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Business Model Innovation: A Multi-Level Routine-Based Conceptualization

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Abstract

Building upon the theoretical insights of the literature on organizational routines and 'activity system' perspectives on business models, we propose a multi-level theory of business model innovation that explains business model dynamics within established firms, integrating the processes happening at the individual (micro-), collective (meso-) and organizational (macro-) levels.

Introduction

In recent years, researchers have used business model innovation (BMI) to explain diverse and complex organizational phenomena (Foss & Saebi, 2017; Massa et al., 2017; Zott et al., 2011). Despite the construct's growing use, the study of BMI remains difficult due to the ambiguity and diversity of its possible meanings, components, antecedents, and outcomes (Foss & Saebi, 2017). Such ambiguity prevents further progress in understanding BMI through cumulative theorizing and consistent empirical investigations (Foss & Saebi, 2018).

Motivated by this gap in conceptualization of BMI, we concentrate on the following research questions: (1) what is the nature, components and underlying mechanisms of business model innovation; (2) what are the crucial antecedents and consequences of business model innovation? We address these questions by developing a new, multi-level theory of BMI grounded in the combination of the 'activity system' perspective on business models (Zott & Amit, 2010) with theoretical insights from the organizational

Keywords: Business model, routine cluster, multi-level theory

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routines literature, particularly the construct of the cluster of routines (Kremser & Schreyögg, 2016). Specifically, we suggest that interrelated activities within an established business model are repetitive and, as such, become embedded in the cluster of complementary organizational routines that collectively serve the task of value creation and capture. Consequently, BMI in established firms is a process of changing the cluster of routines underlying the original (pre-existing) business model.

The proposed framework connects the existing single-level BMI frameworks, namely (a) the micro/individual level view of business model innovation as the search for new mental models or schemata representing future possible models and (b) the macro/organizational level view of BMI as organizational actions to change the current business model. For establishing this cross-level connection, we introduce and conceptualize the BMI mechanisms taking place at the inter-managerial (meso-) level, related to assimilation of information among a firm's managers about the discrepancies between the current routinized business model and the aspired, potential business model schemata emerging at the individual level. The basic premise of the proposed framework is that the reflective, team cognition processes happening at inter-managerial level translate the potential BMI (individual-level schemata) to realized BMI (organization-level change through reconfiguration of routine cluster underpinning the business model).

Business Model Construct: A Routine-Based Conceptualization

The BMI construct can only be properly conceptualized after understanding what constitutes the primary concept of a business model, the definition of which has remained in contention in the literature for over a decade (Massa et al., 2017; Zott et al., 2011). Yet, most current studies focusing on the business model construct are increasingly converging, implicitly or explicitly, on Zott & Amit's (2010) 'activity system' view of a business model. In this definition, the business model construct represents a "system of interdependent activities that transcends the focal firm and spans its boundaries"

(Zott & Amit, 2010: 216), with the key objective of this system being to create value for the stakeholders and appropriate (capture) part of this value to increase the shareholders' wealth.

Within the business model, individual activity embodies "the engagement of human, physical and/or capital resources...to serve a specific purpose toward the fulfillment of the overall objective" (Zott & Amit, 2010: 217). Individual activities form a firm-centric activity system based on the interdependencies among them manifested in links (transactions) (Zott & Amit, 2013; Santos et al., 2009). The key factor in the activity system is the complementarity between individual activities (Foss & Saebi, 2018), implying consistency between each individual activity and the firm's strategy, mutual reinforcement through complementarity, and system-level global optimization (Zott & Amit, 2013).

We extend this business model conceptualization by emphasizing the recurrent nature of the activities in business models, rather than one-off, non-repeating projects. A firm has an established business model only to the extent it has a regular behavioral pattern of value creation and capture (Osiyevskyy & Zargarzadeh, 2015). In other words, we argue the 'activity system' theoretical view on business models must be extended by an explicit emphasis on the cyclical, repeatable nature of activities within the said models. While some firms might create and capture value on an ad-hoc basis (e.g., a small enterprise trying to provide any service to anyone in order to become cash-flow positive), they do not yet have an established recurring business model. Moreover, approaches to 'innovating' a firm's business model only apply when the activities within the business model are repetitive.

The emphasis on the recurring nature of activities in a business model implies these activities become embedded in organizational routines (Biloshapka & Osiyevskyy, 2018; Doz & Kosonen, 2010). In essence, routines are "repetitive, recognizable patterns of interdependent organizational actions carried out by multiple actors" (Feldman & Pentland, 2003: 95; Feldman et al., 2016). Routinized behaviors (actions) are "learned, highly patterned, repetitious, or quasi-repetitious, founded in part in tacit knowledge" (Winter, 2003: 991). Winter's (2003:

991) succinct statement that a “brilliant improvisation is not a routine” also directly applies to any activity in a business model. Taken together, the organizational routines underpinning the business model store the engrained managerial skills and organizational process knowledge about the firm’s unique mechanisms of value creation and capture (Lepak et al., 2007).

In order to achieve the common task of value creation and capture, routines underlying a firm’s business model are closely interrelated. This interrelatedness of routines reflects the interaction of activities through the links (transactions) in the conventional ‘activity system’ view on business models (Zott & Amit, 2010). The set of interrelated routines composing a firm’s business model forms a distinct unit, acknowledged in the literature as a cluster of routines (Kremser & Schreyögg, 2016). Introducing the cluster level of analysis of organizational routines, Kremser and Schreyögg (2016: 698) suggest that a “cluster consists of multiple, complementary routines, each contributing a partial result to the accomplishment of a common task”. Whereas early studies emphasized the stability of organizational routines (Nelson & Winter, 1982), more recent perspectives stress their dynamics and change driven by the logic of reflective action (Feldman et al., 2016; Feldman, 2000; Pentland et al., 2012). Importantly, even though an individual routine may change substantively over time, the complementarities among routines within the cluster largely restrict the scope of possible changes to the whole cluster (Kremser & Schreyögg, 2016), which gradually evolves in a constrained emergent trajectory. The dynamics of the routine cluster are hence much more limited than the dynamics of individual routines; this difference explains how a firm’s business model (embedded within a routine cluster) can develop a misfit with the changing environmental conditions, even though their core building blocks (routines) are individually flexible.

Conceptual Development: Business Model Innovation

Given the fast-paced business environment in which companies operate, existing business models can quickly be rendered obsolete (Sosna et al., 2010). Regular static behavioral patterns for value creation

and capture must make way for novel ones in order for firms to remain competitive in dynamic environments (Teece, 2010). Hence, a static view of a business model as an activity system embedded in a cluster of routines for value creation and capture only tells half the story; the other critical half is the dynamic, transformational view that leads to a business model’s evolution (Demil & Lecocq, 2010).

Yet, many studies of business model innovation use this construct without any clear explicit definition, or use divergent definitions (Foss & Saebi, 2017): Researchers have explored this concept using a range of different conceptualizations, at various levels of analysis, and by employing diverse measures. Despite their variation, these conceptualizations can be broadly classified in one of two groups: (1) the “cognitive” view of BMI (the search for new mental models or schemas representing future possible models, e.g., Teece (2010), Casadesus-Masanell & Zhu (2013)), versus the (2) objective “organizational change” view of BMI (organizational actions to change the current business model, e.g., Gambardella & McGahan, 2010; Visnjic et al., 2016). The distinction between the two views lies at the ontological level, at the subjective versus objective representation of the future business model (Doz & Kosonen, 2010). The “cognitive” conceptualization of BMI emphasizes the change in managerial schemas representing the models (Martins et al., 2015; Doz & Kosonen, 2010), while the objective “change” view concentrates on actual alteration of the firm’s activity system (Zott & Amit, 2010; 2013).

Incorporating both “cognitive” and “organizational change” perspectives within the definitional landscape of BMI, coupled with the insight that a business model is embedded in a cluster of organizational routines, allows a generalized definition of BMI to be developed. We define BMI in established firms as *a process by which management conceives of a new future business model for the firm and produces the corresponding changes in the cluster of routines underlying the original business model*.

Routines within a cluster are closely coupled with each other via the logic of complementarity – each routine is fine-tuned to effectively interact with the others

(Kremser & Schreyögg, 2016). This logic of complementarity requires that any newly introduced routines or altered existing ones demonstrate a substantive fit with the remaining routines within the cluster and, as such, restricts the scope of possible changes. Whereas each individual routine demonstrates a tendency for continuous variation with every iteration (Feldman, 2000; Pentland et al., 2012), the integration of routines within a cluster establishes the boundaries of the extent of deviation. As a result of the need to integrate the routines with each other, the cluster of routines has a natural tendency to change along with the emergent trajectory (Kremser & Schreyögg, 2016) and restricts any changes that disrupt this natural evolutionary path. This path-dependency of the cluster of routines serves as the causal mechanism underlying the 'evolutionary view' of business models (Martins et al., 2015). This view emphasizes a local search in response to problems and opportunities arising with every iteration of routines underpinning a firm's business model, resulting in incremental strategic change driven by trial and error and experimentation (Gavetti & Rivkin, 2007). From the evolutionary perspective, business model development happens "as an initial experiment followed by constant fine-tuning based on trial-and-error learning" (Sosna et al., 2010: 384), rather than a "wholesale system overhaul" (Martins et al., 2015).

Yet, although crucially important in explaining the substantive part of changes in firms' business models, the evolutionary mechanisms do not explain the diversity of innovations. Managers' efforts to change the firm's business model can overcome restrictions that hinge on inherent rigidities by breaking away from the emergent trajectory of the evolution of the cluster of routines underlying the firm's business model. However, overcoming the misfit between the new/changed and the remaining routines usually comes at a considerable cost. As such, an essential characteristic of a firm's business model innovation is its radicalness, which corresponds to the degree of deviation of the new business model from the discussed before established natural trajectory of evolution of the underlying cluster of routines. From this perspective, we can distinguish

between *incremental BMIs* (progressive refinement of existing model within the established trajectory of the cluster of routines) and *radical BMIs* (major shift in one or more routines, their linkages or governance, breaking from the natural evolutionary trajectory of the routine cluster).

Business Model Innovation Process: A Multi-Level View of Routine Transformation

The proposed in this study framework takes a multi-level approach. We contend that BMIs involve multiple levels of analysis (micro-, meso-, and macro-), and that greater theoretical clarity about the relationship among these levels is needed. Our resulting multi-level approach (Figure 1) moves the locus of business model innovation away from an exclusive focus on either the individual cognitive level or the objective organizational level.

By introducing a meso-level link between routines reconfiguration and the individual cognitive process that leads to those routines, our model explains: (a) how BMIs originate from a perceived misfit between the firm and its environment felt by individual managers within an organization (i.e., at the micro level), allowing them to form a cognitive schemata of how the business could potentially operate (lower part of Figure 1); (b) how individual-level schemata are exposed to a collective managerial process of assimilation, thereby manifesting a higher-level, collective social phenomenon where individual's representations of how the firm should operate are debated among managers for possible fit or complementarity with established routines via the process of assimilation (i.e., at the meso level) (middle part of Figure 1); and (c) how the multiple, firm-specific combinations of individual-level cognitive representations and collective-level assimilation produce a consensus (top part of Figure 1) capable of triggering routine cluster reconfiguration, and which in turn affects the value creation and capture (at the macro level).

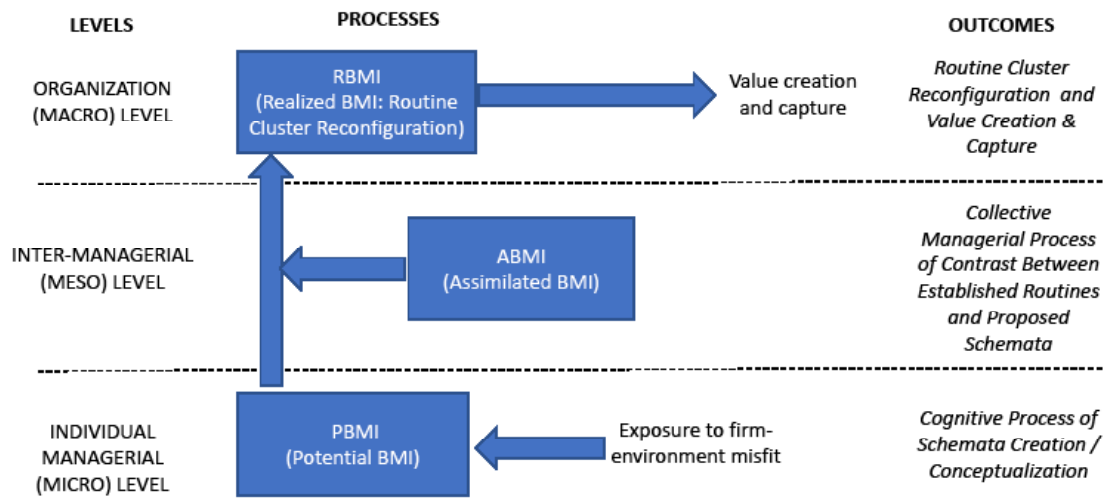


Figure 1: Business Model Innovation: A Conceptual Multi-Level Model

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