



Paper to be presented at the
35th DRUID Celebration Conference 2013, Barcelona, Spain, June 17-19

Legitimacy without Imitation: How to Achieve Robust Business Model

Innovation

Yuliya Snihur

IESE

Entrepreneurship

ysnihur@iese.edu

Christoph Zott

IESE

Entrepreneurship

czott@iese.edu

Abstract

Business model innovation requires legitimacy, but increased legitimacy raises the possibility of imitation. We examine how firms can balance legitimacy-imitation tension through two relevant theoretical lenses, institutional theory (legitimacy), and the resource-based view (imitation). We argue that firms can strategically design the content, structure, and governance of their new business models to selectively increase legitimacy with customers and business partners while at the same time limiting the likelihood of imitation by competitors. We call the outcome of such a design robust BMI and theorize that it enables innovators of business models to enjoy sustainable performance advantages relative to other innovation types (i.e., product, process, and management innovation).

**Legitimacy without Imitation:
How to Achieve Robust Business Model Innovation**

Abstract

Business model innovation requires legitimacy, but increased legitimacy raises the possibility of imitation. We examine how firms can balance legitimacy-imitation tension through two relevant theoretical lenses, institutional theory (legitimacy), and the resource-based view (imitation). We argue that firms can strategically design the content, structure, and governance of their new business models to selectively increase legitimacy with customers and business partners while at the same time limiting the likelihood of imitation by competitors. We call the outcome of such a design robust BMI and theorize that it enables innovators of business models to enjoy sustainable performance advantages relative to other innovation types (i.e., product, process, and management innovation).

INTRODUCTION

Institutional theory posits that firms need to acquire or create legitimacy, or the perception that their actions are appropriate (Aldrich and Fiol, 1994; Deephouse and Suchman, 2008; Suchman, 1995), in order to successfully introduce innovative products (Rindova and Petkova, 2007), management techniques (Birkinshaw, Hamel, and Mol, 2008), or business models (Amit and Zott, 2001; Casadesus-Masanell and Ricart, 2010; Chesbrough, 2010; Markides, 2006) to the market. In addition to becoming legitimate, however, innovating firms need to make efforts to prevent imitation of their innovations if they are to attain sustainable performance advantage (Barney, 1991; Casadesus-Masanell and Zhu, 2012; Peteraf, 1993; Rivkin, 2000; Rivkin and Siggelkow, 2007). This creates a tension because becoming legitimate raises the specter of imitation by competitors, and thus undermines efforts at establishing a competitive advantage. For example, while Netflix managed to gain legitimacy for its new business model of renting DVDs to customers by mail, this new business model was eventually imitated by its competitor, Blockbuster (Teece, 2010).

In order to establish legitimacy firms may have to foster the diffusion of knowledge and understanding about their innovation, although in order to minimize the threat of imitation they would prefer to keep the details of their innovation secret. Moreover, the enhanced legitimacy of an innovation generally increases vulnerability to being imitated because competitors are likely to be more interested in copying legitimate rather than illegitimate products, processes, practices, or business models (Jonsson and Regner, 2009). It is thus important that firms manage the tension between enhancing legitimacy and preventing imitation for their innovations, but how they can do so successfully is less clear.

Institutional theorists have examined various ways to acquire or maintain legitimacy, but have somewhat neglected the potential costs of increased legitimacy (Hargadon and Douglas, 2001; Zimmerman and Zeitz, 2002). Scholars have therefore begun to complement a purely institutional perspective on legitimacy by drawing on strategic management research (Deephouse, 1999; Jonsson and Regner, 2009; Oliver, 1997; Semadeni, 2006). Deephouse (1999: 148), for example, has proposed a theory of strategic balance (defined as ‘moderate differentiation’), suggesting that ‘firms seeking competitive advantage should be as different as legitimately possible.’ However, while demonstrating that strategic balance of asset portfolio allocation is correlated with higher firm performance (in his empirical study of banks competing in Minnesota from 1985 to 1992), Deephouse (1999) provides few suggestions about exactly how strategic balance can be achieved when innovating, especially by firms competing in less stable, less regulated, and less established markets. Given that there are various ways for firms to innovate—through their products, processes, management techniques, or business models—we need to know which type of innovation could be more amenable to attaining strategic balance, and how exactly this balance could be attained. In this paper, we focus on the business model as a source of innovation, and we ask: How can firms innovating their business model achieve strategic balance, and how does this compare to other forms of innovation?

We define the business model as a boundary-spanning activity system that centers on a focal firm, yet encompasses activities performed by partners, suppliers, and customers (Zott and Amit, 2010) insofar as these activities contribute toward total value creation (Brandenburger and Stuart, 1996).¹ We define business model innovation (BMI) as a business model that is new to

¹ The business model conceptualized as an activity system also affects the distribution of the total value created to the various business model participants. For example, customer surplus is affected by the value (willingness-to-pay) that customers ascribe to the bundle of activities that are performed to satisfy those needs, as well as by the costs of

the industry in which the focal firm competes. By new to the industry we mean without known precedent in the given industry. When comparing BMI to other innovation types, we establish that BMI differs from product, process, or management innovation because its unit of analysis is the entire activity system (Zott and Amit, 2010), not a particular product, process, or management technique. Acquiring legitimacy is more challenging for this type of innovation because there are more stakeholders involved in BMI than in other innovation types. These stakeholders have more conflicting demands and are harder to satisfy in cases of BMI, compared to product or process innovation. At the same time, it is also harder to protect a new business model from imitation through such classic means as patents because it is difficult to obtain a patent for business methods, especially outside the US (Biddinger, 2001), and business method patents appear to be less effective than patents granted for new products (Wagner and Cockburn, 2010). Thus, firms innovating their business models face greater tension between legitimacy and imitation than those innovating products, processes, or management techniques due to the extra efforts they have to expend to acquire legitimacy and to protect their innovation from the threat of imitation (Teece, 2010).

We examine a potential solution to alleviate, if not resolve, this tension, through what we call robust BMI, or the strategic design of the new business model to selectively increase its legitimacy with customers and business partners and at the same time limit the likelihood of its imitation by competitors. Our theory development leads us to suggest that such robust BMI can yield sustainable performance advantages in comparison to firms striving for strategic balance with product, process, or management innovation.

these activities, which partly depend on the governance of the activity system (i.e., who performs the activities), its structure (i.e., how they are linked), and its content (i.e. how precisely they are performed).

This paper is among the first to develop theory on business model innovation. To the best of our knowledge, it is the first analytical comparison between business model innovation and other innovation types. Theoretically, this paper also contributes to the growing effort to align institutional and strategic perspectives on competitive interaction (Baum and Oliver, 1991; Chen and Hambrick, 1995; Dacin, 1997; Deephouse, 1999; Jonsson and Regner, 2009; Oliver, 1997; Singh, Tucker, and House, 1986) by extending the institutional theory of legitimacy to include insights about the threat of imitation, originally developed by scholars interested in the resource-based view of the firm. We enrich this existing literature by examining how firms can establish such an alignment when innovating their business models. The key idea developed here is that the design of the novel business model in and of itself can foster strategic balance, and this makes business model innovation distinct from product, process, or management innovation.

BUSINESS MODEL INNOVATION

An emerging body of scholarly work is focusing on business model innovation (Amit and Zott, 2012; Bock, Opsahl, George, and Gann, 2012; Casadesis-Masanell and Zhu, 2012; Chesbrough, 2010; Johnson, Christensen, and Kagermann, 2008; Markides, 2006; Sanchez and Ricart, 2010; Teece, 2010). This is because rapid advances in information and communication technologies have enabled firms to fundamentally change the ways they ‘do business,’ in particular, the ways they organize activities across firm and industry boundaries with customers, suppliers, partners, and other stakeholders. These changes are reflected in the firm’s business model, or ‘the system of interdependent activities that transcends the focal firm and spans its boundaries’ (Zott and Amit, 2010: 216). We define business model innovation (BMI) as a business model new to the industry in which the focal firm competes; that is, without known precedent in that industry. To

create a new activity system firms can use three design elements: content, governance, and structure of the business model (Amit and Zott, 2001). Content refers to the selection of activities performed; governance to issues of control, or which party is in charge of what activity; and structure to how the activities are linked inside the firm, but especially with the firm's outside partners. The focal firm can shape the activity system by directly redesigning its own activities or by influencing how other actors engage with the firm. Thus, firms can add, change, or eliminate activities (new content), introduce new partners to perform specific activities (new governance), and/or link activities in novel ways (new structure). Although the activity system is centered on the firm, it transcends focal firm boundaries and spans all the actors involved in creating the final offering to the customer, including upstream suppliers, downstream distributors, customers, and final users (Zott and Amit, 2010).

Strongly anchored in strategic management research, the existing literature on BMI began by arguing that firms can become successful by enveloping new technology in appropriate new business models (Johnson, et al., 2008; Ferraro and Gurses, 2009; Teece, 2010). Other authors have considered competitive outcomes of BMI imitation by applying game-theoretic modeling techniques (Casadesus-Masanell and Zhu, 2012). The pioneering empirical studies of BMI have confirmed that introducing novel business models positively impacts firm performance (Zott and Amit, 2007), and that both business model innovation and product innovation interact positively (i.e., act as complements, Zott and Amit, 2008). However, no one has yet explored how the design of BMI can help firms balance the strategic tension between legitimacy and imitation; nor exactly how BMI is conceptually distinct from other innovation types; nor what the existing theoretical perspectives, such as institutional theory or resource-based view, can add to our understanding of BMI and its performance outcomes.

Within the broader innovation literature authors distinguish between several other objects of innovation in addition to business models, such as new products and processes (Crossan and Apaydin, 2010; Quintane, Casselman, Reiche, and Nylund, 2011; Utterback and Abernathy, 1975) or novel management practices (Birkinshaw, et al., 2008). BMI differs from these other innovation types (product, process, and management innovation) on key dimensions, such as unit of analysis. For example, whereas BMI investigators focus on the activity system as the main unit of analysis (Amit and Zott, 2012; Casadesus-Masanell and Ricart, 2010; McGrath, 2010), product characteristics or process routines are evaluated in product or process innovation studies (Brown and Eisenhardt, 1995; Nelson and Winter, 1982), and management innovation researchers analyze the particular techniques used to manage organizations (Abrahamson, 1996; Guillen, 1994).

Moreover, BMI research is based on a distinct level of analysis, spanning the firm and its industry (Teece, 2010; Zott and Amit, 2010), while product and process innovation research is mainly centered on the firm (Cohen and Levin, 1989; Nelson and Winter, 1982; Utterback and Abernathy, 1975), and management innovation research compares new management techniques and their implementation across industries and countries (Birkinshaw, et al., 2008; Guillén, 1994). Theoretical grounding underlying current BMI conversations is rooted mainly in strategic management research, such as value chain analysis and resource-based theory, as well as strategic network analysis, Schumpeterian innovation, and transaction cost economics (Amit and Zott, 2001). Theoretical grounding of product and process innovation research lies more in the study of technological innovation, using such theoretical perspectives as institutional and evolutionary economics (Cohen and Levin, 1989; Damanpour, 2010; Nelson and Winter, 1982), or dynamic capabilities (Crossan and Apaydin, 2010; Eisenhardt and Martin, 2000).

Management innovation is commonly investigated by applying either institutional, fashion, cultural, or rational perspectives, rooted in historical comparisons by academics interested in management studies (Birkinshaw, et al., 2008; Guillén, 1994).

THE PROBLEM OF STRATEGIC BALANCE

Although the institutional perspective on legitimacy and the strategic perspective on imitation have been developing in relative silos, a few authors have attempted to address the issues raised by institutional and competitive forces simultaneously (Baum and Oliver, 1991; Chen and Hambrick, 1995; Dacin, 1997; Deephouse, 1999; Jonsson and Regner, 2009; Oliver, 1997; Porac, Thomas, and Baden-Fuller, 1989; Singh, Tucker, and House, 1986; Suchman, 1995). The pioneering studies demonstrated empirically that institutional forces influence firm survival (Baum and Oliver, 1991; Dacin, 1997; Singh, et al., 1986). Later, authors nuanced the argument by suggesting that firms have to look for a balance between institutional and competitive pressures to enhance firm performance (Deephouse, 1999; McNamara, Deephouse, and Luce, 2002; Oliver, 1997; Porac, et al., 1989; Semadeni, 2006).

Porac and co-authors originally mentioned the idea of ‘competitive cusp’ in their 1989 article, observing that while on one hand there are strong demands on firms to show their uniqueness to achieve sustainable competitive advantage, on the other they are under pressure to imitate other successful organizations and acquire access to the same resource niches (1989: 414). Following this original insight by Porac et al. (1989), Deephouse (1999), and subsequently Semadeni (2006), reemphasize the existing tension between corporate efforts to acquire legitimacy, that is, being strategically similar to other firms, and the parallel attempts by firms to differentiate themselves from their competitors. To resolve this tension, Deephouse (1999)

proposed a theory of strategic balance, stipulating that moderate amounts of strategic similarity increase firm performance. He empirically tested this relationship by examining the asset portfolio allocations of commercial banks competing in Minnesota from 1985 to 1992. Confirming his hypothesis, Deephouse found a curvilinear concave relationship between average bank performance in terms of its ROA and the strategic deviation from the mean of the bank's asset allocation policies to certain bank product markets.² While his hypothesis was supported, Deephouse recognized existing boundary conditions to his study, based on exploring the product market allocations of banks competing in an established, highly regulated, and very stable industry (Deephouse, 1999: 149).

In the next section, we extend Deephouse's pioneering work by analyzing exactly how firms can achieve strategic balance while engaging in business model innovation. We begin our analysis by examining how legitimacy is acquired for BMI compared to other innovation types, and then proceed to evaluate various strategies firms can use to decrease the likelihood of BMI imitation.

Legitimacy of BMI and other innovation types

To better understand how firms acquire legitimacy for their business model innovations, we delve deeper into the concept of legitimacy itself. Legitimacy has been defined as the 'generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions' (Suchman, 1995: 574). Recent advances acknowledge that legitimacy judgments involve both

² In particular, Deephouse (1999) compared the difference between banks, in terms of their resource allocation, to the following 11 product markets: commercial loans, real estate loans, loans to individuals, agriculture loans, other loans and leases, cash, overnight money, securities, trading accounts, fixed assets, and other assets as a proportion of total bank assets.

passive acceptance and active evaluation of legitimacy (Bitektine, 2011; Pollock and Rindova, 2003; Tost, 2011). Passive acceptance, or what many authors refer to as cognitive legitimacy, is granted when an innovation becomes so familiar through the spread of relevant knowledge that it is taken for granted, in the absence of other probable alternatives (Aldrich and Fiol, 1994; Deephouse and Suchman, 2008; DiMaggio and Powell, 1983; Suchman, 1995; Zimmerman and Zeitz, 2002). For instance, online retailing is now considered a legitimate business model; however, this was not always the case. Before the emergence of such a category as ‘online retailer,’ Amazon found it very difficult to gain the acceptance of numerous stakeholders, such as customers and other BM partners: there was confusion ‘even around the basics, such as how to evaluate products or how to pay’ (Santos and Eisenhardt, 2009: 650). Investors and suppliers, as well as customers, were unfamiliar with the online shopping experience, concerned about security issues, and certainly did not take online shopping for granted as most do today. Stemming from this widespread lack of knowledge and familiarity, Amazon’s new business model had no cognitive legitimacy in the 1990s, although it enjoys a much higher legitimacy with various stakeholders today.

As Tost (2011) explains, when passive acceptance is unattainable, audiences will actively evaluate an innovation’s legitimacy. In that case, sociopolitical legitimacy may be granted to an innovation if it complies with the established rules and norms in the society (Aldrich and Fiol, 1994; Zimmerman and Zeitz, 2002). One subset of sociopolitical legitimacy, industry legitimacy, might be obtained if the innovation fits within the institutionalized set of practices and norms in a particular industry (Aldrich and Fiol, 1994; Friedland and Alford, 1991; Zimmerman and Zeitz, 2002). As exemplified by the early legal void around the Internet, Amazon’s business model innovation also originally lacked sociopolitical and industry legitimacy: selling books over the

Internet was a very unusual approach to conducting business in the book retailing industry at the time when most prominent incumbents concentrated on investing into good locations and managing their brick-and-mortar shops. To acquire all types of legitimacy Amazon had to do a lot of explaining about ‘how it works,’ drawing numerous analogies to existing industries and more familiar business models (Etzion and Ferraro, 2009; Hargadon and Douglas, 2001). It also participated actively in the creation of relevant categories such as ‘check out’ and ‘shopping cart’ that its customers could easily understand and feel reassured by, despite the perceived newness of the virtual shopping experience (Santos and Eisenhardt, 2009: 650).

In contrast to product, process, and management innovation, companies involved in BMI have to spend more time and effort establishing legitimacy (cognitive, sociopolitical, industry) for their innovation for three reasons: there are more stakeholders involved, more industry norms and rules are broken in the process, and the overall changes implied by BMI affect the focal firm and what it stands for more directly. There is one important caveat to this argument: to directly compare innovation types, we have to control for the magnitude of their novelty. Indeed, the innovation literature distinguishes between radical and incremental innovations, referring to the magnitude of innovation novelty and uniqueness (Dahlin and Behrens, 2005). Radical innovation involves substantially new technology and provides substantially greater customer benefits relative to existing products, processes, or business models; incremental innovation involves relatively minor changes in technology and provides relatively lower customer benefits (Chandy and Tellis, 1998; Christensen and Bower, 1996; Henderson and Clark, 1990; Tushman and Anderson, 1986). Researchers agree that it will be harder for firms to acquire legitimacy for radical innovations: for instance, firms will have to advertise more the benefits of their new radical products, carefully design the product’s outer form (Rindova and Petkova, 2007), or

persuade employees why a new radical process or management technique is required, usually by means of internal communication and management authority (Brynjolfsson and Renshaw, 1997; Hammer and Champy, 1993), or by referring to an existing ideology and other organizations that implement the same management technique (Birkinshaw, et al., 2008; Guillén, 1994). We argue that although incremental BMI might be more legitimate than radical product or process innovation, when controlling for the magnitude of novelty, BMI will, on average, lack legitimacy more than other innovation types. There are three reasons for this.

First, there are more stakeholders involved in BMI than in other innovation types: the main audience for product innovation efforts is customers (Rindova and Petkova, 2007), and process and management innovations mainly concern internal employees (Guillén, 1994; Hammer and Champy, 1993), whereas BMI involves both internal and external stakeholders that participate in the activity system (Zott and Amit, 2010). To take a less contemporary example, American entrepreneur Gustavus Swift radically innovated the business model of how meat was to be produced and distributed to customers in the 19th century (Chandler, 1977: 300; Teece, 2010). Before his intervention, herds of livestock raised on the Great Plains were driven thousands of miles to Eastern markets, transported by rail, and then slaughtered in hundreds of small local slaughterhouses situated close to local butchers' shops. Swift eliminated the need for any intermediary and drastically lowered the costs³ when he started to transport meat (instead of live cattle) in refrigerated railcars from the slaughterhouse directly to local butchers' shops, a radically new arrangement for the meatpacking and food industry. Swift's BMI faced strong resistance from customers, suppliers, and potential BM partners, such as railroads and butchers. Swift started out as a very small meat distributor, thus initial resistance to his new ideas was not

³ Specifically, he was able to reduce considerably the transport costs for processed meat, given that over 60 percent of the live animal's mass was composed of inedible matter, and numerous animals died during lengthy transport (Fields, 2004).

based on economic reasons, such as fear of competition, but due to his new business model, which was considered inappropriate in this industry. The general public was not accustomed to eating previously refrigerated food (lack of cognitive legitimacy), and there were no norms or rules in the industry for transporting or storing refrigerated meat (lack of sociopolitical, and particularly industry legitimacy). Only after many years, having himself invested in local branch houses and a railroad company, was Swift able to gain traction for his idea, to build legitimacy for his BMI, and to change the meatpacking industry (Fields, 2004). Thus, BM innovators have to acquire legitimacy not only with customers (as is usually the case for product innovation) and employees (as is the case for process and management innovation), but also with other audiences, such as potential BM partners, who might be very skeptical about BMI at the outset.

Second, BM innovators break many rules and change the way business is done in the whole industry, often reaching outside industry boundaries for their original ideas and inspiration. Although firms implementing BMI usually violate industry norms and rules by incorporating elements new to the industry concerned, it is unusual for product, process, and management innovators to do so. For instance, sociopolitical or industry legitimacy of new products or processes are rarely questioned as it is generally accepted that firms have to innovate their products and processes to compete successfully in most industries. Thus, innovating products or processes is already an effective means for maintaining legitimacy not only in the eyes of customers, but also in those of media or financial analysts (Pollock and Rindova, 2003; Benner, 2010). To illustrate, in the consumer goods industry it is customary to keep introducing new products, and such firms as Procter & Gamble or Coca Cola do not have a lot of explaining to do in addition to their marketing campaigns when launching new products like Swiffer, Febreze, or Coke Zero (Chesbrough, 2007). In contrast, BMI is much more frowned upon and

resisted by industry participants as it brings disruption to the marketplace in its attempt to change the deep-rooted rules of the game and threatens the long-term sustainability of entrenched business models (Markides, 2006).

Third, efforts to innovate the business model directly affect the core identity of the firm and what it stands for in the eyes of its audience. Product innovation is much more tangible, but also easier to decouple from the firm, as it is usually insulated within an R&D or marketing department and can be abandoned without great difficulty. Similarly, process or management innovation aim at increasing firm efficiency, but do not normally imply profound changes to firm identity. In contrast, BMI impacts a firm's core identity and can be much more difficult to abandon halfway without compromising what the firm stands for (Rindova and Kotha, 2001; Siggelkow, 2001). For instance, Siggelkow (2001) describes how Liz Claiborne struggled to innovate its system of activities, or business model, in the early 1990s, when customer demand shifted to more casual clothing and its retail partners started to demand large discounts and refused to handle hefty inventories. Siggelkow (2001) illustrates how difficult it was for Liz Claiborne to implement a new business model in response to these changes because BMI was partly compromising the original firm identity. Thus, BMI not only implies important costs of change, especially if undertaken by established firms (Santos, Spector, Van der Heyden, 2009), but could also threaten firm identity if not managed very carefully (Ravasi and Schultz, 2006).

We argue that it is harder to acquire legitimacy for BMI compared to other innovation types (i.e. product, process, and management innovation) because more stakeholders are involved, more industry norms and rules are broken, and the overall changes implied by BMI affect the core of the firm's focal identity more. Following this logic, we propose:

Proposition 1: Holding the magnitude of novelty (incremental or radical) constant across innovation types, BMI will be more likely to lack legitimacy compared to other innovation types (product, process, and management).

BMI legitimacy and imitation

Although legitimacy is very valuable to any organization involved in innovation (Aldrich and Fiol, 1994; Stinchcombe, 1965; Zimmerman and Zeitz, 2002), through the process of gaining legitimacy firms have to diffuse knowledge about their innovation. However, knowledge diffusion facilitates the identification of innovations and induces imitation by competitors. For instance, as Swift acquired more legitimacy for his new business model of distributing refrigerated meat, more of his competitors became aware of the viability of his new model. In general, imitation of competitor moves is one of the characteristic features of competitive interactions recognized in the strategic management literature (Lieberman and Asaba, 2006; Lippman and Rumelt, 1982). The literature on industry competition suggests three factors underlying imitation: competitors have to identify what to imitate, have the ability to imitate, and be willing to do so (Chen, 1996; Jonsson and Regner, 2009).

Competitors can identify new elements of a business model by examining the publicly available information on corporate websites or descriptions by media or customers. Thus, while knowledge diffusion, for example through advertising, is useful for customers, it becomes dangerous when accessed by competitors because of the potential imitation threat (Barney, 1991; Lippman and Rumelt, 1982). Competitor ability to imitate an innovation will depend on the particular features underlying innovation design and the resources available to the competitor. Finally, competitors will be more willing to imitate legitimate innovations because firms introducing the latter will have a higher probability of success when an innovation has already

overcome the legitimacy hurdle, convincing customers about its appropriateness and desirability in a given industry (Deephouse, 1999; Jonsson and Regner, 2009). For instance, Hargadon and Douglas (2001) describe how Edison achieved almost instant triumph with customers by locating his innovation, electricity, and the associated new business model of how to distribute it to customers, within the familiar world of the established gas lighting industry. However, by gaining legitimacy, and making his innovation accepted, Edison soon had to face competitors such as Westinghouse and Thomson Houston (David, 1992).

Therefore, focusing only on increasing legitimacy is not enough for innovators striving to gain performance advantages over their competitors. In the strategic management literature, resource-based view theorists have long maintained that valuable and rare resources will become a source of competitive advantage only if they are imperfectly imitable (Barney, 1991)—that is, only by creating barriers to imitation and substitution will firms be able to sustain their competitive advantage (Peteraf, 1993). The challenge for BM innovators is two-fold: it is not only harder for BMI to acquire legitimacy, but it is also harder (though not impossible) to protect new business models from imitation through patents alone (Teece, 2010). Although business methods can be patented in the U.S., it is much harder to protect BMI by patent in Europe or Japan, where stricter reference to specific technologies is required (Biddinger, 2001). Wagner and Cockburn's (2010) finding is thus not surprising: filing for a business method patent does not appear to confer a survival advantage in contrast to patents granted for product innovation.

We have established that BMI lacks legitimacy more than other innovation types. Hence, firms introducing BMI will have to make additional effort to acquire legitimacy for their innovation. At the same time, it is hard to protect BMI from imitation through such classic means as patenting. Because of this we argue that firms that focus only on acquiring legitimacy and do

not consider carefully how to protect their new business model from imitation might fail to attain sustainable performance advantages:

Proposition 2: Firms designing new business models with a view to increasing their legitimacy and not protecting their BMI from imitation, other things being equal, will be less likely to achieve sustainable performance advantages.

ROBUST BMI

In this section we argue that firms can acquire legitimacy and protect their BMI from imitation through the careful design of the new business model elements. We build on Hargadon and Douglas's (2001) idea of 'robust design,' or what the authors describe as designing an innovation in such a way that it is both novel, to attract customer attention, and familiar, to reassure customers about product viability, quality, and performance. Thus, Hargadon and Douglas suggest how to balance the tension between familiarity and novelty with respect to customers' demands through skillful product design. We extend this balancing approach by suggesting how a different tension, namely that between increasing legitimacy (e.g., strategic similarity) and reducing imitation (e.g. strategic difference), could be addressed through robust BMI, or strategically designing the content, governance, and structure of the new business model to balance legitimacy with stakeholders and the likelihood of imitation by competitors.

We focus on robustness with respect to competitive interactions (Casadesus-Masanell and Ricart, 2011) rather than with respect to customer acceptance (Hargadon and Douglas, 2001). We argue that firms implementing BMI can design their new business models so as to acquire legitimacy and simultaneously discourage imitation using three elements of the new business model—content, governance, and structure—in conjunction or independently. Below, we discuss in more detail how firms can design robust BMI through (1) content, (2) governance,

and (3) structure in order to achieve strategic balance between legitimacy and imitation. The discussion is summarized in Table 1.

[INSERT TABLE 1 HERE]

Designing robust BMI through content

Firms can increase the cognitive, sociopolitical, and industry legitimacy of their BMI content by building customer-facing activities around features already familiar to their clients. As defined earlier, business model content refers to the selection of specific activities firms perform.

Familiarity with BMI content ensures that users will recognize and know without reflection how to react to a particular firm's value proposition (Tost, 2011). Institutional theorists have argued that an innovation will become legitimate when it is both familiar to the users, and judged acceptable and desirable (Aldrich and Fiol, 1994; Suchman, 1995). For instance, although Apple's iTunes Music Store violated the common assumptions of how music was to be sold prevalent within the music industry before 2003, at the same time it leveraged the habit of downloading music through the Internet that many of the Internet-savvy customers had been cultivating (Amit and Zott, 2012). Thus, by popularizing the activity (or BM content) of music downloading already familiar to the lead users, and by charging a price per downloaded song,⁴ Apple acquired legitimacy for its BMI content first by using an already familiar activity (downloading music over the Internet), and second by making customers pay for music instead of downloading it for free, which had previously been perceived as inappropriate, or even illegal.

However, by accessing publicly available information about Apple's business model through the corporate website, media coverage, or customer accounts, competitors could easily learn about the content features of the new BM. Nevertheless, established players from both the

⁴ When implementing its BMI in the music industry, Apple was drawing on an analogy to the software industry, where customers had been downloading and paying for software for years.

music and electronics industries were slow to imitate Apple's BMI despite the relative ease of identifying the customer-facing activities of the iPod/iTunes system. Apple, more focused on customer needs and actively looking for the next big industry disruption, was quick to sign contracts with all five music labels, launching the iTunes Music Store in 2003. The company managed to persuade music labels to engage in this experiment by carefully specifying the digital rights management (DRM) rules for the distributed songs (thus also making it legitimate for customers to download and pay for music) and by bundling the online music store with its existing product, the iPod music player. Established players from the music industry observed this development from the sidelines mainly because of the strong BM content incompatibility with their existing business models. It would have been much harder for an insider from the music industry to sign contracts with other record companies—their direct competitors—to share the rights to their music repertoire, a practice that goes against the conventional wisdom of 'never help your competitor' and resembles collusive behavior. Thus, even if willing, music labels would hardly have been able to copy Apple's BMI quickly, for incompatibility and regulatory reasons. To recapitulate, although competitors can easily identify BMI content, firms can design their new business models so that these are on one hand legitimate with the customers (by being familiar to them), and on the other hand, also include content elements that are incompatible with the existing competitors' business models. Following this reasoning, we propose that:

Proposition 3.1: Firms designing BMI based on legitimacy-building BM content, which *is at the same time incompatible with competitors' existing BM activities*, will be more likely to resolve imitation-legitimacy tension, and hence more likely to achieve sustainable performance advantages compared to other innovators.

Designing robust BMI through governance

As defined earlier, business model governance refers to issues of control, or which party is in charge of what activity. By outsourcing some activities to already legitimate or even prestigious partners, firms can reassure customers as well as other BM partners about the legitimacy of their novel governance arrangements (Dacin, Oliver, and Roy, 2007; Higgins and Gulati, 2003).

According to institutional theorists, forming ties with already legitimate and well-established organizations signals the focal firm's appropriateness by association (Baum and Oliver, 1991; DiMaggio and Powell, 1983). In practice, as an example, Netflix designed its new business model for renting DVDs by outsourcing the shipping of DVDs to the U.S. Postal Service, a very legitimate partner to perform this particular activity. Customers accepted Netflix's BMI as legitimate partly due to this reliance on a well-known and respected partner, highly familiar to most users.

Similarly, Apple not only partnered with very legitimate actors (music labels), but the company also strategically converted these potential competitors into partners in its new BM through signed agreements with EMI, Warner, Sony, BMG, and Universal. Later, in the same vein, Apple outsourced manufacturing of the camera for its iPhone to Sony. In this manner, existing competitors become part of Apple's new BMI governance, converted into partners through strategic BM design. Thus, although competitors can easily identify which party is in charge of which activity in a given business model (what we call BMI governance), firms can design their new business models to include outsourcing some activities to the most legitimate partners for those activities, and converting potential competitors into partners, thus preventing their willingness to imitate BMI. Following this argument, we propose that:

Proposition 3.2: Firms designing BMI based on legitimacy-building BM governance, and at the same time managing to convert potential competitors into partners, will be more likely to resolve imitation-legitimacy tension, and hence more likely to achieve sustainable performance advantages compared to other innovators.

Designing robust BMI through structure

Firms have even more latitude to design robust BMI structure. As defined earlier, business model structure refers to how activities are linked inside the firm and with the firm's outside partners. While customers accepted downloading and paying for individual songs as appropriate novel content for Apple's business model, and receiving their DVDs delivered by the Post Office as appropriate novel business model governance for Netflix, the actual structure of these new BMs remained invisible to them. Thus, Apple and Netflix could freely elaborate the novel structure of their business models, using up-to-date technology to organize their activity system in the most efficient way (i.e. optimizing the iTunes platform for music content distribution, or burning DVDs just-in-time based on customer demand in the case of Netflix). This is the key advantage offered by robust BMI: firms can separate the more visible customer-facing content and governance elements, which require legitimacy-building, from the underlying structure of the new business model, which can be more novel and less visible to the customers. As a corollary, while the more visible elements of BMI will be easier for competitors to identify, BM structure can be deliberately designed to include radically new elements, sometimes hidden from view, and hence harder to identify and replicate by competitors.

In addition to hiding some BMI elements from view, firms can also increase the complexity of BMI structure to hinder identification and ability to imitate by competitors. Rivkin

(2000) has formally shown that complexity in general, defined as the number of elements and their interactions, deters imitation. Complex structures have a large number of interacting parts, numerous activities, and links between these activities, specifically so in cases of radical BMI (Rivkin and Siggelkow, 2007). Moreover, the complexity effect will be amplified by causal ambiguity, or uncertainty about what specific elements in the system are responsible for its superior performance (Barney, 1991; Dierickx and Cool, 1989; Lippman and Rumelt, 1982; Reed and DeFilippi, 1990). Thus, we argue that due to underlying changes to the structure of the activity system and the overall lack of cognitive, sociopolitical, and industry legitimacy for the BMI, managers of the competing firms could fail to identify, and hence fail to imitate, some of the key BMI elements, and especially their interaction patterns (Rivkin and Siggelkow, 2007). Although seemingly counterintuitive at first sight, because of the coordination costs implied, a complex BM structure can prevent competitors from both quickly identifying BMI as well as from being able to copy the innovation easily. Following this reasoning, we propose that:

Proposition 3.3: Firms designing BMI based on less visible and more complex BM structure will be more likely to resolve imitation-legitimacy tension, and hence more likely to achieve sustainable performance advantages as compared to other innovators.

To summarize, the thrust of our reasoning in this section has been that through the careful design of their business models firms can not only build legitimacy, but also simultaneously prevent imitation, thus potentially increasing the likelihood to attain sustainable performance advantages. Although by definition any radical innovation departs in significant ways from past practices, it does not necessarily create strong enough incompatibilities to prevent imitation by the existing competitors, especially when the industry architecture and required complementary assets remain the same (Henderson and Clark, 1990; Tripsas, 1997). Both incompatibility and

complexity become more relevant issues when new activities, partners, and links are introduced into the system, as is the case through BMI. As we argue here, innovators can design their new BMs strategically in order to simultaneously build legitimacy and exploit structural complexity and incompatibilities with competitors' business models. Moreover, incremental BMI can also benefit from such a strategic design focus, for example, by leveraging more complex interactions among existing activities involved in the business model.

ROBUST BMI AND OTHER INNOVATION TYPES

Previously, we have explained how robust BMI can help resolve the tension between legitimacy and imitation, using several examples. Here we argue that a similar resolution is much harder to achieve in the case of product, process, or management innovation. Firms innovating their products, processes, or management techniques often apply means outside the design of these innovations, such as patents or complementary assets, to limit or slow down imitation by competitors (Eggers, 2012; Teece, 1986; Tripsas, 1997). This is because these innovations, in and of themselves, are hard to safeguard: new products can be reverse engineered (Teece, 1986), innovative processes are easily leaked outside the firm (Lee and Jo, 2007), and new management techniques are often self-reported (Birkinshaw, et al., 2008).

Product innovation is easier to identify and replicate for the competitors than business model innovation; first, because product innovation is more visible, offering a tangible, observable result; and second, because product innovation is harder to protect by complex or hidden-from-view structural arrangements, in contrast to robust BMI. It is relatively easy for competitors to reverse engineer a new product, even if protected by a patent, and to introduce a me-too version of it, especially when the competitor has the required ability and willingness to

replicate the product or service concerned (Jonsson and Regner, 2009). For instance, Golder and Tellis (1993) show that market pioneers—firms that are first to sell a new product on the market—reach an average market share of only seven percent, based on historical analysis of 500 brands in 50 product categories. This observation empirically hints at the power of the imitation threat faced by first movers launching new products (Lieberman and Montgomery, 1988; Teece, 1986). Corroborating this evidence, first Jaffe (1989) and then Katila and Chen (2008) have shown empirically that active exploration by rivals leads to focal firms introducing a larger number of new products, due to the important knowledge spillover effects. The received innovation literature argues that firms should protect their product innovation from imitation by patenting (Gallini, 1992), investing in complementary assets (Teece, 1986; Tripsas, 1997), or licensing the underlying technology (Hill, 1992), thus indirectly recognizing that it is much harder to protect product innovation from imitation through the design of the product innovation alone.

It is also difficult to protect process or management innovation from imitation due to information spillovers, especially when these innovations are introduced by well performing firms in highly competitive environments (Hill, 1992). For instance, Toyota's just-in-time manufacturing process has been broadly adopted within the auto industry through benchmarking and direct technical transfer by Toyota-related consultancies (Lee and Jo, 2007). Similarly, Birkinshaw and colleagues (2008) notice that management innovation requires a lot of external support to implement because of the expertise shortage inside the firm for carrying out this type of innovation. Although external sources such as consultants might give legitimacy to the organization implementing management innovation, these external actors can also easily diffuse knowledge about the new management technique, initiating what are known as management

fashions. As Abrahamson (1996) explains, management fashions can spread through consultants, but also through business mass media, publishers of popular business books, or even business schools. These practices facilitate the identification of process or management innovation by competitors, and also enable competitors to hire the consultants in question, increasing competitor ability to imitate these innovations.⁵

In contrast to product, process, and management innovation, we argue that firms can design new business models so as to balance the legitimacy-imitation tension through robust BMI, an outcome much harder to achieve through the design of product, process, or management innovation in isolation. It is only through BMI that firms can link customers and other partners in novel ways, simultaneously creating value for the ecosystem, and strategically building a complex activity system that is difficult to imitate. BMI allows for a more systemic approach to innovation, enabling firms to use many more dimensions than when innovating their products, processes, or management techniques. Additionally, only through robust BMI design can firms include complex or hidden-from-view elements in their new business models. Therefore, it becomes much harder for competitors to overcome deliberately built-in complexities and incompatibilities with their existing business models, and to quickly imitate firms implementing robust BMI, compared to reverse engineering a new product or hiring process consultants. That is why we propose that:

Proposition 4: Compared to introducing product, process, or management innovation, companies implementing robust BMI can balance the tension between legitimacy and imitation more effectively through design, leading to more sustainable performance advantages.

⁵ Although it is usually easy for competitors to identify process innovations, efforts aimed at implementing this type of innovation might still fail due to the discipline required to implement process innovation on daily basis.

DISCUSSION AND CONCLUSION

We began this paper by exposing the significant tension innovating firms face when trying to acquire legitimacy for their innovation and at the same time attempting to protect it from imitation. We have extended the existing discussion in the institutional and strategic management literature by arguing that firms can balance this tension through design. We have argued that business model innovation is a distinct type of innovation, different from product, process, and management innovation because of its unit, level of analysis, and theoretical grounding. Moreover, we have proposed that for companies implementing BMI it is harder to acquire legitimacy for this innovation type due to the involvement of numerous stakeholders and its rule-breaking nature. Next, we have argued that companies can balance the tension between legitimacy and imitation more effectively when introducing robust BMI compared to other innovation types, thereby increasing the likelihood of sustainable performance advantages for the focal innovating firm. This is because firms can purposefully design new business models to be incompatible with the existing BMs of the incumbents, disassociating the familiar BMI content and governance from the more complex and hidden BMI structure.

Our first contribution involves developing theory about business model innovation and understanding better why it is becoming so powerful in the business world. When innovating, firms can choose between product, process, management, and business model innovation. The choice among these sources of innovation is important because of the potential performance consequences. For instance, a recently published report by IBM (Pohle and Chapman, 2006: 36), based on interviews with over 750 corporate and public sector leaders on the subject of innovation, found that outperforming companies whose operating margins had grown faster than their competitors' over the previous five years were twice as likely as their lower performing

peers to emphasize business model innovation, as opposed to product or process innovation. However, despite the advances in business model research to date, our understanding of business model innovation or its performance consequences is not yet fully developed (Teece, 2010; Zott, Amit and Massa, 2011). We have thus heeded the calls in the received innovation literature in general (Drazin and Schoonhoven, 1996), and business model literature in particular (Casadesus-Masanell and Ricart, 2010; Zott, et al., 2011), to shed more light on the conceptual distinctions between the related concepts, in our case the business model as an innovation, contrasted with other innovation objects such as product, process, or management techniques. Not only have we argued that BMI is a distinct innovation type, but we have also suggested potential reasons why firms innovating their business models might be outperforming firms that innovate their products, processes, or management techniques (Pohle and Chapman, 2006). Given the positive correlation between strategic balance and performance advantages established by Deephouse (1999), we have theorized how the design of new and robust business models can enable firms to achieve this strategic balance when innovating.

Our second contribution involves extending institutional theory by suggesting how exactly firms can achieve strategic balance through design. Hargadon and Douglas (2001) have previously shown that ‘robust design’ can help innovators gain recognition and acceptance with customers. However, by gaining legitimacy, and making his innovation accepted, Edison soon had to face competitors (David, 1992). That is why we have expanded our theorizing to highlight how firms can simultaneously address the challenge of raising legitimacy (e.g., to gain acceptance with skeptical customers) and reducing imitation by competitors through BMI design. This extension of Hargadon and Douglas’s (2001) research points to new directions for future inquiries about innovation design in general and about robust BMI in particular.

More generally, authors concerned with legitimacy usually emphasize various strategies for acquiring or maintaining legitimacy, while somewhat overlooking its potential downsides (Hargadon and Douglas, 2001; Zimmerman and Zeitz, 2002). In the same vein, the recent literature on institutional entrepreneurship highlights the need for legitimating strategies in order to facilitate innovation and change (Battilana, Leca, and Boxenbaum, 2009; Lounsbury and Crumely, 2007; Suddaby and Greenwood, 2005). The implications of our theorizing indicate that there are also costs to augmented legitimacy. We argue that acquiring legitimacy is one important goal for innovating firms, but it cannot be the unique goal, given the continuous threat of imitation innovators face in most industries (Jacobides, Knudsen, and Augier, 2006; Teece, 1986). The crux of our argument is that firms can balance the tension between increased legitimacy and increased imitation through careful design of their new business models.

Future research agenda

Future research should test our propositions empirically. For example, researchers could evaluate how long it takes for new business models to become legitimate and to be imitated, compared to new products, processes, or management techniques. To test our propositions, it would be necessary to choose an industry setting where firms have been introducing new products, new processes, new management techniques, and new business models concurrently for several years. The automobile industry, for instance, could provide a useful setting to test how long it takes for different innovation types to acquire legitimacy (proposition 1). In the same setting, propositions 2 and 3 could be tested by comparing whether all legitimate BMIs achieve sustainable performance advantages, and if not, under what circumstances BMI fails. Our final proposition could be tested by comparing the performance consequences of various innovation types over time. It could also be interesting to examine our research question through an in-depth extreme

case study of one firm that had introduced new products, new processes, new management techniques, and new business models, thus controlling for the endogeneity concerns of a large-scale industry study, and generating further theory on this fascinating topic (Siggelkow, 2007).

In addition to the opportunity for testing our propositions empirically, our paper raises several intriguing questions for future research, such as, under what specific conditions is BMI less (more) costly than product, process, or management innovation? What are the patterns of new business model diffusion after the initial innovation is successfully implemented and legitimated in a given industry? Through what specific mechanisms can business model innovation complement product, process, or management innovation? The theory needed to answer these and other questions yet to emerge can only come from a more detailed theoretical and empirical examination of various innovation types, focusing in particular on BMI. Our paper's main contribution has been to take the first step in the theoretical direction and to open potential avenues for more empirical research on the various concepts discussed.

REFERENCES

- Abrahamson, E. 1996. Management fashion. *Academy of Management Review* **21**(1): 254–285.
- Amit, R, Zott, C. 2012. Business model innovation: creating value in times of change. Forthcoming in *Sloan Management Review*.
- Amit, R, Zott, C. 2001. Value creation in E-business. *Strategic Management Journal* **22**(6/7, Special Issue: Strategic Entrepreneurship: Entrepreneurial Strategies for Wealth Creation): 493–520.
- Barney, J. 1991. Firm resources and sustained competitive advantage. *Journal of Management* **17**(1): 99–120.
- Battilana, J, Leca, B, Boxenbaum, E. 2009. How actors change institutions: towards a theory of institutional entrepreneurship. *Academy of Management Annals* **3**(1): 65-107.
- Benner, M. 2010. Securities analysts and incumbent response to radical technological change: evidence from digital photography and internet telephony. *Organization Science* **21**(1): 42–62.
- Biddinger, B. 2001. Limiting the business method patent: a comparison and proposed alignment of European, Japanese and United States patent law. *Fordham Law Review* **69**: 23–25.
- Birkinshaw, J, Hamel, G, Mol, M. 2008. Management innovation. *Academy of Management Review* **33**: 825–845.
- Bitektine, A. 2011. Toward a theory of social judgments of organizations: the case of legitimacy, reputation, and status. *Academy of Management Review* **36**(1): 151.
- Bock, A, Opsahl, T, George, G, Gann, DM. 2012. The effects of culture and structure on strategic flexibility during business model innovation. *Journal of Management Studies* **49**(2): 279–305.
- Brandenburger, AM, Stuart, HW. 1996. Value-based business strategy. *Journal of Economics and Management Strategy* **5**: 5–24.
- Brown, SL, Eisenhardt, KM. 1995. Product development: past research, present findings, and future directions. *Academy of Management Review* **20**(2): 343–378.
- Brynjolfsson, E, Renshaw, A. 1997. The matrix of change: a tool for business process reengineering. *Sloan Management Review* **38**(2): 37.
- Casadesus-Masanell, R, Zhu, F. 2012. Business model innovation and competitive imitation. *Strategic Management Journal*, forthcoming.
- Casadesus-Masanell, R, Ricart, JE. 2011. How to design a winning business model. *Harvard Business Review* **89**(1/2) 101–107.
- Casadesus-Masanell, R, Ricart, JE. 2010. From strategy to business models and on to tactics. *Long Range Planning* **43**(2–3): 195–215.
- Chandy, RK, Tellis, GJ. 1998. Organizing for radical product innovation: the overlooked role of willingness to cannibalize. *Journal of Marketing Research* **35** (4): 474–487.

- Chen, M. 1996. Competitor analysis and interfirm rivalry: toward a theoretical integration. *Academy of Management Review* **21**: 100–134.
- Chen, M, Hambrick, DC. 1995. Speed, stealth, and selective attack: how small firms differ from large firms in competitive behavior. *Academy of Management Journal* **38**(2): 453–482.
- Chesbrough, H. 2010. Business model innovation: opportunities and barriers. *Long Range Planning* **43**(2): 354–363.
- Chesbrough, H, Rosenbloom, RS. 2002. The role of the business model in capturing value from innovation: evidence from Xerox Corporation's technology spin-off companies. *Industrial and Corporate Change* **11**(3): 529–555.
- Christensen, CM, Bower, JL. 1996. Customer power, strategic investment, and the failure of leading firms. *Strategic Management Journal* **17**(3): 197–218.
- Cohen, WM, Levin, RC. 1989. Chapter 18: Empirical studies of innovation and market structure. In *Handbook of Industrial Organization*, Volume 2, Schmalensee R and Willig R (eds). Elsevier: Amsterdam, North-Holland: 1059–1107.
- Crossan, MM, Apaydin, M. 2010. A multi-dimensional framework of organizational innovation: A systematic review of the literature. *Journal of Management Studies* **47**(6): 1154–1191.
- Dacin, MT. 1997. Isomorphism in context: the power and prescription of institutional norms. *Academy of Management Journal* **40**(1): 46–81.
- Dacin, MT, Oliver, C, Roy, JP. 2006. The legitimacy of strategic alliances: an institutional perspective. *Strategic Management Journal* **28**(2): 169–187.
- Dahlin, KB, Behrens, DM. 2005. When is an invention really radical? Defining and measuring technological radicalness. *Research Policy* **34**(5): 717–737.
- Damanpour, F. 2010. An integration of research findings of effects of firm size and market competition on product and process innovations. *British Journal of Management* **21**: 996–1010
- David, PA. 1992. Heroes, herds and hysteresis in technological history: Thomas Edison and 'the battle of the systems' reconsidered. *Industrial and Corporate Change* **1**(1): 129–180.
- Deephouse, DL. 1999. To be different, or to be the same? It's a question (and theory) of strategic balance. *Strategic Management Journal* **20**(2): 147–166.
- Deephouse, DL, Suchman, MC. 2008. Legitimacy in organizational institutionalism. In *The SAGE Handbook of Organizational Institutionalism*, Greenwood R, Oliver C, Suddaby R and Sahlin K (eds). Sage: Thousand Oaks, CA: 49–77.
- Dierickx, I, Cool, K. 1989. Asset stock accumulation and sustainability of competitive advantage. *Management Science* **35**(12): 1504.
- DiMaggio, PJ, Powell, WW. 1983. The iron cage revisited: institutional isomorphism and collective rationality in organizational fields. *American Sociological Review* **48**(2): 83–160.
- Drazin, R, Schoonhoven, CB. 1996. Community, population, and organization effects on innovation: a multilevel perspective. *Academy of Management Journal* **39**(5): 1065–1083.

- Eisenhardt, KM, Martin, JA. 2000. Dynamic capabilities: what are they? *Strategic Management Journal* **21**: 1105–1121.
- Ferraro, F, Gurses, K. 2009. Building architectural advantage in the U.S. motion picture industry: Lee Wasserman and the Music Corporation of America. *European Management Review* **6**: 233–249.
- Fields, G. 2004. *Territories of Profit: Communications, Capitalist Development, and the Innovative Enterprises of G.F. Swift and Dell Computer*. Stranford: Stanford University Press.
- Gallini, NT. 1992. Patent policy and costly imitation. *The RAND Journal of Economics* **23**(1): 52–63.
- Golder, PN, Tellis, GJ. 1993. Pioneer advantage: marketing logic or marketing legend? *Journal of Marketing Research* **30**(2): 158.
- Guillén, MF. 1994. *Models of Management: Work, Authority, and Organization in a Comparative Perspective*. Chicago: University of Chicago Press.
- Hargadon, AB, Douglas, Y. 2001. When innovations meet institutions: Edison and the design of the electric light. *Administrative Science Quarterly* **46**(3): 476–501.
- Henderson, RM, Clark, K. 1990. Architectural innovation: the reconfiguration of existing product technologies and the failure of established firms. *Administrative Science Quarterly* **9**: 9–30.
- Jacobides, MG, Knudsen, T, Augier, M. 2006. Benefiting from innovation: value creation, value appropriation and the role of industry architectures. *Research Policy* **35**(8), 1200–1221.
- Jaffe, AB. 1989. Characterizing the 'technological position' of firms, with application to quantifying technological opportunity and research spillovers. *Research Policy* **18**: 87–97.
- Johnson, MW, Christensen, CM, Kagermann, H. 2008. Reinventing your business model. *Harvard Business Review* **86**(12): 58–68.
- Jonsson, S, Regner, P. 2009. Normative barriers to imitation: social complexity of core competences in a mutual fund industry. *Strategic Management Journal* **30**(5): 517.
- Lee, BH, and Jo, HJ. 2007. The mutation of the Toyota Production System: adapting the TPS at Hyundai Motor Company. *International Journal of Production Research* **45**(16): 3665–3679.
- Lieberman, MB, Asaba. 2006. Why do firms imitate each other? *Academy of Management Review* **31**(2): 385.
- Lieberman, MB, Montgomery, DB. 1988. First-mover advantages. *Strategic Management Journal* **9**: 41–58.
- Lippman, SA, Rumelt, RP. 1982. Uncertain imitability: an analysis of interfirm differences in efficiency under competition. *The Bell Journal of Economics* **13**(2): 418–438.
- Markides, C. 2006. Disruptive innovation: in need of better theory. *Journal of Product Innovation Management* **23**(1): 19–25.

- McGrath, RG. 2010. Business models: a discovery driven approach. *Long Range Planning* **43**(2–3): 247–261.
- Nelson, RR, Winter, SG. 1982. *An Evolutionary Theory of Economic Change*. Cambridge, MA: Harvard University Press.
- Oliver, C. 1997. Sustainable competitive advantage: combining institutional and resource-based views. *Strategic Management Journal* **18**(9): 697.
- Peteraf, MA. 1993. The cornerstones of competitive advantage: a resource-based view. *Strategic Management Journal* **14**(3): 179.
- Pohle, G, Chapman, M. 2006. IBM's global CEO report 2006: business model innovation matters. *Strategy & Leadership* **34**(5): 34–40.
- Pollock, T, Rindova, VP. 2003. Media legitimation effects in the market for initial public offerings. *Academy of Management Journal* **46**(5), 631–642.
- Porac, J, Thomas, H, Baden-Fuller, C. 1989. Competitive groups as cognitive communities: the case of Scottish knitwear manufacturers. *Journal of Management Studies* **26**: 397–416.
- Quintane, R, Casselman, MR, Reiche, SB, Nylund, P. 2011. Innovation as a knowledge-based outcome. *Journal of Knowledge Management* **15**(6): 928–947.
- Ravasi, D, Schultz, M. 2006. Responding to organizational identity threats: exploring the role of organizational culture. *Academy of Management Journal* **49**(3): 433–458.
- Reed, R, DeFillippi, R. 1990. Causal ambiguity, barriers to imitation, and sustainable competitive advantage. *Academy of Management Review* **15**(1): 88–102.
- Rindova, VP, Kotha, S. 2001. Continuous 'morphing': competing through dynamic capabilities, form, and function. *Academy of Management Journal* **44**(6): 1263–1280.
- Rindova, VP, Petkova, A. 2007. When is a new thing a good thing? Technological change, product form design, and perceptions of value for product innovations. *Organization Science* **18**(2): 217.
- Rivkin, JW. 2000. Imitation of complex strategies. *Management Science* **46**(6): 824–844.
- Rivkin, JW, Siggelkow, N. 2007. Patterned interactions in complex systems: implications for exploration. *Management Science*.
- Sanchez, P, Ricart, JE. 2010. Business model innovation and sources of value creation in low-income markets. *European Management Review* **7**: 138–154.
- Santos, J, Spector, B, Van der Heyden, L. 2009. Toward a theory of business model innovation within incumbent firms. INSEAD Working Paper.
- Santos, FM, Eisenhardt, KM. 2009. Constructing markets and shaping boundaries: entrepreneurial power in nascent fields. *Academy of Management Journal* **52**(4): 643–671.
- Semadeni, M. 2006. Minding your distance: how management consulting firms use service marks to position competitively. *Strategic Management Journal* **27**: 169–187.
- Siggelkow, N. 2001. Change in the presence of fit: the rise, the fall, and the renaissance of Liz Claiborne. *Academy of Management Journal* **44**(4): 838–857.
- Siggelkow, N. 2007. Persuasion with case studies. *Academy of Management Journal* **50**(1): 20.

- Suchman, MC. 1995. Managing legitimacy: strategic and institutional approaches. *Academy of Management Review* **20**(3): 571–610.
- Suddaby, R, Greenwood, R. 2005. Rhetorical strategies of legitimacy. *Administrative Science Quarterly* **50**(1): 35–67.
- Stinchcombe, AL. 1965. Social structure and organizations. J.G. March, ed. *Handbook of Organizations*. Chicago, IL.: Rand McNally.
- Teece, DJ. 2010. Business models, business strategy and innovation. *Long Range Planning* **43**(2–3): 172–194.
- Teece, DJ. 1986. Profiting from technological innovation: implications for integration, collaboration, licensing and public policy. *Research Policy* **15**(6): 285–305.
- Tost, LP. 2011. An integrative model of legitimacy judgments. *Academy of Management Review* **36**(4): 686–710.
- Tripsas, M. 1997. Unraveling the process of creative destruction: complementary assets and incumbent survival in the typesetter industry. *Strategic Management Journal* **18**(6): 119–142.
- Tushman, ML, Anderson, P. 1986. Technological discontinuities and organizational environments. *Administrative Science Quarterly* **31**(3): 439–465.
- Utterback, JM, Abernathy, WJ. 1975. A dynamic model of process and product innovation. *Omega: The International Journal of Management Science* **3**(6): 639.
- Wagner, S, Cockburn, I. 2010. Patents and the survival of Internet-related IPOs. *Research Policy* **39**(2): 214–228
- Zimmerman, MA, Zeitz, GJ. 2002. Beyond survival: achieving new venture growth by building legitimacy. *Academy of Management Review* **27**(3): 414–431.
- Zott, C, Amit, RH, Massa, L. 2011. The business model: recent developments and future research. *Journal of Management*, in press.
- Zott, C, Amit, R. 2010. Business model design: an activity system perspective. *Long Range Planning* **43**(2–3): 216–226.

Table 1: Designing robust BMI

| | | Increasing legitimacy | Decreasing imitation |
|--------------------|-------------------|--|--|
| BM elements | Content | Legitimacy can be increased by building on public familiarity with existing activities (Hargadon and Douglas, 2001) | Incompatibilities with existing BMs of the competitors can decrease competitor ability and willingness to imitate BMI. |
| | Governance | Legitimacy can be increased by outsourcing activities to legitimate and familiar partners (Dacin, Oliver, and Roy, 2007) | Converting potential competitors into BM partners can decrease competitor willingness to imitate BMI |
| | Structure | Customers will be indifferent to the upstream BM structure, hence some elements can be radically new if hidden from view | Complexity can hinder the identification of BM structure and decrease competitor ability to imitate BMI |