

Business model innovation: a typology

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Elena Casprini

Abstract

Purpose of the paper: *The aim of the paper is to provide a typology of business model innovation (BMI) and to clarify its link with strategy. In particular, it focuses on the servitization strategy and shows multiple business model configurations that entrepreneurs may choose from when changing their strategy.*

Methodology: *After a literature review conducted through ISI Web of Science database on 14 ABS grade four and grade three leading journals, published between 2000 and 2014, a new theoretical framework is presented. Baden-Fuller's and Haefliger's (2013) business model (BM) dimensions were selected in order to build the theoretical framework and Neeley's (2008) identified servitization strategies were used in order to clarify the link between business model innovation and strategy.*

Findings: *The literature reviewed shows that extant research has mainly focused on the capabilities and processes behind BMI, but has not provided a typology for BMI. The typology proposed consists of 16 business model configurations that may serve for both academics and practitioners in configuring a business model following a change in the firm's strategy. Considering the servitization strategy, it is suggested that different servitization strategies require from entrepreneurs to choose between alternative business model configurations.*

Research limitations: *The literature reviewed is limited to top international journals and the paper provides only ad hoc created examples in order to show how different servitization strategies require alternative business model configurations.*

Research and managerial implications: *The theoretical framework proposed might be used as a means of analysing alternative business model configurations by entrepreneurs, and as a means of comparing alternative business model configurations by academics.*

Originality of the paper: *The paper complements existing literature reviews on business model, focusing on BMI. Moreover, it provides a first attempt to link the servitization concept to the business model theme, hence contributing to bridging marketing and strategic management literatures.*

Key words: business model innovation; strategy; configuration; entrepreneurship

1. Introduction

Business model and entrepreneurship are two interlinked fields of research. If on the one hand business model literature has benefited from contributions related to research on entrepreneurship (Amit and Zott, 2001; Doganova and Eyquem-Renault, 2009), entrepreneurship literature has used the business model concept in order to better understand how opportunities are exploited (George and Bock, 2011).

In their seminal paper, Shane and Venkataraman (2000) define entrepreneurship as “*the examination of how, by whom and with what effects opportunities to create future goods or services are discovered, evaluated and exploited (Venkataraman, 1997). Consequently, the field involves the study of sources of opportunities; the processes of discovery, evaluation, and exploitation of opportunities; and the set of individuals who discover, evaluate, and exploit them*” (p. 218). Hence, a business model broadly described, is the way a company creates and captures value (Zott *et al.*, 2011). According to Amit and Zott (2001), the business model in fact “*depicts the design of transaction content, structure, and governance so as to create value through the exploitation of business opportunities*” (p. 494-495).

Moving from a Schumpeterian innovation theory of economic development, this paper focuses on business model innovation defined as “*a fundamental rethink of the firm’s value proposition in the context of new opportunities*” (Bock *et al.*, 2012, p. 290). In line with the five sources of value creation pointed out by Schumpeter, namely, the introduction of new goods or new production methods, the creation of new markets, the discovery of new supply sources and the reorganization of industries, business model innovation may be seen as a source of value creation (Amit and Zott, 2001) capable of disrupting existing industry structures. An example is Starbucks that has revolutionized the coffee business (Gambardella, 2014).

As stressed by extant research, understanding business model innovation is important in that it is considered as the new driver of competitive advantage (Casadesus-Masanell and Ricart, 2011; Casprini *et al.*, 2014; Chesbrough, 2010; Chesbrough *et al.*, 2011; Gambardella, 2014; Pucci *et al.*, 2013). Nonetheless, innovating a business model is not a simple task and requires a shift in the strategic thinking of the company (Amit and Zott, 2001). It is not surprising that both academic and practitioners efforts are tending towards understanding how companies may innovate their business models. However, despite the flourishing literature on business model innovation, the understanding of what a business model innovation is and how strategy impacts it, is still at its infancy. In order to bridge business model innovation and strategy, a conceptual framework that shows the different business model combinations that an entrepreneur may choose in order to exploit opportunities is introduced in this paper. The paper is structured as follows. First, a literature review on business model innovation is provided. Then, moving from the business model dimensions developed by Baden-Fuller and Haefliger (2013), a business model innovation typology is proposed. Third, in order to clarify the link between strategy and business model innovation, it is shown how strategy influences business model innovation, by considering the multiple facets of the so called servitization strategy (Neely, 2008; Vandermerwe and Rada, 1988), i.e. addition of service(s) to product(s) by a manufacturing company. The framework sheds light on how entrepreneurs can choose between alternative business model configurations while deciding to implement a servitization strategy and while exploiting new opportunities.

2. Literature review

Business model is a concept in fashion and widely used in the management literature and its roots date back to Peter Drucker who defined it as the answer to the questions: who is your customer, what does the customer value, and how do you deliver value at an appropriate cost? (Casadesus-Masanell and Ricart, 2011; Magretta, 2002). Business model has received increasing attention by both practitioners and scholars, especially since the advent of Internet. Extant literature reviews on the theme have identified the macro-areas where business model concept has been used (Zott *et al.*, 2011) and the broad themes that usually emerge within strategic management (Amit and Zott, 2001; George and Bock, 2011), but due to the increased use of the business model concept in the last years, a further refinement may be helpful for delineating its more recent developments.

A systematic literature review on business model innovation over 14 years of research was conducted, considering papers from January 2000 to September 2014. The initial lists of academic journals included the Association's of Business Schools (ABS) grade four "General Management" and "Strategic Management" journals, namely *Academy of Management Journal*, *Academy of Management Review*, *Administrative Science Quarterly*, *Journal of Management*, *Journal of Management Studies*, *British Journal of Management*, *Harvard Business Review* and *Strategic Management Journal*. Then, grade four Journal from "Entrepreneurship and Small Business Management" field, represented by *Journal of Business Venturing* and *Entrepreneurship Theory and Practice* were also considered. The ISI Web of Science database was searched using the term "business model*" ¹ in the topic filter. The star after the term "business model" enlarges the Boolean search considering all those papers that contain adjacent terms, such as "business models" and "business modelling". Using the "topic" filter implies selecting all those papers that contain the term "business model*" in either the title, the abstract or the keywords. The search came up with a total of 119 papers, of which 86 had appeared in Harvard Business Review.

This small set of articles led us to consider other two journals of grade four in an adjacent area, namely *Management Science* ("Operation Research and Management Science"), *Organization Science* ("Organization Studies") and *Research Policy* ("Social Science"). A total of 29 articles were found and added to the previously selected sample. After an initial analysis of the papers and looking at the references cited, it was noted that another journal needed to be included. An ABS grade three journal, namely *Long Range Planning* ("Strategic Management"), was also added to the former list, since two Special Issues on business model were published in 2010 and 2013, for a total of 40 papers. Hence, a total of 188 papers matched the Boolean search. These papers were saved, their abstracts were read and those papers that used the term "business model" in a non-marginal way were selected (Amit and Zott, 2001). A total of 76 articles was found and used as the basis of the review. Moreover, other relevant works were taken into consideration when reading these 76 articles. Table 1 provides a summary.

¹ The * is used in order to extend the research to other terms, e.g. "business models" or "business modelling".

Tab. 1: Literature review steps

Steps	Details
1st step: search the literature	Time period: Jan. 2000- Sept. 2014
	Keyword used: "business model"
	Database: ISI Web of Science
	Sources considered: Grade four Journals of ABS Journals considered: <i>Academy of Management Journal, Academy of Management Review, Administrative Science Quarterly, Journal of Management, Journal of Management Studies, British Journal of Management, Harvard Business Review and Strategic Management Journal, Journal of Business Venturing and Entrepreneurship Theory and Practice</i>
	Total papers found: 119
2nd step: Extend the search of the literature	Time period: Jan. 2000- Sept. 2014
	Database: ISI Web of Science
	Sources considered: Grade four Journals of ABS Journals considered: <i>Management Science, Organization Science</i>
	Total papers found: 29
3rd step: Use snowball	Journal considered: <i>Long Range Planning</i>
	Total paper found: 40
4th step: skim the papers	Total paper selected: 76

Source: author

The analysis of these publications confirmed the importance of value creation, already stressed by previous literature (Zott *et al.*, 2011), and the link between business model and technology. However, it also pointed out the interest towards business model innovation, at both industry and firm level, and the way companies manage business model innovation. What emerged is that business model innovation is not clearly defined, and consequently not operationalized.

2.1 From business model to business model innovation

Many definitions of what a business model is have been provided, and a compelling, broad one has been identified by looking at the business model as the way a company creates and captures value (Baden-Fuller and Haefliger, 2013; Zott *et al.*, 2011). George and Bock (2011) narrow the definition of business model as the "*entrepreneurial ideation to a definable opportunity, establishing the relevant goal set that drives entrepreneurial action and organizational investiture, and bounds the implementation of organizational activities that enact opportunity*" (p. 99), and identify in resource structure, transactive structure, and value structure the three dimensions of a business model. David Teece argues that "a

business model articulates the logic and provides data and other evidence that demonstrates how a business creates and delivers value to customers. It also outlines the architecture of revenues, costs, and profits associated with the business enterprise delivering that value” (2010, p. 173). Moving a step forward, Baden-Fuller and Mangematin (2013) identify four business model dimensions, namely customer identification, customer engagement, value chain and linkages and monetization.

Irrespective of the business model definition adopted, as already anticipated in the introduction, business model innovation refers to rethinking the company’s value proposition in order to exploit new opportunities (Bock *et al.*, 2012). This is in line with the aim of entrepreneurship, whose domain refers to the recognition and exploitation of new opportunities. Once a new opportunity emerges, entrepreneurs should be able not only to recognize it, but also to exploit it. It is not surprising, then, that most of the literature about business model innovation has looked to the advent of new technologies as one of the sources for new opportunities.

2.2 Business model innovation at industry and firm level

Business model innovation may be analyzed at two levels: industry and firm levels. In the case of industry level, authors have analyzed how a “dominant” BM has been threatened by the emergence of a new BM (often introduced by a new entrant): examples are from the software industry (Bonaccorsi *et al.*, 2006; Suarez *et al.*, 2013), the football industry (McNamara *et al.*, 2013), the biotech industry (Mangematin *et al.*, 2003) and the movie industry (Gelfond, 2013). The new BM may sometimes change the evolution of the entire industry (Jacobides and Winter, 2012), as in the case of Google and Apple (Gambardella and McGahan, 2010). At firm level, authors have analyzed the (successful) BM of individual companies such as Arsenal FC (Demil and Lecocq, 2010), Naturehouse (Sosna *et al.*, 2010), LEGO, Coloplast and IBM (Hienerth *et al.*, 2011). Also, these companies may be incumbents, as well as new entrants.

From the analysis of these contributions, it emerges that studies on industry-based business models have mainly looked at business model kinds within one specific industry and their impact on firm’s competitive advantage. On the other hand, those focused on firm-level business models have looked at firm’s capabilities and processes (as described in Section 2.4), focusing more on the impact of specific factors, such as the role of the users (Hienerth *et al.*, 2011) or the adoption of ICT and Web 2.0 technologies (Wirtz *et al.*, 2010), on the (variously defined) dimensions of business model.

2.3 How does strategy impact business model innovation

Extant research has shown that strategy is not the same as business model (Baden-Fuller and Mangematin, 2013; Casadesus-Masanell and Ricart, 2010; Magretta, 2002; Teece, 2010; Zott *et al.*, 2011), although they are related. Strategy and business model refer, in fact, to different factors, the former being more focused on value capture, competition and value for shareholders, while the latter focuses on value creation, cooperation and

value for stakeholders (Chesbrough and Rosenbloom 2002; Zott *et al.*, 2011).

Nonetheless, business model and strategy are interlinked. Previous literature has seen the business model as the reflection of a firm's realized strategy (Casadesus-Masanell and Ricart 2010), suggesting that strategy precedes business model. On the other hand, Teece (2010) asserts that a business model is more generic than a business strategy and it might be considered as a complement. According to George and Bock (2011), "*strategy is a dynamic set of initiatives, activities, and processes; the business model is a static configuration of organizational elements and activity characteristics. [...] Business models are opportunity-centric, while strategy is competitor or environment centric*" (p.102).

This paper adopts Casadesus-Masanell and Ricart (2010)'s view. According to them, strategy refers to the choice of the business model with which a firm chooses to compete (Casadesus-Masanell and Ricart, 2010). After having chosen a business model, the company can make residual choices (i.e. tactics) that are bounded by the business model it has chosen before. Hence, every time an entrepreneur or a manager changes strategy, he/she has to innovate, to a certain extent, the existing business model.

2.4 How do companies manage business model innovation

An emerging area of interest refers to how companies manage business model innovation. From the literature reviewed, only a small group of papers emerge on that topic. These papers are mainly linked with the exploration and exploitation processes (Andries *et al.*, 2013; Aspara *et al.*, 2013; Dunford *et al.*, 2010; Mason and Leek, 2008; Sabatier *et al.*, 2010; Sosna *et al.*, 2010; Velu & Stiles, 2013) and dynamic capability view (Achtenhagen *et al.*, 2013; Bock *et al.*, 2012; Doz and Kosonen, 2010; Mason and Leek, 2008), suggesting again a close relationship with the entrepreneurship field of research.

It also emerges that the owner and/or the managers have an important role in shaping business model innovation. Moreover, these studies look at the capabilities needed to innovate an existing business model (Achtenhagen *et al.*, 2013; Doz and Kosonen 2010) as well as the organizational structure (Mason and Leek 2008; Bock *et al.* 2012) and processes behind business model innovation (Sosna *et al.*, 2010; Dunford *et al.*, 2010). However, they only scantily provide insights on the many alternative configurations an entrepreneur or a company may choose from. Although clear in its general terms, defining what a business model innovation is and how both scholars and practitioners may come up with it, it is not so straightforward.

3. Toward a business model innovation typology

Consistently with entrepreneurial research whose main focus is on the firm - and the entrepreneur (Shane and Venkataraman, 2000), this

paper focuses on business model innovation at firm level. To operationalize the business model innovation, it is important to define the business model precisely and identify the various dimensions of the business model.

As seen, literature on business model has defined the business model concept in terms of value creation and value capture. When defining the concept, these two dimensions are the two highest level components (“first level dimensions”) of the business model concept. However, due to the broadness of the concept and the possible overlapping with other business model related concepts (such as strategy), a further refinement is required. On the basis of the literature reviewed, the definition provided by Baden-Fuller and Haefliger (2013) and Baden-Fuller and Mangematin (2013) is adopted as the basis for building a new theoretical framework.

Baden-Fuller and Haefliger (2013) and Baden-Fuller and Mangematin (2013)² distinguish four business model dimensions (“second level dimensions”), two for value creation and two for value capture: customer identification, customer engagement, value chain linkages and monetization. Each of these can be further distinguished in other sub-dimensions (“third level components”).

Customer identification, a concept made up of two dimensions that have as a *fundamentum divisionis* “who pays”, may be distinguished between the customer and others. Customer identification is an important (second level) dimension since it enables researchers and practitioners to understand whether the business model is a one-sided platform or a multiple-sided platform. In particular, the advent of internet has increased the opportunities for companies to interact with multiple stakeholders and also for all the stakeholders to interact with each other. This implies that users generally have not paid for the companies’ value offering (for example, revenues may derive from advertisers). A clear example is a social network platform; social network users do not pay the platform for the service they receive, but the advertisers who use the platform for their advertisements do pay the service provider. This mode of payment points towards the crucial importance of network externalities; if the number of users using the social media platform is high, high is the chance that more third parties may be willing to use the social media platform for their advertisements. Consequently, the revenue generated by the platform will increase. Furthermore, if the social media platform has many users, the use value for the respective users will also increase.

Customer engagement, a concept made up of two dimensions that have as *fundamentum divisionis* “involvement of the customer”, see two main levels of involvement: high level of involvement (taxi) or low level of involvement (bus). As Baden Fuller and Haefliger (2013) note, taxi and bus require “*different processes and mechanisms of ‘how they utilize ‘knowledge’ and*

² Moreover, the adoption of Baden-Fuller and Haefliger (2013)’s BM dimensions for value creation and value capture activities is also supported by the fact that they go beyond Teece (2010)’s framework, introducing the multiple-sided element, i.e. they account for the presence of multiple business models in the same company at the same period of time. This is consistent with the most recent literature on business models (Andries *et al.*, 2013; Aspara *et al.*, 2013; Casadesus-Masanell and Tarzijàn, 2012; Casadesus-Masanell and Zhu, 2010; Sabatier *et al.*, 2010).

'routines'" (p. 421). Taxi refers to a project-based approach, thus requiring non-routine, complex tasks, flexibility and integration capabilities, while bus refers to a scale-based approach, thus implying less flexibility and more standardized processes.

Value chain linkages, a concept made up of two dimensions that have as *fundamentum divisionis* "governance structure", see market vs. hierarchy. This sub-dimension refers to the well-known literature about vertical integration systems and horizontal contracting (Teece, 1986; Williamson, 1985).

Finally, monetization, made up of two dimensions that have as *fundamentum divisionis* "type of payment", is described as direct vs. indirect. This sub-dimension is relatively under-explored by strategic and innovation management scholars, although some seminal works such as those of Casadesus-Masanell and Zhu (2010) have analyzed different business models by distinguishing them also on the basis of the type of payment (they have considered namely, a subscription-based model, an ad-sponsored model, a mixed model and a dual model).

These sub-dimensions provide the basis for the typology developed in this paper. If a business model is a concept defined by two first level dimensions (i.e. value creation and value capture), and as Baden-Fuller and Haefliger (2013) say, we can distinguish among four (second-level) dimensions (customer identification, customer engagement, value linkages and monetization) and we consider for each second-level dimension two polar sub-dimensions³ (third-level), we end up with 16 possible combinations (given by 2^4 , i.e. 16), that represent 16 unique business model configurations, as shown in Table 2.

In this paper, we argue that each company presents one (or more) business model(s) that can be positioned in Table 2. For example, if we consider a (fake) car manufacturer, named CARMAN, that sells one type of car (customer engagement = "bus") directly without the need of retailers, produces and delivers the car by itself (value chain linkages = "hierarchy") and collects money when it sells the car (monetization = "point of purchase"), we can represent its business model by BM6 (AABbCcDD).

On the basis of the previous typology, it is argued *that we observe a business model innovation every time a company changes one of its business model dimensions something that implies a new configuration of the extant business model*. The possibility of mapping a company's business model via considering the various dimensions and their subdimensions may allow scholars, as well as entrepreneurs, to think about alternative business model configurations.

In order to gain a better understanding of the typology of BMI proposed in this paper and clarify the link between BM and strategy, the following section examines how adopting a servitization strategy (Vandermerwe and Rada, 1988; Neely, 2008) by a manufacturing company requires a new business model configuration depending on the type of servitization strategy chosen.

³ Note that in reality there is a continuity among polar "third level" dimensions.

Tab. 2: Business model typology

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1 level {		VALUE CREATION AND VALUE CAPTURE							
2 level {		Customer identification (A)		Customer Engagement (B)		Value chain linkages (C)		Monetization (D)	
3 level {		Customer pays (AA)	Others pay (Aa)	Taxi (BB)	Bus (Bb)	Market (CC)	Hierarchy (Cc)	Direct (DD)	Indirect (Dd)
Business Model Types	1	X		X		X		X	
	2	X			X	X		X	
	3	X		X			X	X	
	4	X		X			X		X
	5	X			X		X		X
	6	X			X		X	X	
	7	X		X		X			X
	8	X			X	X			X
	9		X	X		X		X	
	10		X		X	X		X	
	11		X	X			X	X	
	12		X	X			X		X
	13		X		X		X		X
	14		X		X		X	X	
	15		X	X			X		X
	16		X			X	X		X

Source: author

4. The Servitization of the Manufacturing Industry

“Servitization” is a term coined by Vandermerwe and Rada (1988) for defining “*the offer of integrated packages of products, services, support, self-service and knowledge to add value at company’s core businesses*”. The topic has attracted substantial attention at both national (Aquilani *et al.*, 2014) and international level as also shown by dedicated tracks during the 2014 Sinergie conference. Servitization has many definitions and synonyms in literature, however, (Baines *et al.*, 2009; Barquet *et al.*, 2013; Beuren *et al.*, 2013; Maglio and Sphorer, 2008, 2013; Mathieu, 2001; Neely, 2008; Velamuri *et al.*, 2011), in this article, servitization is a strategy that manufacturing companies could pursue, and it comprises of a shift in the traditional product-based value proposition towards different levels of product-service systems (PSS).

Due to the several classifications provided and related to servitization options, there is a need to define our field of interest. In broad terms, servitizing implies adding services to existing products. However, how can services be added to product at company level? Company level services can be seen as the business offer (a value proposition made up by pure service), as part of the business offer (a value proposition made up by both product and service) and as provided internally to the firm (services at the process level). To the best of the author’s knowledge, amongst the various classifications present in the literature, Neely’s (2008) classification of servitization offers a precise, detailed and complete classification. According to him, there are

five options for servitization (Neely, 2008, p. 108); integration oriented product-service system (going downstream by adding services through vertical integration; this option basically consists of products plus services - e.g. retail and distribution); product oriented product-service system (providing additional services related to the product; this option basically consists of products plus services that are integral to the product - e.g. maintenance and support services); service oriented product-service system (incorporating services into the product itself; in this case we have a coupled product and service - e.g. health usage monitoring systems); use oriented product-service system (in which ownership is retained by the service provider who sells the function of the product - e.g. sharing, pooling, and leasing); and result oriented product-service system (the product is replaced by a service - e.g. the voicemail service).

Due to the fact that a business model creates value for the customer, this paper does not consider the integration oriented product-service system. The integration oriented product-service system, in fact, refers to the service at process level, creating value for the firm only. Table 3 provides the summary.

Tab. 3: Classification of servitization strategies

		SUB-LEVELS	NEELY (2008)'S CLASSIFICATION
LEVEL	Business offer	Pure Service	Result oriented Product-service system
		Product plus service	Use oriented Product-Service System
			Service oriented Product-Service System
			Product oriented Product-Service System
	Process	Service provided internally	Integration oriented Product-Service System

Source: author

Adopting one of the four servitization strategies considered (i.e. result oriented product-service-system, use oriented product-service system; service oriented product-service system; and product oriented product-service system) requires a change in one or more of the business model dimensions. Using the business model typology proposed in Table 2, the business model innovation required for each kind of servitization type is mapped.

Suppose that CARMAN, the (fake) example provided before, decides to servitize and has to choose which type of servitization strategy to adopt. In addition, on the basis of the servitization strategy adopted, CARMAN has to innovate its business model, changing one or more dimensions. Table 2 shows the 15 alternative configurations it can choose from, starting from BM6. For example, CARMAN can choose between:

- 1) adopting a product - oriented PSS, adding to the sale of the car the maintenance services or allowing the customer to personalize the car. In this case, the user is still the payer (AA), but he can personalize the car and choose the level of optional services wanted (BB). The

manufacturer can manufacture everything in-house (Cc) or decide to outsource the provision of optional services (CC). Payment can remain direct (DD);

- 2) adopting a service - oriented PSS, integrating the service into the product. In this case, the company integrates electronic devices in the car in order to provide instantaneous information about the road and/or instantaneous information about the car to third parties (such as insurance companies, police, etc.). In this latter case, the user still pays but alternative payers (e.g. police that wants to monitor traffic jams) can be found (Aa). Moreover, services can be customized (Bb). Hence, the manufacturer can change the value chain (for example allowing apps developers to join it) (CC). Monetization can remain direct (DD);
- 3) adopting a use oriented PSS. It implies that the company maintains the ownership of the car and gives it to the customer through pooling, sharing or leasing contracts. In this case, the manufacturer can adopt different monetization options (e.g. pay a monthly\annual fee or pay per hour) (Dd). The customer can choose between the type of contract, the features of the car and the modalities of 'picking up and delivery' (BB). The manufacturer could consider the option of networking with third parties (such as BlaBlaCar, Carpooling.com, Zipcar) (CC) or dedicating an ad hoc business unit for that (Cc), rather than reconverting itself into a pure service provider (eliminating the manufacturing activity and becoming a carpooling-service company as Carpooling.com). The money that is paid depends on the use (Dd) and ads;
- 4) adopting a result - oriented PSS. The customer benefits directly from the service and this service is a substitute for the product. In the case of a manufacturing company, the company can offer a "hire with driver" solution. In this case, the user calls the company and the company provides a car with the driver who drives the car in place of the user. The user pays the travel (i.e. it pays for a service, not the use of a product as in the case of use - oriented PSS or the ownership of the product, as in the case of product\service - oriented PSS) (DD) and this service is tailored to the needs of the user (BB).

In the example provided, there are dimensions that tend to be fixed or change slightly. For example, in all the cases described, the users pay (customer identification), although sometimes users may receive contributions from third parties (option 2). Other dimensions, instead, change more radically, such as the monetization and the customer engagement. What is interesting is that the value chain linkages present a very high level of flexibility in terms of choice. For the sake of simplicity, in terms of structure, the paper distinguishes hierarchy and network, but more fine-grained classifications can be adopted. As shown, multiple combinations between the dimensions are possible. How does an entrepreneur choose among them? Cognitive perspective could be a fruitful way of answering these types of questions (Porac *et al.*, 2011). Business model resides in the mind of the entrepreneur (or the top management team) and he/she chooses among alternative business model configurations on the basis of his/her perception of external environments.

5. Conclusion and further research

The main argument of the paper is that literature has not provided a precise and clear definition of business model innovation yet. Despite the narrow scope of the literature review and the absence of qualitative or quantitative evidence, the conceptual nature of this paper aims to provide a first contribution towards classifying business model innovation.

Building on the Baden-Fuller's and Haefliger's (2013) business model dimensions, a typology consisting of 16 business model configurations that should help both academics and entrepreneurs in multiple ways has been developed. For research purposes, having a framework capable of classifying a firm's business model may help the comparison between companies and within the company itself. Up to now, only a few contributions have evidenced the experimentation of multiple business models and interesting paths of research seem to be linked to the ambidexterity literature that may help understand the co-existence of multiple business models, or the dynamic capability view. In a recent paper, Markides (2013) identifies spatial separation, temporal separation, and contextual ambidexterity as possible ways to manage multiple business models within the same company. Thanks to the proposed framework, different configurations can be more easily compared. For example, we have seen that adopting one servitization strategy rather than another, requires a different business model configuration. What emerges is that entrepreneurs may choose not only between different configurations of business models following the choice of a strategy, but also between different business model configurations within the same strategy.

Moreover, having a framework which is able to trace the business model innovation that has been implemented, may be helpful in understanding how and why companies choose one specific business model over another. For example, investigating the capabilities required by manufacturing firms to successfully shift towards one specific configuration, and to what extent a business model innovation is better (in terms of performance) than another. It is suggested that taking a configurational approach (Drazin and van de Ven, 1985) and using fzQCA methodology (Fiss, 2011), as recently done by (Aversa *et al.*, 2015), may provide an interesting avenue of research. For example, preliminary empirical surveys on the impact of servitization strategy on businesses' performance have shown a paradox (Fang *et al.*, 2008; Neely, 2008), synthesized as the fact that "*substantial investment that extends the service business leads to increased service offerings and higher costs, but does not generate the correspondingly expected higher returns*" (Gebauer *et al.*, 2005) or "*why are servitized firms generating higher revenues but deliver lower profits than pure manufacturing firms*" (Neeley, 2008). A U-shaped relationship has been observed in recent empirical studies on servitization and performance (Suarez *et al.*, 2013; Visnjic and van Looy, 2013). Even though the performance of servitized firms is highly contingent on the industry, the nature and the size of the service portfolio (Visnjic and van Looy, 2013), accounting for different business model configurations may shed light on the servitization paradox.

The framework proposed allows also practitioners to explore which of the different configurations of business models are feasible for them. Entrepreneurs often have difficulties in choosing among alternatives, but not less often they are bounded within a smaller set of all the alternatives available. Being able to map an existing business model and figuring out possible paths of evolution may help them, on the one hand, to come up with multiple options and, on the other hand, to choose the most viable alternative(s). Other managerial implications refer to the opportunity to compare two or more ongoing business models in order to understand whether complementarities or divergences exist among their dimensions. This would allow entrepreneurs to better align multiple business models via intervening on those dimensions that would hamper the company. Finally, managers may also use the proposed framework for figuring out what kind of business model competitors are using.

References

- ACHTENHAGEN L., MELIN L., NALDI L. (2013), "Dynamics of Business Models - Strategizing, Critical Capabilities and Activities for Sustained Value Creation", *Long Range Planning*, vol. 46, n. 6, pp. 427-42.
- AMIT R., ZOTT C. (2001), "Value creation in e-business", *Strategic Management Journal*, vol. 22, n. 6/7, pp. 493-520.
- AMIT R., ZOTT C. (2012), "Creating Value Through Business Model Innovation", *MIT Sloan Management Review*, vol. 53, n. 3, pp. 41-49.
- ANDRIES P., DEBACKERE K., VAN LOOY B. (2013), "Simultaneous Experimentation as a Learning Strategy: Business Model Development under Uncertainty", *Strategic Entrepreneurship Journal*, vol. 7, n. 4, pp. 288-310.
- AQUILANI B., ABBATE T., GATTI C. (2014), "Lo sviluppo di nuovi modelli di business per la manifattura italiana con il contributo degli intermediari di Open Innovation: il caso Mercatodell'Innovazione.it", paper presented at XXVI *Convegno Annuale di Sinergie*, Cassino 13-14 Novembre 2014.
- ASPARA J., LAMBERG J.-A., LAUKIA A., TIKKANEN H. (2013), "Corporate Business Model Transformation and Inter-Organizational Cognition: The Case of Nokia", *Long Range Planning*, vol. 46, n. 6, pp. 459-74.
- AVERSA P., FURNARI S., HAEFLIGER S. (2015), "Business model configurations and performance: a qualitative comparative analysis in Formula One racing, 2005-2013", *Industrial and Corporate Change*, vol. 24, n. 3, pp. 655-676.
- BADEN-FULLER C., HAEFLIGER S. (2013), "Business Models and Technological Innovation", *Long Range Planning*, vol. 46, n. 6, pp. 419-426.
- BADEN-FULLER C., MORGAN M.S. (2010), "Business Models as Models", *Long Range Planning*, vol. 43, n. 2/3, pp. 156-171.
- BADEN-FULLER C., MANGEMATIN V. (2013), "Business Models: a challenging agenda", *Strategic Organization*, vol. 11, pp. 418-427.
- BAINES T.S., LIGHTFOOT H.W., BENEDETTINI O., KAY J.M. (2009), "The servitization of manufacturing. A review of the literature and reflection on future challenges", *Journal of Manufacturing Technology Management*, vol. 20, n. 5, pp. 547-567.

- BARQUET A.P.B., DE OLIVEIRA M.G., AMIGO C.R., CUNHA V.P., ROZENFELD H. (2013), "Employing the business model concept to support the adoption of product-service systems (PSS)", *Industrial Marketing Management*, vol. 42, n. 5, pp. 1-12.
- BEUREN F.H., GOMES FERREIRA M.G., CAUCHICK MIGUEL P.A. (2013), "Product-service systems: a literature review on integrated products and services", *Journal of Cleaner Production*, vol. 47, n. May, pp. 222-231.
- BOCK A.J., OPSAHL T., GEORGE G., GANN D.M. (2012), "The effects of culture and structure on strategist flexibility during business model innovation", *Journal of Management Studies*, vol. 49, n. 2, pp. 279-305.
- BOHNSACK R., PINKSE J., KOLK A. (2014), "Business models for sustainable technologies: exploring business model evolution in the case of electric vehicles", *Research Policy*, vol. 43, n. 2, pp. 284-300.
- BONACCORSI A., GIANNANGELI S., ROSSI C. (2006), "Entry strategies under competing standards: hybrid business models in the open source software industry", *Management Science*, vol. 52, n. 7, pp. 1085-1098.
- CASADESUS-MASANELL R., LLANES G. (2011), "Mixed source", *Management Science*, vol. 57, n. 7, pp. 1212-1230.
- CASADESUS-MASANELL R., RICART J.E. (2011), "How to design a winning business model", *Harvard Business Review*, vol. 89, n. 1/2, pp. 1-9.
- CASADESUS-MASANELL R., RICART J.E. (2010), "From strategy to business models and onto tactics", *Long Range Planning*, vol. 43, n. 2, pp. 195-215.
- CASADESUS-MASANELL R., TARZIJÀN J. (2012), "When one business model isn't enough", *Harvard Business Review*, vol. 90, n. 1-2, pp. 132-137.
- CASADESUS-MASANELL R., ZHU F. (2010), "Strategies to fight ad-sponsored rivals", *Management Science*, vol. 56, n. 9, pp. 1484-1499.
- CASADESUS-MASANELL R., ZHU F. (2013), "Business model innovation and competitive imitation: the case of sponsor-based business models", *Strategic Management Journal*, vol. 34, n. 4, pp. 464-482.
- CASPRINI E., PUCCI T., ZANNI L. (2014), "Business Model shifts: a case study on firms that apply high technology to cultural goods", *Technology Analysis and Strategic Management*, vol. 26 n. 4, pp. 171-187.
- CHESBROUGH H. (2010), "Business model innovation: opportunities and barriers", *Long Range Planning*, vol. 43, n. 2-3, pp. 354-363.
- CHESBROUGH H., DI MININ A., PICCALUGA A. (2011), "Percorsi di innovazione nei modelli di business", in Cinquini L., Di Minin A., Varaldo R. (eds.), *Nuovi modelli di business e creazione di valore: la scienza dei servizi*, Springer per l'innovazione, Milano.
- CHESBROUGH H., ROSENBLOOM R.S. (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*, vol. 11, n. 3, pp. 529-555.
- DEMIL B., LECOCQ X. (2010), "Business model evolution: in search for dynamic consistency", *Long Range Planning*, vol. 43, n. 2-3, pp. 227-246.
- DI MAGGIO P.J., POWELL W.W. (1983), "The iron cage revisited: institutional isomorphism and collective rationality in organizational fields", *American Sociological Review*, vol. 48, n. 2, pp. 147-160.
- DOGANOVA L., EYQUEM-RENAULT M. (2009), "What Do Business Models Do? Innovation Devices in Technology Entrepreneurship", *Research Policy*, vol. 38, n. 10, pp. 1559-70.

- DOZ Y.L., KOSONEN M. (2010), "Embedding strategic agility. A leadership agenda for accelerating business model renewal", *Long Range Planning*, vol. 43, n. 2-3, pp. 370-382.
- DRAZIN R., VAN DE VEN A. (1985), "Alternative forms of fit in contingency theory", *Administrative Science Quarterly*, vol. 30, n. 4, pp. 514-539.
- DUNFORD R., PALMER I., BENVENISTE J. (2010), "Business model replication for early and rapid internationalization. The ING Direct Experience", *Long Range Planning*, vol. 43, n. 5-6, pp. 655-674.
- FANG E., PALMANTIER R.W., STEENKAMP J.B. E.M. (2008), "Effect of service transition strategies on firm value", *Journal of Marketing*, vol. 72, n. 5, pp. 1-14.
- FISS P.C. (2011), "Building Better Causal Theories: A Fuzzy Set Approach to Typologies in Organization Research", *Academy of Management Journal*, vol. 54, n. 2, pp. 393-420.
- GAMBARDELLA A. (2014), "L'imprenditore innovatore come agente dello sviluppo tecnico, economico e sociale", *Sinergie*, n. 93, pp. 3-18.
- GAMBARDELLA A., MCGAHAN A.M. (2010), "Business-model innovation: general purpose technologies and their implications for industry structure", *Long Range Planning*, vol. 43, n. 2-3, pp. 267-271.
- GARNSEY E., LORENZONI G., FERRIANI S. (2008), "Specialization through entrepreneurial spin-off: the Acorn-ARM story", *Research Policy*, vol. 37, n. 2, pp. 210-224.
- GEBAUER H., FLEISCH E., FRIEDLI T. (2005), "Overcoming the service paradox in manufacturing companies", *European Management Journal*, vol. 23, n. 1, pp. 14-26.
- GELFOND R. (2013) "The CEO of IMAX on how to became a Hollywood Powerhouse", *Harvard Business Review*, vol. 91, n. 7-8, pp. 36-39.
- GEORGE G., BOCK A.J. (2011), "The Business Model in Practice and Its Implications for Entrepreneurship Research", *Entrepreneurship Theory and Practice*, vol. 35, n. 1, pp. 83-111.
- GOVINDARAJAN V., TRIMBLE C. (2011), "The CEO's role in business model reinvention", *Harvard Business Review*, vol. January-February, pp. 108-114.
- HENDERSON R.M., CLARK K.B. (1990), "Architectural Innovation: the reconfiguration of existing product technologies and the failure of established firms", *Administrative Science Quarterly*, vol. 35, n. 1, pp. 9-30.
- HIENERTH C., KEINZ P., LETTL P. (2011), "User-centric business models", *Long Range Planning*, vol. 44, n. 5-6, pp. 344-374.
- JACOBIDES M.G., WINTER S.G. (2012), "Capabilities: structure, agency, and evolution", *Organization Science*, vol. 23, n. 5, 1365-1381.
- MCNAMARA P, PECK S.I., SASSON A. (2013), "Competing business models, value creation and appropriation in English football", *Long Range Planning*, vol. 46, n. 6, pp. 475-487.
- MAGLIO P.P., SPOHRER J. (2008), "Fundamentals of service science", *Journal of the Academy of Marketing Science*, vol. 36, n. 1, pp. 18-20.
- MAGLIO P.P., SPHORER J. (2013), "A service perspective on business model innovation", *Industrial Marketing Management*, vol. 42, n. 5, pp. 665-670.
- MAGRETTA, J. (2002), "Why business models matter", *Harvard Business Review*, May, pp. 86-92.

- MANGEMATIN V., LEMARIÉ S., BOISSIN J.P., CATHERINE D., COROLLEUR F., CORONINI R., TROMMETER M. (2003), "Development of SMEs and heterogeneity of trajectories: the case of biotechnology in France", *Research Policy*, vol. 32, n. 4, pp. 621-638.
- MARKIDES C.C. (2013), "Business model innovation: what can the ambidexterity literature teach us?", *The Academy of Management Perspectives*, vol. 27, n. 4, pp. 313-323.
- MASON K.J., LEEK S. (2008), "Learning to Build a Supply Network: An Exploration of Dynamic Business Models", *Journal of Management Studies*, vol. 45, n. 4, pp. 774-99.
- MATHIEU V. (2001), "Service strategies within the manufacturing sector: benefits, costs and partnership", *International Journal of Service Industry Management*, vol. 12, n. 5, pp. 451-475.
- MCGRATH R.G. (2012), "When your business model is in trouble", *Harvard Business Review*, vol. January-February, pp. 96-98.
- MCNAMARA P., PECK S.I., SASSON A. (2013), "Competing business models, value creation and appropriation in English football", *Long Range Planning*, vol. 46, n. 6, pp. 475-487.
- NEELY A. (2008), "Exploring the Financial Consequences of the Servitization of Manufacturing", *Operations Management Research*, vol. 2, n. 1, pp. 103-118.
- OSTERWALDER A., PIGNEUR Y. (2010), *Business model generation*, Wiley, New Jersey.
- PORAC J.F., THOMAS H., BADEN-FULLER C. (2011), "Competitive Groups as Cognitive Communities: The Case of Scottish Knitwear Manufacturers Revisited", *Journal of Management Studies*, vol. 48, n. 3, pp. 646-64.
- PUCCI T., SIMONI S., ZANNI L. (2013), "Modelli di business e strategie di marketing nelle medie imprese. La gestione della crisi tra continuità e cambiamento", *Mercati e Competitività*, n. 3, pp. 25-46
- SABATIER V., MANGEMATIN V. ROUSSELLE T. (2010), "From Recipe to Dinner: Business Model Portfolios in the European Biopharmaceutical Industry", *Long Range Planning*, vol. 43, n. 2-3, pp. 431-47.
- SHANE S., VENKATARAMAN S. (2000), "The Promise of Entrepreneurship as a Firded of Research", *Academy of Management Review*, vol. 25, n. 1, pp. 217-26.
- SOSNA M., TREVINYO-RODRÌGUEZ R.N., VELAMURI S.R. (2010), "Business model innovation through trial-and-error learning. The Naturhouse case", *Long Range Planning*, vol. 43, n. 2-3, pp. 383-407
- SUAREZ F.F., CUSUMANO M.A., KAHL S.J. (2013), "Services and the business models of product firms: an empirical analysis of the software industry", *Management Science*, vol. 59, n. 2, pp. 420-435.
- TEECE D.J. (1986), "Profiting from technological innovation: implications for integration, collaboration, licensing and public policy", *Research Policy*, vol. 15, n. 6, pp. 285-305.
- TEECE D.J. (2010), "Busines Models, Business Strategy and Innovation", *Long Range Planning*, vol. 43, n. 2-3, pp. 172-194.
- VANDERMERWE S., RADA J. (1988), "Servitization of businesses: adding value by adding services", *European Management Journal*, vol. 6, n. 4, pp. 314-324.

- VELAMURI V.K., NEYER A.K., MOSLEIN K.M. (2011), "Hybrid value creation: a systematic review of an evolving research area", *J. Betriebswirtsch.*, vol. 61, n. 1, pp. 3-35.
- VELU C., STILES P. (2013), "Managing decision-making and cannibalization for parallel business models", *Long Range Planning*, vol. 46, n. 6, pp. 443-458.
- VISNJIC KASTALI I., VAN LOOY B. (2013), "Servitization: disentangling the impact of service business model innovation on manufacturing firm performance", *Journal of Operations Management*, vol. 31, n. 4, pp. 169-180.
- WILLIAMSON O.E. (1985), *The Economic Institutions of Capitalisms: Firms, Markets, Relational Contracting*, Free Press, New York.
- WINTER S.G., SZULANSKI G. (2001), "Replication as strategy", *Organization Science*, vol. 12, n. 6, pp. 730-743.
- WIRTZ B.W., SCHILKE O., ULLRICH S. (2010), "Strategic Development of Business Models. Implications of the Web 2.0 for Creating Value on the Internet", *Long Range Planning*, vol. 43, n. 2-3, pp. 272-90.
- ZOTT C., AMIT R. (2007), "Business Model Design and the Performance of Entrepreneurial firms", *Organization Science*, vol. 18, n. 2, pp. 181-199.
- ZOTT C., AMIT R., MASSA L. (2011), "The Business Model: Recent Developments and Future Research", *Journal of Management*, vol. 37, n. 4, pp. 1019-1042.

Elena Casprini
Business model
innovation: a typology

Academic or professional position and contacts

Elena Casprini
Ph.D. Post doc Researcher of Business Management
Scuola Superiore Sant'Anna di Pisa - Italy
e-mail: casprini.elena@gmail.com



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