FROM AUTONOMOUS STRATEGIC BEHAVIOR TO EMERGENT STRATEGY

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This study develops a model of emergent strategy formation at a large telecommunications firm. It integrates prominent traditions in strategy process research—strategy as patterned action, as iterated resource allocation and as practice—to show how emergent strategy originates as a project through autonomous strategic behavior, then subsequently becomes realized as a consequence of mobilizing wider support to provide impetus, manipulating strategic context to legitimate the project by constructing it as consonant with the prevailing concept of strategy, and altering structural context to embed it within organizational units, routines, and objectives. The study theorizes the role of "practices of strategy articulation" in emergent strategy formation, and explains why some autonomous strategic behavior becomes "ephemeral" and disappears rather than enduring to become emergent strategy. Copyright © 2013 John Wiley & Sons, Ltd.

INTRODUCTION

The importance of emergent strategy has long been recognized. Textbooks (e.g., Johnson, Scholes, and Whittington, 2010a) suggest that Mintzberg's (1978) model distinguishing emergent from deliberate strategy has become canonical, while Hamel (2009: 91 and 94) recommends that firms "reinvent strategy making as an emergent process" in order to "reinvent management and make it more relevant to a volatile world." In contrast, the strategy literature emphasizes deliberate rather than emergent strategy (Bower and Gilbert, 2005), separates strategy formulation from implementation while assuming the former precedes the latter (Huff and Reger, 1987), and focuses on strategy content over process (Hafsi and Thomas, 2005) by emphasizing

a "choice" perspective over a "social learning" one (Wooldridge, Schmid, and Floyd, 2008).

Few empirical studies focus on emergent strategy explicitly (Bower and Gilbert, 2005), despite recognition of the relevance of insights from studies in the "social learning" tradition that implicitly or indirectly address strategy making as an emergent phenomenon. We address this gap by positing and empirically validating "autonomous strategic behavior" (Burgelman, 1983b) as a precursor to emergent strategy, and by exploring strategizing practices (Jarzabkowski, 2003; Johnson, Melin, and Whittington, 2003) that are key to the transition. To do so, we leverage strategy process research, viewing strategy as "an iterated process of resource allocation," captured under the label "Bower-Burgelman (B-B) process model of strategy making" (Noda and Bower, 1996: 159 and 160; also see Bower, 1970; Burgelman, 1983a,b,c), and strategy as "practice" (Jarzabkowski, 2003; Vaara and Whittington, 2012).

We draw on a case study of a multinational telecommunications firm over a ten-year period, tracking individual projects in a bottom-up

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Keywords: emergent strategy; autonomous strategic behavior; strategy process; strategy formation; strategy as practice

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manner. We develop a model of the formation of emergent strategy, which illustrates its origins in autonomous behavior resulting from local problem solving, and shows how it becomes realized through mobilizing support to provide impetus, manipulating strategic context to legitimate the project by constructing it as consonant with the prevailing concept of strategy and altering the firm's structural context to embed the project within organizational units, routines, and objectives. We also theorize how the manipulation of strategic context is accomplished by enacting "practices of strategy articulation" that link the "discursive work" (Maguire and Hardy, 2013) of front line and top managers.

As an empirical study of emergent strategy, our study adds to understanding a phenomenon for which there is a paucity of research (Lowe and Jones, 2004) and makes several contributions. First, by integrating prominent traditions in strategy process research-strategy as patterned action, as iterated resource allocation, and as practice-our process model of emergent strategy formation represents theoretical refinement (Edwards, 2010), countering the trend toward framework proliferation (Hutzschenreuter and Kleindienst, 2006) while opening up avenues for further research. Second, it contributes an important discursive dimension to the understanding of strategy as the outcome of iterated practices of resource use-a core notion of the B-B model, which emphasizes the use of material resources rather than symbolic ones leveraged through practices of strategy articulation. Third, our synthesis yields an expanded view of strategy formation; we address a notable asymmetry in Mintzberg's (1978) model by introducing "ephemeral autonomous strategic behavior"-a concept that relates to emergent strategy in the same way as unrealized strategy relates to deliberate strategy.

EMERGENT STRATEGY AND ITS FORMATION

We begin by situating emergent strategy within the literature on strategy process, before connecting it to research traditions viewing strategy as iterated processes of resource allocation (Noda and Bower, 1996) and practice (Jarzabkowski, 2003), to generate our research questions.

Strategy and strategy process research

Despite its importance, strategy carries multiple meanings (Hafsi and Thomas, 2005; Mintzberg and Lampel, 1999). One issue stems from conceptual distinctions that, while serving as the premises of much strategy research, are in fact blurred empirically, thereby contributing to an often lamented, uneven development of the field (Farjoun, 2002). The literature typically distinguishes strategy formulation from implementation, assuming that the latter follows the former and prioritizing research accordingly (Huff and Reger, 1987; Mintzberg, Ahlstrand, and Lampel, 2005). Similarly, strategy content, and in particular how specific strategies are related to performance when undertaken in a given context, is addressed far more often than strategy process (Hafsi and Thomas, 2005). Another tension relates to intentions and the assumed extent of strategists' foresight. Porter (1996: 64) asserts that strategy "means deliberately choosing a different set of activities to deliver a unique mix of value." In contrast, Mintzberg (1978) illustrates that "emergent strategy"—a pattern in action that is realized despite or in the absence of intentions (Mintzberg and Waters, 1985)-is an important component of empirically realized strategies.

We problematize the assumed distinction and sequencing of strategy formulation and implementation to address the relationship between particular strategy content and the processes from which it is generated. Such a "process" emphasis has a long tradition (e.g., Huff and Reger, 1987) and remains important: "Although seemingly fundamental to the study of organizations," the question "Where does a firm's strategy come from?" has received "less attention than it merits" (Gavetti and Rivkin, 2007: 420). Approaches to this question can be grouped into "two broad classes of models that have dominated": "the content-oriented rational choice class and the process-centered learning class" (Gavetti and Rivkin, 2007: 422). Similarly, Wooldridge et al. (2008: 1193 and 1194) also distinguish the choice and social learning perspectives in strategy research. We situate our work in the latter tradition, which views "strategy making as a social learning process" (Burgelman, 1988: 74) and directly addresses what "we have seen to be central in actual processes of strategy formulation and change; namely, the sociocultural and symbolic processes which preserve current ways of doing things, the cognitive bounds of those who take and influence decisions, and the importance of political processes' (Johnson, 1992: 34).

Strategy process research can be classified into six perspectives: rational-mechanistic, cognitive, upper-echelon, middle management, organic, and micro (Hutzschenreuter and Kleindienst, 2006). We situate our work in the organic and micro perspectives. The former views strategy making as "dialectic, involving rationalization and structuring through upper-echelon and strategic initiatives of lower levels," and includes work viewing strategy as the outcome of multilevel processes of resource allocation (Bower, 1970; Burgelman, 1983a) that is possibly emergent rather than deliberate (Mintzberg, 1978), while the latter addresses "the myriad micro activities that make up strategy and strategizing in practice" (Hutzschenreuter and Kleindienst, 2006: 703). Strategy process research provides a realistic, empirically grounded account of strategic management, overcoming deficiencies of the choice perspective, which tends to be ahistorical and acontextual as well as to assume rational processing of information through neutral cognitive frames by managers with convergent goals. It assumes organizations to be "systems of distributed attention" in which managers focus on a limited number of issues: managerial attention is understood to be situated in "procedural and communication channels," which therefore must factor into explanations of patterns in firm behavior (Ocasio, 1997: 192).

Strategy process research is, however, "characterized by an ever-increasing plurality of concepts and frameworks," yielding "an amazing set of partly competing, partly overlapping models" (Hutzschenreuter and Kleindienst, 2006: 673 and 674). Our approach is therefore one of "theoretical refinement" (Edwards, 2010) to integrate wellaccepted perspectives.

Emergent strategy

Our starting point is Mintzberg's (1978) celebrated parsing of intended and realized strategies, which has become canonical in the field. Figure 1 highlights how a portion of a firm's intended strategy does not necessarily come to fruition, thus resulting in unrealized strategy; and how realized strategy, defined as a pattern in an organization's actions over time, is not simply the residual planned activity, termed



Figure 1. Mintzberg's model of strategy formation (Source: *Patterns in Strategy Formation*, 1978)

deliberate strategy. Rather, realized strategy also includes patterned action that does not derive from the intentions of top management. This portion of realized strategy is termed emergent strategy.

Since Mintzberg's (1978) identification of emergent strategy, researchers have validated the concept by demonstrating in various empirical settings how realized strategy can, with reference to prior intentions of top managers, be parsed into deliberate and emergent components (Boyett and Currie, 2004; Lowe and Jones, 2004; Mintzberg and McHugh, 1985). Research has also focused on the recognition of emergent strategy once it appears and its legitimation by top management, which leads to changes in the organization's intended strategy such that "patterns from the past" become "plans for the future" (Mintzberg, 1987). For example, Mintzberg and McHugh (1985) describe how the "personal," "unconnected strategy" of a single filmmaker at the National Film Board of Canada became adopted organization-wide as other filmmakers acknowledged and followed his approach. Similarly, Pascale's (1984) account of Honda's foray into the U.S. motorcycle industry with a strategy of promoting small bikes stands in contrast to the celebrated Boston Consulting Group account (1975), which emphasized topdown, rational foresight and planning, with the former highlighting serendipitous events and local, bottom-up decision making. Other research has identified features of an organization's structure and environment that foster emergent strategy. For instance, Slevin and Covin (1997) found a positive correlation between emergent strategies and firms with "organic" structures operating in "benign" environments, while Osborn (1998) suggests emergent strategy is more likely in contexts characterized by semiformal systems and interactive controls.

In sum, the literature is unambiguous in its evidence of emergent strategy but contains surprisingly little about its formation. Further, while front line and middle managers figure prominently in accounts of emergent strategy, the activities they carry out have not been fully explicated. To address this gap, we draw on strategy process research that views strategy as an iterated process of resource allocation and as practice.

Strategy as an iterated process of resource allocation

The B-B process model of strategy making (Noda and Bower, 1996) derives from work on resource allocation and internal corporate venturing (Bower, 1970; Burgelman, 1983a,b,c, 1984). It offers promise for the study of emergent strategy because it features actors at multiple levels of analysis (cf. Bower, 1970), directly addresses the deliberate-emergent tension, albeit with different labels (cf. Bower and Gilbert, 2005; Burgelman, 1983b), and is connected conceptually to the more general variation-selection-retention paradigm of evolutionary organization theory, thus presenting opportunities for bringing strategy and organization theory together (Burgelman, 1983b, 1996).

Bower (1970) argues that the traditional capital budgeting model, in which the decision rule of maximizing discounted cash flow is used to choose among competing projects, is empirically inaccurate. He proposes a model featuring both top-down decision premises from top management and bottom-up idea generation from operational levels. It features three processes: project definition, which is the economic-technical process of generating projects, using a largely rational logic; impetus, which consists of giving legitimacy to and promoting projects, following a largely political logic; and structural context, which refers to rules, rewards, and decision procedures that condition the behavior of organizational actors. Determined by top management, the structural context establishes an organizational logic that channels activity and acts as a selection pressure on novel initiatives, i.e., variations in an organization's activities. Burgelman's (1983a,b) internal corporate venturing model extends this work by adding a fourth process shaping internal selection pressures: strategic context, which resembles structural context in

emanating from top management but is different in that it is an ideational phenomenon referring to the organization's explicitly articulated strategic intent. Top management plays a key role in its determination through strategy articulation-the issuing of formal statements that describe particular strategic directions in favorable terms (Noda and Bower, 1996). The prevailing concept of strategy is the set of strategic categories used to express the firm's priorities (Burgelman, 1983b). Whereas an organization's structural context represents administrative arrangements that can be altered by top management to influence the perceived interests of organizational members, an organization's strategic context represents vocabulary that can be manipulated to reconstruct the organization's and its members' interests. Burgelman (1983b) echoes Mintzberg's (1978) deliberate versus emergent distinction, albeit with different labels, by parsing induced from autonomous strategic behavior. The former refers to projects that are aligned-i.e., consonant-with the firm's prevailing concept of strategy, while the latter refers to projects that, when initiated, are not so aligned. Rather, they are dissonant in that they clearly contradict prevailing premises and are difficult to describe in terms of the strategic concepts available to managers. It is not that the projects are not rational; rather, the rationality upon which they are based is of a local sort.

Autonomous projects can become legitimated, however, through the manipulation of strategic context, which "reflects the efforts of middle management to link autonomous strategic behavior at the product/market level into the corporation's concept of strategy" (Burgelman, 1983b: 66). Middle managers make sense of autonomous projects and "engage in political activities to convince top management to rationalize, retroactively, these successful initiatives by amending the concept of strategy" (Burgelman, 1983b: 66). Similarly, Noda and Bower (1996: 188) assert that "[t]he iterated model therefore contributes to the field of strategy by enriching our understanding of intraorganizational strategy process and elucidating multilevel, simultaneous, interrelated managerial activities which are combined to generate emergent strategy." Despite preliminary conceptual connections such as these, few studies have explored systematically the connections between the B-B and emergent strategy frameworks. We draw on the strategy-as-practice (Jarzabkowski, 2003) approach to strategy process to do so.

Strategy as practice

The strategy-as-practice (SAP) approach to strategy and its formation focuses on the ways in which practitioners involved in strategy making are enabled or constrained in their activities, i.e., their praxis, by accepted organizational and social practices (Whittington, 2006). Practices are "accepted ways of doing things, embodied and materially mediated, that are shared between actors and routinized over time" (Vaara and Whittington, 2012: 287). Despite commonalities with the work of Burgelman and Mintzberg, the practicefocused approach is distinct in that it "defines itself in opposition to methodological individualism and emphasizes instead the embedded nature of human agency" (Vaara and Whittington, 2012: 288).

Largely, SAP research "has concentrated on formal planning and strategizing activities" (Vaara and Whittington, 2012: 313), i.e., what Regner (2003) calls strategy making in the organization's center. These include "formal procedures involved in direction setting, resource allocation, and monitoring and control" (Jarzabkowski, 2003: 32), practices associated with strategy workshops (e.g., Hodgkinson et al., 2006; Johnson et al., 2010b) and meetings (Jarzabkowski and Seidl, 2008), and the use of analytic tools such as SWOT (strengths, weaknesses, opportunities, and threats; Jarratt and Stiles, 2010). Although emergent strategies have received less attention in SAP research as compared with formal strategizing (Vaara and Whittington, 2012: 313), the approach has nonetheless yielded insights. For example, Grant (2003) found that the strategic planning routines of major oil companies during the late 1990s exemplified planned emergence in so much as their enactment combined bottom-up initiatives with topdown constraints in the form of mission statements, company-wide initiatives, and performance expectations. Regner (2003) found that strategy making in the organization's periphery tends to be more inductive than deductive, and is characterized by exploration and the establishment of new knowledge structures rather than the exploitation of current ones.

Other SAP research sheds light on specific components of the B-B model. With iterated resource

allocation at the model's core, it is clear that practices of allocating resources shape resource mobilization and strategy making (cf. Jarzabkowski, 2003). Whittle and Mueller (2010) found, for instance, that accounting practices constrained which activities could be constructed as being added value and were, therefore, often the focus of "games" and politicized contests over resource allocation. Similarly, Ezzamel and Willmott (2008) illustrate how accounting practices can become imbued with strategic significance through strategy discourse that privileges the allocation of resources to certain prescribed strategy content over other possibilities.

This emphasis of SAP research on discursive practices is especially relevant to understanding the strategic context prevailing inside an organization. Strategy can be seen as discourse, i.e., as a socially constructed object of knowledge that emerges from discursive practices (Ezzamel and Willmott, 2008) through which initiatives are constructed as strategic (Vaara, Kleymann, and Seristö, 2004). It is through specific discursive practices that opportunities for harnessing rhetoric to persuade colleagues of the merits (or demerits) of particular projects are created and acted upon (Samra-Fredericks, 2003). In other words, an organization's strategic context is reproduced or sometimes changed by actors carrying out "discursive work," which refers to the production, distribution, and consumption of texts (Maguire and Hardy, 2013), and this work is structured by organizational practices (Vaara et al., 2004).

SAP research has highlighted the important role of texts in strategy formation. Giraudeau (2008) noted drafts of planning documents encourage strategic experimentation, while Eppler and Platts (2009) found managers draw heavily upon visual representations to understand their organization's strategy. PowerPoint presentations are particularly salient texts as they are a key part of the "epistemic machinery" through which strategy, as a form of knowledge, is produced: "strategy making is not only about analysis of industry structure, competitive positioning, or resources and capabilities, as assumed in content-based strategy research, but also about how the production and use of PowerPoint documents shape these ideas" (Kaplan, 2011: 321).

Such an emphasis on discursive practices complements the B-B model, which emphasizes material resource flows. Thus, both the B-B model and the SAP approach can shed light on emergent strategy formation, which remains undertheorized despite the importance of the concept. Our study is therefore guided by two questions: (1) How does emergent strategy form from autonomous strategic behavior in organizations? and (2) Besides practices of allocating material resources, which strategy practices are involved in this transition and what role do they play?

METHODS

Research design and site

We conducted an exploratory longitudinal case study of strategy formation in the technical support organization (SO) of a global telecommunications equipment provider (The Telecommunications Company or TTC), from 1997 to 2006. We chose TTC-SO for several reasons. First, telecommunications organizations are fertile sites for studies of strategy formation (e.g., Boyett and Currie, 2004; Burgelman, 1994, 1996; Burgelman and Grove, 1996; Noda and Bower, 1996). Second, TTC-SO is large-it is organized around multiple levels of hierarchy and physical sites, which provided scope for us to anticipate that bottom-up local activities might diverge from the deliberate top-down strategic plans. Finally, we secured privileged access.

TTC sells a broad portfolio of network components and services to corporate clients as well as to telephone, internet, and cable companies around the globe. During our study, it had more than US\$1 billion per year in revenues from six business units organized around product technologies, and competed with firms like Alcatel, Cisco, and Nortel using a business strategy of differentiation based on quality. The TTC-SO organization provided technical support to customers of all six units with a workforce that varied from 1,000 to 4,000 employees.

Data collection at organizational level

One author worked on site at TTC-SO from 2005 to 2007, and began by collecting a range of data with the assistance of a TTC-SO director who acted as the project's sponsor and key informant. Data came from TTC and TTC-SO annual

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reports, other regularly produced internal reports, and archived documents such as PowerPoint slides produced for investors and for TTC-SO's "town hall" meetings. We also collected all corporate e-mails that announced changes to strategic priorities, organizational structure, or the executive team, and were given access by our informant to some 2,000 archived e-mails.

Data analysis at organizational level

In the first stage of analysis, we drew on organizational level data to construct a timeline of events relevant to TTC-SO's strategy. In the second stage, we determined an appropriate period for analysis of TTC-SO's strategy, then organized our data at this coarseness of grain. Six-month periods were analytically insightful and methodologically convenient; this coarseness of grain aligned with TTC-SO's internal rate of formally communicating its strategic objectives and accomplishments, while nothing in our timeline indicated that a finer grained analysis would yield different insights. Next, we tracked the strategy of TTC-SO for each period. Because strategy is a hierarchical concept (Johnson et al., 2010a) capturing a firm's corporate strategy (i.e., choices about products, markets, and firm boundaries, cf. Burgelman, 1983b) and business strategy (i.e., business unit level choices about cost leadership vs. differentiation vs. niche, cf. Porter, 1980) as well as operational strategies (i.e., finely grained choices about how to combine and perform specific activities, cf. Porter, 1996), we coded our data for strategic categories (Burgelman, 1983b) relating to these levels. Table 1 summarizes the strategic categories identified, while Table 2 illustrates those prevailing at specific times.

In the third stage, we reviewed our data to identify instances of strategic behavior (Burgelman, 1983b), i.e., projects of sufficient importance to be given labels and reported on, and parsed the 24 projects we found into 17 induced and 7 autonomous projects according to whether they were, respectively, consonant or dissonant with the concept of strategy prevailing when initiated. Because we wished to build theory about projects that were truly dissonant rather than consonant, we resolved ambiguities conservatively: if the evidence was not clear, we classified the project as consonant, and we reviewed our categorizations with our TTC-SO director informant who agreed with our final list of dissonant projects and also

| Table 1. | Strategic categories | making up the | prevailing conce | pt of strategy a | t TTC-SO |
|----------|----------------------|---------------|------------------|------------------|----------|
| | 0 0 | 01 | | | |

| Strategic category | Description |
|---|--|
| Strategic categories related to corporate stre | tegy product decisions |
| Selling Services | Supporting services, including hosting of customer networks and performing network management for customers |
| Broad Portfolio | Supporting many technologies to cover all the network elements of customers such as access, core networks, enterprise, switching, optical and wireless againment. |
| Mergers and Acquisitions | Supporting products added to portfolio as a result of mergers and acquisitions activities |
| Divesting Products | Supporting a reduced breadth of products to focus on core parts of the business |
| Security & Crisis Management | Providing security and crisis management services |
| Focused Investments | Investing selectively in areas with potential for novel products and high growth |
| Strategic categories related to corporate stra | ntegy market decisions |
| Global Markets | Supporting customers in all regions of the globe |
| Traditional and New Operators | Supporting ILECs (incumbent local exchange carriers) as well as the |
| | new CLECs (competitive local exchange carriers) entering the market resulting from deregulation with the Telecommunication Act of 1996 |
| Strategic categories related to <i>corporate stra</i> | tegy boundaries of the firm decisions |
| Internal and External Technology | Supporting, in-house, technology developed both by TTC in-house as well as by other vendors working in partnerships with TTC |
| Original Equipment Manufacturer | Supporting, in-house, products developed by other companies and sold under TTC's brand, rather than outsourcing this activity |
| Off-Shoring | Outsourcing support for TTC products from TTC-SO to other region-based TTC units |
| Strategic categories related to business strat | egy decisions |
| Product Quality | Differentiating products and services through very high reliability, by implementing the carrier grade standard of 99.999% uptime for all components |
| Product Supportability | Differentiating products and services through speed and ease of providing support |
| Design for Supportability | Differentiating products and services through speed and ease of providing support, by designing new products that have supportability features built into them |
| Strategic categories related to functional stra | ategy decisions |
| Customer Satisfaction | Tracking and measuring customer satisfaction via surveys and ensuring high quality interaction and processes with customers |
| Employee Satisfaction | Tracking and measuring employee satisfaction via surveys and ensuring high quality work environment and processes with employees |
| Cost Containment | Continuing to deliver the same level of support for existing and new customers, while reducing new spending |
| Cost Recovery | Developing programs and tools that enable the support group to track its time accurately and to achieve 100% cost recovery |
| Workforce Reductions | Supporting existing and new products with reduced number of people |
| Service Profitability | Deploying support resources on projects and activities that are profitable |
| Service P&L | Measuring and reporting cost of supporting products against the service revenues for support |
| Service Standardization | Offering common levels of support across the product lines |
| Process & Tools Standardization | Supporting all product lines using common processes and tools |
| True Two-Tier Support Model | Supporting products using a two-tier model (first tier handles basic support functions, second tier handles advanced troubleshooting) |
| Process Measurement | Managing operational activities by emphasizing the need to develop metrics |
| Six Sigma | Applying Six Sigma methodology in support processes |
| 48-Hour Case Closure | Resolving all cases within 48 hours of initial customer call |

| Strategic category vs. time period | 1997 1H | 1997 2H | 1998 1H | 1998 2H | 1999 1H | 1999 2H | 2000 2 1H | 2000 2 2H | 2001 2 1H | 001 2 2H | 002 2 IH | 002 2) 2H | 003 20 H 2 | 003 20 H 1 | 004 20 H 2 |)04 2(H 1 | 005 20 H1 2 | 005 2 2H | 006 20 H 2 | 006 2H |
|---------------------------------------|------------|------------|------------|------------|------------|------------|--------------|--------------|--------------|-------------|-------------|--------------|---------------|---------------|---------------|---------------|----------------|-------------|---------------|-----------|
| Strategic categories related to corpo | orate sti | rategy p | roduct a | decision | S | | | | | | | | | | | | | | | |
| Selling services | Υ | Υ | Υ | Υ | Y | Υ | Υ | Υ | Y | Y | Y | Y | Y | Y | Y | Ϋ́ | Y | Y | Y | Y |
| Broad portfolio | Y | Y | Y | Y | Y | Y | Y | Y | | | | | | | | | | | | |
| Mergers and acquisitions | | | | Υ | Y | Y | Υ | Υ | | | | | | | | | | | | |
| Divesting products | | | | | | | | | | Y | Y | Y | Y | X | Y | , Υ | Y | | | |
| Security and crisis management | | | | | | | | | | | | | | | Y | , X | Y | Y | Y | Y |
| Focused investments | | | | | | | | | | | | | | | | | | Y | Y | Y |
| Strategic categories related to corpo | orate sti | rategy n | narket d | lecisions | | | | | | | | | | | | | | | | |
| Global markets | Υ | Υ | Υ | Υ | Y | Υ | Y | Υ | Y | Y | Y | Y | Y | Y | Y | Ϋ́ | Y | Y | Y | Y |
| Traditional and new operators | Υ | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | X | Y | , Y | Y | Y | Y | Y |
| Strategic categories related to corpo | orate sti | rategy b | oundari | ies of th | e firm de | ecisions | | | | | | | | | | | | | | |
| Internal and external technology | Υ | Y | Y | Y | Y | Υ | Y | Y | Y | Y | Y | Y | Y | Y | Y | , ۲ | Y | Y | Y | Y |
| Original equipment manufacturer | | | | | | | | | | | | | | | Y | , Y | Y | Y | Y | Y |
| Off-shoring | | | | | | | | | | | | | | | | | | | Y | Y |
| Strategic categories related to busin | ress stra | ttegy de | cisions | | | | | | | | | | | | | | | | | |
| Product quality | Υ | Υ | Υ | Υ | Y | Υ | Υ | Υ | Υ | Y | Y | Y | Y | Y | Y | , X | Y | Y | Y | Y |
| Product Supportability | | | | | | | | | Y | Y | Y | Y | Y | | | | | | | |
| Design for support ability | | | | | | | | | | | | | | Y | Y | Ϋ́ | Y | Y | Y | Y |
| Strategic categories related to oper | rational | strategy | v decisic | suc | | | | | | | | | | | | | | | | |
| Customer satisfaction | Υ | Υ | Υ | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Ϋ́ | Y | Y | Y | Y |
| Employee satisfaction | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | X | Y | , Х | Y | Y | Y | Y |
| Cost containment | Υ | Y | Y | Y | Y | | | | | | | | | | | | | | | |
| Cost recovery | | | | | | Υ | Y | Y | Υ | | | | | | | | | | | |
| Workforce reductions | | | | | | | | | | Y | Y | Y | | | | | | | | |
| Service profitability | | | | | | | | | | | | | Y | Х | Y | Ϋ́ | Y | Y | Y | |
| Service P&L | | | | | | | | | | | | | | | | | | | | Y |
| Service standardization | | | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Ϋ́ | Y | Y | Y | Y |
| Process & tools standardization | | | | | | | | | Y | Y | Y | Y | Y | Х | Y | , Х | Y | Y | Y | Y |
| True Two-Tier Support model | | | | | | | | | Y | Y | Y | Y | Y | Y | Y | Ϋ́ | Y | Y | Y | Y |
| Process measurement | Υ | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | | | | |
| Six Sigma | | | | | | | | | | | | | | | | | Y | Y | Y | Y |
| 48-Hour Case Closure | | | | | | | | | | | | | | | | | X | X | Y | Y |

Table 3. Autonomous strategic projects

| Project description | Strategic categories with which project is initially dissonant |
|--|--|
| The Supportability Project was launched in the second half of 1999 by a director who assigned three engineers to develop tools and procedures to proactively support a particular product experiencing frequent outages in customers' networks—i.e., to deal with issues <i>before</i> they resulted in customer downtime. | Cost Recovery: Engineers working on this project could recover only part of their time against case management, which contradicted the prevailing mandate to recover all support costs. Service Standardization: This project involved the collection of network data that was nonstandard, i.e., unique to this particularly problematic product. |
| The Automated Install Base Tracking Tool Project was launched in 2004 by a director from the "core data" line of business. The problem he was facing was his engineers' inability to have a complete view of customers' networks. The idea that came from the director was to apply an internal tracking tool used in TTC-SO's labs—and implementing it to track equipment in customers' networks. | Service Profitability: This project initially created significant development costs, but had no revenue stream associated with it. This contradicted the prevailing mandate to ensure that services were profitable. (Indeed, prior to the director's resurrecting of this project, the laboratory manager had previously ordered a halt to it for this specific reason.) |
| The Real Time Data Metrics Project was launched in the second half of 2004 by a manager responsible for producing metrics and reports on TTC-SO's operations, for use by managers (for oversight and control) and engineers (for identifying emerging issues, priority setting, etc.). The inability of engineers to have a real-time view of all TTC-SO's customers' cases was considered a problem, and the solution involved migrating metrics and reports data to a single database. | Service Profitability: This project initially created significant development costs, but had no revenue stream associated with it. This contradicted the prevailing mandate to ensure that services were profitable. (Indeed, the relevant information system manager refused to fund this project for this specific reason, i.e., it was costly and generated no revenues.) |
| The Multilingual Call Center Project was launched in 2000 as a result of a group of North American Call Center managers identifying a problem common to all of them: the call centers they managed regularly dealt with important customers who preferred to be served in French or Spanish, but the mandate for service standardization had always been interpreted in North America as involving service in English. The solution they proposed was to serve customers in the language of their choice. | Cost Recovery: This project was inconsistent with the mandate for cost recovery because it involved the recruitment of multilingual staff and the duplicating of call flow activities in multiple languages. Service Standardization: This project was dissonant with the prevailing interpretation of what constituted standardized service in North America, which was that all customers were served in English. |
| The Follow the Sun Project was launched in the first half of 2000 by a product support director who was dealing with a problem of very low morale among her engineers. Her team was being called upon to support an acquired technology that experienced frequent failures, which meant her engineers were constantly being paged. Her solution was to relocate some second tier support functions to regional teams located in the same time zones as non-North American customers, and to exchange support cases at the end of each region's business day. | Service Standardization and True Two-Tier Support Model: This project was viewed as dissonant with the mandate to serve customers in a standardized two-tier way because it involved dissociating second tier support functions from the North American Center of Excellence, which had been specifically co-located with the product designers in order to handle all second tier cases centrally and consistently with input from product design. |
| The Customer Advocacy Project was launched in the first half of 2000 by a director who faced a problem of customer frustration stemming from the complexities of navigating TTC-SO's two tiers of support for technical issues, and engaging multiple TTC units for nontechnical issues. The director's solution was to create a group of engineers who would act inside TTC-SO as representatives of important customers, helping to solve both technical and nontechnical issues. | Cost Recovery: This project was inconsistent with the mandate to recover engineers' costs because the time the advocates spent addressing nontechnical issues could not be billed against customer cases. Service Standardization: This project was viewed as inconsistent with the mandate to standardize service offerings because it was available to large customers but only for a small set of products. |
| The Optical Off-Shoring Project was launched in the second half of 2004 by a director who faced the problem of implementing workforce reductions in order to reduce costs with no change in the customer base his engineers were to serve. The director's solution was to relocate second tier level support, for optical equipment only, to TTC's India-based unit. | Process & Tools Standardization: This project was viewed as unique to optical and inconsistent with the mandate to standardize support processes and tools. True Two-Tier Support Model: This project was dissonant with the service model of providing two-tier support, with first tier issues handled in the regions and second tier issues handled centrally. |

| | Deliberate Strategy | Unrealized Strategy |
|-------------------------------------|---|--|
| Induced Strategic Behavior | D1: eService D2: Year 2000 D3: Entitlement D4: Time Tracking D5: RQMS / TL9000 D6: Centre of Excellence D7: Express Routing Code / Escalation D8: Lab Consolidation D9: Six Sigma D10: Off-Shoring D11: Merit Pool D12: 1-800 Consolidation D13: Electronic Software Delivery D14: Outage Reduction D15: CRM Platform | U1: Baldrige Management Award Gold Accreditation U2: Market Organization |
| Autonomous Strategic Behavior | Emergent Strategy ES1: Supportability ES2: Automated Install Base Tracking Tool ES3: Real Time Data Metrics ES4: Multilingual Call Centre ES5: Follow the Sup | Ephemeral Autonomous Strategic Behavior EASB1: Customer Advocacy EASB2: Optical Off-Shoring |
| | With Pattern in Time | Without Pattern in Time |

Figure 2. Projects and their outcomes at TTC-SO

confirmed that the projects were strategic ones. (In a later step, we reconfirmed these categorizations by drawing on detailed project-level data.) Table 3 summarizes the autonomous strategic projects, each initiated through local problem solving to address an immediate operational issue, as well as our rationale for considering them as autonomous and not induced (cf. Burgelman, 1983b).

In the fourth stage, we determined whether our projects resulted in "patterned action over time" (cf. Mintzberg, 1978; Mintzberg and McHugh, 1985) by assessing whether there was evidence of ongoing activity in at least four consecutive time periods. In this way, we populated a 2×2 (Figure 2), and had our sponsor-informant director confirm the classifications. We use concepts from Mintzberg's canonical model to label three quadrants and to introduce the concept of ephemeral autonomous strategic behavior for the fourth one—a concept that relates to emergent strategy as unrealized strategy relates to deliberate strategy, but refers to activity that originates as

autonomous rather than induced strategic behavior, as discussed below.

Data collection at project level

The next stage involved conducting and transcribing thirty semistructured interviews with individuals at various levels including directors, managers, and project managers, for each of the seven autonomous projects. Initial interviewees were identified by our sponsor-informant, while subsequent interviewees were identified through snowballing (Patton, 2002). During interviews, project-specific documents were identified and assembled. We interviewed at least one person for each of three levels per project-i.e., vicepresident (top manager), directors (middle managers), managers and/or project managers (front line managers)-and the number of interviewees ranged from five to ten per project. (Interviewees at higher levels spoke about multiple projects, thus thirty interviewees allowed us to achieve our targeted coverage.)



Figure 3. Coding structure

Data analysis at project level

Drawing on interviews and documents for each autonomous project, as well as on our organizational level data, we prepared seven detailed project narratives (Patton, 2002), summaries of which appear as project descriptions in Table 3. Next, we coded these narratives and primary data for each project to note similarities and differences in order to develop a model of the process through which autonomous strategic behavior becomes (or does not become) realized as emergent strategy, and to identify practices involved in this process. Our analysis continued iteratively, moving between data, emerging patterns, and theory, until we postulated relationships that were not only clear but also anchored theoretically and empirically in our data (cf. Eisenhardt, 1989). Our coding structure is shown in Figure 3.

In this way, we identified component activities of the process through which autonomous strategic behavior became realized as emergent strategy, as described in our first set of findings: mobilizing support for impetus, manipulating strategic context for consonance, and altering structural context for embeddedness. Comparisons of instances of ephemeral autonomous strategic behavior with emergent strategy highlighted that the former involved attempts at all three activities but failure at one or more, as discussed in our second set of findings.

We next turned to identifying practices (other than those of allocating material resources) that played a role in the transition from autonomous strategic behavior to emergent strategy. By arranging data from our various sources chronologically, we noted the overall prominence of PowerPoint slides and differences in the PowerPoint slides for the five projects that became emergent strategy as compared to the two that became ephemeral. For the former, we found more PowerPoint slides in total as well as slides produced by top management, which was not the case for the latter. We



*Realized Strategy has two components, emergent strategy and deliberate strategy, as shown in figure 1. Only the emergent strategy component of realized strategy is represented in our process model, for clarity.

Figure 4. Process model for emergent strategy

thus returned to our data and coded it for mention or use of PowerPoint. We identified two sets of discursive practices that, together, linked representations of projects produced by front line managers to those of top management: practices associated with operational review meetings through which front line managers communicated to each other and to middle managers, and those associated with regularly staged town hall meetings, through which middle managers contributed to and influenced the content of top management's slide decks. We refer to these practices as practices of strategy articulation, by which we mean repetitively activated, routinized ways of producing, distributing, and consuming texts that contain representations of what the firm has been, is, or will be doing-a definition that allows for strategy as both plan and pattern. Practices of strategy articulation are incorporated into our process model of emergent strategy formation, so are discussed in our first set of findings.

FINDINGS

We first focus on the five projects that became realized as emergent strategy to illustrate our process model of emergent strategy formation, then the two projects that disappeared without

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ness of top managers to sponsor a project. Our findings illustrate that impetus for expanding an

autonomous project derives from resources that can be obtained from three sources—the initiating organizational unit, other organizational units, and external actors.

impact to introduce the concept of ephemeral

We present here our process model (Figure 4), with

illustrations from autonomous projects that became

One key activity in emergent strategy formation

from autonomous strategic behavior is the secur-

ing of support for autonomous projects in the

form of various types of resources, including finan-

cial (e.g., funding), technical (e.g., equipment),

and human (e.g., staff). Bower (1970) describes

impetus as the force that successfully moves a

project toward funding, i.e., increases the willing-

emergent strategy (summarized in Figure 5a-e).

From autonomous strategic behavior to

Mobilizing wider support for impetus

autonomous strategic behavior.

emergent strategy

We found (in four of the five projects) that project champions successfully sought support

(a) Mobilizing Support for Impetus Z Securing Resources from Organizational Unit: Individuals from Product groups sharing tools for supportability Enrolling Other Organizational Units: Design Organization investing supportability feature by allocating transfer budget D Channelling External Pressures: Customer requesting feature from product general manager after seeing product demo Manipulating Strategic Context for Consonance *Introducing New Strategic Category:* 1st half of 2001 'Product Supportability' is made part of strategic objectives for group *Introducing New Strategic Category:* 2nd half of 2003 'Design for Supportability' becomes a standard product attribute across all lines, which means costs of supportability become incorporated into product costing according to normal cost recovery routines Z Stretching Existing Strategic Category: 2nd half of 2003 'Service Standardization' is stretched to include supportability features Altering Structural Context for Embeddedness 1 Creating New Teams: centralized supportability team created Z Establishing New Procedures and Routines: master document containing all supportability features is created and accepted as standard for all products Z Setting New Organizational Objectives: supportability attributes become part of design objectives (b) Mobilizing Support for Impetus Z Securing Resources from Organizational Unit: Supportability team recycles tool to make it usable in customer network E Enrolling Other Organizational Units: Warrantee group looking to gain additional post-in service revenue from having customer network information Manipulating Strategic Context for Consonance Z Stretching Existing Strategic Category: 1st half of 2006 Project is linked with 'Service Profitability' as projected revenues for warrantee are detailed in strategic project document ✓ Altering Structural Context for Embeddedness *Creating New Teams:* supportability team takes ownership of initiative Establishing New Procedures and Routines: 30 scripts created and ported across all products Setting New Organizational Objectives: target in excess of \$30 million (c) Mobilizing Support for Impetus Z Securing Resources from Organizational Unit: Support Managers requesting visibility to real-time data provide charge codes to recover the cost for the development time of new reports E Enrolling Other Organizational Units: Information System team accepts to develop migration plan for the project once business case for saving license fees is approved Manipulating Strategic Context for Consonance Z Stretching Existing Strategic Category: 1st half of 2006 Project is linked with 'Service Profitability' by being recast as cost avoidance 1 Altering Structural Context for Embeddedness Z Creating New Teams: project manager moves under Senior Vice-President providing more visibility to initiative E Establishing New Procedures and Routines: database integration and access provided to engineers to generate reports Setting New Organizational Objectives: 48 hour case closure targets for all cases of all severity

Figure 5. (a) Supportability Project; (b) Automated Install Base Tracking Tool Project; (c) Real Time Data Metrics Project; (d) Multilingual Call Center Project; (e) Follow the Sun Project



Mobilizing Support for Impetus

E Enrolling Other Organizational Units: call centre manager from Caribbean and Latin America draws from his resources to produce call flow in Spanish

Manipulating Strategic Context for Consonance

^d Stretching Existing Strategic Category: 1st half of 2001 'Service Standardization' is stretched to include local language support, thus making multi-language the standard service for North American, Caribbean and Latin American call centre. Being a standard offering enabled the local directors in justifying the additional costs incurred, eliminating dissonance with 'Cost Recovery'

Altering Structural Context for Embeddedness

Creating New Teams: call centre hires new operators and trains staff on new call flow

Establishing New Procedures and Routines: call flow scripts in French and Spanish

Z Setting New Organizational Objectives: metrics for dropped calls, Customer Satisfaction and transaction surveys

(e)

Mobilizing Support for Impetus

E Securing Resources from Organizational Unit: support engineers embrace initiative and participate in training of regional teams because the initiative is perceived as a means of reducing their off-hour pager duties

Manipulating Strategic Context for Consonance

Stretching Existing Strategic Category: 2nd half of 2001 Project is linked with 'True 2-tier Support' and presented as best practice in strategic update document for products with very high outages. Category is stretched to include follow-the-sun processes for newly acquired, unstable technology. Casting initiative as a exception process for products not meeting carrier grade stability eliminates initial dissonance with 'Service Standardization'

✓ Altering Structural Context for Embeddedness

Creating New Teams: 3 regional teams created across various time zones

E Establishing New Procedures and Routines: hand off procedures and escalation documents built for outages

Setting New Organizational Objectives: metrics for diverted cases by region by severity



from other individuals within the organizational unit itself. For instance, in the case of Follow the Sun Project, the director, a middle manager, sought time and expertise from his group's engineers to train the Australian regional team to be able to handle second tier support calls.

"The support guys here were ready to help the new Australian engineers on the calls because they understood it would reduce their pager hours ... They were functional pretty quickly and the customers in their region were very happy to deal with them directly."

(Support manager).

Another example is the Real Time Data Metrics Project in which new reports were developed in response to the merger of two databases. Given the push for cost recovery, the front line project manager was looking for ways to account for the significant amount of engineers' time required for report development. Support came from operational managers who liked the idea of having real time visibility of customer issues in the form of special accounting codes against which the engineers were permitted to allocate their time.

"They were all saying, give us the real time data we need it to meet our targets. This meant we had to develop some reports and I had to account for my time somehow. They provided me with time tracking codes so I could charge my time against them."

(Support manager).

Another source of support (identified in four of the five projects) was individuals within other interacting organizational units. For example, a top manager from TTC-Design Organization (a separate unit from TTC-SO) provided direct funding to secure engineers' time during the development cycle of new products. As a result, engineers became dedicated to the Supportability Project, insulating the project from shifting TTC-SO priorities and emergencies over its lifetime—the kinds of events that typically killed ad hoc initiatives at TTC-SO.

"The product manager from Research and Development funded me directly a set of development heads that would do a good part of the supportability work. And the reason he did that was that, in his terms: I want a no-excuses product. I don't want to come on the market and say that we didn't invest in supportability."

(Support director).

Finally, another source of support (identified in one of the five projects) was individuals external to the organization TTC-SO. With the Supportability Project, a customer who had seen a supportability feature demonstrated on a product insisted that the design team include this feature in the product. The project champion, a middle manager, documented the customer's endorsement in a PowerPoint presentation and used it to further the initiative.

"This feature actually made the sale. It was the one thing the customer was really happy about. It gave our box functionality that our competitors did not have. Once they saw it in our demo, they wanted it."

(Support director).

Manipulating strategic context for consonance

Also key to emergent strategy formation from autonomous strategic behavior is the activity of legitimating the autonomous project after it has been launched, by discursively constructing it in ways that render it consonant with the prevailing concept of strategy. According to Burgelman (1983b), manipulation of strategic context occurs as middle managers introduce new strategic categories. Surprisingly, our study found the introduction of new strategic categories in just one of the five projects. More common (four of the five projects), however, was legitimation of initially dissonant projects by stretching existing strategic categories, i.e., reinterpreting them in ways that made the projects consonant with them.

The Supportability Project, launched in the second half of 1999, was legitimated by introducing new strategic categories: Product Supportability in the first half of 2001 and Design for Supportability in the second half of 2003. The Supportability Project's middle manager champion, a director, aimed to build supportability features into network components to allow for product monitoring and quick repair in case of failure. After starting the initiative in isolation with a single product, the director began to look at ways to replicate the initial success with other products. Eventually, by the 18-month mark of the project, engineers on the Supportability Project were developing supportfacilitating features for a series of products from several of TTC's lines of business. The concept of product supportability had become accepted and widespread by this point, and in 2001, the concept of product supportability first appeared on slides of the vice president, where it was presented in a town hall meeting as a key to the activity of TTC-SO in his summary of that period's strategic update.

In subsequent periods, the team's size continued to grow, and more engineers were dedicated to working on supportability issues. However, a challenge presented itself: the director found that it was difficult to include supportability features early in product development because of the tendency to give priority to revenue-generating features (as opposed to cost-avoidance features such as supportability) and because in early stages features were "owned" by the design team so tended to reflect the design team's rather than the support team's priorities.

"You know if a product design guy has to chose between a feature that can generate revenue for the client or a feature that will help us support the product they often pick the former. Sometimes they have all the features at the beginning but when they run out of money they tend to cut the non revenue stuff, like supportability."

(Support manager).

In other words, for further success the middle manager needed to expand the focus of the Supportability Project to include the product design process. At meetings between TTC-SO's engineers and their counterparts in TTC-Design, the director and his team presented a slide deck documenting key accomplishments and metrics touting the benefits of including supportability early in the product lifecycle, seeking to convince the Design Organization to change the way they worked. This approach was successful and, in 2003, a new strategic category was introduced-Design for Supportability became widely accepted and began to appear on the vice president's town hall slides. Notably, this change was accompanied by a new formal requirement for design teams to develop standard supportability features in order for a product to be considered "carrier grade" product, the stated level of quality for TTC.

"Design teams are provided with supportability attributes which they must incorporate. It's not always easy, and we still have to look over their shoulder sometimes, but we are really a long way from where we started" (Support director).

The other autonomous projects that became emergent strategy became legitimated not by introducing new categories but by stretching existing strategic categories in specific ways to render the projects consonant with them. For instance, the project champion of the Automated Installed Base Tracking Project, a middle manager, successfully linked his project with Service Profitability and used this concept to convince another middle manager, the director in charge of the Warranty group, to integrate the two previously separate processes of tracking and billing for support services. This maneuver allowed the champion to prepare a compelling slide deck projecting an increase in warranty revenues by US\$30 million for a single line of business.

In the case of the Real Time Data Metrics Project, the project champion, a front line manager, prepared a PowerPoint presentation outlining his vision for a unified system of databases and used it to successfully argue that the metrics produced were essential to closing cases within 48 hours (i.e., making the project consonant with "48-Hour Case Closure"). Some serendipity was clearly involved here because the 48-Hour Case Closure category did not exist when the Real Time Data Metrics Project was first launched instead, it was introduced by a top manager brought in from the outside after the project was launched.

"I had initially produced analysis to show how these metrics could make us more efficient, but they did not believe my data ... Everyone was saying, we really need this: give us real time data because if we can't have visibility of our cases, we can't meet the 48-hour target. So the new 48-hour target really helped me."

(Support manager).

The 48-Hour Case Closure category, as introduced by the top manager, did not have any obvious direct connection to a capability for collecting real time data about customer service cases, but the front line manager successfully stretched its meaning to link the two.

"It sort of happened at the same time or shortly after since it was unfolding last year. That is why everybody was saying: yes, real time data, give it to us. And so I started telling everyone that was making these requests: unless you want to manually check each case that you are working on we need access to real time reports."

(Support manager).

In the case of the Multilingual Call Center Project, the top manager's initial reaction to ensuring service in French for customers requesting it was negative, he argued that a single customer requesting a new process for a French call flow should not be acted upon, as it constituted an exception. However, the project champion, a front line manager, sought support from his Caribbean and Latin American counterpart (the North American Call Center manager) who wanted to provide a Spanish call flow in his region. Together, they successfully argued that the initiative should become a standard approach for all customers instead of serving as an exception process, stretching the "True Two-Tier Support Model" strategic category to include multilingual service to both North American and Latin American customers.

"After pushing for each other's language for several weeks, the committee accepted and we implemented the trilingual call flow. I think it worked because instead of being an exception this could become a standard way of doing business: French for French customers, Spanish for Latin America, and English for everyone."

(Call Center manager).

In the case of the Follow the Sun Project, the director, a middle manager, collected initial data from early implementation of the project, and the results were presented in a town hall meeting slide deck as best practice for products with very high outages. Recycling data and slides forwarded by a front line manager reporting to him, the director argued successfully to use Follow the Sun processes for all newly acquired but unstable technologies, thus stretching the category of True Two-Tier Support Model. By casting the initiative as a necessary exception process for products not yet meeting carrier grade stability standards, the director discursively dissolved the project's initial dissonance with the Service Standardization category.

"Follow the Sun in its full implementation should not require more heads than the current headcount distribution ... in fact, the expected employee retention increase should lower labor costs due to reduced hiring and training. This is a best practice for another type of unstable product that we may have to support in the future."

(Support director).

Altering structural context for embeddedness

Another important activity in emergent strategy formation from autonomous strategic behavior is altering the structural context (i.e., formal administrative mechanisms) of the organization in order to embed the project within it. Our study builds on Bower (1970) by identifying three constituent activities to altering structural context: (1) creating new teams, (2) establishing new procedures and routines, and (3) setting new organizational objectives.

Each of the middle managers who championed an autonomous strategic project that became emergent strategy embedded their projects by formally creating new teams. In the case of the Supportability Project, the director created a new team staffed with engineers dedicated to solving supportability issues for a product that was experiencing frequent outages. Similarly, in the case of the Follow the Sun Project, the director established three new regional teams to handle two-tier support calls. In other cases, project teams became more firmly entrenched in TTC-SO by being formalized under different leadership than where they originated, and serendipity was sometimes involved. For instance, in the case of the Automated Installed Base Tracking Project, a new vice president took over the mandate of tracking customer equipment.

"The project stalled a little and we were not going anywhere because we had a lack of leadership and ownership for the project. Then, a new vice president came in and took over the ownership. Since then he has been able to provide continuity for it."

(Support manager).

Similarly, in the case of the Real Time Data Metrics Project, the front line manager championing the project was promoted to a new team leader position reporting to a new vice president—a move that granted the initiative much more visibility inside the organization.

Our study also found that the champions of autonomous strategic projects that became emergent strategy embedded their projects in the organization by formally establishing new procedures and routines. For instance, one of the first things that the Supportability Project team members did was to create a master document that documented all supportability features deemed necessary for a product to be considered carrier grade. The middle manager then distributed this master document and shared these requirements with the entire organization.

"We put together a specification document based on our collective experience using all the subject matter experts in the organization to develop what we called product supportability requirements."

(Support director).

Once the document was finalized and shared with all product groups, it became the reference point for all new products designed in-house or added to TTS-SO's portfolio.

Similarly, the tool that became the basis for the Automated Installed Base Tracking Tool Project had been developed by a laboratory engineer for a single product initially. The engineer's director, a middle manager, recognized the potential value of the tool when it was presented to him in a PowerPoint slide deck, commissioned his engineers to develop new scripts that would allow the tool to track other kinds of products, and ultimately had his team create thirty new scripts. In the case of the Real Time Data Metrics Project, the front line manager along with his metrics engineers developed and regularly produced a series of standardized reports, giving access to the real time data-complete with official instructions-to a large number of engineers who did not have access under the older database scheme.

"Before, we used to have to build the reports for them. It was time consuming, and we would only do it for people high up in the hierarchy. Now, most TTC-SO engineers can pull their own data so they can monitor case management closure in real time."

(Support manager).

Finally, in the case of the Multilingual Call Center Project, the project champion, a front line manager, developed detailed call flow procedures and distributed them to phone operators along with instructions on how to route technical support calls to the appropriate product support groups. The procedures were translated into the relevant languages, and the manager conducted formal training sessions with the operators. In the case of the Follow the Sun Project, the director championing the project created new hand-off procedures that described how and when a case would be transferred between regional teams.

Our study also found that the champions of autonomous strategic projects that endured to become the emergent strategy portion of realized strategy embedded their projects in the structure of the organization by formally setting new organizational objectives. For instance, the director championing the Supportability Project created and distributed an official list of product attributes for which supportability was a formally sanctioned design objective.

"We have gates where we review requirements, and part of those gates talk about operability under which you would find supportability."

(Support manager).

In the case of the Automated Installed Base Tracking Project, the warranty director, a middle manager, established new aggressive revenue targets that were tied directly to the implementation of the new tracking tool. In other cases, operational targets were set. In the case of the Real Time Data Metrics Project, each product support group director established new targets for case closure times for their backlog cases: in the case of the Multilingual Call Center Project, the director championing it set new objectives for lost calls, wait times, and responsiveness; and the director that formulated the Follow the Sun Project set new targets for cases diverted to regional centers during off-hours.

Practices of strategy articulation

Practices of strategy articulation—i.e., repetitively activated, routinized ways of producing, distributing, and consuming texts containing representations of what the firm has been, is, and will be doing-played an important role in the realization of emergent strategy. We first describe practices associated with regular operational review meetings through which front line managers communicated about TTC-SO's activities to each other and their middle managers using PowerPoint slide decks. We then describe practices associated with regularly staged town hall meetings through which middle managers contributed to the production of top managers' slide decks that represented select TTC-SO activities as strategic by linking them to the concept of strategy prevailing at the time—slide decks that were then presented by the top managers to the entire organization. By enacting these practices, the manipulation of strategic context at TTC-SO was a joint achievement of front line, middle, and top management.

Autonomous strategic behavior begins its bottom-up journey to becoming realized as emergent strategy through the enactment of discursive practices linking front line managers to peers and middle managers. We found that representations of autonomous projects made their way into operational review meetings via PowerPoint slides prepared initially by front line managers (or their staff). For instance, the definition of supportability underpinning the project of the same name first appeared in a slide produced by a front line engineer in early 2000.

"Supportability is the relative degree to which a product and its supporting tools or processes allow field problems to be quickly characterized and resolved while minimizing the overall impact of engaging technical support on the customer's network and operations."

(Supportability Project slide).

The engineer's front line manager, as well as the middle manager to whom he reported, often recycled this definition, which reappeared in slide decks spanning the years 2000–2003.

In the case of the Follow the Sun Project, the project champion documented the new process of routing second tier support calls to regions in PowerPoint decks as early as the second half of 2000; and in so doing he introduced new vocabulary to TTC-SO, describing a "COT [currently open team] that would rotate throughout the RITZ [regional in-time zone]" (Follow the Sun deck). While some of these acronyms were later dropped, two main diagrams from these early slide decks-slides showing interactions between the regional teams and other TTC-SO units-remained largely stable for four consecutive periods spanning the second half of 2000 to early 2002. The first diagram shows the various teams across the world with the product that they support, a representation that began to reify the project as well as changes to TTC-SO's structural context, which had been altered to accommodate it. The second diagram features a representation of the overall (i.e., first and second tier) support model and positions the Follow the Sun Project as one of four components of Customer Service Process Excellence and True Two-Tier Support Model, thus stretching this latter strategic category to include this autonomous project.

Slides containing representations of autonomous projects and used in operational review meetings

sometimes had their origins in slide decks prepared for peers and external audiences from whom the project champion was seeking support. For instance, with the Supportability Project, the project champion prepared a slide deck that introduced the supportability concept specifically for an important customer dissatisfied with TTC-SO's support of a certain product.

"We worked with the customer ... for a supportability feature. He wanted us to have a way to monitor the nodes in an automatic fashion. Once we presented it, they insisted with Design that we have this feature and that helped the team."

(Supportability manager).

The middle manager who championed this project recycled some slides from this presentation in his own decks, which introduced the supportability concept to the rest of his unit, stating that the team's Supportability mandate is to "inject supportability into existing and new products and features" (Supportability deck), and asserting that the supportability feature would render TTC's product more attractive in the marketplace. Slides from this deck were then recycled by the middle manager into a deck he prepared as an input into the production of yet another deck used by top management in a town hall meeting—a pattern of slide flow for which we found evidence for each autonomous project that became emergent strategy.

In other words, through the enactment of discursive practices linking middle managers to peers and top managers, autonomous behavior became widely understood as strategic and made to endure. We found that town hall meetings were a regular feature at TTC-SO over the entire period of our study, practices that continued to be enacted even with a change in TTC-SO leadership in 1999. Semiannually, the TTC-SO's top manager (TTC's vice president of Product Support) gathered organizational members together to annotate a PowerPoint presentation focusing on recent accomplishments, ongoing projects, and future priorities. Discursive practices associated with town hall meetings included verbal discussions of the content to be presented, the creation of the slide deck (described in more detail below), presenting and annotating the slide deck, and answering questions. We found strong evidence in our interview and e-mail data that the inclusion of slides that described an autonomous project served to legitimate the project:

"These town halls were useful because it gave visibility across the organization and could help the middle managers gain acceptance for their projects ... Once the VP presented the initiative, he had little choice but to begin owning it and making it his own."

(Process director).

"The town hall was important, and it would signal what our leader cared about. Once he mentioned [my project], it became a lot easier for me."

(Support manager).

"If you think about it, it was a way for the directors to put their own words in the mouth of our vice president."

(Process director).

As the town hall meeting approached, the vice president engaged middle managers in developing content for their PowerPoint presentation. Typically, he sent a preliminary e-mail to middle managers (i.e., directors) outlining thoughts on organizational priorities. The directors then exchanged e-mails with the top manager as they tried to ensure their own initiatives featured well in the town hall meeting. One set of middle managers. the Process directors, played a special role as they were tasked with producing the slide deck. They solicited slides from all the Product Support directors, editing them for format consistency while also filtering out slides. Each town hall slide deck was structured with a front end attributed to the vice president, and a back end featuring the slides of particular directors. In producing the deck, the Process director generated some new or updated slides (e.g., one showing key metrics reappeared many times but with different numerical values for different time periods), and combined them with slides recycled from decks presented in prior town hall meetings and slides forwarded to him by the directors that had been recycled from operational review meeting decks. Once the deck was complete, the top manager reviewed it in a meeting with all the middle managers and made final edits. vals, middle managers regularly reflected on their unit's activities and represented them in particular ways to top management. While representations of induced projects dominated these slide decks, representations of previously unsanctioned autonomous projects also made their way into these town hall meetings. For example, with the Supportability Project in the second half of 2000, a middle manager included the phrase "product specific supportability/quality improvement" on a slide describing a Center of Excellence, which was an induced project. By the first half of 2001, the Supportability Project had four full Power-Point slides devoted to it in the directors' portion of the town hall deck, and was linked to the strategic category of Customer Satisfaction (CSAT): "Proactive support increases CSAT." Also in the first half of 2001, the concept of Product Supportability began appearing in the vice president's portion of the town hall deck as part of an officially sanctioned product support model. The project appeared in a diagram representing the organization, its priorities, and its projects, and this particular slide was then reused in several town hall meeting presentations. By the end of 2001, the vice president had labeled Product Supportability as strategic in the major outcome slide and presented it as one of the "four pillars of supporting carrier grade products along with reliability, upgradeability, and maintainability."

By enacting these practices at regular inter-

Also in 2001, the director championing the Supportability Project began to push supportability features beyond TTC-SO into TTC-Design by requiring them in new products. In the directors' portion of the town hall deck (second half of 2001), the following point was made:

"Our aim going forward is to inject supportability into existing and new products and features ... to increase education of Global Network Product Support and Design on tool set and debug techniques."

(town hall deck).

In 2002, the director continued to promote the inclusion of supportability as a design attribute and introduced the acronym DFS (design for supportability). In the first slide, he argued it to be

"... critical to Design for Supportability to improve efficiency; ensures TL9000 targets are met, which is required to achieve Product Quality [a strategic category at the time]; reduces outages to provide reliability, another gauge of product quality; and increases Customer Satisfaction [another strategic category at the time]."

(town hall deck)

In the first half of 2003, the notion of DFS appeared in the vice president's portion of the town hall deck, officially sanctioning this concept:

"We will continue to drive and evolve both a Design for Supportability mindset and toolset into existing and new product offering; technical support teams work hand in hand with design teams to ensure products are Designed for Supportability."

(town hall deck).

We found evidence of similar slide flows for each autonomous project that became emergent strategy. The discursive practices associated with town hall meetings provided opportunities for middle managers to introduce unsanctioned autonomous projects to top management using PowerPoint slides, and for these projects to become legitimated. In this way, the manipulation of strategic context at TTC-SO occurred through the enactment of practices of strategy articulation and was a joint achievement of front line, middle, and top management.

Ephemeral autonomous strategic behavior

Our study revealed two instances of autonomous projects that were ephemeral, insomuch as they disappeared without lasting impact: the Customer Advocacy Project and the Optical Off-Shoring to India Project (see Figure 6). We found numerous traces of these projects in the text flows that linked front line managers to each other and to middle managers, but no traces of them in the text flows that linked middle and top managers. In other words, as practices of strategy articulation were enacted across multiple organizational levels, these projects were not written into TTC-SO's strategy discourse. Our analysis showed that the failure to accomplish one or more activities in our process model contributed to the demise of these projects.

In the case of the Customer Advocacy Project, the director championing the project, a middle

manager, did not succeed at mobilizing support or at manipulating strategic context. Support was sought— unsuccessfully—from the Service Revenue group. The director had envisioned a service that could generate revenue: the customer advocates would charge for their value-added service of acting as agents of important customers inside TTC-SO. One of his front line managers held roundtable discussions with satisfied customers already benefiting from the service for free, and obtained commitments from two customers who were willing to purchase the service in order to ensure that their advocates remained in place.

"We held a couple of round tables with some of the most satisfied customers receiving premium advocacy services, and they told us what a competitor was billing for similar services. I had one customer committed to purchasing a full advocate and one willing to pay for half. That alone would have recouped half of my team's overhead."

(Support manager).

Given such strong interest from the two willing customers, the middle manager shared quotes and metrics about the project in a presentation to his counterpart, a director responsible for Service Revenue, in an effort to formally list the customer advocacy service as a product in TTC's portfolio. To accomplish this, the unit would have had to create what was known as an "order code" to charge customers interested in the service. However, despite several meetings and numerous presentations, the Service Revenue director refused as he argued the service was nonstandard and would not fit with the rest of TTC's portfolio.

"We tried to create an order code. We had a guy working on this almost full time, negotiating with the guys from service packs. We presented the business case several times, but we were unable to generate the order code to bill the customer. We presented that information, but they said the service was not aligned with other areas. In the end, we never did sell the service and the team folded." (Support manager).

In addition, the director championing the Customer Advocacy Project also made a failed attempt



Figure 6. (a) Customer Advocacy Project; (b) Optical Off-Shoring Project

at manipulating the strategic context by stretching the Service Recovery category. The director wanted to cover the cost of customer advocates by selling the service to interested customers, so he presented the project in terms of service recovery. However, inside TTC-SO, service recovery was understood to mean that the cost of technical support (i.e., costs of engineers' time) was charged back to the appropriate TTC product groups by matching hours worked on cases with products supported. In other words, the support organization remained a cost center; unless an exception was made, revenues from sales of customer advocacy services could not be credited to TTC-SO. Despite presenting to several top managers a slide deck containing positive customer quotes, the director was unsuccessful at making an argument that the notion of service recovery could include selling customer advocacy services. Events in TTC-SO's environment also made it more difficult for dissonant projects to escape the attention of upper management; by 2001, workforce reductions were being implemented and the vice president transferred the mandate for customer advocacy outside of the organization. None of the customer advocates transferred to the new organization, and the team was disbanded.

In the case of the Optical Off-Shoring to India Project, the director acting as project champion failed at both altering structural context and manipulating strategic context. This middle manager wanted to reduce operating expenses as he was working within a context of strong cost cutting at TTC-SO. His idea was to train front line support engineers in India to field second tier support calls, diverting work from the high labor cost region of North America.

"There was already an optical support presence. I wanted to really leverage that team and add resources for tier two. They were tier one but I wanted to give them more emergency recovery responsibility and also tier-two support responsibility on a few products."

(Support director).

In late 2004, the director expanded the project by hiring and training people in India, and transferring to them some of the workload of North American engineers. However, in early 2005, the vice president, a top manager, asked the director to transfer the mandate to Turkey, and activities in India were abandoned. The new team that he had created for this project did not endure past a few months from its inception, and the routines established between North American engineers and their India counterparts were also abandoned or transferred to Turkey.

"From a technical point of view, it was the right thing to do, but from a business direction for optical products, India was not the place to go. There were other growing locations such as Turkey, for example. So I was going against the business strategic direction from a location perspective. I was building up India when that was not the right place."

(Support director).

In attempting to legitimate the India location, the director focused on potential cost reductions, but this approach, however, did not offset clear dissonance with Process and Tools Standardization since no other TTC engineers were exploring offshoring activities with India. The initiative was also dissonant with the True Two-Tier Support Model in which all second tier support was to be performed by a North American team. Indeed, while India presented cost advantages, it did not have significantly lower costs than its competing location, Turkey. The director thus failed to stretch these categories to include off-shoring activities to India.

DISCUSSION

Emergent strategy is important (Hamel, 2009) yet a paucity of research exists (Lowe and Jones, 2004), so our empirical study adds to understanding what organizations actually do as compared to what they plan to do. Our research questions asked how emergent strategy forms and which practices, beyond allocating material resources, are involved and what role they play. Our findings illustrate autonomous strategic behavior to be a precursor of emergent strategy, explicate key activities through which autonomous projects endure to become the emergent strategy portion of realized strategy, and theorize the role of practices of strategy articulation in this transition. In validating empirically the connections between emergent strategy, autonomous strategic behavior, and practices of strategy articulation, our research makes notable contributions that we outline here.

Our study does have limitations. While a single case study is appropriate for theory building, generalizing from it must be done cautiously (Yin, 2003). We have used a narrative strategy to interpret data on strategy formation—an approach of high accuracy but low generality (Langley, 1999). Ultimately, "it is the contextual detail in the narrative that will allow the reader to judge the transferability of the ideas" (Langley, 1999: 695). To facilitate this, we have presented the steps of our method in detail, and have been transparent about our inferences as well as where we relied upon our sponsor-informant to corroborate them. We also suggest directions for future research that might confirm (or refute) our theorizing.

A process model for emergent strategy

Our study highlights how emergent strategy originates as autonomous strategic behavior-projects that, despite dissonance with the prevailing concept of strategy, are nonetheless launched as a result of local problem solving. Autonomous projects become enduring patterns of action (i.e., the emergent portion of realized strategy) through mobilizing wider support to provide impetus to them, manipulating strategic context to legitimate them by constructing them as consonant with the prevailing concept of strategy, and altering the firm's structural context to embed the projects within organizational units, routines, and objectives (see Figure 4). The study also teased out different ways of going about these activities. To mobilize resources for impetus, project champions can generate support by securing resources from within their organizational unit, enrolling other organizational units to make resource commitments, or leveraging pressures from external actors. To manipulate strategic context for consonance, champions can introduce new strategic categories or imaginatively stretch existing ones. Altering structural context for embeddedness, we found, involves creating new teams, establishing new procedures and routines, and setting new organizational objectives. These findings represent contributions by adding finer grained details to the B-B model. They also suggest directions for future work in the microperspective of strategy process research, which could explore the questions of whether and how particular practices enable or constrain the realization of emergent strategy.

For example, certain organizational practices could render the mobilizing of resources or the altering of structural context difficult. Consider resource mobilization. In our study, front line managers were able to channel pressure from customers for supportability features in ways that resulted in the allocation of other units' resources to this project. But they were unable to channel pressure from customers for customer advocacy services in ways that would result in the allocation of rights to invoice customers. The organization's accounting practices permitted the transfer of budgets from one cost center to another but did not permit cost centers to book revenues. Our findings thus build on research focusing on the role of accounting systems and data in strategy making (Ezzamel and Willmott, 2008; Whittle and Mueller, 2010), by illustrating how specific accounting practices can enable the making of emergent strategy while others contribute to autonomous projects becoming ephemeral because they cannot be sustained.

In the case of altering structural context, organizational practices provided scope to middle managers in our study to create new teams and remake reporting relations. It is possible, however, that in other contexts where human resource policies are more centralized and rigid or where labor unions need to be consulted, the practices available to middle managers may not afford the embedding of autonomous projects into the structural fabric of organizational life. Such a postulation is consistent with research arguing that emergent strategy is more likely to be fostered in "organic" structures characterized by semiformal systems, interactive controls, and local autonomy (Boyett and Currie, 2004; Osborn, 1998; Slevin and Covin, 1997). In providing nuance to the B-B model, we orient strategy-as-practice research towards key activities in emergent strategy formation that may be facilitated by some strategizing practices but not by others.

Another contribution is our empirical illustration of the convergence between the B-B notion of manipulating strategic context and Mintzberg's (1987) theorization of how patterns from the past become plans for the future-i.e., how bottom-up emergent strategy becomes recognized and legitimated to influence subsequent top-down deliberate strategy. We identified practices of strategy articulation (i.e., routinized ways of producing, distributing, and consuming texts that contain representations of what the firm has been, is, and will be doing) as playing a particularly important role in this transition. Our findings illustrate clearly that the manipulation of strategic context involved in emergent strategy formation is a joint achievement of front line, middle, and top managers enacting practices of strategy articulation that link them with middle managers playing a key role. PowerPoint slides from project-level decks for autonomous projects, produced by front line managers and sent to middle managers, were filtered into unit-level slide decks (or filtered out in the case of ephemeral autonomous strategic behavior) and represented in terms of new and "stretched" existing strategic categories, then sent to top managers where they were incorporated into organization-level slide decks. In this way, activities previously dissonant with the prevailing concept of strategy become consonant with it. Our research thus suggests that the transition from autonomous strategic behavior to emergent strategy is facilitated by practices that foster regularly iterated cycles of discursive work that combine retrospection with prospection and span multiple levels of the organization.

Additionally, our findings illustrate that practices of strategy articulation also figure prominently in the alteration of structural context (e.g., as new teams were created, changes were made to visual representations on slides that, as they circulated and were recycled, contributed to the normalization of new activities, relationships, and goals) and in the mobilization of support (e.g., slide decks served as a basis for discussions of whether human and financial resources would flow to an autonomous project, and as a record of agreed commitments that regularized these flows). Figure 4 therefore highlights how practices of articulating strategy are implicated in each of the activities in our model of emergent strategy formation.

In this way, we contribute an important discursive dimension to understanding strategy as the outcome of iterated practices of resource use-a core notion of the B-B model, which emphasizes the use of material resources rather than symbolic ones. We build on Noda and Bower's (1996) concept of strategy articulation but expand it in important ways; whereas they focus on key actors at one level, i.e., top managers who make formal statements about the firm's strategy, we focus on practices that link actors across multiple levels. We thus connect views of strategy as patterned action (Mintzberg, 1978) and as discursive construction (Vaara et al., 2004) by examining strategy as practice. It may be more intuitive to conceptualize strategy as discourse when it is intended, i.e., when strategy is understood looking forward as a plan, but our study underlines that the identification of past actions and of patterns therein, and the attribution of significance to them, are also discursive accomplishments, each of which is necessary to grasp strategy looking backward as a pattern.

By illustrating the central role played by PowerPoint slide decks in the discursive work carried out by TTC-SO front line, middle, and top managers to realize emergent strategy, our findings also extend recent work exploring PowerPoint as part of the epistemic machinery (Kaplan, 2011) through which strategy is made. Kaplan (2011) studied change carried out over an eight-month period to illustrate how PowerPoint is used to structure collaborative practices of sharing ideas to negotiate meaning and cartographic practices of drawing boundaries to adjudicate interests, while we illustrate its role in practices of strategy articulation over a much longer time period. We thus build on Regner's (2003) work on the inductive nature of strategy making in the organizational "periphery" by illuminating the epistemic machinery (Kaplan, 2011) and discursive practices through which new organizational knowledge structures become established and propagated, as with TTC-SO knowledge constructed around the concept of supportability. Future research could elaborate upon practices of strategy articulation by exploring them in other contexts. For example, PowerPoint likely plays a smaller role in start-up organizations or small businesses where strategizing is less formal, there are fewer levels of hierarchy, and other types of texts, especially talk, are likely more prominent.

We also make a contribution by demonstrating empirically the applicability of the B-B model, which to date has been used to explain corporate level strategy, i.e., entry and exit from product sectors to multiple levels of strategy. The Supportability Project is an excellent example of autonomous strategic behavior resulting in business-level strategy-differentiation through supportability features that make the product more attractive for customers. Whereas it is typically posited that business-level strategy drives functional-level strategy, our study offers an empirical illustration of functional-level activities in TTC's support organization, TTC-SO, driving TTC's business strategy. In so doing, we shed light on the procedural and communication channels that structure managerial attention in Ocasio's (1997) attentionbased view; our study highlights how patterned text flows linking front line to middle and top managers contribute to generating and sustaining patterned firm action. Future research could explore in more detail the connections between particular practices of strategy articulation, the evolution of managerial attention at different organizational levels, and firm behavior over time.

Finally, our study connects the concept of emergent strategy to the variation-selection-retention paradigm of evolutionary organizational theory via the B-B model (Burgelman, 1996). Our findings illustrate that the emergent strategy portion of realized strategy arises from intraorganizational ecological processes, as projects (i.e., variation) vie for development and impetus (selection) and for integration into organizational routines (retention). Our study also suggests that discursive practices play a key role in selection and retention processes—a proposition that resonates strongly with the view of strategy as discourse (Vaara et al., 2004). Our research therefore underlines the importance of considering symbolic in addition to material resources when conceptualizing processes of variation, selection, and retention; the discursive work carried out through practices of articulating strategy was as critical to the formation of emergent strategy as was the allocation of financial and human resources. Given PowerPoint's ubiguity, future research could explore in more detail its role in emergent strategy formation, as well as its role in change processes more broadly, i.e., in processes of organizational evolution.

Implication for practitioners

Our conceptual and theoretical contributions have implications for front line, middle, and top managers. In combining Mintzberg's model of strategy formation with the B-B framework and adding finer grained detail, our process model of emergent strategy formation provides guidance to wouldbe champions of bottom-up strategy making. For example, our study illustrates how pressures from external actors can be harnessed by front line managers to mobilize resources internally, as with customers who advocated for the Supportability Project. Because of the customer service mission of TTC-SO, customers played a key role, but other types of external actors could be leveraged by anyone in a boundary-spanning role to advance other types of projects; one can envision engaging key suppliers to an organization to support an innovation in purchasing, or local nongovernment organizations to support a novel sustainability initiative. Practitioners should keep in mind that organizational boundaries are permeable not only to information but to influence as well-anyone with negotiating power vis à vis their organization can be harnessed to help redirect material resources to their projects.

But material resources are not enough. Our study also illustrates the importance of appreciating symbolic resources and manipulating them through rhetoric and skilled use of language. The legitimation of autonomous projects is more difficult than that of induced projects that are already consonant with the prevailing concept of strategy. Our study suggests it is made easier by the ability to imaginatively stretch concepts and make new associations between them. The point is that discursive work (Maguire and Hardy, 2013) is just that—i.e., work—and like other forms of work it can be taken seriously or not, done well or poorly, and improved over time with experience. The enduring impact of certain terms and phrases (e.g., supportability: by 2003, engineers were designing for this concept which did not exist inside TTC-SO before 1999, and TTC was differentiating itself from rivals based on it) appearing in PowerPoint slides underlines the respect that managers should pay to texts, which do not merely describe things but rather "do things in organizational settings" (Cooren, 2004: 373).

Finally, top managers can take inspiration from our view of strategy formation (see Figure 7), which not only overlays important concepts from the B-B model onto Mintzberg's (1978) celebrated framework but also eliminates a notable asymmetry in Mintzberg's theorizing by introducing the concept of ephemeral autonomous strategic behavior and showing how it relates to emergent strategy in the same way as unrealized strategy does to deliberate strategy. Top managers should wonder, "Are there potentially valuable projects being systematically selected out



Figure 7. Model of strategy formation relating autonomous strategic behavior and emergent strategy

through intraorganizational processes?" As mentioned above, this could be the case due to something as seemingly neutral as accounting practices. Or, the organization's practices of strategy articulation might systematically discriminate against certain types of actors or projects that are unreflexively considered nonstrategic in a takenfor-granted way. Bower (1970) argued cogently that the job of top managers is to design organizational structures and processes that select in and reinforce valuable projects, and our study gives practitioners more to think about if they are serious about encouraging bottom-up strategy making.

In summary, our study bridges and extends the seminal works of Mintzberg, Bower, and Burgelman while making connections to recent work exploring strategy as practice. In so doing, we contribute to the SAP literature, which to date has largely concentrated on formal planning activities associated with strategy making at the center (Regner, 2003), by responding directly to recent calls "to do more on emergence" because "close studies of strategy emergence is a significant opportunity for advancing SAP research" (Vaara and Whittington, 2012: 313). We provide a solid theoretical foundation to further develop the emergent strategy concept by focusing on iterated processes of deploying material and symbolic resources.

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