



Crossing the great divide of strategic entrepreneurship: Transitioning between exploration and exploitation

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Abstract Managing uncertainty effectively is perhaps one of the most significant challenges a firm's decision makers face today. Strategic entrepreneurship—defined as exploration for future sources of competitive advantage, combined with exploitation of current sources of competitive advantage—has been proposed as a means via which decision makers can manage uncertainty. In this article, we discuss the transition between exploration and exploitation activities within organizations as a vital part of strategic entrepreneurship; this transition process can involve various types of internal firm challenges. Additionally, we highlight various sources for these internal challenges and mechanisms through which firms can overcome them.

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1. Managing uncertainty

Today's firms face incredibly challenging competitive environments. In such a context, the reality is that as one source of uncertainty becomes resolved, others emerge to take its place. From the perspective of a firm's external environment, consider the sweeping changes—and the uncertainty they create—that commonly accompany the results of political contests as new business-government interfaces are established. Similarly, think about how the situation with subprime mortgages continues to affect the political and economic segments of the external environment for firms competing in the United States, particularly

those competing on a global scale. As a measure of the interconnectedness among parts of a firm's external environment, think about how quickly the realities of subprime loans are spreading beyond the financial services industry to weigh upon nearly every industry sector as fears of a money supply shortage spread and grip global markets.

Other sources of uncertainty outside an organization's general environment affect firms more directly. Changes in the nature of a firm's industry environment (e.g., a key competitor acquiring a firm's partner or supplier) and technological shifts are examples of changing conditions in an industry that can influence how a firm chooses to compete in its quest for superior or above-average returns on its invested capital. In total, the changes affecting firms and their leaders in today's complex and interconnected global competitive environment

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demand that decision makers effectively manage uncertainty and their firm's resources to position their company in ways that will allow it to adapt to changes occurring in the external environment.

Corporate entrepreneurship represents one set of activities a firm's decision makers may elect to use in effort to enhance a firm's competitive ability while successfully coping with the challenges embedded within its external environment (Ireland, Covin, & Kuratko, 2009; Kuratko & Audretsch, 2009). As a process through which an individual or a group of individuals in an existing company work to create a new organization or to instigate renewal or innovation within their company (Sharma & Chrisman, 1999), corporate entrepreneurship is often used to help firms achieve outcomes such as domain redefinition, sustained regeneration, and business model reconstruction (Covin & Miles, 1999).

In our view (Hitt, Ireland, Camp, & Sexton, 2001; Ireland, Hitt, & Sirmon, 2003), strategic entrepreneurship is an important path through which corporate entrepreneurship manifests itself, and more specifically, captures a mode of organizing in which decision makers manage both uncertainty and resources as the foundation for being able to position their firms to adapt to changes. Based on a symbiotic relationship between strategic management and entrepreneurship (Ireland, 2007), strategic entrepreneurship has been described as the activities through which firms "simultaneously exploit today's competitive advantages while exploring for the innovations that will be the foundation for tomorrow's competitive advantages" (Ireland & Webb, 2007, p. 50).

Consider the application of this definition to decision makers in the music industry. Firms in that arena could benefit from strategic entrepreneurship as the industry transitions from one based on in-store CD sales and music artists being signed to large companies, to an industry whereby artists can use the Internet as a distribution channel through which to connect with fans and sell products directly to them. As things currently stand, decision makers for firms in this industry continue to wrestle with how to protect their core revenue driver (i.e., in-store CD sales) while embracing a new distribution channel (i.e., the Internet) as an integral part of the business model.

Strategic entrepreneurship could also help those leading firms in other industries, or segments of industries, deal with similar types of challenges. Examples here include: (1) firms competing in the computer storage industry, as the technology base changes from disk drives to flash drives; (2) companies manufacturing tobacco products, as heightened regulations are placed on these consumer items;

and (3) organizations competing in the financial sectors, during a time when significant and yet-to-be-fully-defined shifts are taking place in the economic and regulatory landscapes affecting those business models. The situations and challenges facing these types of organizations highlight the need for organizational decision makers to be able to effectively use firm resources as the foundation for managing multiple sources of environmental uncertainty.

Because both the exploration for future sources of competitive advantage and the exploitation of existing sources of competitive advantage draw upon firms' limited stocks of resources, decision makers face a tension concerning how to balance their firm's current and future needs. We described this tension in an article which appeared in the January/February 2007 issue of *Business Horizons* (Ireland & Webb, 2007). Therein, we noted that successfully using strategic entrepreneurship as a path to enhance firm competitiveness is challenging. Here, we seek to extend our earlier work by describing the transition process between exploration and exploitation as another significant challenge that firms face when using strategic entrepreneurship.

We believe what we address here is significant, as a firm's efforts to transition between exploration and exploitation processes do not occur instantaneously. Indeed, we believe that transitioning between exploration and exploitation can be a lengthy, resource-intensive, and risky—although necessary—process. Some firms are quite successful in transitioning between exploration and exploitation, realizing that success is measured not only based upon effectively transitioning innovations from exploration to exploitation, but also by minimizing the costs and repercussions of transition failures. Apple, for example, is an excellent case study of transition success on both counts: the firm has successfully transitioned services and products such as the iPod, the iPhone, and iTunes. Other Apple products, however—including the Newton personal digital assistant, Quicktake digital camera, and Pippin video game console/computer—may be considered transition failures. Nonetheless, as a firm which appears committed to effective strategic entrepreneurship, Apple has been able to manage the associated costs and learn from these failures.

Our article proceeds as follows. First, we establish the boundaries of strategic entrepreneurship in terms of the operational, structural, and cultural differences that characterize exploration and exploitation processes. In light of these differences, we then discuss the unique challenges of transitioning from exploration to exploitation, and set forth a

plan for firms to use to successfully complete this important transition.

2. The boundaries of strategic entrepreneurship

In the most general sense, entrepreneurship refers to the process through which newness is created (Ireland et al., 2003). More specifically, the entrepreneurship process involves combining resources in novel ways (Aldrich & Waldinger, 1990), leading to newness in the form of innovative products or services, processes, administrative techniques, or structural manifestations which may, in turn, serve as a source of value. As a specific form of entrepreneurship, corporate entrepreneurship involves the activities that are used to create newness within established firms in effort to redefine and rejuvenate (1) the firm's existing competencies, or (2) the means through which these competencies are leveraged (Morris, Kuratko, & Covin, 2008). Various forms of corporate entrepreneurship exist, including activities to develop new products and serve new markets, process-based innovations, and the renewal of the firm's strategies, among other forms (Covin & Miles, 1999; Ireland et al., 2009).

Some view corporate entrepreneurship as not only a mindset, but also a set of activities which firms can use to explore for competencies that may represent future competitive success (Covin & Kuratko, 2008). Historically, when used for these purposes, corporate entrepreneurship may find firms restructuring their operations as a foundation for organizational renewal. Such restructuring—which is the province of corporate entrepreneurship—becomes manifest within organizations as they engage in strategic entrepreneurship, a process through which resources are used for both exploration and exploitation purposes. Thus, a strategic entrepreneurship mindset is more comprehensive (featuring strong foci on both opportunity seeking and advantage seeking behavior) than a corporate entrepreneurship mindset (featuring a stronger emphasis on opportunity seeking than advantage seeking behavior).

Engaging in strategic entrepreneurship enhances organizational decision makers' awareness of the uncertainty associated with their firms' efforts to be competitively successful in today's complex, global business environments, while simultaneously continuing to rely on the firm's current competitive advantages as the foundation for today's success. Because individuals and firms typically do not engage in exhaustive analyses to understand uncertainty (Holcomb, Ireland, Holmes, & Hitt, 2009),

having an enhanced awareness of the influence of uncertainty on a firm's ability to survive and pursue above-average returns across time is desirable while the firm continues its efforts to compete successfully in the current time period. Deciding to engage in strategic entrepreneurship demonstrates that a firm's decision makers clearly recognize their company is competing in uncertain contexts. In this regard, decision makers understand that even if sources of uncertainty are fairly well contained at any point in time, new sources of uncertainty will surface that can wrest away the value derived from the firm's current competitive advantages. Because of this, decision makers must maintain their firm's proactive focus on opportunity seeking behavior—behavior through which potential opportunities are identified as sources of future activity and competitive success for the firm—while concentrating on advantage seeking behavior, as well.

The successful use of strategic entrepreneurship, however, requires more than a shift in the mindset of the firm's decision makers. Implementing strategic entrepreneurship involves corresponding shifts in the firm's structure, culture, and operations. Each of these attributes is formulated to facilitate the firm's management of both resources and uncertainty to efficiently and effectively meet current demands while positioning the firm to successfully meet future demands. Because of this, the entire organization of a strategically entrepreneurial firm differs from that of firms which choose to react to changes in the external environment.

It is also important to recognize that successful use of strategic entrepreneurship results when a firm finds balance between opportunity seeking and advantage seeking behavior (Ketchen, Ireland, & Snow, 2007). Firms use different processes to explore and to exploit, a fact that complicates efforts to balance exploration- and exploitation-oriented behaviors. The exploration process involves the set of activities through which firms seek to recognize new ideas and opportunities that serve as the foundation for future sources of competitive advantage. Creativity, experimentation, and a broad search of knowledge stocks beyond what is captured in the firm's existing competencies are examples of the activities that are a part of the exploration process (March, 1991). Given that firms typically seek radical innovations when exploring, exploration activities are often characterized by long-term outcomes and significant uncertainty that tends to be associated with technological capabilities, market interest, competition, availability of raw materials, and so forth. Therefore, the key to successful exploration processes is being able to

efficiently manage a breadth of resources while managing the uncertainty that surrounds the potential effectiveness of the resources.

In contrast to exploration activities, the refinement, focusing, and efficiency-based routines that serve as the foundation for the firm's current source(s) of competitive advantage are examples of activities associated with the exploitation process. More specifically, exploitation activities are used to incrementally enhance the firm's existing competitive advantages. Because the firm is building on existing advantages, exploitation processes are characterized by fewer and less influential sources of uncertainty; for example, the market size and location may already be well known, or the technology base may be accepted by suppliers, partners, and customers. The key to exploitation involves being able to efficiently manage a relatively narrow set of resources to facilitate speed and accuracy while managing sources of uncertainty—for example, how to position the firm's products relative to competitors' offerings, to what extent should the firm control the relevant distribution channels, in what geographic markets should the firm compete, from whom should the firm source key raw materials, and so forth—that affect how the firm engages its competitors in marketplace battles.

Previously we discussed the specific structural, cultural, and operational characteristics that support use of exploration processes and those that support use of exploitation processes (Ireland & Webb, 2007). We summarize these characteristics in Table 1.

Exploration and exploitation draw upon a firm's limited stock of resources. Because of this, attempts

to balance exploration and exploitation create tension because a firm must invest in the means to leverage current sources of competitive advantage (through advantage seeking behavior) while simultaneously investing in the means to develop future sources of competitive advantage (through opportunity seeking behavior).

Given the structural, cultural, and operational differences between exploration and exploitation, another tension associated with strategic entrepreneurship concerns the transition process between exploration and exploitation. In our view, the differences in the activities of exploration and exploitation call for an additional extensive, time-consuming, and resource-intensive transition process.

Next, we discuss firm-based challenges that are involved with this transition process. We should note here that although transitioning is resource-intensive, being able to effectively transition from exploration processes to exploitation processes is vital to a firm's efforts to successfully engage in strategic entrepreneurship.

3. Transitioning between exploration and exploitation

The transition process between exploration and exploitation challenges a firm as organizational changes reintroduce liabilities of newness (Singh, House, & Tucker, 1986). Drastic changes in structural, cultural, and operational elements make the firm especially susceptible to these liabilities. These changes originate as a result of the innovations

Table 1. Attributes of exploration and exploitation

	EXPLORATION	EXPLOITATION
Operational	Firm activities are undertaken to absorb and efficiently integrate diverse and broad stocks of knowledge	Firm activities focus on depth of knowledge and efficient means through which to leverage this knowledge in the market
Structural	Flexibility and autonomy are facilitated with decentralized hierarchies and semi-standardized/semi-formalized routines and guidelines	Focus and speed are facilitated with centralized hierarchies and relatively higher levels of standardization and formalization
Cultural	Acceptance of the need to experiment, willingness to absorb risk and uncertainty, and motivation to overlook failure encourage the pursuit of radical innovations	Need for certainty, short-term goals, and commitment to focus drive incremental innovations and market-based actions

derived from the firm's exploration processes. The more radical the innovations identified from exploration, the more serious the disruption to ongoing activities taking place in the firm to exploit current competitive advantages. The changes that innovations—particularly radical innovations—mandate typically encounter opposition because of structural inertia (Hannan & Freeman, 1984), psychological investment in a particular strategy (Milliken & Lant, 1991), general uncertainty of the future environment (Weitzel & Jonsson, 1989), and the substantial costs associated with such a transition (Miller & Friesen, 1980). Therefore, many established firms remain close to their routines of competitive success, exploiting technologies that are familiar, mature, and have a similar underlying knowledge base (Ahuja & Lampert, 2001).

A number of factors play into how a firm transitions from exploration to exploitation. The major decision factors can be split between market-based and firm-based factors. In terms of market-based factors, the following questions summarize key considerations:

- When, if ever, will a market exist for the innovation resulting from the firm's exploration process?
- How can the firm test the market efficiently and effectively without signaling to competitors the potential opportunity that it has identified?
- How and when should the firm enter the market to capture and secure a valuable position?
- How can the firm establish its new innovation without detrimental financial and reputational effects to existing, value-creating competitive advantages?

Equally important, decision makers face decisions regarding the firm in terms of how to reconcile the structural, cultural, and operational differences in transitioning from exploration to exploitation. Does the firm keep the same individuals involved in the specific innovation project when transitioning from exploration to exploitation in order to maintain consistency, focus, and a core body of knowledge? If so, how and when does the firm transition the culture, incentive, and reporting structures, as well as other mechanisms that are needed to support the objectives of exploitation? If not, how will the firm maintain a core body of knowledge while shifting the innovation project to a new team that will have an exploitation focus? In the following sections, we discuss the various firm-based considerations associated with a transition from exploration to exploitation.

4. A comprehensive plan

Decision makers face the fragile task of rendering judgments regarding how to transition the firm internally. The perfect plan of how and when to transition, based upon the interpretation of market-based considerations, can be negatively affected during the implementation phase if difficulties are encountered while transitioning. Determining which individuals should be involved with a transition is a critical task, and making these calls can be tough. This task challenges decision makers to identify individuals involved in exploration who they believe should also be involved with the firm's exploitation activities.

In addition to determining the individuals involved in moving from exploration to exploitation, the transition process also benefits from significant consideration by decision makers in terms of how to prepare and provide clarity to these individuals. While the transition process is highly uncertain and remains characterized by significant failure rates—indeed, 6 out of 10 new product introductions end in failure (Hauser, Tellis, & Griffin, 2005)—individual employees prefer consistency and clarity. How will a particular project that fails due to unforeseen circumstances affect their compensation? Will failure damage the employees' long-term status in the firm? If a project fails, what opportunities will then be available; will they be assigned to ongoing projects, or assigned to another new project? To the extent that the firm can develop a comprehensive plan for the transition process, individuals' concerns due to sources of uncertainty can be overcome. Key considerations in this plan include setting expectations, establishing a clear timeline with milestones, having contingency plans in place, and being able to justify changes.

4.1. Forming and transforming teams

In transitioning, decision makers must choose whether to maintain the same group throughout exploration and exploitation, or whether to use different groups for each. There are advantages and disadvantages to both approaches. As the firm moves from exploration to exploitation, often what is embodied in scientific knowledge is translated into practical knowledge. For example, in terms of transitioning process innovations, experiments conducted in beakers and test tubes may be the foundation for complicated, large-scale production processes. The conditions that can be strictly controlled in laboratory experiments during exploration are less easily replicated when translated into such a large scale during exploitation. The extent to which

scientists and engineers work together closely during the transition can perhaps smooth the transition by making more effective trade-offs, and by recognizing and understanding the elements that are critical to the practical design of the process innovation.

Maintaining the same group throughout exploration and exploitation allows the firm to keep a core body of tacit knowledge surrounding the innovation project that can facilitate the translation of knowledge during the transition. At the same time, the transition process involves significant change in the structure, culture, and operations surrounding the innovation project. For any individual whose role is maintained across exploration and exploitation, significant sources of ambiguity can surface concerning the relative value of inputs as once-familiar incentives, time-related objectives, and other guiding mechanisms change. Moreover, the relative loss of flexibility in the individual's role during the transition to exploitation may be perceived as unfair, leading to numerous negative outcomes (e.g., de-motivation, shirking).

A hybrid approach to transitioning—one whereby stability is offered while minimizing the potential negative effects associated with required structural, cultural, and operational changes—may be ideal. In other words, a compromise can be made by complementing the use of boundary-spanning ties (i.e., individuals that span both exploration and exploitation) with other individuals that shift in and out during exploration, the transition, and exploitation. Boundary-spanning ties offer the advantage of maintaining stability, providing a core body of tacit knowledge to the innovation project during the transition, and facilitating coordination (Koufteros, Vonderembse, & Doll, 2001).

Consider this hybrid approach within the context of the music industry example we mentioned earlier. A music firm may have a team in search of new means through which to distribute music via online, wireless, and other channels. When the team identifies a new channel that it perceives to connect well with customers, the firm may decide to shift toward exploitation by building a business model surrounding this newly identified channel. Individuals with software development and marketing skills can be brought onto the team, while existing team members with research-oriented skills may be shifted to other projects. A boundary-spanning individual could be maintained on the team to relate the key opportunity variables identified in exploration and to provide a vision for future developments. Shifting individuals in and out as needed allows the firm to keep employees involved with familiar activities, whether this is the risk-taking, innovative, and willingness-to-

accept-failure culture/less formalized structure of exploration, or the speed and efficiency-based culture/highly formalized structure of exploitation.

In essence, the hybrid approach enables firms to draw upon cross-functional teams. The functions that are involved at each stage, from exploration to exploitation, likely depend on the particular firm and on the degree to which the innovation with which the firm is involved at a point in time is radical.

4.2. Setting expectations

Expectations provide clarity for employees as they engage with uncertain projects. Moreover, employees are often willing to accept more challenging performance-related expectations when these expectations are clearly defined. In terms of the transition process, expectations are particularly relevant because the firm is undergoing a significant internal change in terms of structure, culture, and operations. As Cooper and Maskell (2008) discuss in terms of implementing radically new initiatives—for example, lean manufacturing to replace mass production operations—these changes take time, the benefits are not always immediately apparent, and new systems of controls for realizing and understanding benefits may be required. Major transitions—for example, implementing lean manufacturing, developing a radically new product, or entering a new geographic market—often require significant restructuring or wholly new structuring of roles and routines within the firm, and perhaps with those in partnering firms, other organizations, or institutions. Setting expectations for employees establishes the behaviors that are desired, and links these desired behaviors to salient outcomes for both the firm and the individual.

For instance, the long-term outlook, risk-taking orientation, and willingness to accept failure that characterizes exploration is certainly no longer a viable approach for firms that are in transition. Some flexibility is still needed as the firm absorbs feedback through the implementation of the innovation. At the same time, however, a push toward greater efficiency and speed to refine the firm's innovation allows the firm to meet market demands before competitors do so. Relevant expectations regarding the transition process seem to involve considerations of one's roles and responsibilities in the transition (e.g., the extent to which one is available during the transition, the types of information that may be shared with other individuals external to the firm), the level of formalization and hierarchical structure that may be expected, valued behaviors (e.g., the types and level of risks acceptable, feedback-seeking behaviors), and

the incentives that are linked with specific behaviors/outcomes.

4.3. Establishing a clear timeline with milestones

In addition to setting expectations, milestones and timelines also create structure and clarity for employees. In one sense, milestones and timelines serve to set expectations by establishing the pace of transition and key objectives for which to strive. Beyond setting expectations, however, having pre-specified milestones can determine future dates at which decision makers and employees can gather to discuss progress issues, such as the reality of pre-established milestones, previously unforeseen obstacles, changes in the external environment (e.g., technological advancement or competitors' initiatives) that may influence the pace of transition, and other critical aspects of the transition. Having multiple design iterations linked to milestones, and constantly absorbing feedback through internal regulation processes, has been shown to facilitate decisions that are both fast and comprehensive (Eisenhardt & Tabrizi, 1995); this is a key aspect of moving toward exploitation. In addition, by discussing the transition process on an ongoing basis, employees are kept up-to-date regarding the firm's direction and their particular innovation project, and whether expectations are being met. Because of these activities, employees understand the reasons for any changes that are needed. Together, these different sources of information provide clarity to those involved in the transition.

Milestones and timelines are common tools utilized across many different types of projects. In terms of the transition process, certain milestones are particularly relevant. Assuming firms exit exploration and enter the transition process with a prototype, we discuss milestones that can be established from this point. Moving from exploration implies that the firm is radically shifting from some present way of business with respect to products, processes, or administrative techniques, and is likely to be starting with very little in terms of established routines, relationships, a tangible product or process, and so on. Relevant milestones may include the identification, comparison, and contracting of key suppliers both internally and externally; the design and development of the actual product or process; market testing of early products or installation of process innovations; identification, comparison, and contracting of key market-based relationships; and finally, if conditions are favorable, wide-scale rollout.

Within this set of milestones, firms should be prepared to incorporate numerous feedback loops. More specifically, because exploration may involve radical innovations, these opportunities are typically not discovered but are rather created through a lengthy, recursive process of incorporating feedback from suppliers, customers, partners, and other stakeholders (Alvarez & Barney, 2007). In fact, firms may have multiple iterations of design/development and market testing—or installation, with respect to process innovation—before coming to a viable product/process. In other cases, firms may realize that a market does not exist for the opportunity recognized during exploration.

4.4. Developing contingency plans

While firms can set expectations, establish key milestones, and use timelines to provide structure and clarity, the transition is an uncertain process. The firm can provide structure and clarity to alleviate employees' concerns. However, changes in the firm's external environment—including competitors moving earlier to the market, changing technologies, shifting consumer demands or needs, and economic downturns that place significant pressure on the firm's slack resources—can influence how and when a firm transitions. As such, decision makers often face judgments of whether to expedite, slow, alter the path of, or even terminate, the transition.

Contingency plans provide pre-established mechanisms for changes in the transition process. Salient contingencies may manifest with competitors' actions to enter a new market, the realization that a viable market does or does not exist, an economic downturn, or technological advancements that facilitate breakthroughs, among other changes. A rational plan that provides for such contingencies, as comprehensively as possible upon entering the transition process, enables the firm to make appropriate adjustments as necessary; contrast this with having to gather information and perhaps make emotion-laden decisions, were a contingency plan not in place.

Effective contingency plans are based upon contingencies that are easily measurable and clearly defined, and for which resulting actions are at least considered. For example, whether a market exists or not may be determined through market testing and pre-specified heuristics, such as adoption by 45% of users. Similarly, the negative effects of an economic downturn may be measured in terms of the ramifications to the firm (i.e., availability of cash or cash equivalents to support the transition process) or to potential markets (i.e., metrics that capture consumer discretionary spending). If an economic

downturn leads to cash or consumer spending below certain pre-specified levels, the firm can temporarily halt or even terminate the transition process to minimize potential losses. Doing this at a point in time may reduce the degree of uncertainty associated with the firm's efforts to be competitively successful. In addition to considering financial aspects of the transition process, contingency plans should also set forth clear guidelines as to how individual employees' roles will adjust with changes to the transition process. For example, how might employees' roles, and the related efforts they exert, differ if technological advancements accelerate the transition process? If an economic downturn reduces the firm's slack resources, leading decision makers to terminate the transition, how will employees be affected? By providing structure and clarity in this regard, contingency plans reduce sources of uncertainty for employees, thereby facilitating behaviors that are desired during the transition process.

4.5. Justifying changes

Even with comprehensive contingency plans, unforeseen events may occur which lead to changes in the transition process. While decision makers should work to minimize the potential for unforeseen events, the uncertainty of the transition process prevents every potential event from being pre-determined and fully analyzed. Change in the transition process is likely to affect individual employees' roles and responsibilities, and may cause concerns to surface regarding direction of the transition. Therefore, when change occurs beyond what is covered in contingency plans, key decision makers can accommodate employee concerns by creating perceptions of fairness concerning how and why such decisions are made. In so doing, the firm maintains employees' job satisfaction levels, motivation, and support of the firm's overall direction.

There are various means for creating perceptions of fairness. One form of fairness concerns whether individuals perceive equity between their inputs into the firm and what they receive as outputs from the firm. In addition, an ability to have voice in the decision-making process allows individuals to have some input into how their roles are impacting change, and can provide perceptions of fairness. Even when decisions are required that employees may perceive as unfavorable to them, explaining the reason that certain decisions are appropriate can offset perceptions of unfairness that may be associated with such decisions. Finally, providing feedback regarding an individual's performance can serve as an explanation for why an individual

receives certain outputs, but can also provide clarity in going forward as to what is desired by the firm. In this manner, feedback can lead to perceptions of fairness.

Because change entails unique stages, the most effective approach to creating perceptions of fairness with change may be to use the different means in an integrated manner. The first stage of change is realizing that change is necessary, and understanding the factors that have led to the need for change. The second stage is determining the course of action that will be used to implement change. The third stage is actually implementing change and reviewing the ramifications to the firm. During the first stage of change, providing explanations for why change is necessary can lead to a common movement within the firm that supports the need for change. For example, one plausible explanation may be that a competitor has unexpectedly entered the market with some degree of success. Through the competitor's actions, it appears that a market in fact does exist for this type of product; however, on the downside, the competitor may be able to establish switching costs that will hinder future firms from entering this market and wresting customers away. In this instance, we believe it is appropriate to expedite the transition process by canceling any further market testing and mobilizing resources to enter the market, as well.

Decision makers may also create perceptions of fairness by involving employees in the process of determining a particular course of action. Given that change is occurring, employees will likely encounter new expectations, milestones, and timelines. To the extent that employees have voice in the process of deciding these factors, decision makers can reduce uncertainty that these employees face during a time of change, thereby creating perceptions of fairness. Finally, with a new set of expectations and an uncertain transition process overall, implementing change can lead to ambiguity as to what expectations are most important, how to most effectively fulfill those expectations, and understanding the controls and incentives that accompany expectations. As such, actions taken to establish clear incentives—that is, to clearly define the relationship between desired behaviors and rewards—and provide continuous feedback can decrease this ambiguity.

5. Implications for organizational actions

Successfully dealing with environmental change is a significant challenge for all types of organizations.

Table 2. Getting started with the transition

<p>Firms in all different types of industries face uncertainty created by highly dynamic environments. What constitutes an efficient and effective balance of exploration and exploitation depends on various factors, such as the level of dynamism, the market cycle, and the firm's strengths and weaknesses. Similarly, the transition process for different types of firms may be stimulated by different types of market-based considerations (i.e., what threshold level of customer acceptance represents a viable market, how can the firm enter without signaling competitors, etc.). Identifying the number and types of individuals involved in each process of exploration, transition, and exploitation is likely to depend on various firm- and industry-specific considerations. However, five key tools can help firms overcome challenges in transitioning from exploration to exploitation.</p>
<p>1. Forming and transforming teams</p>
<p>Significant organizational changes from exploration to exploitation can introduce employee uncertainty regarding one's position and role in the firm, job security, and so on. Maintaining boundary-spanning ties while shifting others in and out can maintain stability and key knowledge stocks throughout the transition while easing employee concerns.</p>
<p>2. Setting expectations</p>
<p>The transition is a dynamic and uncertain process. Setting expectations for employees' roles and responsibilities can provide some structure and certainty to one's position during the transition. However, setting the expectation that change is likely to come to one's roles and responsibilities with changes in the external environment also provides structure and certainty. Just remember to re-establish expectations clearly when change is needed.</p>
<p>3. Establishing a clear timeline with milestones</p>
<p>The transition process begins the shift from a long-term focus in exploration to the short-term focus of exploitation. Establishing a clear timeline with milestones facilitates this shift in temporal mindset and provides pre-established dates in which to gather and discuss progress and obstacles. In doing so, the firm can decide whether a change in course is needed for the transition and develop learning capabilities for future transitions.</p>
<p>4. Developing contingency plans</p>
<p>Unpredictable competitor actions, economic, technological, political/legal, and other trends, and shifting industry forces can enhance or reduce the potential value of a firm's radical innovation and the need (and speed) with which to transition. Such changes can lead to sharp changes in the roles, responsibilities, and expectations of employees. Contingency plans provide expectations for potential changes in a firm's path of transition.</p>
<p>5. Justifying changes</p>
<p>Every source of change simply cannot be predicted in contingency plans. Dealing with potential employee concerns is necessary to ensure a smooth transition from exploration to exploitation. Various means can be used to justify change and create perceptions of fairness with necessary change. Allowing employees a voice in the decision-making process, explaining key decisions and internal changes, and providing feedback to employee concerns are examples of ways through which firms can facilitate a smooth transition.</p>

Moreover, environmental change finds organizational decision makers continuously encountering new sources of uncertainty as they seek to help their firm achieve competitive success as the foundation for earning superior returns. With a focus on renewal and innovation, corporate entrepreneurship facilitates firms' efforts to cope with change and the uncertainty associated with it. Strategic entrepreneurship—which involves both the opportunity seeking behavior that is largely the province of corporate entrepreneurship, as well as advantage seeking behavior—encompasses a set of activities via which today's organizations are able to consistently and effectively manage their resources as the path to recognizing and dealing with the uncertainty associated with changes occurring in their external environment.

More specifically, strategic entrepreneurship encompasses both the opportunity seeking behavior that is associated with exploration, and the advantage seeking behavior that is associated with the exploitation of current organizational certainties and routines that form competitive advantages. Importantly, organizational decision makers must understand that effective strategic entrepreneurship requires finding a balance between exploration and exploitation (Ketchen et al., 2007). In this article, we have examined another performance criterion that is associated with effective strategic entrepreneurship; namely, learning how to effectively transition from exploration processes to exploitation processes.

As we have described, the transition from exploration to exploitation is a highly uncertain process. Managing this process involves realizing that the transition is an iterative, recursive, and dynamic process. The uncertainty of this process from a market standpoint creates uncertainty for the firm internally and for its employees, as well. Entering a transition process with a plan can help to resolve some of the external and internal sources of uncertainty that are part of a firm's efforts when transitioning from exploration to exploitation. In Table 2, we present actions decision makers can take to get started with efforts to help their firm successfully transition from exploration to exploitation processes.

In closing, we want to reiterate the position we previously articulated about strategic entrepreneurship. Specifically, we remain convinced that in today's dynamic and uncertain competitive environments, "successful organizations [will be] ones in which strategic entrepreneurship will be used to deal with the organizational tension that surfaces as firms try to simultaneously emphasize today what they already do well [relative to competitors] while

exploring for opportunities to build the foundation for their future success" (Ireland & Webb, 2007, p. 59). Given strategic entrepreneurship's importance, our concern with this set of arguments is to explain the criticality of firms learning how to effectively transition from exploration to exploitation processes. As an additional part of strategic entrepreneurship, the transition process we have described herein facilitates firms' efforts to fully achieve various outcomes associated with corporate entrepreneurship, such as organizational renewal and rejuvenation. Ultimately, superior firm performance results from the firm's ability to explore and exploit, and to successfully manage the transition from exploration to exploitation.

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