

# The Role of Context in the Transformation of Planned Strategy into Implemented Strategy

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## Abstract

While the literature contains numerous perspectives on strategy types, formulation and implementation, the process whereby strategies change from their original or intended form to that which is eventually realized has received only cursory attention. This is surprising given the importance of this transformation process to any organization attempting to pursue an articulated strategy. Using both qualitative and quantitative methods, this research attempts to specify and measure the forces that impact strategies as they are executed. A model is developed and tested which identifies and quantifies a group of contextual factors, which, through main effects and interactions, influence the transformation of strategy during implementation. Among several important factors, flexibility plays a central role in this dynamic process.

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## INTRODUCTION

Academic interest in strategic planning first appeared in the form of prescriptive schemes that outlined structured approaches to strategy formation (e.g. Andrews, 1971; Ansoff, 1964; Ansoff, 1965; Selznick, 1957; Vancil and Lorange, 1975). The perceived stability of the economic situation in the U.S. at that time gave managers confidence in predicting environmental conditions for a standard five year time horizon. In the 1970s, the assumptions underlying this approach were challenged on the grounds that such predictions were unrealistic given rapidly changing conditions (Mintzberg, 1972). As an antidote to the fixed, prescriptive view, Mintzberg proposed the concept of a strategy that emerges over time as top management makes decisions in response to environmental changes (Mintzberg, 1987; Mintzberg, 1990). Since that time the debate around the nature of strategy and how it may be managed has continued in a variety of forms, but with many of the same underlying tensions.

As a means of providing quantitative support to one camp or the other, several dozen studies (e.g., Andrews *et al.*, 2009; Falshaw *et al.*, 2006; Hopkins and Hopkins, 1997; Slater *et al.*, 2006; Thune and House, 1970) have attempted to quantify the association between strategic planning and organizational performance with mixed results. This lack of consistency has done little to illuminate the debate around the deliberate and emergent schools of strategy formation (Boyd, 1991; Brews and Hunt, 1999; Greenley, 1994; Holloway, 2004; Miller and Cardinal, 1994; Pearce *et al.*, 1987; Schäffer and Willauer, 2003). In deference to the importance of the debate, recent articles in the area often situate their arguments by positioning them vis-a-vis the deliberate and emergent strategy formation themes (e.g., Glaister and Hughes, 2008; Liedtka, 2008; Oliver, 2008; Rudd *et al.*, 2008; Sminia, 2009; Vilà and Canales, 2008).

Some researchers have argued that deliberately planned strategies transform during implementation through an emergent process (Andersen, 2004; Grant, 2003; Harrington *et al.*, 2004; Mintzberg and Waters, 1985). The structure of formal planning provides rigour for managers positioning the firm, but emerging conditions require alterations to a greater or lesser degree. While researchers debate the relative importance of the deliberate and emergent elements, what is missing is a theoretical understanding of the relationship between internal and external influences, and the degree and direction of strategy transformation. In general, the literature has given little consideration to the complex web of contextual and organizational factors that impact the execution of strategy as it unfolds (Bamberger, 2008; Peng *et al.*, 2009). This study contributes to the literature by developing and testing a model of the impact of internal and external factors on strategy transformation.

While the literature is reticent with respect to strategy transformation per se, there are numerous papers that discuss elements or conditions affecting the results of planning on performance. These were scrutinized to identify

relevant factors with which to construct an initial model of strategy transformation. The selected variables were validated and new variables added through a qualitative case study (Rose and Cray, 2013) involving a series of interviews with executives, each focusing on a specific example of strategy formulation and implementation. This revised model, which we call the *a priori* model, was tested using a survey of 153 executives and senior managers, and further refined through factor analysis to produce the final Strategy Transformation Model.

The data analysis resulted in the development of an empirically supported Strategy Transformation Model. This model is a step toward understanding how strategy alters during implementation and which factors most impact this transformation. Since moderator and mediator interactions between the constructs were identified, the model highlights the complex and evolving nature of strategy as it proceeds through implementation. What becomes clear is that strategy is a dynamic, evolving conceptual entity where flexibility plays a key role.

### BACKGROUND AND HYPOTHESES

This work is an attempt to add a level of detail and quantitative rigour to the process outlined by Mintzberg and Waters (1985) whereby an intended strategy is transformed into a realized strategy. As such, it is an exploration of “the relationship between leadership plans and intentions, and what the organizations actually did. ... the label strategy [is used] for both of these phenomena – one called *intended*, the other *realized*” (Mintzberg and Waters, 1985: 257). The intended strategy interacts with various emergent aspects of internal and external environments to result in the realized strategy, that which is actually implemented.

The process view of strategy formation acknowledges the evolution of intended into realized strategy (Sminia, 2009); however, systematic, rigorous research into conceptualizing and quantifying the factors that cause the change has not yet emerged. To understand how a realized strategy evolved from leadership’s original plans, the contextual factors that caused the change must be identified and analyzed. While the literature contains assertions concerning a number of these factors, research to validate and quantify them and weigh their relative importance is absent. Noting this gap in the literature, the research question addressed in this work is: what are the emergent contextual factors which impact deliberate intended strategy during implementation to transform it into realized strategy?

Given the complexity and uncertainty of the global economy it is understandable that studies trying to relate the formality of planning to firm performance would have varied results (Boyd, 1991; Brews and Hunt, 1999; Greenley, 1994; Holloway, 2004; Miller and Cardinal, 1994; Schäffer and Willauer, 2003). Whether strategy formation is deliberate, emergent or a blend of both, it is created and executed in the context of an organization’s external and internal environments. External factors, for example competitive context and environmental turbulence, impact the planning approach and speed of the process (Grant, 2003). Internally, an organization’s explicit and implicit characteristics interact to impact the processes used to create and implement strategy. Many researchers have highlighted the effects of internal and external environments on planning (Ashill *et al.*, 2003; Blythe and Zimmerman, 2004; Depperu and Gnan, 2006; Harrington *et al.*, 2004; Miller *et al.*, 1988). The sections below briefly discuss these planning related factors and hypothesize how they may impact the evolution of intended strategy into realized strategy.

#### External Environment

The rapidly changing environment in which firms compete necessitates enhanced creativity and nimbleness in strategy formation and implementation processes. The faster firms can react to, or correctly anticipate, environmental changes, the higher their probability of success (De Geus, 1988). However, there is always a risk that anticipated environmental changes will not occur as predicted. As such, investments or tactical shifts designed to meet predicted challenges may prove to be a waste of resources or even detrimental to the company’s future prospects.

**Environmental turbulence.** One aspect of the external environment that has received considerable attention is its speed and degree of change. There is some evidence that the more turbulent the environment, the more likely a company is to utilize formal strategic planning (Falshaw *et al.*, 2006), presumably driven by the need to understand the forces affecting the commercial context. In highly dynamic environments, rigidly defined strategies may actually be a hindrance. Faced with high levels of turbulence, firms that employed formal but decentralized strategy formation processes were found to be more effective (Anderson, 2004). The formal nature of the process is aligned with deliberate strategy formation while decentralized authority allows important adjustments to emerge through the actions of lower level managers. In this way, the method incorporates both deliberate and emergent aspects, interacting in a complementary yet complex manner (Andersen, 2004). A similar result was found in a study where simultaneous formal strategic planning and emergent strategy were present in companies situated in unstable environments (Brews and Hunt, 1999).

The idea that the mix of deliberate and emergent components in strategy formation methodology is influenced by environmental turbulence has received some empirical support. Harrington *et al.*, (2004) found that the more

unstable the environment, the more a firm's realized strategy tended to rely on emergent components. They argued that this was a consequence of managers needing flexibility to respond adequately to environmental dynamism. Unstable environments can result in changes to the fundamental premises upon which an intended strategy is built, necessitating the emergence of new strategies to cope with shifting parameters. The processes used to develop strategies may also reflect the firm's environmental situation (Jennings and Disney, 2006). Instability in the environment may cause managers to include an emergent or flexible approach in the strategy formulation process. The more emergent aspects of strategy formation are particularly important in turbulent environments due to their unpredictable nature (Parnell and Lester, 2003). Environmental instability should have a significant impact on the realized strategy of the organization as stated in Hypothesis 1 (H1).

H1: The greater the level of instability in the external environment, the greater the level of strategy transformation.

**Competitive context.** Hypercompetition refers to a level of competition from rivals so extreme that it demands a shift in the nature of strategic planning (Blythe and Zimmerman, 2004). Instead of relying on strategy formation techniques aimed at sustained competitive advantage, firms seek repeated temporary advantages with disruption and surprise serving as the primary competitive tools. The first firm to initiate a change in a market will have a decided, if limited, lead over its rivals. In this environment speed and agility in strategy formation and implementation processes are essential. As the competitiveness of the environment increases, so does the need for flexibility in the strategy formation process (Blythe and Zimmerman, 2004).

H2: The greater the level of competitors' actions, the greater the level of strategy transformation.

Another aspect of an organization's environment that may impact strategy can be found in the demands of its customers. A study of Italian companies determined that demand trends and changes in customer needs explained much of the difference between the strategy formation methodologies utilized (Depperu and Gnan, 2006). Volatility in customer requirements might lead a firm to consider multiple scenarios reflecting different demand conditions or a greater degree of flexibility in the strategy as a whole. The type and degree of flexibility would depend on whether changes in customer demand reflect varying levels of need for existing products or shifts to new product categories.

H3: The greater the level of change in customer requirements, the greater the level of strategy transformation.

**Complexity of the environment.** Levy (1994) describes a number of impacts on strategic planning as environments become more complex or even chaotic (i.e. complex nonlinear (Kemp, 2009)). He notes that as chaotic systems never return to their initial state, managers should not assume that their organizations will return to a prior point of equilibrium. In his view strategic planning should focus on developing objectives with guidelines that allow flexibility in exploiting opportunities to attain the firm's objectives. Because chaotic systems can self-organize into more complicated systems (Anderson, 1999), firms must remain nimble. The ability to adapt quickly to environmental changes is also required because seemingly small environmental changes can produce significant downstream effects (Levy, 1994).

There is some evidence that the degree of environmental complexity affects managers' approaches to strategy formation and execution. Firms utilize more flexible planning approaches in the face of more complex operational environments (Kukalis, 1991). The larger the number of relevant components in the environment and the more complex their interrelationships, the less reliable are predictions of future states. Environmental complexity is therefore proposed as one of the emergent factors that have transformational effects upon intended strategy. This hypothesis differs from H1 (environmental instability) in that H1 refers to the changeable nature of particular environments as opposed to the inherent complexity of environments referred to in H4.

H4: The greater the level of complexity of the environment, the greater the level of strategy transformation.

#### **Internal Environment**

The internal environment of an organization may also play a significant role in determining the strategy formation methodology it employs (Boyd and Reuning-Elliott, 1998; Mintzberg and Lampel, 1999). Ashill *et al.* (2003) utilized an iceberg as a visual representation of the factors affecting the marketing planning process with the model divided into four layers. The uppermost and most visible layer, *artefacts*, contains many of the elements of a traditional strategic planning approach including planning procedures, strategic plan formats, and the firm's understanding of strategy. The next level is the *framed perspectives* layer which refers to the degree of support for strategic planning in the organization, the relative authority of senior executives and the leadership provided for the planning

process. The *values* layer includes centralization and formalization, which relate to the weight the organization places on process and the tendency to adhere to specified procedures. The *assumptions* layer references the underlying assumptions and beliefs of the organization. These may not be documented, or even articulated, but represent the conscious and unconscious framework within which decisions are made.

**Characteristics of the leadership team.** While numerous internal organizational factors affect the strategy formation process, the experiences, characteristics and tendencies of the key leaders involved can significantly impact the initial strategy and its subsequent transformation from intended to realized. The type of information used during the process, and the managers' personality characteristics can affect strategy formation and implementation.

It is critical that decision makers engaged in strategy formation have "a solid understanding of the business, share a common fact base, and agree on important assumptions" (Kaplan and Beinhocker, 2003: 72). Although referring to Boards of Directors, Forbes and Milliken's (1999) assertion about the types of information required for sound strategic decision making also applies to strategy formation. They maintain that two types of knowledge are required: knowledge about various functional aspects of a firm, as well as detailed knowledge of their specific organization including its management and operations. These data requirements necessitate the sharing of basic information at the commencement of the strategy formation process (Daake *et al.*, 2004).

The nature and composition of the top management team assumes greater importance as many high level decisions are influenced more by personal knowledge and collective memory than formal data (Daake *et al.*, 2004) and by tacit over explicit knowledge (Kotter, 1982). Since the human mind possesses a limited capacity to process information, bounded rationality restricts the number of factors that can be processed at one time (Simon, 1957), causing actors to fall back upon prior experience. Existing mental maps are utilized to filter new information, retaining only the data that fits current models (Hogarth, 1987). Numerous authors have noted that executives' and managers' characteristics such as personal philosophies, self-interest, personality traits and interpretations of events are linked to strategy formation and implementation (Guth and MacMillan, 1986; Hambrick and Fredrickson, 2001; Kaplan, 2008; Kotey and Meredith, 1997; Parnell and Lester, 2003; Smircich and Stubbart, 1985; Walsh and Fahey, 1986). A greater propensity for risk-taking may increase the focus on emergent aspects in the strategy formation process (Mintzberg, 1977), leading to a greater degree of transformation from intended to realized strategy.

The impact of top managers' characteristics and experience will almost certainly influence strategic processes, but the impact is difficult to predict. A shared cognitive framework can aid in the development of an effective approach to changes occurring in internal and external environments during an implementation phase. Conversely, the lack of a common understanding can lead to ineffective activities as leaders pursue uncoordinated and disjointed actions. Some leadership team characteristics would seem to inhibit strategy transformation (e.g. leadership team commitment to the initial strategy), while others would seem to facilitate such shifts (e.g. a tendency toward opportunistic behaviour). For this reason H5 does not postulate a direction for the relationship between leadership characteristics and transformation.

H5: The characteristics of the leadership team is a significant factor in transforming intended strategy into realized strategy.

**Involvement and support of the organization.** Despite the efforts of the leadership team, it is extremely difficult to implement a strategy without the involvement and support of the rest of the organization (Kjaergaard, 2009; Mintzberg, 1977). A relationship has been suggested between an orientation toward change and the existence of deliberate strategic planning in an organization (Boyd and Reuning-Elliott, 1998). If an organization is overly resistant to change, any shift in strategy could be mired in passive or active resistance to the point that it is rendered ineffective. In the most extreme case this would result in the realized strategy remaining the status quo. Where orientation toward change is more positive, the organization may facilitate adaptation, enabling the transformation of intended strategy into realized strategy.

Position bias refers to the tendency of individuals in an organization to pursue objectives or goals related to their position or group instead of the stated goals of the whole organization. This has also been referred to as sub-goal pursuit (Ketokivi and Castañer, 2004) which can have a detrimental effect on the implementation of an intended strategy by limiting the resources that are actually devoted to attaining overall organizational objectives. It can have a decidedly negative effect in that some of the sub-goals pursued by individuals or groups may be at odds with the organization's goals having significant and unpredictable impacts on the firm.

Including lower level managers in strategic planning has been shown to reduce attachment to sub-goals by increasing the attention and effort afforded to the objectives of the whole organization (Pinto *et al.*, 1993; Ketokivi

and Castañer, 2004). Participation in planning has been seen as a critical factor in encouraging organizational support for an intended strategy (Falshaw *et al.*, 2006; Greenley, 1994). Andersen (2004) demonstrated a significant positive relationship between distributed decision authority and performance, especially in turbulent environments and where formal deliberate strategic processes were in evidence. Permitting employees below the executive level to make decisions as the environment changes enhances an organization's ability to take advantage of emergent components of a strategy. This allows more of the organization to be involved in the transformation from intended to realized strategy although if lower level managers have been involved in the planning process, they could be more likely to support the intended strategy in the face of proposed changes.

H6: The greater the level of employee involvement in strategy formation, the lower the level of strategy transformation.

**Organizational learning.** When emergent strategies are adopted by an organization and become embedded in future iterations of strategy formation, the process involved is akin to organizational learning (Mintzberg and Waters, 1985). As decisions are made and results are obtained, analysed and internalized, informal learning is taking place (Mintzberg, 1994), which enhances the implementation process (Schäffer and Willauer, 2003). If management is adept enough to recognize successful strategies as they emerge, and flexible enough to adopt and implement them, organizational learning can occur. The process of scenario-based learning has been used to accelerate the development of mental models among decision makers in some organizations (De Geus, 1988; Schoemaker, 1995).

Institutional learning may be closely aligned with emergent strategy as the mental models of the actors are modified in response to the environment. If learning and altering the managers' mental models is a significant aspect of strategy formation and organizational success (Schäffer and Willauer, 2003), the question of how to accelerate mental model formation or alteration becomes important in the face of a dynamic environment. After surveying 30 companies that had been in continuous operation for at least 75 years, Shell concluded that it was the ability to learn from and adapt to environmental changes that separated them from companies that did not survive (De Geus, 1988). Shell came to believe that "the ability to learn faster than your competitors may be the only sustainable competitive advantage" (De Geus, 1988: 71). Organizations have varying levels of learning proficiency (Lichtenthaler, 2009). As with individuals, an organization's ability to learn quickly from past experience may be a key factor in its ongoing ability to adapt. In consequence, a higher degree of learning and sharing of mental models among decision makers should be related to a higher probability of effective strategies and implementations (Schäffer and Willauer, 2003).

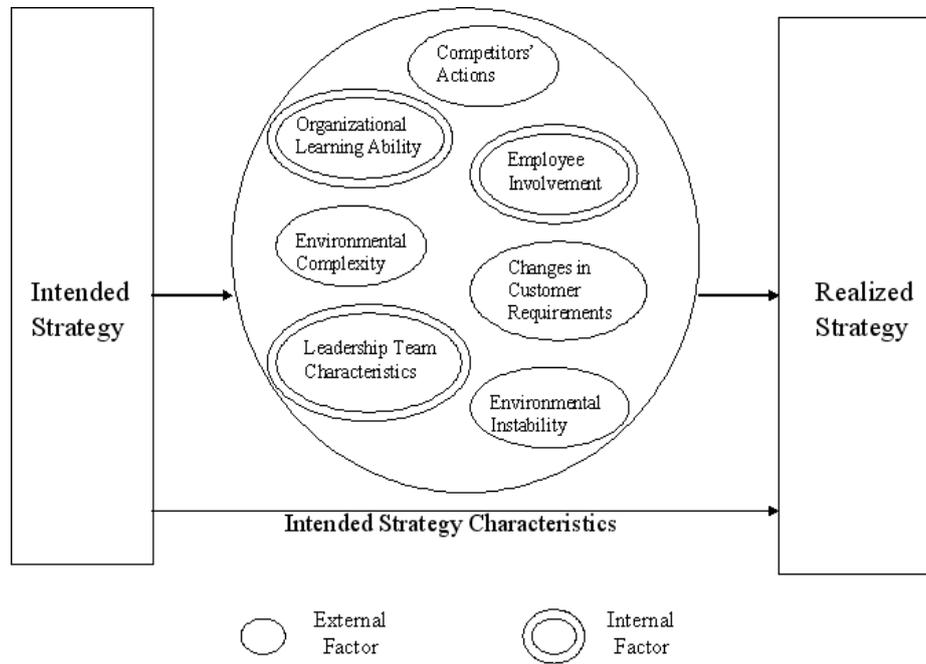
H7: The greater the ability of the organization to learn during intended strategy implementation, the greater the level of strategy transformation.

**Flexibility of the intended strategy.** As noted earlier, the accelerating pace of change in turbulent and highly competitive environments makes rigid plans ripe for significant transformation. A highly specified intended strategy does not allow an organization the adaptability to exploit opportunities or pursue innovations as they arise (Miller and Cardinal, 1994; Rudd *et al.*, 2008). This has led some firms to rely on a strategy formation process of planned emergence whereby businesses formally plan but maintain significant flexibility to adjust strategies as necessary to react to their oft-changing environments (Grant, 2003). A flexible intended strategy allows an organization to plot a broad path toward objectives while allowing adjustments within set guidelines. Such an intended strategy would include objectives that were sufficiently broad to allow evolution to occur at the tactical level reducing the need for transformation at the strategic level.

H8: The greater the level of flexibility of the intended strategy, the lesser the level of transformation.

The *a priori* model shown in Figure 1 represents intended strategy transforming into realized strategy through the impact of a group of contextual factors. These factors have been gleaned from the literature, and modified based on interviews with executives (Rose and Cray, 2013) and are the internal and external contextual variables which are thought to cause an intended strategy to evolve during implementation. However, the mechanisms by which these factors affect intended strategy are not clear. As such, the model simply depicts the factors in a space between the intended and realized strategies through which implementation proceeds. The purpose of this study is to gain further understanding as to whether these are the actual factors that impact transformation and the paths through which the impacts of each factor occur.

**FIGURE 1**  
**A Priori Model – Variables Taken from the Literature and Interviews**



**METHODS**

The initial step of this project was to identify factors that previous research suggested would intervene between deliberate and realized strategies. Each of the factors is a latent construct made up of a number of indicators or test items used to operationalize the factor for measurement. A number of variables were derived from the planning-performance literature that could serve as indicators for each factor, but to ensure the framework was as complete as possible and reflected actual practice, interviews were conducted to elicit the views of five senior managers using a semi-structured approach (Miles and Snow, 1978). Based on the results of the qualitative study (Rose and Cray, 2013), the model was modified to include additional indicators for existing factors, and to adjust the title of one factor, but there was no indication that additional factors were required.

Having outlined the possible factors and associated indicators, the next step was a quantitative study to gauge how each of the contextual factors in the model contributes to the transformation of intended into realized strategy. The unit of analysis was a specific strategy that had been employed by a profit-oriented organization. Every strategy included had reached a level of closure sufficient for managers to answer questions concerning the level of transformation encountered during implementation. For each case, details were elicited from a high-level manager who had participated in the strategy process. Each manager contributed only a single case so that a wide variety of organizations was represented and so that no single informant could unduly bias the results.

Surveys of executives typically result in very low response rates (Cycyota and Harrison, 2006), often below five per cent. To avoid this problem, this study employed snowball sampling. Encouraging first tier informants to identify or request responses from second tier informants leverages the social and professional networks of early informants to increase response rates (Cycyota and Harrison, 2006). Snowball sampling is appropriate when targeting a small, hard to reach population with specific required knowledge, which is embedded or screened within a larger population (Michael, 2006; Welch, 1975). This is exactly the case with senior managers and executives who are screened by executive assistants, administrative assistants and lower level managers. Snowball sampling represents a trade-off between the generalizability of a truly random sample and the realities of gaining reasonable response rates and an effective sample size. To help enhance generalizability sampling was initiated across several industries and a variety of social networks.

The survey contained 38 items that provided the data for the 31 indicators and their associated eight factors, as well as three questions related to the transformation outcomes and process. The items were derived from a variety of academic sources augmented by the information gained from the five executive interviews (Rose and Cray, 2013). To ensure that the variables were correctly associated with the underlying factors, they were subjected to

exploratory factor analysis (EFA). The EFA loadings were used to modify the factors employed in the final Strategy Transformation Model.

The EFA results provided the factors and indicators in the model but regression analysis at this point yielded only the main effects of each factor. To determine the interactions among the factors, Baron and Kenny's (1986) process for determining the presence of moderators and mediators was employed. The regression analysis was then repeated with the inclusion of the factor interaction variables. This analysis, with the inclusion of the factors and the interaction variables, represents the final Strategy Transformation Model.

### PRELIMINARY INTERVIEWS AND THEIR IMPACT ON THE MODEL

The qualitative portion of the study was comprised of cases involving interviews (Yin, 2003) with five executives, four from North American based firms and one from a company headquartered in Europe. The five companies included two from the telecom industry, one from financial management, a major retail chain and a company providing services to the defence sector. The interviews were undertaken to allow the use of open-ended qualitative methods to provide respondents the opportunity to identify factors or indicators that may not have previously appeared in the literature (Crawford *et al.*, 2008; Lee *et al.*, 1999). Each interview lasted about an hour and featured an in-depth review of the implementation and results of a single strategic plan drawn from the interviewee's professional experience (Rose and Cray, 2013). After the process and outcomes were described, the interviewee was asked to list the factors that most impacted any changes between the original strategic plan and what was actually implemented.

As noted by Eisenhardt (1989), if the analysis of the data shows the predetermined constructs to be significant, an emergent theory will have a more solid empirical base. All of the factors derived from the literature were mentioned in the course of the case descriptions without prompts from the interviewer (Oliver *et al.*, 2005). In addition, five new variables were discovered during interviews and later included in the model (Weston *et al.*, 2001). Feasibility of the intended strategy and ambitiousness of the intended strategy came from Interview 1. Availability of resources and changes in key personnel came from Interview 2. Government regulatory requirements came from Interview 3. All of these added variables were mentioned to some extent in the interviews that took place after the variables were first identified. The addition of these variables to the literature-based model produced the *a priori* model which was the model tested by the survey.

As displayed in Table 1, all of the five new variables (shown in bold type) were listed as indicators because each seemed to fit with one of the existing factors in the model; however, one factor title was modified (shown in bold type). Feasibility of the intended strategy and ambitiousness of the intended strategy were added as indicators for characteristics of the intended strategy. It should be noted that this factor was originally named flexibility of the intended strategy; however, with the addition of the two new indicators, the broader title of characteristics of the intended strategy was adopted.

**TABLE 1 – A PRIORI MODEL**

#### Factors, Indicators and Sources Based on Literature Review and Interview Results

Note: 1. The Factor 8 wording change and the new indicators from the interviews are in bold.

2. This table relates to the *a priori* Model only i.e. prior to EFA and the final model

Factors	Indicators	Source
Environmental instability - External.	Volatility of sales growth. Instability of the environment in which the firm operates. Unpredictability of the environment in which a firm operates. <b>Unavailability of resources.</b>	Harrington <i>et al.</i> , 2004 Jennings and Disney, 2006 Grant, 2003; Parnell and Lester, 2003  <b>Interview 2</b>
Competitors' actions - External.	Competitiveness of the environment. Rate of response of the firm's competitors to changing market conditions. Rate of new product introduction by the firm's competitors.	Blythe and Zimmerman, 2004 Blythe and Zimmerman, 2004  Kukalis, 1991
Changes in customer requirements - External.	Rate of change of customer needs. Speed of change in demand trends. Customer demand for innovation in the firm's market.	Depperu and Gnan, 2006 Depperu and Gnan, 2006 Kukalis, 1991
Environmental complexity- External.	Complexity of the operating environment of the firm. Complexity of the firm's relationship with its distributors, customers and suppliers. Diversity in the customers and markets served by the firm. <b>Government regulatory requirements.</b>	Kukalis, 1991  Kukalis, 1991 Kukalis, 1991 <b>Interview 3</b>

Leadership team characteristics - Internal.	Managers' use of previously acquired experiential knowledge during strategy implementation. Managers sharing a detailed and consistent understanding of the business. Tendency towards opportunity taking by the firm.  Leadership team support of the strategy. <b>Changes in key personnel.</b>	Daake <i>et al.</i> , 2004  Beinhocker and Kaplan, 2002  Depperu and Gnan, 2006; Mintzberg, 1977 Kaplan and Beinhocker, 2003 <b>Interview 2</b>
Employee involvement - Internal.	Authority of lower level managers to make decisions and take initiative in response to the changing environment. Resistance to change in the organization. Tendency of individuals in an organization to pursue the objectives or goals of their position or group instead of the stated goals of the whole organization. Participation of low and mid-level managers in the strategic planning process. Communication by the firm of its strategic goals and priorities to the whole firm.	Andersen, 2004 Boyd and Reuning-Elliott, 1998  Ketokivi and Castañer, 2004  Ketokivi and Castañer, 2004  Ketokivi and Castañer, 2004
Organization learning ability - Internal.	Ability of senior managers to quickly develop and share new perspectives. Senior management flexibility. Tendency for the firm to develop contingency plans for alternate possible futures.	Schaffer and Willauer, 2003  Schaffer and Willauer, 2003 De Geus, 1988; Schoemaker, 1995
<b>Characteristics of the intended strategy - Internal.</b>	Flexibility inherent in the planned strategy Rigidity of the planned strategy.  <b>Feasibility of the planned strategy.</b> <b>Ambitiousness of the planned strategy.</b>	Grant, 2003 Miller and Cardinal, 1994; Rudd <i>et al.</i> , 2008 <b>Interview 1</b> <b>Interview 1</b>

### QUANTITATIVE STUDY RESULTS

Due to the nature of snowball sampling, there was no way for the researcher to know exactly how many potential recipients received the survey email from colleagues in the first tier. However, estimates can be based on unsolicited communications received by the researcher from various recipients and the emails sent by respondents requesting a summary of the study's results. The overall estimated response rate of 62% is extremely high given the senior manager and executive target group (Cycyota and Harrison, 2006). This response rate can be attributed to the survey requests coming from executives in the social or professional networks of the respondents. A total of 161 responses were received, however, a number had missing data. To maintain the integrity of the sample, it was decided to delete any response that had more than one missing data point. As a consequence, the final sample was made up of 153 responses. Descriptive characteristics of the sample are provided in the Appendix.

#### Level of Strategy Transformation

The level of strategy transformation reported by each survey respondent was measured by three items. Items 32 and 33 measured the degree to which the primary and secondary goals, as specified in the original plan, were achieved. Item 34 measured the level to which the implementation process proceeded exactly as planned.

This data allowed us to estimate the degree that intended strategies changed during implementation across a variety of industries. Overall, 9.8% of organizations achieved one quarter or less of their primary goals, and 26.1% achieved half or less of their primary goals. Only 31.4% achieved more than three-quarters of their primary goals. The data also indicates that 11.8% of organizations achieved one quarter or less of their secondary goals, and 40.5% achieved half or less of their secondary goals. Only 22.2% achieved more than three-quarters of their secondary goals. These results indicate that a high level of strategy transformation may be the norm for most organizations.

When asked if implementation processes had proceeded exactly as planned, 33.3% of respondents either disagreed or strongly disagreed. When somewhat disagree is added, the three levels of disagreement with the implementation process proceeding exactly as planned climbs to 48.4% or almost half of respondents. An equivalent number of respondents (48.4%) had some level of agreement that the implementation process proceeded exactly as planned.

#### A Priori Model Regression Analysis (prior to factor analysis)

Using SPSS, the *a priori* dependent factor (i.e. transformation factor) was regressed against the eight *a priori* independent factors. The results show an  $R^2$  of 0.212 indicating that 21.2% of the variance of the transformation factor can be explained by the *a priori* independent factors in their current configuration.

Of the six hypotheses which hypothesized a directional relationship, five were supported by the analysis. One Beta was in a direction opposite to that hypothesized (H3: changes in customer requirements). While the result is not statistically significant, H3's negative Beta implies that the greater the level of change in customer requirements, the lesser the level of transformation. This seems counter-intuitive but it may be due to the long term influence of changing customer requirements on firms over many strategy formulation iterations. A possible explanation may be that the higher the level of customers' actions in a market, the more a firm in that market may have been conditioned to build flexibility into its strategy from the outset. As such, the impact of customers' actions may take place when the intended strategy is first being developed.

Three of the hypothesized factors were found to be significant with p-values less than 0.05. Of these three, one had a hypothesized directional relationship (H4: complexity of the environment) while the other two did not have a hypothesized direction (H5: characteristics of the leadership team, and H8: characteristics of the intended strategy). These three factors also had the highest SBs (standardized Betas), therefore the greatest impact upon the dependent variable. The three factors represent portions of the internal and external environments of the firm, and the starting point of strategy transformation, the intended strategy.

While the *a priori* factors and hypotheses provided a starting point for the analysis, these factors and their underlying collections of indicators were based solely on the judgement of the researchers after review of the literature. The results above indicate some level of explanatory capability through the regression; however, an alternative combination of the indicators could possibly provide more significant results. As such, EFA was carried out as the next step in the analysis.

### Exploratory Factor Analysis (EFA)

Initially, the EFA used principal components analysis (PCA) and an orthogonal rotation (Barth, 2008). However, this process yielded factors which were not interpretable, including a dependent factor which had explanatory indicators mixed with the dependent indicators. Preacher and MacCallum (2003) note that this is a problem with PCA which has been recognized for decades (Wolfe, 1940) and is associated with PCA's inability to recognize and account for error-related variance including measurement error. Principal axis factoring takes measurement error into account and therefore was used in the factor analysis discussed below. An oblique rotation (Promax) was used as it allows the factors to be extracted without requiring them to be orthogonal yielding greater interpretability (Preacher and MacCallum, 2003).

A nine factor (eight independent factors) solution was generated which accounted for 62.4% of the variance explained; however, the ninth factor was not readily interpretable. As factor interpretability is the most important criterion for retention (Stevens, 2002), this factor was deleted from the analysis; however, the two indicators that made up the ninth factor were retained because they showed loadings on other factors (Kwan *et al.*, 2009).

### The Strategy Transformation Model

The EFA analysis yielded a set of latent constructs that contribute to the transformation of intended strategy into realized strategy during strategy implementation. This section of the paper outlines the results of the analysis, which was carried out to determine the level of strategy transformation that can be attributed to these constructs and their interactions.

Table 2 lists the Cronbach's alphas (Cronbach, 1951) for the factors in the Strategy Transformation Model. The managers, employees and customers factors are all above 0.7 and are therefore considered acceptable by current standards for either exploratory or follow-on research (Nunnally, 1978). Of the remaining five factors, flexibility, competitors and transformation are all near 0.7 with the lowest being 0.683. The remaining two factors, external environment and plan, are above 0.6 and are considered acceptable given the exploratory nature of this research (Shay and Baack, 2004).

**TABLE 2**  
**Cronbach's alphas for Strategy Transformation Model factors**

Factor	Number of indicators	Cronbach's alpha
Managers	5	0.792
Employees	6	0.757
Customers	4	0.766
Flexibility	5	0.683
External environment	3	0.634
Competitors	3	0.684
Plan	2	0.604
Transformation factor	3	0.686

**Factor Moderation and Mediation**

An initial R<sup>2</sup> value of 0.43 was attained before moderating relationships were taken into account. Baron and Kenny's (1986) process for determining the presence of moderators and mediators was employed to ascertain whether relationships exist between the model's variables. Flexibility was shown to moderate the effects of the managers factor (p = 0.024) and the employees factor (p = 0.052). A moderating relationship was discovered between the external environment and competitors factors. The indicators that make up the external environment factor are the instability, unpredictability and complexity of the environment. Since it would be unreasonable to assume that competitors' actions could moderate the totality of the external environment, the external environment was designated as the moderator in this relationship.

Baron and Kenny (1986) define three tests to determine the presence of a mediator. If a potential mediator passes these tests, its existence can be confirmed by a decrease in the effect of the associated independent variable when the mediator is removed. The only variable combination that passed all three tests was flexibility, which acts as a mediator for competitors. The existence of flexibility as a mediator is indicated since when flexibility is present, the competitors factor has an effect of 13.4%; when flexibility is removed, the effect of competitors drops to 10.7%.

**Regression Analysis of the Final Strategy Transformation Model**

The dependent factor (i.e. transformation) was regressed against the ten independent factors, including the three product variables (e.g. FlexibilityXXManagers representing the flexibility factor moderating the managers' actions factor), which represent the moderating influences. The results are displayed in Tables 3 and 4. The R<sup>2</sup> of 0.446 indicates that 44.6% of the variance of the transformation factor can be explained by the independent factors in the Strategy Transformation Model.

**TABLE 3**  
**Regression summary of final Strategy Transformation Model**

<i>Model</i>	<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Std. Error of the Estimate</i>
1	.668 <sup>a</sup>	.446	.407	.71013124

a. Predictors: (Constant), EnvironInstability XXCompetitors, Intended Plan, FlexibilityXXEmployees, FlexibilityXXManagers, Managers, Employees, Environmental Instability, Customers, Flexibility, Competitors

**TABLE 4**  
**Regression details of final Strategy Transformation Model**

<i>Model</i>	<i>Unstandardized Coefficients</i>		<i>Standardized Coefficients</i>	<i>t</i>	<i>Sig.</i>
	<i>B</i>	<i>Std. Error</i>	<i>Beta</i>		
1 (Constant)	.003	.066		.051	.959
Managers	-.204	.078	-.208	-2.615	.010
Employees	.152	.073	.151	2.073	.040
Customers	-.152	.086	-.156	-1.762	.080
Flexibility	-.252	.090	-.242	-2.810	.006
External Environ	.161	.082	.157	1.962	.052
Competitors	.432	.099	.419	4.378	.000
Intended Plan	.421	.075	.409	5.636	.000
FlexibilityXXManagers	-.065	.075	-.067	-.871	.385
FlexibilityXXEmployees	-.106	.073	-.102	-1.452	.149
ExtEnvironXXCompetitors	.094	.071	.103	1.324	.188

a. Dependent Variable: Transformation

Table 5 lists the final Strategy Transformation Model factors and associated indicators or survey items. These associations come from the results of EFA.

**TABLE 5**  
**Factors and associated indicators for the final Strategy Transformation Model**

<b>Factor</b>	<b>Indicators</b>
Managers' actions	<ul style="list-style-type: none"> <li>• Communication by the firm of its strategic goals and priorities to the whole firm.</li> <li>• Leadership team support of the strategy.</li> <li>• Managers sharing a detailed and consistent understanding of the business.</li> <li>• Participation of low and mid-level managers in the strategic planning process.</li> <li>• Diversity in the customers and markets served by the firm.</li> </ul>
Employees' actions	<ul style="list-style-type: none"> <li>• Tendency of individuals in an organization to pursue the objectives or goals of their position or group instead of the stated goals of the whole organization.</li> <li>• Changes in key personnel.</li> <li>• Resistance to change of the organization.</li> <li>• Unavailability of resources.</li> <li>• Authority of lower level managers to make decisions and take initiative in response to the changing environment.</li> <li>• Rigidity of the planned strategy.</li> </ul>
Customers' actions	<ul style="list-style-type: none"> <li>• Rate of change of customer needs.</li> <li>• Speed of change in demand trends.</li> <li>• Customer demand for innovation in the firm's market.</li> <li>• Government regulatory requirements.</li> </ul>
Organizational flexibility	<ul style="list-style-type: none"> <li>• Flexibility inherent in the planned strategy</li> <li>• Tendency for the firm to develop contingency plans for alternate possible futures.</li> <li>• Senior management flexibility.</li> <li>• Ability of senior managers to quickly develop and share new perspectives.</li> <li>• Tendency towards opportunity taking by the firm.</li> </ul>
External environment instability and complexity	<ul style="list-style-type: none"> <li>• Instability of the environment in which the firm operates.</li> <li>• Unpredictability of the environment in which a firm operates.</li> <li>• Complexity of the operating environment of the firm.</li> </ul>
Competitors' actions	<ul style="list-style-type: none"> <li>• Rate of new product introduction by the firm's competitors.</li> <li>• Rate of response of the firm's competitors to changing market conditions.</li> <li>• Competitiveness of the environment.</li> </ul>
Characteristics of the intended plan	<ul style="list-style-type: none"> <li>• Ambitiousness of the planned strategy.</li> <li>• Feasibility of the planned strategy.</li> </ul>
Remaining items <sup>a</sup>	<ul style="list-style-type: none"> <li>• Volatility of sales growth.</li> <li>• Managers' use of previously acquired experiential knowledge during strategy implementation.</li> </ul>
Strategy transformation	<ul style="list-style-type: none"> <li>• Level that the primary goals of the strategic plan were implemented and achieved as originally planned.</li> <li>• Level that the secondary goals of the strategic plan were implemented and achieved as originally planned.</li> <li>• Level that the process of implementing the strategy was carried out exactly as planned.</li> </ul>

a. This factor was not used in the model regressions but the indicators were retained during factor analysis because of their loadings on other factors.

## DISCUSSION

### Summary

The Strategy Transformation Model depicted in Figure 2 shows both the factors and their interactions with one another. The factor with the greatest impact on transformation is competitors with a standardized beta (SB) of 0.419 (the SB is shown in brackets near the arrowhead). This effect is positive indicating that as competitors' actions increase, the level of strategy transformation increases, which implies that attainment of initially intended goals decreases. The predicted actions of competitors are fundamental to the formulation of strategic plans; however, since particular competitors may not themselves be sure of their future actions, it is extremely difficult to anticipate them accurately. This can lead to shifts in a firm's strategy as competing firms change their approaches to a market. As competition increases, strategic shifts can become more rapid and profound (Blythe and Zimmerman, 2004) making flexibility and speed in strategy formation and implementation essential.

**FIGURE 2-  
Final Strategy Transformation Model**

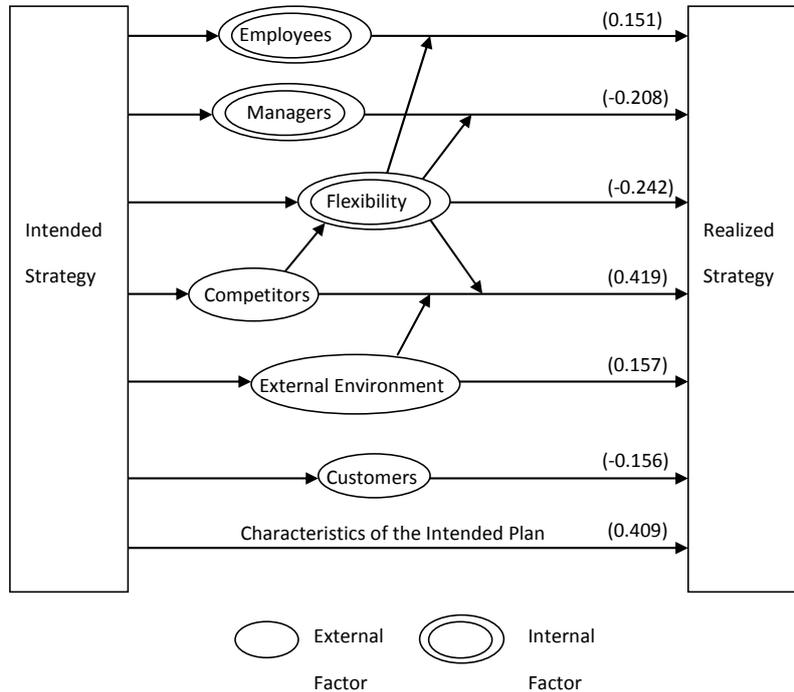


Figure 2 shows that the competitors' actions factor interacts with both flexibility and the external environment. Flexibility mediates the impact of competitors such that the impact of competitors' actions on strategy transformation is less when flexibility is present. The external environment moderates competitors' actions as they react to the environmental dynamics. For example, in an expanding and profitable market such as that experienced by the high tech sector in the late 1990s and early 2000s, competitors might be more prone to invest in new product introduction and marketing, thereby making the market more competitive. However, a more unstable, unpredictable and complex environment may make firms more conservative, thereby resulting in a less competitive market.

The second highest SB belongs to characteristics of the intended plan at 0.409; the more ambitious or unfeasible the plan, the greater its impact on the transformation of strategy. The strategy of one of the high tech firms included in the qualitative study (Rose and Cray, 2013) exemplified the dramatic negative effects that an overly ambitious plan can have on goal attainment when unrealistic projections had to be drastically revised. Even if the stipulated outcomes are reached, a firm may still have had to shift resources to accomplish its ends.

Flexibility has the third highest SB at -0.242; the negative indicates that the higher the level of flexibility the lower the level of strategy transformation. The more flexibility demonstrated by the firm's management and the general culture of the organization, the more an organization has the adaptability to exploit opportunities or pursue innovations as they arise (Miller and Cardinal, 1994; Rudd *et al.*, 2008). This can allow a firm to take a planned emergence approach whereby it develops strategic plans with embedded flexibility (Grant, 2003). A flexible intended strategy allows an organization to pursue objectives that are sufficiently broad to allow change to occur at the tactical level minimizing the transformation of the plan at the strategic level.

Flexibility also has interaction effects with three other factors. As discussed above, it mediates the impact of competitors' actions. It also moderates the impacts of managers' and employees' actions. In the case of managers' actions (SB = -0.208), such as communication of the strategy to the firm and leadership support, it decreases the level of transformation. Since a decrease in strategy transformation means a higher level of original goal attainment, it is reasonable that greater communication of the strategy in the firm and greater levels of leadership support would lead to higher strategic goal attainment. These sorts of actions, and the participation of lower level managers in the strategy formulation process (Falshaw *et al.*, 2006; Greenley, 1994; Parnell and Lester, 2003), also lead to more effective strategies being developed and implemented (Schäffer and Willauer, 2003). Flexibility moderates this factor such that the more flexible the organization, the more these managers' actions are allowed to apply, thereby reducing the transformation of strategy.

Flexibility moderates employees' actions (SB = 0.151). As defined above, these actions include resistance to change, sub-goal pursuit and unavailability of resources. Because of the positive coefficient, the higher the level of employees' actions, the higher the level of strategy transformation. Flexibility moderates this factor such that a more pliable organization may demonstrate less organizational resistance to change and a diminished tendency among employees to pursue personal or sectional ends which conflict with the strategic goals of the organization as a whole (Ketokivi and Castañer, 2004).

The fifth highest SB is external environmental instability and complexity at 0.157. The positive coefficient indicates that instability, unpredictability and complexity in the environment lead to higher levels of strategy transformation. As Levy (1994) might state, the more chaotic the environment, the more difficult it is to attain the strategic objectives of the firm. In general, firms in more unstable environments tend to have more emergent strategies (Harrington *et al.*, 2004) and therefore see more strategy transformation. Such firms tend to employ a mix of deliberate and emergent strategies (Andersen, 2004; Brews and Hunt, 1999; Grant, 2003), which may be an acknowledgement that strategy transformation will occur.

The customers' actions factor is the sixth highest SB (-0.156) and it should be noted that this is the only individual factor that does not have a significant p-value ( $p = 0.080$ ). This result was foreshadowed during the qualitative analysis when changes in customer requirements did not appear in the top five important factors across the interviews when the transcripts were coded.

The most important factor in the model appears to be flexibility. Although flexibility's SB as a main effect is only third highest, it also affects the transformation of strategy through three additional factors, mediating competitors' actions, which has the largest impact of any single factor, and moderating both managers' and employees' actions. This is in line with the definition of flexibility derived from the indicators detailed in the EFA analysis, a broad concept that touches many facets of an organization. In the final Strategy Transformation Model, flexibility is comprised of the following components:

- Flexibility inherent in the planned strategy;
- Tendency for the firm to develop contingency plans for alternate possible futures;
- Senior management flexibility;
- Ability of senior managers to quickly develop and share new perspectives; and
- Tendency towards opportunity taking by the firm.

In the post-EFA model, all three of the indicators from the *a priori* organizational learning factor moved to the flexibility factor. These rankings reflect the prominence of flexibility and organizational learning in all five of the interviewees' narratives from the qualitative study (Rose and Cray, 2013). The interviewees spoke of flexibility of the leadership team, flexibility being built into their strategies, flexibility resulting from the organizations' learning abilities and flexibility being applied during implementation. The negative SB (i.e. -0.242) of flexibility in the final model indicates that the more flexibility is present, the less transformation occurs. This further implies that flexibility can be built into an original strategy so that any shifts are seen as extensions of, rather than deviations from, original plans.

### **Contributions to Scholarship**

The research described in this paper offers three important contributions to the understanding of strategy and its evolution during implementation. First, the study brings together in a single model a number of factors that have been found to affect the success of strategic planning efforts and applied them to the transformation of intended to realized strategy, a transition that has long been discussed but seldom subjected to empirical investigation. The definition and operationalization of these factors has been expanded and verified through a preliminary qualitative study tapping the experiences of working executives and through factor analysis of the resulting indicators.

The second contribution lies in the empirical basis of the final model which is based on a large number of actual cases taken from a wide variety of industries with indicators derived from the experiences of those involved in the strategy transformation process rather than abstract measures drawn from existing data bases. The final model provides an empirically derived baseline for future research against which refinements and additions may be assessed. The statistical analysis supporting the final model also indicates the relative importance of the various factors, including mediating and moderating effects, an assessment that has been largely lacking in studies focusing on the effects of a single factor.

Finally, this work emphasises the importance and complex interaction of flexibility extant within an organization and embodied in its strategic plans for understanding how strategies evolve over time. While organizations have long been abjured to increase flexibility in various features of structure and processes, the different ways in which flexibility can impact strategy has been examined largely in piecemeal fashion. The final model indicates how pervasive different aspects of flexibility are in influencing the implementation of strategy.

### **Applied Implications**

For managers engaged in developing and executing strategies, managers similar to those from whom this data was collected, the most important implication of this work is that strategy should be thought of as a verb rather than a noun. Since strategy is a living, evolving conceptual entity, strategic plans should be dynamic documents that allow for considerable flexibility. This approach should also be reflected in the structures put in place to monitor and modify strategic plans; flexibility is desirable, even necessary, but it should occur within a set of parameters that provide guidance to managers, and these will increasingly include those at lower levels of the organization, who must contend with shifts in contextual factors. Perhaps the most important implication for practicing managers, which also applies to those studying this transformation, is to realize that the distinction between intended and realized strategy as two static states is essentially false. The initial and final states are linked by processes that can be identified and managed. When the final shape of a realized strategy remains what was planned years earlier, this is very seldom because of superior foresight or unchanging conditions; it is because the original plan anticipated and included the necessary flexibility.

#### Limitations and Future Research Directions

The main limitation of this study stems from the sampling method. A snowball sample is necessarily limited in its generalizability although strenuous efforts were made to include organizations of all sizes and from a large number of industries. While the sample is largely North American, a number of European and Latin American firms were also included. In any case, we maintain that the data derived from this sample is in many ways more indicative of strategic transformation processes than previous large-scale surveys with minute response rates.

The final model offers a baseline for future researchers who wish to augment or refine the list of factors involved in strategy transformation. Obviously the role of flexibility and its impact on specific factors, as well as on the transformation process as a whole, warrant further investigation. One line of investigation would include identifying mechanisms incorporating flexibility in both the planning and execution of strategy and linking them to strategic outcomes. Finally, while this research has identified and compared the factors that intervene between intended and realized strategies, the task of mapping the dynamic process by which that transformation occurs remains to be done.

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## APPENDIX

### Characteristics Of The Survey Sample

Survey questions 35 through 41 elicited descriptive information about the respondent and the company and industry used in each strategy implementation example. The results produced a sample that spanned the senior manager and executive ranks in publicly and privately owned companies over five continents and at least 26 industries.

The largest group of respondents were 34 vice presidents representing 22.2% of the 153 total usable responses. Executive respondents who were fully responsible for the companies or divisions implementing the strategies numbered 50 or 32.7% of all respondents. This group included general managers, presidents, CEOs and company owners.

The mean experience of all respondents in the industry used in their strategy examples was 18.4 years with a standard deviation of 9.3 years. This high level of focused experience adds to the credibility of their responses in that the respondents had the requisite information to understand the impacts of the environments in which their companies operated.

While 42 (27.5%) were smaller companies with annual revenue under \$10 million, 37 (24.2%) were very large companies with annual revenue over \$1 billion. A total of 55 (35.9%) companies had annual revenue between \$50 million and \$1 billion. The sample is representative of a wide range of company sizes including 15 (9.8%) with annual revenue over \$10 billion.

The majority of companies were headquartered in Canada (99 companies, 64.7%) with the remaining 54 (35.3%) companies spanning five continents.

Eighty-two (53.6%) of the companies were privately owned while 71 (46.4%) were public entities owned by shareholders. The sample included companies from numerous industries with the largest representations being from the financial sector with 22 out of 153 (14.4%) companies, defence with 19 (12.4%), telecom with 17 (11.1%), and general manufacturing with 16 (10.5%).