 2000; Keeley & Roure, 1990), participative (Bourgeois & Brodwin, 1984; Cutting & Kouzmin, 2000; Floyd & Wooldridge, 1992; Hillman & Hitt, 1999) and simplistic (Lumpkin & Dess, 1995, 2006; Miller, 1993) processes. Although many other processes are likely to be used by small firms, the focus in this article is on those processes deemed more suitable to small firms. The following paragraphs define these processes and argue why they are relevant to small firms.

*Adaptive strategy-making* in this article is defined as an active engagement of external stakeholders in decisions regarding the direction and strategies of the firm, and adapting the strategic direction of the firm by using market feedback. This process is often employed by small firms because of their dependence on these stakeholders, which typically include
customers and suppliers. This engagement may be less formal than when a rational strategy-making process is followed, but may nevertheless exhibit elements of strategic thinking, as suggested by Quinn (1980). In small firms, adaptive strategy-making typically provides flexibility to quickly adapt firm strategy to pursue opportunities or deal with threats (Alpkan, et al., 2007).

*Participative strategy-making* is defined as a mode of strategy-making in which strategies are the result of the inclusion of various internal stakeholder views (mostly employees) in the different stages of the strategy-making process and ultimately the strategic direction of the firm (Collier, Fishwick & Floyd, 2004). Participative approaches can be undertaken by including employees, managers, shareholders or corporate boards, or other stakeholders in the process. Strategy is therefore made through ongoing dialogue with internal stakeholders, and the role of the owner/manager is often that of facilitator. In small firms, where the influence of the owner-manager is often pervasive in determining strategic direction, participation leads to more emergent strategies and is therefore considered to be a less formal or deliberate process, and more of a social learning process which has the benefit of improving the skills and knowledge of the firm.

Miller (1993) suggests that firms that employ *simplistic strategy-making* focus on the factors that led to success in the past and repeat these actions, developing an ‘overwhelming preoccupation with a single goal, strategic activity, department or worldview’ (p. 117). He defines ‘simplicity’ as a frame of mind or perspective in which highly successful firms become overconfident in pursuing a single strategic goal, something that may ultimately affect such a firm negatively. Therefore decisions and ultimately strategy-making are simplistic and often driven by the prevailing organisational values. The way in which
simplistic strategy-making is defined in this article, however, is not a process driven by organisational values as suggested by Miller. It is rather a process that is top down in nature, driven by top management, yet simplistic inasmuch it is preoccupied with the strategies of past success and focused on internal aspects only. Aspects of simplistic strategy-making, such as a preoccupation with a single goal and the use of previously developed blueprints for strategy, often developed by consultants, are well suited to small firms. Therefore, simplified processes suit small firms which do not have the time or other resources to spend on complicated, drawn-out processes.

Several authors further comment on the nature of the strategy-making processes employed by small firms and thereby further strengthen the arguments espoused above. Beaver and Jennings (2000) and Cooper (1979) describe strategy-making processes in smaller firms as special and frequently unique. Robinson and Pearce (1983, 1984) characterise strategic planning in small firms as informal, unstructured, irregular, incomprehensive, short term and reactive. In summary, through the close physical proximity of staff and other stakeholders, small firms are well suited to adaptation and participation, while limited resources and experience often leads to the use of simplistic processes. These three processes form the basis for the discussion that follows.

**Strategy-making process and firm performance**

The impact of strategy-making processes on firm performance has been widely investigated in large firms (Dess et al., 1997; Hart, 1991; Lumpkin & Dess, 1995) and, to a lesser extent, also in small firms (Covin & Slevin, 1991; Robinson & Pearce, 1983; Verreynne, 2006). Building on the notion that small firms may not benefit from highly formalized forms of
planning (Robinson & Pearce, 1983), the relationships between the three processes identified in the previous section and firm performance are explored.

First the relationship between adaptive strategy-making and firm performance is investigated. Barney (1991) suggests that adaptive strategy-making is a rare and inimitable process that will lead to competitive advantage. This is supported by Hart (1991), who finds in a study of 916 firms of all sizes and from all industry sectors that the transactive mode of strategy-making, in which ‘strategy is crafted based upon an ongoing dialogue with key stakeholders’ (Hart, 1992, p. 338), is more highly associated with firm performance than the rational and generative modes. Adaptive strategy-making is likely to provide small firms with an advantage not only because the rigidity of some alternative approaches may lead to long term distress (Alpkan, et al., 2007), but also because it allows firms to be responsive to the needs of supply chain partners and customers. This is more likely to be the case in small rather than large firms (Alpkan, et al., 2007). In this regard Robinson (1982) finds that small firms which incorporate ‘outsiders’ in their planning processes enhance their performance. The evidence supporting the positive role of adaptive strategy-making in firm performance is very strong. Arguments supporting an alternate hypothesis are based on the premise that informal strategy-making processes such as this are less likely to have a positive impact on firm performance. However, even though authors such as Hart (1991) finds that such a process will not contribute to performance to the same extend as rational processes, they still find that a positive association with firm performance. This article argues that firms that pay close attention to the needs of their customers, suppliers or other stakeholders, and are responsive to those needs, will have an advantage over competitors.
Similarly Parnell and Crandall (2001) raise the possibility that participative decision-making techniques may improve decision quality and therefore organisational performance. This supports the previously mentioned studies by Frese et al. (2000) and Wooldridge and Floyd (1990) who find that participation in strategy-making is associated with improved firm performance. Although it can be argued that participative strategy-making can be time consuming and add to political pressures in decision making, resulting in compromise, it is unlikely that this would have a vast effect in small firms with fewer employees to include in the process. This article argues that firms that involve their employees in their strategy-making processes are likely to either have buy-in by employees into the process, or better information and decision-making, and will therefore improve performance.

A similar relationship between simplistic strategy-making and firm performance is, however, not supported by the literature. Lumpkin and Dess (2006) only find a moderating role for simplistic strategy-making on the cost-leadership – firm performance relationship, while Miller (1993) hypothesises that it may even have a negative impact on firm performance, a most likely scenario for an approach to strategy-making that does not allow for wider consultation and evaluation of alternatives. Yet, simplistic strategy-making was earlier defined as a process with aspects of top down decision making by top management. Hart (1991) has argued that such processes, which he terms the ‘command mode’, will have a positive relationship with performance. However, over reliance on internal processes without any external focus, and focus only on previous successful strategies rather than the development of new strategies, means that this process is too simplified to allow for positive effects to stem from strong leadership. It can therefore be hypothesised that:

\[ H1 \quad \text{Strategy-making processes will influence firm performance, specifically:} \]
H1a Participative or adaptive strategy-making will have a positive effect on small firm performance

H1b Simplistic strategy-making will have a negative effect on small firm performance

The moderating role of industry life cycle

As explained earlier, strategy-making processes will differ between firms and also within firms. Such differences are usually the result of a number of different circumstances, many of which have been investigated before, including the informality of the organisational structure (Gibbons & O'Connor, 2005), environmental uncertainty (Dess et al., 1997) and an entrepreneurial orientation (Covin, Green & Slevin, 2006). In this article it is argued that industry life cycle may also influence the approach to strategy-making that a firm uses as well as the success of that approach at various stages of the life cycle, thereby moderating the relationship between strategy-making process and firm performance. Industry life cycle has been investigated as a moderating variable in a number of other relationships, including entry barriers and firm performance (Robinson & McDougall, 2001) and competitive aggressiveness or pro-activeness and firm performance (Lumpkin & Dess, 2001).

Usually the industry life cycle is described as having four phases, namely introduction, growth, maturity and decline (Lumpkin & Dess, 2001). Interestingly there are three industry life cycle stages according to Klepper and Graddy (1990). In a study involving 46 new products they defined stage 1 of the lifecycle as the period during which the number of firms grows. During stage 2 there is a decline or shakeout in the number of firms, while the number of firms stabilizes during stage 3. This is somewhat at odds with the usually assumed life
cycle of introduction, leading to growth, then maturity and decline. In this study managers were asked to place their industry on this more conventional continuum. In order to allow for the re-ordering of stages suggested by the work of Klepper and Graddy (1990), the introduction and growth stages have been combined under the Growth mantle while maturity and decline have been combined under the Maturity mantle.

In the introductory and growth phases of the industry, industries are often viewed as attractive because of the lack of competition (Lumpkin & Dess, 2001) as well as the abundance of opportunities (Porter, 1980). At this stage it is likely that firms will be pro-active, risk-taking and innovative (Miller & Friesen, 1984); differentiators and innovators (Anderson & Zeithaml, 1984); and that pro-activity will therefore improve firm performance (Lumpkin & Dess, 2001). Under these conditions it is likely that small firms will be seeking assistance with various aspects of the strategy-making process, thereby including the views of external stakeholders such as financiers, accountants, lawyers and other professionals in decision-making, but also seeking views from other consultants and casual contacts in decisions (Massey, 2005). This points to the importance of adaptive strategy-making. However, it is also entirely possible that some firms may try to keep their ideas secret at this stage, thereby including only internal stakeholders during the decision-making process, using a participative process (Chen & Hambrick, 1995). In the early stages of the industry, an outward focus on opportunities is important to firms, which makes simplistic strategy-making processes less attractive because of their focus on internal aspects of the firm. Furthermore, in a new industry, it is less likely that practices that led to past success would be useful to the firm. However, Miller and Friesen (1984) note that firms in the later stages of this phase may start to become more rational in their strategy-making, indicating that simplistic strategy-making may become more useful as industry maturity progresses.
Using the automobile industry as an example, Abernathy and Utterback (1978) explain the evolution of an industry life cycle in terms of uncertainty about user preferences. This uncertainty initially produces an influx of firms into the industry producing different variants of the product and competitive focus on innovation, supporting the arguments espoused above. Gradually a dominant design emerges heralding the beginning of the shake-up stage where producers who cannot produce the dominant design efficiently exit the industry. Those firms which remain in the industry lock into the dominant design heralding a decline in innovation and an increase in investment in capital-intensive production methods. This indicates the use of simplistic strategy-making processes in the latter stages. This investment raises barriers to entry and leads to the demise of smaller manufacturers who cannot compete. Klepper (1996) has challenged the idea of a dominant design, suggesting that innovation attracts only new buyers, resulting in a market advantage for early industry entrants and increasing entry barriers. He suggests that firms start to leave an industry when insufficient innovation (R&D investment) leaves them in a position where they can no longer compete. During the growth phase innovation peaks and then falls as producers devote increasing effort to process relative to product innovation. These theories also suggest that a strategy-making process that nurtures innovation, such as adaptive or participative strategy making processes, will be particularly important during the growth phase of the industry life cycle while a strategy-making process that favours process efficiency, such as a simplistic strategy-making process, is necessary during the mature phase of the industry cycle.

Other authors claim that in the maturity and early decline phases of the industry competition intensifies, as most competing business start-ups occur as laggards enter the market (Lumpkin & Dess, 2001). These authors suggest that at this stage firms are more likely to be successful
if they can take market share off existing competitors. They therefore succeed by managing resources and enhancing marginal returns better than competitors (Lumpkin & Dess, 2001) and doing it in a systematic and rational manner (Anderson & Zeithaml, 1984). Miller and Friesen (1984) explain that rationality at this stage becomes instinctive, which may be indicative of a simplistic approach to strategy-making confirming the above conclusion. McGahan, Argyres and Baum (2004) support this by explaining that more scalable, in this case simplistic, business approaches become the dominant model at later stages of the industry life cycle, most likely because it leads to process efficiencies.

In summary, it can therefore be argued that during the early stages of a new industry’s existence, firms will have to act entrepreneurially to develop products or services which lead to the creation of the industry, thereby heavily involving a select number of stakeholders in strategy-making. During the later stages, firms tend to follow those approaches that were valuable in the past, simplifying them to be more efficient – thus using past blueprints. These arguments suggest that firms using appropriate processes during each stage of the industry life cycle are more likely to improve performance, indicating a moderational effect. It is therefore proposed that:

\[ H2 \quad \text{The relative importance of participative and adaptive strategy-making in terms of performance differs according to the industry life cycle stage, specifically firms in the early stages will benefit from participative and adaptive approaches, while firms in the later stages will benefit from simplistic approaches.} \]

**METHODS**
The measurement instrument used for this article contained 45 firm behavioural items as well as questions regarding organisational characteristics. The measurement instrument was tested for reliability and validity and then mailed to 2,000 New Zealand small firms. The firms that were randomly selected from the Kompass database excluded farming operations, foreign owned firms and firms with more than 100 employees (Massey, 2005). The questionnaire was mailed to the owner-manager and a reminder was mailed one month later. 504 questionnaires were returned of which 477 were deemed usable for a response rate of 23.85 per cent. The sizes of the firms in terms of full-time employee equivalents ranged from one to 99. In this article only firms with at least ten full-time employees were considered to ensure that all strategy-making modes could in principle be present in the firms (e.g. a firm with only one staff member cannot use participative strategy-making) and because previous studies have shown that organisational processes do differ for very small firms (O’Regan & Ghobadian, 2004). Furthermore, this is more in line with other published works (e.g. Gray, 2004). This meant that only 320 of the useable questionnaires were considered in this study.

The above response rate is typical for surveys of this nature, however, it does raise concerns in relation to non-response bias. A comparison of the size of firms and the type of industry with national statistics from Statistics New Zealand (2003) suggest that the sample had more larger firms and more manufacturing firms than are found in the general population. The national statistics indicate that for firms with between 10 and 99 employees 58 per cent will have less than 20 employees and 19 per cent will be in the manufacturing sector with 52 per cent in the services sector. As indicated below only 40 per cent of the firms included in our sample of 320 firms had less than 20 employees, while 44 per cent operated in the manufacturing industry with only 25 per cent in the service industry. This result was
expected because larger firms should typically have more resources to devote time to non-core tasks such as completing questionnaires for researchers. However, as indicated below, at least in terms of performance, the sector differences are similar to those obtained in the New Zealand economy at this time, suggesting that non-response bias is not a problem in this study.

Non-response bias was also assessed on the basis that later respondents are more closely related to non-respondents than early respondents (Armstrong & Overton, 1977). Therefore the early respondents were compared to the late respondents. Firms were divided into three groups, namely those that responded in the first two weeks after the questionnaire was distributed, those that responded in the last two weeks before the deadline, and the rest. Parametric (ANOVA) and non-parametric (Kruskal Wallis) tests for mean differences were employed. No significant differences were found for any of the variables included in this study. In particular there was no significant difference in the age, size, performance or strategy-making style for these three groups of respondents. In view of this result it can be assumed that non-response bias is unlikely to have had an adverse effect on this study.

The dependent variable, firm performance, was measured by using the financial performance scale developed by Covin and Slevin (1989) and Gupta and Govindarajan (1984). Respondents had to indicate the ‘importance’ of ten financial measures to the firm on a five point Likert scale. These measures include sales, growth, cash reserves, return on equity, gross and net profit, return on investment, growth in funding sources and the ratio of profit to sales. Thereafter they were asked to indicate their satisfaction with the firm’s performance for the same ten performance measures. The ‘satisfaction’ scores were multiplied by the ‘importance’ scores and aggregated in order to compute a weighted average performance
index for each firm. Weighting satisfaction with importance scores is the same method followed by Covin and Slevin (1989) when producing a performance index. The higher the aggregate score on this index, the better the perceived level of firm performance.

The validity of this performance measure can be checked by comparing the national statistics by industry with the performance results obtained in this study. The June quarter of 2003, during which this survey was conducted, was remarkable in several aspects in New Zealand. Internal demand increased by 2.4 per cent in this quarter, 6.1 per cent higher than in the same quarter of the previous year. Furthermore annual spending on durable goods was up by 7.6 per cent with new housing investment rising 24.8 per cent. Industry production was mixed in this quarter. Services industries grew by only 0.5 per cent in this quarter and manufacturing was down 2.1 per cent. Electricity, gas and water fell 8.0 per cent as a result of a 'power crisis' and activity in goods producing industries declined 2.1 per cent.

As shown in Table 1 below the perceived performance results considered in this study reflect the above national statistics, suggesting that there was insignificant reporting bias for this variable. As expected, perceived performance levels were indeed higher for the firms engaged in retail/wholesale trade, and, to a lesser extent, for firms in the construction sector. At the same times firms in the services and manufacturing sectors reported lower performance, with particularly low results for the three firms classified as electricity, gas and water (MN = 97.67, SD = 58.77). These results suggest that the performance levels used in this survey are reasonably valid. They also suggest that non-response bias in terms of perceptions of performance is unlikely, despite the differences between the sample and the research population in terms of firm size and industry. Unfortunately no growth rates were obtained for individual firms, making a more thorough validation of the performance measure
The strategy-making process was measured with the Hart (1991) scale as modified by Dess, et al. (1997), using 25 items scored on a five point Likert scale. Dess, et al. (1997) tested this scale in large firms and found that four strategy-making modes resulted from their factor analysis. Exploratory factor analysis was also used in the current study in order to define the strategy-making modes commonly used in small firms and to test the first hypothesis. Kaiser’s (1959) rule and Cattell’s (1966) rule were used to determine the optimum number of factors. Principal axis factoring was used to extract factors, with the application of a promax rotation to allow for correlations between the factors. As suggested by Hair, Anderson, Tatham and Black (1998), correlations of above 0.3 were considered to be strong. Items that did not load strongly on any factor were removed as were items loading strongly on more than one factor. In addition when only two items loaded strongly on a factor these items were removed on the grounds that the factor was not reliably measured. The final factor pattern showed a simple structure allowing the factors to be named according to the strategy making modes suggested by their loadings. The internal validity of this model for the strategy-making process was tested using a confirmatory factor analysis for each of the factors. In particular, the RMSEA statistics (at most 0.06), the GFI statistics (more than 0.90) and the CMIN/DF statistics (between one and three) suggested adequacy according to Byrne (2001). The discriminant validity of the measurement model was then tested using modification indices, the results confirming that each item was loading strongly on only one factor after one additional item was removed. Scales were computed for the three strategy-making
processes with Cronbach’s alpha used to assess their reliability. Correlations between these scales and the performance scale were calculated and the third hypothesis was tested by comparing the mean levels for the three strategy-making process scales for firms in the growth and mature stages of the life cycle. This was done using a nonparametric Mann-Whitney test due to skewness in the scale distributions. The reliability of the scale used to represent the simplistic strategy-making process was unacceptably low suggesting that the remaining analyses should be conducted using the original items rather than the scales. This was done using structural equation modelling rather than factor scores in order to make the results more transparent.

A model relating the strategy-making process to performance was developed allowing for mediation effects. The internal validity of this model was tested using structural equation modelling and the relative importance of the strategy-making modes in terms of performance was assessed in order to test the second hypothesis. This model should be interpreted with caution. Although there are compelling theoretical reasons to argue in favour of causal links this is not justified by the model on its own. A longitudinal or experimental study would be required in order to justify a causal argument on the basis of the model alone. However, the additional analyses conducted indicate that company size, age and industry have no significant effect on the model parameters. This suggests that the relationships observed in the model cannot be discounted as spurious on the grounds of these firm characteristics. The model was then fitted separately for firms in the growth phase and firms in the mature phase to determine whether strategy-making changes as a firm matures, further testing the third hypothesis. In addition, the effect of control variables, such as the age, size and industry sector of the firm and the years of experience of the respondent were considered and found to
be insignificant in terms of the structural model. SPSS version 13 and AMOS version 6 were the packages employed in the analysis.

**FINDINGS**

The 320 small firms included in this study represented the manufacturing industry best (44 per cent) with lower representation for services (25 per cent), retail/wholesale (16 per cent) and construction (15 per cent). The majority of the firms were private companies (71 per cent).

However, 12 per cent were owner operated, eight per cent were run as partnerships and seven per cent were public companies. Firms in the mature stage of the life cycle were most common (54 per cent), followed by firms in the growth phase (37 per cent). The remaining nine per cent of firms were scattered in between these phases, the introductory phase and the decline phase. Only 15 per cent of the small firms had existed for more than five year, while 67 per cent had existed for less than three years. The percentage of firms under a year was 12 per cent and the percentage under two years was 46 per cent. As expected, a nonparametric Mann-Whitney test showed that firms in the growth phase were significantly younger \((z=2.624, p = .009)\) and significantly smaller \((z=2.341, p = .019)\) than firms in the mature phase. The results suggest that small firms in New Zealand tend to enter mature industries fairly often, with 48 per cent of young firms considering themselves to be in mature industries after only two years of operation.

The initial exploratory factor analysis suggested four factors according to Kaiser’s criterion and four factors according to Cattel’s scree plot. After a promax rotation of the four factor
solution it was found that one of the factors had strong loadings for only two items, ‘People in this firm are very dynamic and entrepreneurial’ and ‘Most people in this firm are willing to take risks’, two items which are commonly referred to as entrepreneurial strategy-making (Dess et al., 1997). This meant that there was insufficient information to reliably measure the level of entrepreneurial strategy-making because the correlation between the responses for these two items was only moderate (0.53). These two items were therefore removed and the factor analysis was rerun allowing for only three factors. The resulting factor pattern showed low loadings for the items ‘Failure is something to be avoided in this firm at all cost’ and ‘Specific work roles and expectations are clearly defined in this firm’ on all factors. In addition, loadings of nearly 0.50 occurred for ‘This firm has a characteristic management style and a common set of management practices’ on two of the three factors. These three items were therefore removed and the factor analysis was rerun producing the simple structure shown in Table 2.

Interpretation of the resulting three factors using loadings revealed that these factors describe similar constructs to three of the factors defined by Dess et al. (1997), namely participative, adaptive and simplistic strategy-making (SM). The first factor, ‘participative SM’ includes aspects such as teamwork, equality, co-operation, a fair hearing for all, input from employees in decisions, and a long-term pragmatic business approach. The second factor, ‘adaptive SM’, includes aspects such as adaptation, ongoing planning and listening to and involving stakeholders in strategy-making. Adaptive SM in this context was therefore externally directed participation and adaptation. The third factor was termed ‘simplistic SM’ (compare Lumpkin & Dess, 1995; 2006). This factor includes aspects such as top down behaviour, an
internal process and the fact that the CEO takes decisions with a blueprint of strategies. At this point it can be concluded that the small firm data on strategy making is factorable and that participative, adaptive and simplistic strategy-making are used by small firms in varying degrees, providing a basis for further analyses.

In order to further test the validity of the hypothesised small firm strategy-making model, confirmatory factor analysis was performed for each of the factors and the full measurement model was tested for discriminant validity. All three factors were validated in the confirmatory factor analysis with values of CMIN/DF less than 3, GFI and CFI indices greater than 0.90 and RMSEA less than 0.06. However, when the full measurement model was tested it was found that one of the items from the simplistic SM, ‘The chief executive of our firm insists on placing his/her mark on virtually every major initiative’, had a strong negative loading on participative SM. This item had to be removed in order to ensure discriminant validity.

Scales were constructed for the three strategy-making processes by averaging the responses to the items assigned to each scale. As shown in Table 3 the reliability of the scale for simplistic strategy-making was poor (α = 0.425) but good for participative and adaptive strategy-making. All three strategy-making scales had a significant positive correlation with performance.

| Insert Table 3 about here |

The relationship between the three strategy-making factors and the performance measure was then explored using a structural modeling defined using the original items rather than the
scales in view of the low reliability of the simplistic strategy-making scale and the greater transparency and accuracy of the item-based model. The model shown in Figure 1 describes the data well (CMIN/DF = 2.14, GFI = 0.890, CFI = 0.902, RMSEA = 0.060) with 15.7 per cent of the variation in performance explained.

This model shows significant direct links between adaptive SM and firm performance and between participative SM and firm performance, supporting the first hypothesis. Interestingly adaptive SM supports participative SM in that adaptive SM feeds into participative SM, with participative SM partially mediating the relationship between adaptive SM and firm performance. When a two-way relationship was tested it was found that the link from participative SM to adaptive SM was insignificant confirming the direction of the link shown in Figure 1. This model suggests that firm performance will improve when there is adaptive strategy-making or there is participative strategy-making. However, considering the link between adaptive and participative strategy-making it was found that it is more likely that adaptive strategy-making supports the use of participative strategy-making than the other way around. The link from participative strategy-making to adaptive strategy-making was found to be not significant when this link was added to the model.

Taking into account its direct and indirect effect (via participative strategy-making), adaptive strategy-making has more influence on performance than participative strategy-making. The total (direct + indirect) standardised effect on firm performance is 0.38 for adaptive SM as opposed to 0.18 for participative SM, suggesting that adaptive SM is more important than participative SM in regard to firm performance in small firms. This result provides support
for the first hypothesis (H1a) in that both adaptive and participative strategy-making impact positively on performance.

There is no direct link between simplistic SM and firm performance, only an indirect link through adaptive SM. This suggests that adaptive SM is nurtured by good internal systems with direction from the top and a clear, tested blueprint for strategy. Firms which use simplistic SM are more likely to also use adaptive SM in order to improve performance. In the second part of the first hypothesis (H1b) it was suggested that simplistic SM would have a negative impact on performance. Clearly the model shown in Figure 2 provides no support for this hypothesis, suggesting instead that firms which use simplistic SM will be more successful, provided that they also use adaptive SM. Although simplistic strategy-making does not have a direct impact on firm performance it has an indirect effect through its impact on adaptive and participative SM and this effect is positive.

When this model was fitted separately for firms in the growth phase and then for firms in the mature phase of the industry life cycle, it was found that the coefficients of the model changed significantly (Chi-Square = 47.91, DF = 20, p = 0.0004). As shown in Figure 2, in the case of firms in the growth phase participative SM is most important in terms of firm performance, mediating the relationship between adaptive SM and firm performance. There is no direct link between adaptive SM and firm performance, only an indirect link via participative SM. In the growth phase firms which use adaptive SM are more likely to use participative SM and are therefore more likely to be successful. Also, in this growth phase it appears that firms which use simplistic SM are more likely to use adaptive SM.
However, in the case of firms in mature phase of the industry life cycle adaptive SM is most important in terms of firm performance, mediating the relationship between participative SM and firm performance. There is no direct link between participative SM and firm performance, only an indirect link via adaptive SM. This means that firms in mature industries which use participative SM are more likely to use adaptive SM to generate performance. However, for these firms the link between adaptive SM and simplistic SM disappeared, suggesting that simplistic SM does not improve performance in mature industries.

Firms operating in the growth stage of an industry are more likely to be younger than firms operating in mature stage industries. The results show that 62 per cent of growth industry firms are at most 25 years old while only 43 per cent of mature industry firms are in this age bracket. However, when the above model was compared for young firms and older firms no significant difference was found (Chi-sq = 22.3, df = 20, p = .324). Growth industry firms tended to be smaller than mature industry firms. However, when the above model was compared for firms with at most 23 employees and firms with more than 23 employees no significant difference was found (Chi-sq = 20.9, df = 20, p = .403). Similarly there was no significant difference (Chi-sq = 18.7, df = 20, p = .541) in terms of the experience of the manager (at most 13 years or more than 13 years). Also there was no significant difference between manufacturing and service firms (Chi-sq = 27.1, df = 20, p = .132). These results suggest that the above industry lifecycle effect is not due to age, size or management experience differences, nor is it due to industry sector. Instead it appears to be a genuine industry lifecycle effect.
In summary it was found that the direction of the link between participative and adaptive SM differed for firms in growth and mature industries, with a link from participative SM to adaptive SM in the case of mature industries as opposed to a link from adaptive SM to participative SM in the case of growth industries. Also, contrary to expectation it was found that firms in mature industries are not assisted by simplistic SM, whereas simplistic SM does appear to have a positive impact on performance in the case of firms in growth industries, provided that these firms also used adaptive and participative SM. Having a blueprint for strategy seems to assist the interaction with external stakeholders in a growth industry. However, in the case of small firms in a mature industry, perhaps facing a much more competitive environment, a more flexible interaction with external stakeholders is required.

As Figure 2 illustrates, adaptive SM is more important than participative SM in the case of mature industries because only adaptive SM has a direct link with performance, while participative SM is more important than adaptive SM in the case of growth industries because only participative SM has a direct link with performance. It seems that internal staff participation in the SM process is crucial in planning growth while external stakeholders are crucial in the competitive environment faced by mature industries. While simplistic SM is important for growth industries in that it supports adaptive SM, it does not seem to improve performance significantly in the case of mature industries. However, the model for firms in growth industries explains only 7.8 per cent of the variation in performance while the model for firms in mature industries explains 23.6 per cent of the variation in performance. This suggests that the strategy-making process has more influence on performance for mature stage industries than it does for growth stage industries.
Finally Table 4 compares the use of participative, adaptive and simplistic SM for firms in the growth and mature stages of the industry life cycle. Nonparametric Mann-Whitney tests show no significant differences in the mean values for the scales used to measure simplistic and adaptive SM, however there is slightly more participative SM in the case of firms in growth industries and these firms appear to be slightly more successful. These results show that on average there is little difference between the strategy-making processes of firms in growth and mature industries, suggesting that firms do not realise that the optimum combination of strategy-making processes differs for industries in these two stages.

| Insert Table 4 about here |

**DISCUSSION AND CONCLUSIONS**

This article sets out to explain how the relationships between strategy-making processes and firm performance and how they change for firms in the growth and maturity stages of industry maturity. Four major findings emerge from the literature survey and subsequent empirical study.

First, the model in Figure 1 shows that adaptive strategy-making and participative strategy-making are directly related to firm performance, with adaptive strategy-making also contributing indirectly through its effect on participative strategy-making. This means that firms that use adaptive strategy-making are more likely to also use participative strategy-making. Although simplistic strategy-making is not directly related to performance it contributes indirectly through its effect on adaptive strategy-making. Firms which use a
simplistic strategy-making approach are therefore more likely to be successful provided that they use adaptive strategy-making. The results from the model supports Hart and Banbury’s (1994) assertion that firms that use combinations of strategy-making processes instead of focusing on one process exclusively, are more likely to be successful. The total variation in firm performance that is explained by these three modes of strategy-making is 15.7 per cent. This finding indicates that, as suggested by Barney (1991) and Hart (1991) for large firms, small firms which actively engage their stakeholders during the strategy-making process and which seek feedback on various aspects of the firm from their market will find that these actions have a positive impact on their firm performance. As suggested by Parnell and Crandall (2001) and Wooldridge and Floyd (1990) for large firms, the same is true, although to a lesser extent, of small firms that involve their employees in the strategy-making process; devolve decision-making to the most suitable level; and ensure input into decisions from the most appropriate levels or departments in the firm (Frese et al. 2000). This result suggests that strategy-making in successful firms is the result of small firms exploring their environment and engaging internal and external stakeholders to ensure complete information about not only opportunities and threats, but also strengths and weaknesses. In these small firms strategies result from ideas gathered from stakeholders and decisions made by people with the appropriate level of information to make these decisions. Robinson and Pearce (1984) suggest that informal applications of similar aspects of rational strategy-making processes, for example environmental analysis, may not make any difference in the performance advantages accruing to the small firm using those informal processes. This finding is supported in this study which clearly indicates that small firms can expect advantages from informal strategy-making processes.
Second, the positive indirect effect of simplistic strategy-making on firm performance is noteworthy. Lumpkin and Dess (1995) found that simplistic strategy-making moderates the relationship between cost-leadership and performance in large firms while Miller (1993) suggested a negative impact on performance. It can be argued that in the case of small firms, the so-called ‘blueprint’ for strategy-making that is found in the simplistic mode of strategy-making facilitates the use of adaptive strategy-making practices in effect providing an umbrella strategy for these processes. It is also likely that the interaction between stakeholders and the small firm is driven, or even executed by the owner/manager. The performance advantage still accrues from the interaction with stakeholders, but is supported by top management. The lack of a direct link between simplistic strategy-making and performance indicates that such a process on its own will not improve firm performance, but that it has to be used in combination with adaptive strategy-making processes, providing direction while the other processes provide action.

Third, participative strategy-making partially mediates the relationship between adaptive strategy-making and firm performance, suggesting that information about the market and external stakeholders are gathered by employees/managers at different levels of the firm, and then contributed to the strategy-making process in a participative manner. However, even though the effect of adaptive strategy-making is partially mediated by participative strategy-making, its contribution to firm performance is twice as important as participative strategy-making, indicating that external stakeholders play a more important role than internal stakeholders in the strategic direction of the small firm. This means that in successful firms, the ideas contributed by external stakeholders are more likely to contribute to performance than ideas contributed by internal stakeholders, even though the latter ideas are still important. The influence of external stakeholders on the strategic direction of the small firm that
underlies success is therefore very important. There are several explanations for this. Most notably, responsiveness to the needs of customers and suppliers will contribute to the competitive advantage of small firms (Hart, 1992). Additionally, advice from knowledgeable ‘outsiders’ such as consultants, accountants and lawyers will improve the practices and policies of the small firm, and improve their ability to take advantage of opportunities (Robinson, 1982). Furthermore, the mediating role of adaptive strategy-making on the simplistic strategy-making – firm performance relationship indicates that this strategy-making process and the resulting choices are facilitated by either top management or blueprints of past decisions and strategies, providing a coordinating mechanism for decisions.

Fourth, when firms in growth and mature industries are separated a very different picture emerges. It seems that in mature industries adaptive strategy-making is more important than participative strategy-making, with the reverse true in the case of firms in a growth phase industry. Greater competition during the maturity phase demands greater attention to external stakeholders while reliance on internal staff is more important in driving the growth phase. Interestingly simplistic strategy-making is only important for firms in growth industries and only when used in conjunction with adaptive or participative strategy-making. Previous studies (e.g. Miller & Friesen, 1984) indicated that simplistic strategy-making would become more relevant at later stages of the industry life cycle, but clearly these results indicate that using simplified processes will not impact on performance in small firms located in a mature industry. Gilmore and Kazanjian (1989) suggest that in older, more complex firms it may be complicated for individuals to handle and the decision making responsibilities successfully. Since firms in the mature stage of this study are generally older firms as indicated in the findings, this may explain why simplistic strategy-making does not support firm performance in firms in mature industries. Furthermore, older firms are larger, employ more people, and
therefore have more people who can contribute to strategy-making, thereby using participative processes. More specifically, firms in mature industries operate in a more competitive environment and therefore have to ensure that they are aware of industry conditions at all times, leading to an emphasis on adaptive strategy-making. For the firms included in this study there was little difference between the strategy-making processes of growth stage and mature stage industries, suggesting that small firms do not realise that the optimum combination of strategy-making processes differs for industries in these two stages.

However, strategy-making is a better predictor of performance in the case of mature stage industries (R-Square = 23.6 per cent) than in the case of growth stage industries (R-Square = 7.8 per cent). This suggests that the strategy-making process has greater importance for firms in more mature industries than for firms in growth industries, most likely because competition intensifies at this stage, leading to the need for a more systematic approach as suggested by Anderson and Zeithaml (1984). Furthermore, the inclusion of stakeholders to help in setting the strategic direction of the firm may hold many benefits for the firm, including better awareness of opportunities, customer expectations and needs, as well as developments or innovations in supplier products.

It is important to note a number of limitations against which the results of this study should be interpreted. These include the use of single respondents and firms from only one country, namely New Zealand. However, it can be argued that in small firms, the owner/manager of the firm should have sufficient knowledge about organisational processes to complete such a questionnaire. The use of New Zealand as a context is also a reasonable decision, seeing that this country adopts strong free market principles and has a stable democracy.
Several implications result from this study. Most importantly, this study shows clearly that the approach to strategy-making that a small firm adopts can have a significant effect on the performance of that firm, and that owner/managers of small firms should therefore pay careful consideration to this issue. It further indicates that processes that include internal, but especially external stakeholders, have a more profound effect on firm performance than simplistic strategy-making processes, and that small firms should therefore seek the input from stakeholders such as customers and suppliers when they make strategy. It also supports the assertion that strategy-making processes are likely to differ depending on the context in which they take place. This study suggests that the maturity of the industry in which a firm competes will change the nature of the optimum strategy-making process, with the strategy-making process being less important in new industries but more important in mature industries where a greater number of firms are jockeying for position. Further, the study suggests that firms in mature industries will not benefit by allowing a simplistic approach to invade their strategy-making process. However, in the case of firms in growing industries, blueprints and a top-down induced strategic management style may actually promote the development of ongoing adaptive stakeholder-centered strategy-making. Finally it appears that the involvement of internal and external stakeholders in strategy-making will improve the performance of small firms. However, in the case of firms in growing industries it is the internal stakeholders who are more important, while for more mature industries it is the external stakeholders who are crucial.
REFERENCES


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Table 1: Perceptions of Performance by sector (F(3,316) = 2.846, p = 0.038)

<table>
<thead>
<tr>
<th>Sector</th>
<th>N</th>
<th>Mean</th>
<th>Std Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Services</td>
<td>81</td>
<td>134.49</td>
<td>33.14</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>140</td>
<td>135.88</td>
<td>37.98</td>
</tr>
<tr>
<td>(electricity, gas and water)</td>
<td>(3)</td>
<td>(97.67)</td>
<td>(58.77)</td>
</tr>
<tr>
<td>Construction</td>
<td>48</td>
<td>138.50</td>
<td>38.70</td>
</tr>
<tr>
<td>Retail/Wholesale</td>
<td>51</td>
<td>152.78</td>
<td>46.88</td>
</tr>
</tbody>
</table>

Table 2: Exploratory Factor Analysis

<table>
<thead>
<tr>
<th>Item</th>
<th>Participative SM</th>
<th>Adaptive SM</th>
<th>Simplistic SM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work as part of a team</td>
<td>.866</td>
<td>-.141</td>
<td>-.061</td>
</tr>
<tr>
<td>Most people are treated equally</td>
<td>.776</td>
<td>-.080</td>
<td>-.070</td>
</tr>
<tr>
<td>Cooperation and collaboration are encouraged</td>
<td>.734</td>
<td>.000</td>
<td>-.061</td>
</tr>
<tr>
<td>People with unpopular views are heard</td>
<td>.667</td>
<td>.067</td>
<td>-.193</td>
</tr>
<tr>
<td>Most people have input to decision-making</td>
<td>.667</td>
<td>.099</td>
<td>-.238</td>
</tr>
<tr>
<td>Modus operandi is well suited to the business</td>
<td>.640</td>
<td>-.057</td>
<td>.311</td>
</tr>
<tr>
<td>Long-term potential is valued more than short-term performance</td>
<td>.599</td>
<td>-.107</td>
<td>.202</td>
</tr>
<tr>
<td>Clear and consistent set of values</td>
<td>.551</td>
<td>.085</td>
<td>.197</td>
</tr>
<tr>
<td>Business strategy decisions by consensus</td>
<td>.519</td>
<td>.160</td>
<td>-.092</td>
</tr>
<tr>
<td>Conflict is often suppressed</td>
<td>.453</td>
<td>.014</td>
<td>.010</td>
</tr>
<tr>
<td>Experimentation is encouraged</td>
<td>.439</td>
<td>.119</td>
<td>.035</td>
</tr>
<tr>
<td>Decision making at level with best data</td>
<td>.382</td>
<td>.219</td>
<td>-.003</td>
</tr>
<tr>
<td>Business planning is ongoing involving all</td>
<td>.049</td>
<td>.693</td>
<td>-.087</td>
</tr>
<tr>
<td>Listen to what stakeholders say</td>
<td>.023</td>
<td>.688</td>
<td>.010</td>
</tr>
<tr>
<td>Stakeholders involved in our planning</td>
<td>-.098</td>
<td>.633</td>
<td>-.002</td>
</tr>
<tr>
<td>Continuous adaptation to market feedback</td>
<td>.133</td>
<td>.416</td>
<td>.252</td>
</tr>
<tr>
<td>Top-down decision-making</td>
<td>.056</td>
<td>.023</td>
<td>.502</td>
</tr>
<tr>
<td>Planning is an internal process</td>
<td>-.032</td>
<td>-.067</td>
<td>.426</td>
</tr>
<tr>
<td>CEO places his mark on almost everything</td>
<td>-.259</td>
<td>-.016</td>
<td>.420</td>
</tr>
<tr>
<td>Clear blueprint for strategy</td>
<td>.117</td>
<td>.134</td>
<td>.389</td>
</tr>
</tbody>
</table>

Table 3: Correlations and Descriptive Statistics (*** p<.001, ** p<.01, * p<.05)

<table>
<thead>
<tr>
<th></th>
<th>Participative SM</th>
<th>Adaptive SM</th>
<th>Simplistic SM</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participative SM</td>
<td>1.000</td>
<td>0.564**</td>
<td>0.178*</td>
<td>0.349***</td>
</tr>
<tr>
<td>Adaptive SM</td>
<td>0.564***</td>
<td>1.000</td>
<td>0.169*</td>
<td>0.315***</td>
</tr>
<tr>
<td>Simplistic SM</td>
<td>0.178</td>
<td>0.169*</td>
<td>1.000</td>
<td>0.129*</td>
</tr>
<tr>
<td>Mean</td>
<td>3.77</td>
<td>3.50</td>
<td>3.55</td>
<td>138.62</td>
</tr>
<tr>
<td>StdDev</td>
<td>0.60</td>
<td>0.71</td>
<td>0.70</td>
<td>38.84</td>
</tr>
<tr>
<td>Cronbach Alpha</td>
<td>0.883</td>
<td>0.719</td>
<td>0.425</td>
<td></td>
</tr>
</tbody>
</table>
Figure 1: A SEM model of strategy-making and performance in a small firm with β coefficients

Table 4: Mean usage of SM processes and performance

<table>
<thead>
<tr>
<th>Phase</th>
<th>Participative SM</th>
<th>Adaptive SM</th>
<th>Simplistic SM</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth (n=119)</td>
<td>3.84</td>
<td>3.55</td>
<td>3.57</td>
<td>144.4</td>
</tr>
<tr>
<td>Mature (n=173)</td>
<td>3.72</td>
<td>3.46</td>
<td>3.54</td>
<td>136.0</td>
</tr>
<tr>
<td>Mann-Whitney Z</td>
<td>.218</td>
<td>1.181</td>
<td>.410</td>
<td>1.990</td>
</tr>
<tr>
<td>p-value</td>
<td>.027</td>
<td>.234</td>
<td>.682</td>
<td>.011</td>
</tr>
<tr>
<td>Effect size</td>
<td>.010</td>
<td>.004</td>
<td>.000</td>
<td>.011</td>
</tr>
</tbody>
</table>
Figure 2: Effect of industry life cycle on performance model with \( \beta \) coefficients

(* p<.05, ** p<.01, *** p<.001)