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A Business Model Innovation Approach to Sustainable Market Orientation

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Abstract: We look beyond the well-trodden question of *why* firms take a sustainability orientation and instead consider *how* they do so by investigating the mechanisms that enable and facilitate firms' effective adoption of sustainable market orientation as well as considering the role of innovation in addressing sustainability concerns. We find systematic patterns in the ways that the firms in our sample responded to the challenge of adopting a sustainable market orientation, and specifically the availability, activation and application of two types of important resources evident in innovations: affordances and effectivities. These resources incite business model innovations, which in turn provide the structure facilitating sustainability initiatives. We offer a theoretic model of how these elements relate to the successful adoption of sustainable market orientation and then offer testable propositions about these implications.

Keywords: sustainability orientation; affordances; effectivities; qualitative.

1. Introduction

Numerous academic studies have looked at possible impetuses that instigate or drive a sustainability focus within the firm, including top management commitment (Banerjee 2001); company structure (Walls, Berrone et al. 2012); slack resources (Surroca, Tribó et al. 2010; Leonidou, Katsikeas et al. 2013) and customer influence (Hult, 2011), among other factors. Yet despite sharing similar motivations for adopting a sustainability orientation, firms' success can vary considerably. This conundrum led us to consider how firm innovativeness and related approaches to environmental initiatives may differ. To investigate this question, we look beyond the well-trodden question of *why* firms take a sustainability orientation (cf. Bansal 2005) and instead consider *how* they do so. That is, our study investigates the mechanisms that enable and facilitate firms' effective adoption of sustainable market orientation and considers the role of innovation in addressing sustainability concerns.

Sustainable business has been defined as economic endeavors that "meet the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland 1987, pg. 8). Sustainability is commonly addressed within Elkington's (1997) triple bottom line framework, which highlights the importance of balancing social equity, environmental integrity, and economic prosperity – commonly referred to as "people, planet and profit." Crittenden et al. (2011) suggest that, "while the triumvirate of environmental integrity, social equity, and economic prosperity surrounds the actions of market-oriented sustainability, they are not the inherent drivers of sustainability. Rather, these three criteria are *the rationale* (emphasis added) for firms to act sustainably" (pg 81). Crittenden et al. (2011) see market-oriented sustainability as a strategic alignment of sustainability into marketing strategies to gain competitive advantage as embodied in a firm's cultural DNA, its stakeholder involvement, and performance management. This idea of market-oriented sustainability has also been variously conceptualized as sustainable-market orientation (Mitchell, Wooliscroft, and Higham 2010), enviropreneurial marketing (Menon and Menon 1997), as well as green marketing (Leonidou, Katsikeas, and Morgan 2013).

In the present study, we draw upon extant literature to define a sustainable-market orientation as a systems approach to integrating sustainability with market-based goals that offer an opportunity for the firm to deliver value to customers and other stakeholders. As summarized by Hult (2011), with this systemic approach, sustainability efforts become ingrained in the cultural fabric (e.g., values, beliefs, norms, artifacts) of the organization as value-creating market strategies are set and implemented. Huang and Rust (2011) and Chabowski et al. (2011) echo similar sentiments. Our approach differs from extant studies in that we propose business model innovations that a firm can enact to develop a *gestalt*, which allows implementation of value-creating sustainable market-orientation. Accordingly, we explore the role of organizational resources and/or mechanisms in enabling firms to take an innovation-oriented approach to sustainability.

2. Research design

To investigate how firms striving to create a sustainable-market orientation produce varying degrees of business innovations, we conducted a multiple-case study (Yin 2009). Our primary data comes from 21 semi-structured interviews conducted with managers with responsibility for sustainability initiatives in 12 firms, a number at the upper boundary recommended by Stake (2006). As the focus was on firms espousing a

sustainable orientation, the cases were theoretically sampled (Glaser and Strauss 1967) from this population, identified as such because each firm had made public its desire to pursue sustainable operations, yet, the firms had not started with this goal at its founding. Sustainability measures were added as a strategy well after the firm had established itself in the marketplace. We selected firms at various stages of experience in sustainable strategy; in both mid-size and large Fortune 500 firms; from a range of industries (e.g. apparel, information technology, agriculture and medical devices); at multiple points of the value chain (B2B suppliers and B2C producers); encompassing both products and services and nationally varied (sampling from England, Ireland, US and Canada). Interviews were conducted over an 18-month period. We asked informants how, when and why the company became engaged with issues of sustainability; the organizational assignment and structure of related activities, including responsibilities and typical workflows; resources devoted to sustainable initiatives or projects; the role of stakeholders in sustainability initiatives; recent innovations (product, service or process) and their relationship to sustainability objectives; key performance indicators and other outcomes. Throughout the interviews, informants were encouraged to provide specific examples of situations and projects that illustrated their comments, allowing each person to frame their work in terms of available resources, roles and capabilities.

The transcripts were independently open-coded within cases for themes relevant to the research questions by two of the authors as well as a doctoral student, trained in qualitative data analysis and blind to our research question, whose independent coding served as a reliability check on our classifications and interpretations. The results of open coding were shared and compared as a team to provide opportunities for discussion and initial conceptualization of relationships. Subsequent second-order (axial) coding of the initial themes provided additional opportunities for theoretical testing within and across cases and provided grounds for further construct consideration and elaboration.

3. Findings

Affordances and Effectivities

We find systematic patterns in the ways that the firms in our sample responded to the challenge of adopting a sustainable market orientation. We observed the availability, activation and application of two types of important resources evident in innovations: affordances and effectivities. These resources appear to stimulate business model innovations, which in turn provide the structure facilitating enactment of sustainability initiatives. We offer a theoretic model of how these elements relate to the successful adoption of sustainable market orientation and then offer testable propositions about these implications.

Affordances are recognized from an innovation perspective as configurational properties that allow action possibilities (Van Dijk et al., 2011). Affordances (Gibson 1977) are preconditions for activity which, while not determining behavior, increase the likelihood that a certain action or behavior will occur. We identified five specific phenomena in our data that functioned this way: (1.) the existence of resources (including those not yet deployed); (2.) a culture of continuous learning; (3.) knowledge management systems (to collect, store and disseminate new knowledge); (4.) corporate entrepreneurship and (5.) key partnerships/networks. This set of affordances is not inclusive of all action possibilities a firm can undertake, but do represent the re-occurring themes we saw across successful firms and that were absent in less-than-successful firms.

Effectivities (Shaw, Turvey and Mace 1982) are counterparts to affordances; they are the properties or abilities of the actor/agent that allows him or her to make use of affordances (Chemero 2003; Greeno 1994). In our data, the three phenomena that serve as effectivities are: (1.) the top management team; (2.) project champions and (3.) boundary spanners. Again this list is not all inclusive, but represents the critical effectivities to ensure successful implementation of the affordances. Our analysis reveals that how innovative a firm becomes in managing the concerns and challenges of sustainable activities is contingent upon how well the firm's effectivities utilize the affordances available to them.

A prime example of the importance of relationships among affordances and effectivities comes in the form of the Katrina at ITC[1], a large IT solutions firm. She had been at the firm in various product management roles for 10 years before the CEO tapped her to conduct a review of the organization's current sustainability activities and opportunities, an assignment that was transformed into her current role as the organization's first Chief Sustainability Officer (CSO) leading a small team of product managers. One example Katrina gave us was the implementation of greenhouse gas management software. While her work as CSO is made possible by affordances such as *resources* (her budget funded the software acquisition and training and her one of her staff led the project); a *culture of continuous learning* (the desire to learn how to monitor and analyze greenhouse emissions); and knowledge management systems (e.g. all initiatives of the CSO's office are eventually codified and then transferred to another group within the organization and there is an explicit succession plan for all projects to make sure knowledge is archived and owned), none of these elements on its own could or would have activated the initiative on its own. Katrina serves as the node that connects these affordances to effectivities. She can deploy the resources without fear of reprisal because she was personally recruited into her role by the CEO (*top management support*). Equally important, she is someone with holistic vision, or as she phrases it, she is "the elephant person" (from the parable of the six blind wise men who each had different perspectives on what an elephant was because they only perceived its parts). Thus, in addition to having financial capital to deploy, Katrina's decade with the organization in a range of roles provides her with vital *social* capital among those in the organization who must be convinced to adopt new policies or behaviors and allows her to be an effective *boundary spanner*, connecting financial resources to human resources as well as human resources to appropriate sustainability activities.

In contrast to Katrina's successful implementation of a sustainable-market orientation, we found that unsuccessful firms typically did not devote resources to the sustainability goal, did not have top management support and/or focused on myopic goals, such as regulatory compliance, instead of building cultures of knowledge sharing in networked teams.

Business Model Innovation

As we analyzed the data and issues of interest emerged, we continually returned to the literature to compare what we were finding to existing theory and refine our interpretations. One such theme emerged around the notion of value in sustainability efforts. As we compared firms who appeared to benefit greatly from their engagement with sustainability to those who struggled to implement their objectives, our analysis

[1] Both the informant and her company have been given pseudonyms to preserve confidentiality.

began to converge around how the sustainability initiatives at the intersection of affordances and effectivities were related to value creation and value capture. We were particularly drawn to the business model innovation literature; as Chesbrough (2007) observes, while "a company that cannot earn a profit from some portion of its activities cannot sustain those activities over time…there can be real tensions between the aspects of a business model that create value and those that help to capture a portion of that value." This insight led us to consider organizations' sustainability activities as business models, in which the investment of resources in sustainable operations were catalysts for innovation—in product service and/or process—that could also create and capture value. We examined Chesbrough's (2007) typology of business model innovation, adapting his definitions to the sustainability context. Based on the extant literature and our own empirical findings, we introduce a model of business model innovation which draws on Chesborough's (2010) six types, reframed for the current context.

- Type 1: company has an undifferentiated business model with regard to a sustainable-market orientation (SMO); it effectivities make little use of available affordances.

- Type 2: company has some differentiated business model with regard to an SMO; firm effectivities begin to perceive/sense affordances and utilize them, but not to their fullest.

- Type 3: company develops a segmented business model with regard to an SMO, serving some markets with sustainable products and services but not all. Affordances are activated with a primarily internal organizational focus.

- Type 4: company has an externally-aware business model with regard to an SMO, primarily driven by external partners such as customers, suppliers or governmental agencies. Co-creation of sustainable products and services is common. Affordances are activated while addressing external partners' needs.

- Type 5: company integrates its SMO into its business model, including affording partners integration to the innovation process. Full use of affordances is realized with internal and external partners; the firm takes a systems thinking approach to innovation.

- Type 6: company's business model is an adaptive platform, utilizing spin-offs and joint ventures to commercialize technologies outside of current business model and extends beyond a sustainable market orientation.

Our findings lead us to the following propositions for future investigation and testing:

P1. A sustainable-market oriented culture facilitates environmentally-focused business model innovations.
P2. Data management affords business model innovation by facilitating the capture and creation of value for stakeholders.
P3. Resources afford business model innovation by facilitating the capture and creation of value for stakeholders.

P4. Entrepreneurial culture affords business model innovation by facilitating the capture and creation of value for stakeholders.
P5. Absorptive capacity affords business model innovation by facilitating the capture and creation of value for stakeholders.
P6. Partners afford business model innovation by facilitating the capture and creation of value for stakeholders.
P7. Business model innovations can enhance a firm's affordances.
P8. Agents (i.e., boundary spanners, top management, project managers) that embody the firm's effectivities are needed to activate a firm's affordances.

4. Contribution

We make two contributions to innovation management. First, we identify a theoretical model for how a sustainable-market orientation fuels business model innovations with an environmental focus. We find that an absence of a sustainable-market orientation results in less innovative companies, not just fewer environmentally-friendly products and services. Second, we propose that business model innovations require the existence of affordances and effectivities to artfully implement sustainable "action possibilities." In case studies of 12 companies, we identified five affordances and three effectivities. We do not argue that these numbers are definitive, but rather suggest that a range of affordances and effectivities exist and may be instrumental in achieving successful sustainable market orientation. Our model illustrates how affordances and effectivities can facilitate business model innovation.

Our study provides clarity on why some firms are able to convert conceptual conviction into strategically-valuable activity where others cannot. Where initiatives have failed to find traction, our evidence suggests that there may be (eg.) an absence of an appropriate effectivity to activate existing affordances. Finally, our analysis suggests that firms seeking to adopt a sustainable market orientation should be seen on a continuum of innovation and encouraged to integrate and activate resources in a holistic, systematic fashion to best leverage their latent value.

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Areas for Feedback and Development

- Are the distinctions among affordances and effectivities clear?
- Are they relevant and interesting constructs for our context?
- We have copious data. What is the best way to aid the reader: case "summaries" of exemplars of each business model type? Illustrative quotations for each construct? A summary table? Any advice here is appreciated.