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RESEARCH ARTICLE

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A Multi-Level Analytical Framework of Firm Strategic Change

Abstract Firm strategic change has attracted increased attention from strategic management scholars over the past few decades. With an aim to review the existing research and to provide a future research agenda, this study presents a multi-level analytical framework of the drivers of a firm's strategic change. Specifically, we focus on the environment-, organizational-, and individual-level factors. Empirical studies at each of the three levels have been thoroughly reviewed. We further discuss the theoretical differences and relationships among the three levels of factors. This study concludes with important theoretical implications for firm strategic change research and also suggests a few future research directions on this topic.

Keywords firm strategic changes, drivers, multi-level framework, literature review, future research agenda

1 Introduction

Research in strategic change has increasingly attracted attention from management scholars as any strategic change is closely linked to a firm's success or failure. A firm's strategic action reflects its reaction to past events and anticipation of the future. Not surprisingly, the question of when and how firms change their strategy has become a focal issue in strategic management research (Ginsberg, 1988; Abrahamson, 1991).

The literature on firm strategic change can be categorized into two general groups: one focuses on the antecedents and consequences of strategic change,

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evidenced by large data samples; the other explores the process of strategic change, explaining the role played by corporate executives in the decision-making process (Rajagopalan and Spreitzer, 1996). The drivers for firm strategic change at the macro-level have been well examined, and those factors include firm size (Zajac and Kraatz, 1993; Fombrun and Ginsberg, 1990), firm age (Boeker, 1989; Singh et al., 1986) and environmental munificence (Ginsberg and Buchholtz, 1990; Wiersema and Bantel, 1993).

Recent studies also suggest that micro-level factors such as a CEO's personality and emotion may serve as instigators of firm strategic change as well (Herrmann and Nadkarni, 2014; Delgado-Garcia and Fuente-Sabate, 2010). These empirical findings imply that two categories of studies on strategic change, both at the macro- and micro-level, may have a convergence and may work jointly in certain contexts. In this regard, a theoretical review of this development can provide a more complete picture of the existing literature and also pave an avenue for future research on this topic.

In this study, we conduct a comprehensive review on the research related to the potential drivers of firm strategic change and we then present an integrative theoretical framework. Firstly, we define the scope of strategic change. We then propose a theoretical model which encompasses factors at three levels: the environmental, organizational and individual factors. The underlying relationship across the three levels is also explained. Second, we review and organize the extensive literature on antecedents of strategic change based on the model and discuss the three level respectively. The key theoretical linkages and empirical conclusions of each stream are identified. After reviewing literature on the three levels, we advance an integrative mechanism to see the interaction of the factors from each of the levels. Finally, the theoretical contribution of this model and potential future research areas is given.

2 Definition and Scope of Strategic Change

According to Mintzberg (1978) and Miles and Snow (1978), strategy is defined as a pattern in a firm's important decisions and actions which aims to maintain alignment with the environment and to manage internal independencies. For instance, Chandler (1962: p.13) defined strategy as "the determination of the basic long-term goals and objectives of the enterprise and the adoption of courses of action and the allocation of resources necessary for carrying out these goals."

Based on these arguments, we can infer that strategy includes two essential elements: one is the expected goal and objective; the other is the course of action and resource deployment in practice. The implementation of one specific strategy usually requires a large amount of investment in terms of time, money and other tangible or intangible resources. Through effective strategic implementation, a firm builds its unique competencies, technologies and management processes to obtain a sustainable competitive advantage (Snow and Hrebiniak, 1980). Due to the large amount of irreversible investments, firms are reluctant to engage in strategic change and prefer to adopt familiar strategies even for new problems (Cyert and March, 1963). Therefore, firms consider strategic change only when they face great pressure which forces them to overcome organizational inertia.

In terms of strategic change, Hofer and Schendel (1978) considered that changes in the content of a firm strategy can be defined by its scope, resource deployment, competitive advantage and synergy. Snow and Hrebiniak (1980) proposed that strategic change occurs only when the firm 1) modifies in a major way in alignment with the environment and 2) substantially alters technology, structure and process to fit the new alignments. To further operationalize this concept, Porter (1980) advanced a typology for strategy, including business-level strategies which are means to improve the competitiveness of a firm's individual business units such as differentiation, cost-leadership and focus; corporate-level strategy such as mergers and acquisitions (M&As) aiming to address the diversification of business under one corporation. Later on, Formbrun (1993: pp. 159–160) proposed another type—collective-level strategies—"to explore the relative merits of forming relationships with rivals, suppliers, distributors, and other firms."

In sum, business and corporate strategies deal with a firm's internal problems while collective strategies highlight external issues. Thus, strategic change can be depicted as a unitary concept measured by discrete changes in a firm's business, corporate, or collective strategies (Rajagopalan and Spreitzer, 1996). Strategic change was operationalized differently across studies. Content and scope are the two most important dimensions of strategic change. For instance, a firm can increase the amount of risk involved in strategy by participating in more explorative innovation. In contrast, firms can also lower the level of risk through de-investiture. In this study, we analyze the drivers of strategic change through a lens of environmental, organizational and individual-level factors. In the next

section, we review and discuss initiatives of strategic change at three levels and examine theoretical distinctions between them.

3 Integrative Theoretical Model

The domain of strategic management generally considers the sources of opportunities, the process by which a firm discovers such opportunities, the evaluation and exploitation of opportunities and the individuals who discover, evaluate and exploit them (Barney, 1991; Porter, 1980). In this regard, as shown in Figure 1, the drivers of strategic change can originate from environmental-, organizational- and individual- levels. Organizations always make adaptations to build a fit between themselves and their environment to achieve superior performance (Cyert and March, 1963). We review past empirical studies to present how those factors influence firm strategic change.

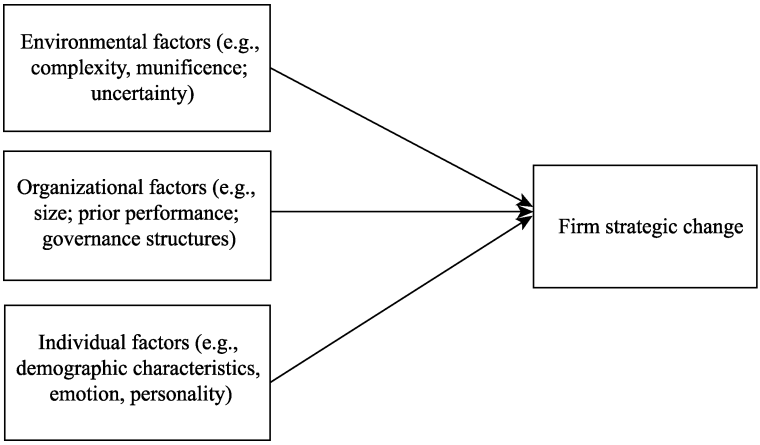

Figure 1 Conceptual Model

3.1 Environmental-level Factors and Strategic Change

Chaffee (1985) considered that the environment works as a source of opportunities and threats, and stated that in its extreme form, a strategic choice perspective suggests that organizations change their strategies immediately to reflect changing conditions in their environments. Environmental variables have three dimensions: munificence, uncertainty and complexity (Dess and Bread, 1984). In addition to these three factors, previous research also examined the

impact from other specific environmental shifts such as deregulation (Ginsberg and Buchholtz, 1990). Compared with organizational and individual factors, environmental factors are more likely to be treated as contingency factors when examining their impact on strategic change.

First, environmental munificence captures the extent to which the environment can provide sustained growth (Starbucks, 1976). In a more munificent environment, which is marked by fast market growth and accumulation of resources, firms tend to have more slack resources, thus aiding conflict resolution (Dess and Bread, 1984). With lower risks and penalties for making wrong decisions, firms tend to engage in faster decision-making in munificent environments and adopt more strategic change.

Yasai-Ardekani (1989) examined how environmental munificence impacts on organization structural deployments and the findings indicated that in a munificent environment, perceived environmental pressures may lead to greater structural complexity, measured in terms of functional specialization and professional qualifications, and the decentralization of operating decisions. In other words, in a munificent environment, organizations use more specialists and professionally qualified staff coupled with the decentralization of operating decisions to increase organizational responsiveness.

Staw and Szwajkowaski (1975) examined the relationship between environmental munificence and the occurrence of illegal acts. The results imply that a less-munificent environment would lead to firms engaging in more illegal activities to obtain resources.

Second, environmental uncertainty or dynamism is characterized by the rate of change and innovation in the industry as well as the uncertainty or unpredictability of customers and competitors (Lawrence and Lorsch, 1967; Thompson, 1967). Past research has linked greater environmental uncertainty to higher levels of structural complexity, lower formality and greater decentralization of decision making (Yasai-Ardekani, 1989). Since environmental uncertainty demands a quicker strategic response from firms, a highly-centralized structure could damage the flexibility to adopt strategic change.

Birnbaum (1984) predicted that competitive uncertainty would increase the possibility of adopting less-risky strategies for both corporate and business level strategies. Tan and Litschert (1994) empirically tested the strategy-

environment-performance paradigm in a centrally planned economy in transition —China. As a consequence of the opening-up policy and economic reform, firms in the electronics industry perceived a more complex, dynamic environment in face of uncodified information and inexplicit regulations. An environment marked by uncodified information promotes opportunism and decision makers to be more cautious when making decisions (Boisot and Child, 1988). They found that managers' perceptions of increased environmental uncertainty were negatively related to proactive, future oriented, and more risky strategies while positively related to defensive strategies.

Wiersema and Bantel (1993) investigated the influence of three environmental dimensions on one specific strategic change- top management member turnover. As suggested by them, "a shift in a firm's strategy, particularly at the corporate level where entirely new business might be entered and old businesses dropped, represents a change in the requisite managerial operating knowledge, experience, cognition, and perspectives" (p. 490). The magnitude of changes in corporate-level strategies may be affected by environmental factors. Environmental uncertainty and complexity lead to greater strategic change while environmental munificence is negatively associated with strategic change.

Another feature that may affect the propensity of strategic change is the competitive environment of a local area. Firms often look to local competitors for cues regarding the appropriateness of potential strategic changes (Zajac, Kraatz, and Bresser, 2000). In this study, they empirically examined the U.S. saving and loan industry to see whether a local competitor's reliance on residential mortgage lending changes would stimulate the focal firm's reliance on the traditional strategy of residential mortgage lending and the results are consistent with their prediction.

Several studies have indicated that deregulation or specific regulatory changes are positively related to changes in firm strategies (Corsi, Grimm, Smith, and Smith, 1991; Smith and Grimm, 1987). To respond to deregulation, firms pursuing defender-like, efficiency-oriented, or less focused strategies are likely to change to more prospector-like, innovative strategies.

3.2 Organizational Factors and Strategic Change

Compared with environmental factors, organizational factors may affect strategic

changes more directly. Previous studies have investigated the impact of firm size, prior performance, organizational inertia, top management characteristics and organizational resources on strategic changes and the results were mixed.

With respect to firm size, Birnbaum (1984) argued that larger firms are more likely to participate in strategic changes such as engaging in long term risky inventions, although some have argued that large size leads to more formalized and standardized organizational structure, which may result in decreased innovation ability (Child, 1973; Scherer, 1970). Birnbaum (1984) believed that greater slack generated by larger size such as in capital and human assets can help firms to establish a greater capacity to absorb uncertainties in the environment, thus becoming more capable of participating in strategic change. Nevertheless, other studies may hold the opposite view that firm size decreases the likelihood of strategic change at the corporate level. For instance, Fombrun and Ginsberg (1990, p. 299) proposed that "inertial forces reduce the propensity for firms to change their corporate aggressiveness". The rationale is that large organizations have greater structural inertia which constrains firms' abilities to adjust to uncertainty (Hannan and Freeman, 1984). Indeed, Hannan and Freeman (1984) have concluded that organizational inertia has been considered a major constraint for firms to take any strategic change; the strength of organizational inertia varies with the firm age, size, and complexity. Some follow-up studies have examined both the positive and negative role organizational inertia can play for the consequences of strategic change. For instance, Kelly and Amburgey (1991) found that due to inertia, discontinuous environmental change is not associated with an increased probability of organizational change, and organizational change is unrelated to an organization's chances of survival.

Intuitively, strategic change is tightly related to a firm's past performance since organizations are assumed to receive regular feedback and search for better strategic alternatives. Past research has indicated that poor past performance acts as a catalyst of a large magnitude for changes in business-level strategies since managers are expected to take action to respond to a decline in performance (Cyert and March, 1963; Boeker, 1997). In contrast, good performance leads to fewer strategic changes, since success make top managers feel that they can safely ignore external changes (Dutton and Duncan, 1987). However, in another study, past performance was shown to have a curvilinear relationship with changes in corporate aggressiveness (Fombrun and Ginsberg, 1990). Specifically,

firms are less likely to change under conditions of either low or high performance compared with firms experiencing an intermediate level of performance in the previous period. This may be due to the fact that organizational change needs two conditions: motivation and ability. Low-performance firms have motivation to change but lack essential capacity to change while high performance firms are constrained by organizational inertia.

Whether firms have enough resources also serves an important factor determining strategic change. Kraatz and Zajac (2001) proposed four distinctive perspective regarding how and why resource endowments affect the likelihood or magnitude of strategic change and they further examined the relationship using extensive longitudinal data. The results indicate that organizations possessing greater stocks of historically valuable resources are less likely to engage in strategic change. Similarly, Sherer and Lee (2002) found that resource scarcity drives, and legitimacy enables, firm strategic change.

3.3 Individual Factors and Strategic Change

For individual-level drivers of firm strategic change, instead of direct research on psychological characteristics, previous studies considered the demographic characteristics of TMT as a suitable proxy to reflect their cognitive base for strategic decisions (Hambrick and Mason, 1984). Studies especially have emphasized the influence of traits and diversity on TMT decisions. Strategy literature especially has highlighted the position of CEO, which has a profound impact on the strategic direction and performance of the firm (Peterson et al., 2003). Therefore, as proposed by Tushman and Romaell (1985, p. 209), “only executive leadership has the position and potential to initiate and implement strategic change”.

Wiersema and Bantel (1992) used the average level of a given demographic trait in a team to represent the group’s overall perspective. They concluded that top management teams with an average lower age, shorter organizational tenure, short team tenure, higher educational level and technical specialization are more receptive to change and are more likely to take risks, thus leading to greater strategic change. In addition, the diversity effect, meaning the relative homogeneity or heterogeneity of a team on traits, implies the breadth of perspective available in decision-making processes. While homogenous groups

are expected to exhibit conformity and lack of openness to information, heterogeneous groups represent diversity in a team's cognitive bases. Therefore, age, organizational tenure, team tenure and educational specialization heterogeneity within a top management team are positively related to corporate strategic change (Wiesema and Bantel, 1992). The findings that longer organization tenure and team homogeneity result in less corporate strategic change are consistent with Boeker's (1997) study. As mentioned before, theorists believing in a more inertial view of strategy hold that organizations are constrained in their ability to adapt, and that organizations are reluctant to engage in radical changes (Hannan and Freeman, 1989). However, researchers have also argued that changes in a company's CEO and top management team can be an important mechanism for overcoming inertia (Ocasio, 1993).

Recent research has noted that CEO psychological characteristics play a significant role in firm strategic decision-making through influencing the way information is collected, processed and interpreted (Hambrick and Mason, 1984). CEO personality traits such as hubris (Li and Tang, 2010; Tang et al., 2015), narcissism (Chatterjee and Hambrick, 2007), and humility (Ou et al., 2014) have been shown to influence strategic actions.

One recent work by Herrmann and Nadakarni (2014) examined how CEO personality influence firms' strategy initiation and implementation. Specifically, they adopt the five-factor model (FFM), which comprehensively captures fundamental personality differences and comprises five distinct traits (conscientiousness, emotional stability, agreeableness, extraversion and openness to experience), to see how different traits impact leaders' behavior and effectiveness. The results suggest that a CEO's extraversion, emotional stability and openness promote the initiation of strategic change whereas conscientiousness and agreeableness hinder strategic initiation. Similarly, Nadkarini and Herrmann (2010) discussed the association between CEO personality and firm strategic flexibility, which is defined as a firm's ability to adapt to substantial, uncertain, and rapidly occurring environmental changes (Aaker and Mascarenhas, 1984). They conducted further empirical studies on the Indian business process outsourcing industry and the results indicate that CEO emotional stability, extraversion and openness to experience is positively related to strategic flexibility, conscientiousness is negatively related to strategic flexibility and agreeableness has an inverted-U relationship with it. In addition,

they proposed that strategic flexibility leads to better firm performance and that it mediates the relationship between CEO personality and firm performance.

In another study, Delgado-Garcia and Fuente-Sabate (2010) reflected on CEO emotions, investigating how positive and negative affective traits of CEOs impact their strategic conformity. Affective traits lead CEOs to favor more creative and diverse information processing (Forgas, 2001) while negative traits prompt more careful and conservative behavior (Fiedler, 1990). As a result, they concluded that a CEO's negative affective traits are related to conformist strategies and positive affective traits encourage a CEO to take strategies that deviate from central tendencies.

Several studies have shown that CEO psychological characteristics influence firm risk-taking strategies through cognitive decision-making processes. The extent to which CEOs are willing to pursue risky strategies is decided by the degree that top executives assess estimates of the likelihood of a large loss. Highly anxious CEOs pay more attention to threatening cues and negative outcomes, so they prefer risk-aversion strategies (Mannor et al., 2015). On the other hand, CEOs with higher hubris are more willing to purse more risk-taking strategies since they tend to overestimate their personal problem solving capabilities and underestimate the resource requirements associated with the strategy (Li and Tang, 2010). In one study conducted in the computer hardware and software industries, Chatterjee and Hambrick (2011) verified their prediction that CEO narcissism strengthens the positive effect of recent social praise on firm risking behaviors.

Different CEO characteristics may lead them to choose various types of strategies. Miller and Toulouse (1986) conducted a study in small firms to examine the relationship between CEO personality and corporate strategies since the influence of a CEO in small firms is stronger. They found that CEO flexibility is associated with niche strategies, CEO need for achievement is related to broadly focused, marketing-oriented strategies and CEOs with internal loci of control pursue more product innovation.

4 Conclusion and Future Research Agenda

Over the past few decades, research into firm strategic change has developed significantly both theoretically and empirically. This study offers a review of a number of studies closely related to the antecedents of firm strategic change

through a multi-level perspective, aiming to provide a comprehensive picture of this stream. Although firms have inertia to change, the pressure from the external and internal environment will push them to make adaptive alignments with their environment. The factors at the environmental, organizational and individual level have distinctive effects on a firm's strategic change, both in scope and in content. Besides specific strategic actions taken by firms, those factors may also influence a firm's organizational structural changes such as top management team turnover and commands of control. In sum, strategic change can be regarded as a firm's deployment of resources, reflecting feedback to the current situation as well as plans for future markets.

We present a theoretical framework by analyzing those factors from three levels: environmental, organizational, and individual. By reviewing empirical findings, we aim to find the theoretical and empirical gaps in the field of strategic change. This study identifies the key issues that have been currently ignored or only partially addressed. Importantly, we hope our study can provide some insights for future research agendas.

First, our analytical model considers the three levels of drivers individually. In fact, there may exist mutual influences among the three. Therefore, future research may also explore the potential interactions among the factors at three levels. For instance, how may firm-level factors modify the influence from environmental factors? Similarly, individual factors also play an important role in the process when environmental factors influence firm strategic change decisions. For instance, environmental changes could push top executives to engage in strategic actions and those actions will be influenced by executives' psychological factors, such as CEO hubris or CEO narcissism (Li and Tang, 2010; Tang, Qian, Chen, and Shen, 2015). We hope that this study can pave a road to more fruitful research in firm strategic change.

Second, this study only reviewed studies related to the antecedents of strategic change and has paid less attention to the outcomes of those strategic actions. Another important issue is how strategic change may influence a firm's performance. Therefore, other researchers may consider focusing on the relationship between strategic actions and firm performance, and how some potential moderators may influence the above linkage.

Finally, future research can embrace a cross-cultural or comparative perspective on firm strategic change. Most of the existing research on firm

strategic change has been conducted in the Western context (e.g., Quigley and Hambrick, 2012; Herrmann and Nadkarni, 2014). However, there may exist prominent differences when firms from different cultural backgrounds decide to undertake strategic change. The formal political/legal system as well as informal cultural/institutional factors likely modify the general tendency of a firm to engage in strategic change. Future research would benefit from exploring this possibility.

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