

Advancing a typology of business model innovation: A value-based perspective

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Abstract

Since the concept of business model (BM) – referred in general to the way a company does business – came into popular parlance in the mid-1990s, significant attention, especially in recent years, has been given to the strategies companies develop to adjust their BMs to changing demands. In this sense, business model innovation (BMI) emerged as a new soft (non-technological) type of innovation referring to the practice of innovating a firm's BM. Placing emphasis on a BMI typology, this paper aims to identify a certain set of BMI types and addresses the circumstances in which each type should be adopted in order for the firm to yield optimum results. Taking a value-based perspective, five types of BMI are proposed, each focused on one element of the company's BM: (1) innovating the operation processes and factors involved (value creation); (2) innovating the offerings to customers (value proposition); (3) innovating the way to reach and interact with customers (value delivery); (4) innovating the financial architecture (value capture); and (5) innovating the partnership arrangements (value network). Concrete examples are presented to illustrate each type of BMI and the paper ends with a discussion of the circumstances that lead companies to adopt each type of BMI. This study contributes to current literature by proposing a unique typology of BMI underpinned by a value-grounded theory of the firm. Furthermore, company owner(s) / manager(s) are provided with managerial implications on how and when to implement BMI strategies.

Keywords: business model innovation, typology, value-based perspective

Introduction

The concept of business model (BM) emerged from the information systems literature, and its conceptualisation, elements, and processes is still discussed by business management scholars (Teece, 2010; Spieth et al., 2014). One such endeavour has been to introduce the idea of business model innovation (BMI), including the definition of typologies that compare different ways of implementing BMI. Even though a number of BMI typologies have been proposed in the literature (e.g., Taran et al., 2015), much remains to be studied in this area, as the construction of BMI typologies provides insight to a better understanding of the concept of BMI itself. Thereby, this study proposes a new BMI typology to distinguish different ways of reshaping the BM. Corresponding to the insights from the literature, this study tries to answer the question of how different types of BMI can be implemented. The circumstances under which specific types of BMI are best adopted are also explored.

We begin with background knowledge about the BM concept. This is supported by the notion that successful innovation in a firm's BM requires a thorough insight into its underpinnings and implications (Chesbrough, 2007). As such, BM, loosely defined, refers to a conceptual tool describing the way the company does business. Deeper definitions of BM diverge regarding different sets of elements proposed by scholars. One of the reasons for the divergence can be the use of different perspectives. The value-based perspective, in particular, is of advantage as it "presents all the value aspects of BMs, enabling an exhaustive overview of the levers of business model innovation" (Rayna and Striukova, 2016: , p. 23). BMI, in general terms, is defined as the practice of innovating the firm's current BM. It can be recognised either as the process of changing the whole logic of doing business (radical BMI), or the practice of changing one or more elements of the firm's BM (incremental BMI).

The structure of the article is as follows. First, a summary of the theoretical development of both BM and BMI is presented, highlighting the most important theorising attempts with reference to important studies as milestones. Then, after outlining the more frequently cited elements of BM in the literature, the resulting set of components anchored in the value-based perspective is explained. The proposed BMI typology thereafter is detailed, having the success stories of companies as illustrating examples, and followed by guidance on how and when to implement each type of BMI. Finally, in the conclusion section, some suggestions for future research are set out.

Theoretical backgrounds

The BM topic originates in the advent of e-commerce in the mid-1990s, when companies found it more beneficial to change their way of doing business by doing away with physical stores and selling their products online. Using

the web therefore was conceived as a means of changing traditional BMs and the term “business model” was coined in both academic and industrial settings as a result of the meteoric growth of Internet-based businesses.

Accordingly, the theoretical evolution of BM evolved in the e-business literature. Timmers (1998) is one of the earliest studies in the field shedding light on a number of different BMs that Internet-based enterprises can implement. Providing practical examples of companies developing those BMs, Timmers comes up with a framework to classify them. Developing frameworks and models to better understand the concept of BM was a prevailing approach in early scholarship (e.g., Amit and Zott, 2001). Despite receiving attention from academia, the domain was only addressed in the e-business literature restricting BM conceptualisation to the use of the Internet per se. The next generation of authors however extended the field into other areas and actually enquire into BM deeper and wider. Magretta (2002) suggested a broader implication of a firm’s BM as a means to have a sounder understanding of customers and their demands, cost/revenue architecture, and value delivery mechanisms. The field hereafter began to expand by receiving more attention from other disciplines such as logistics management (Chapman et al., 2003), economics (Chung et al., 2004), or even social science (Seelos and Mair, 2005). The dominant feature of cultivating the theoretical underpinnings of the BM concept, exemplified in these studies, was the use of illustrations and presenting examples of companies adopting different BMs. From 2010 onwards, there has been a surge in BMI studies as scholars explore how an existing company can innovate its current BM.

No concrete consensus has yet been achieved of a BM definition (Arbussa et al., 2017). The predominant reason for dissension resides in the BM elements or components which have developed into building-blocks in later studies, appreciating the underlying assumption that the elements of a firm’s BM are important parts of its value chain. They are integrated so that without one, the whole system fails. Various building-blocks of BM have been identified to date giving rise to different classifications. The nine BM building-blocks introduced by Osterwalder and Pigneur (2010) as BM canvas components are perhaps the most widely cited elements: customer segments, value propositions, distribution channels, customer relationships, key resources, activities, and partnerships, and cost and revenue models. The problem with this element specification method is the lack of a taxonomy that covers the interconnections between BMI elements, but also a more comprehensive inclusion of BM-determining factors. This is in line with the *configurational approach* which takes into detailed consideration both the interrelationships between several attributes of a construct and holistic essence of organisational concepts (Meyer et al., 1993). From the perspectives already taken to incorporate different elements into the design of BM, we find the value-based perspective (Ghezzi et al., 2015) consistent with the configurational approach as it is anchored in the importance of *value* within the organisational structure of the firm. Taking this view, four elements of BM are commonly regarded as essential. *Value creation* refers to the set of key internal resources, capitals, mechanisms, and activities by which a firm spots a niche in the market, and creates value for customers in that market, also for suppliers, employees, and other business partners (Ghezzi et al., 2015; Morgan et al., 2013). The *value proposition* element, which reflects anything that makes a firm attractive for its customers, mostly describes the offered products or services to the customers (Osterwalder and Pigneur, 2010). *Value delivery* explains the way a firm reaches and interacts with its customers and finally, *value capture* articulates the way a firm deals with its financial issues to gain maximum profits (Baldassarre et al., 2017). Another building-block of BM that we add to these four factors, is the *value network*, pertaining to the way a firm manages its partnership arrangements. Although this element, in some studies, is embedded in other dimensions of BM, such as in value delivery (Ghezzi et al., 2015), or in value creation (Clauss, 2016) we believe in the applicability of taking it as a separate element of BM, appreciating the fundamental role of inter-firm collaboration strategies in sustaining competitive advantages.

BMI, in conventional terms, is defined as the practice of innovating the firm’s current BM. Developing around this, a number of definitions of BMI have been offered such as the early one by Casadesus-Masanell and Zhu (2013): “the search for new logics of the firm and new ways to create and capture value for its stakeholders” (p. 464). Some definitions are more concentrated on certain dimensions, such as the value capture: “BMI refers to activities that considerably change the structure and/or financial model of a business” (Eshun Jr, 2009: , p. 163). Another reason for inconsistency in BMI definitions is the radical vs. incremental distinction; some scholars regard BMI as a radical, disruptive type of innovation: “the discovery of a fundamentally different business model in an existing business” (Markides, 2006: , p. 20). By contrast, other scholars appreciate the incremental nature of BMI by defining it as the practice of changing one or more elements of the firm’s BM (e.g., Frankenberger et al., 2013), rather than changing the whole logic of doing business. Clauss (2016) proposes “BMI requires that the three outlined dimensions (value creation, proposition, and capture) are changed”. Taking into account these two grounds for the inconsistency, our definition of BMI is anchored in value-based BM building-blocks and approves of the incremental nature of BMI. We therefore define BMI as the practices by which the firm devises novel ways to create, propose, deliver, or capture value and also to innovate its partnerships

arrangements. In this sense, for some cases, BMI involves the reconfiguration of BM components, putting more weight to changing certain aspects of the value chain.

Business model innovation typology

Since the concept of BMI is relatively new, few typologies have been proposed. Taran et al. (2015) offer two dimensions, namely the degree of radicalness of innovation and the scope of the company's market, to propose four types of BMI: (1) open/proactive: to radically change the firm's BM to extend the market to the globe; (2) closed/proactive: radical changes in BM to boost the current market share value; (3) open/reactive: incremental changes in BM to spread the market; and (4) closed/reactive: to incrementally change the BM to exploit more niches of the current market. Classifying innovation based on technological, network, and financial aspects, Koen et al. (2011) identify three types of BMI: value network BMI (developing new BMs within the current network of partners and by engaging in new partnerships), technology BMI (developing new BMs to adopt incremental, architectural, or radical technologies), and financial hurdle BMI (developing new, low-cost BMs that bring the firm at least the minimal expected return). Cavalcante et al. (2011) place an emphasis on the business life cycle (from birth to death) to distinguish four types of BMI, including BM creation: turning a business idea into a new BM and launch a new venture to exploit the idea; BM extension: introducing new practices/processes within the current BM; BM revision: substituting ineffective processes within the current BM for new, more effective ones; and BM termination: exiting the current business in order to avoid extra losses. Santos et al. (2009), focusing on four different forms of BM elements' reconfiguration, propose four types of BMI in terms of *relinking*: changing the nature of the relationships between different departments; *repartitioning*: changing the scope of activities of different departments by reallocating the assigned tasks among them; *relocating*: changing the location of the whole company or some departments; and *reactivating*: either adding or removing one or more activities within the current BM. Given the close affinity between BM and strategy, BMI typologies can be based on different business strategies. For instance, Schaltegger et al. (2012) specify three ways of innovating the current BM viz. *defensive*, *accommodative*, and *proactive* strategies. From defensive to proactive BMI, the extent to which environmental concerns are incorporated into the design of the new BM increases. Accordingly, defensive BMI strategies are more focused on internal processes, whilst proactive BMI strategies are more sensitive to environmental variations.

These few proposed BMI typologies offer considerable insight into the theoretical underpinnings of BMI. However, there is still uncertainty in capturing the most important types. To approach the challenge of covering the key ways of innovating the BM, we find the value-based perspective particularly practicable as it features all the value aspects of BM and consequently paves the way to articulating BMI types. Moreover, given the importance of constituting dynamics of BM in its conceptualisation, our proposed BMI typology hinges upon the five proposed BM building-blocks, namely value creation, proposition, delivery, capture, and network. As depicted in Figures 1, by each type of BMI, we mean that the firm puts more effort into innovating a certain element of its BM. This does not imply that no innovation activities take place in other dimensions of BM, but due to each company's particular position, it may be more beneficial for them to give high priority to one type of BMI over others. The following paragraphs are devoted to describing each of the five types of BMI.

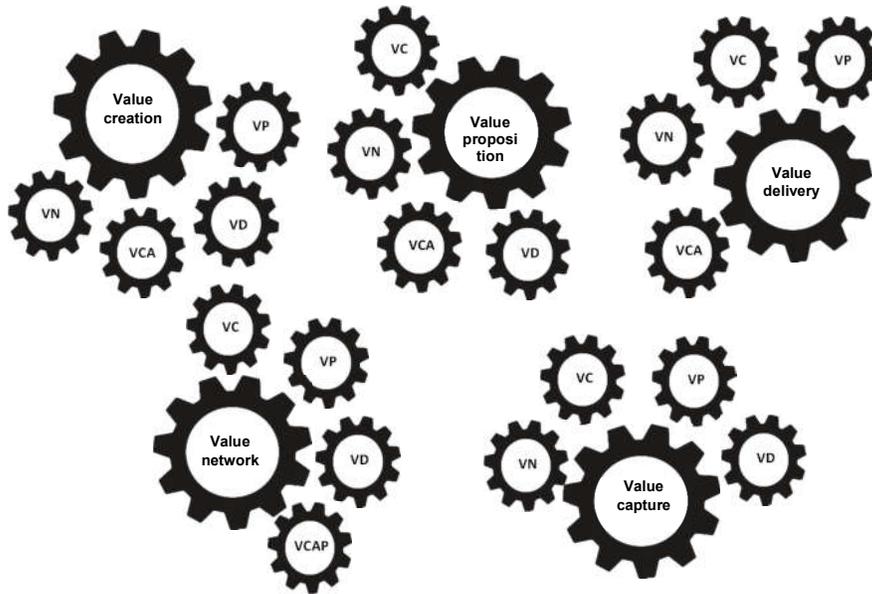


Figure 1. Five types of BMI

Notes: VC: value creation; VP: value proposition; VD: value delivery; VCA: value capture; VN: value network

Value creation innovation

Since the advent of e-business and the increased competition characterised by internationalisation strategies, it has been very important for companies to adjust their internal mechanisms and infrastructural dynamics to create sustained value (Amit and Zott, 2001; Morris et al., 2005). Indeed, the critical need to address BM rather than similar concepts like a business plan, comes from its effectiveness in articulating the non-financial aspects of a firm. Value creation is defined as the set of activities and processes by which a firm creates value for its customers and other stakeholders (Zott et al., 2000). Value can be created either by the customers or the company itself through the reconfiguration of key resources (human, financial, or technological), departments' tasks, and partnership arrangements (Mansfield and Fourie, 2004). This dimension comprises, first what is meant by "value", and second how can it be generated. Amit and Zott (2001) consider value creation as the production of products which depend highly on the logistics needed to produce them and the marketing, sales, and service activities to complement the production phase. New processes, capabilities, and technologies are proposed by Clauss (2016), as sub-constructs for measuring the value creation dimension of BMI. Value creation processes differentiate a firm from its competitors and to achieve a greater success, they should be both effective and efficient (Matzler et al., 2013). Success in value creation innovation brings about sustained competitive advantages as this type of innovation is less likely to be duplicated than product innovation.

From this review, it can be concluded that value creation innovation verges on process innovation. As such, one way to innovate the value creation dimension is the introduction of new processes or mechanisms of production. Sometimes, to create more value, a firm requires new resources, skills, or capabilities. The advent of 3D printing technology provides many illustrations of value creation innovation. Boeing, the airline company, found it beneficial to change its production processes of making different parts of the plane. Mastering this new skill, they are now able to build a whole cabin through 3D printing (Gilpin, 2014).

The distinguishing point between process innovation and value creation innovation is that the reconfiguration of resources is an essential part of the latter. This requires a thorough knowledge of assets, capabilities, and resources. The human resources assigned to certain project activities might have better performance in other spheres of value creation. The financial resources allocated to different projects might be unbalanced. Therefore, to reach a better configuration of resources, an effective descriptive assessment of resource allocation is necessary. The introduction of the M2M (machine-to-machine) mechanism illustrates how a better configuration of resources can be of value. M2M systems allow the control of machines by other machines and preclude the need to use human control. This allows the company, not only to reach more clients, but more importantly, to allocate its human resources to more challenging and fruitful activities.

Innovative and flexible processes of production/service provision, together with the optimum configuration of key resources, may allow companies to develop new products/services, but also to devise more efficient production that enables low-cost offerings with which to penetrate the market. As it requires accumulated

knowledge, value creation innovation is more likely to be successfully achieved by experienced companies rather than start-ups and newcomers.

Value proposition innovation

It is straightforward to say that for a firm to obtain sustained profits, it must offer something attractive to its customers. The value proposition dimension is about the firm's offerings (products and services) introduced either to approach its customers' problems or to satisfy their needs (Osterwalder and Pigneur, 2010). Value propositions can be new, or already existing in the market. Accordingly, value proposition innovation includes the set of new products or services a firm develops. In some cases, value proposition innovation is implemented by amplifying the existing products, adding new features and functionalities. In other cases, the company widens its current range of products in order to clinch new market niches. Amazon is a vivid example of a company making the best use of both value proposition innovations. Starting as an online book seller, they later introduced a new service, allowing users to sell their second-hand books to other users. Subsequently, they diversified their range of offerings to music streaming, electronic devices, video games, dresses, groceries, clothing, furniture, and so on.

The determining factors of new value propositions are identified in the literature, mainly concentrated on marketing concerns, such as *design, price, convenience/usability, accessibility, brand*, and the like. The extent of the *newness* of the offering is likewise important. Customisation is also key to value proposition, meaning the ability to change the existing products/services in order to suit the specific needs of particular customers. Suitable examples of customisation can be found in the clothing and accessories industry, where companies try to secure customers by offering customised products based on individual preferences of the clients. Teespring, for example, provides online self-design platforms letting users design their own T-shirts. Its advertising slogans, like "Find something made for you" or "Every product, made for you" clearly convey the company's desire to involve users in the value proposition phase. Flexibility in offering varied value propositions is critical to reaching as many customers as possible. Dunkin' Donuts (coffee and baked goods chain) is a good example illustrating this. Serving international markets, they have grasped cultural differences, offering unique place-based products, such as Grapefruit Coolata in South Korea, Mango Chocolate Donut in Lebanon, and Dunclairs in Russia (Fleishman, 2015).

Value proposition innovation applies best to those situations where a firm needs to generate short-term profits by proposing a new product/service and fill a market niche before rivals colonise it by duplicating the offerings with some added value (e.g., lower price, or more variety). This type of BMI helps the smaller, more agile enterprises to compete against their larger counterparts. The flexible and leaner BM of a small firm allows it to switch easily between markets by developing new products/services for each. Further, some sectors, such as IT, are more prone to value proposition innovation, since the development of new products does not necessarily require massive, sophisticated resources.

Value delivery innovation

After the creation of value to serve an appropriate market, the next challenge is how to deliver the offerings in a more effective, profitable way. If customers' demands are not met punctually and effectively, the effort devoted in previous stages (i.e., value creation and value proposition) will have been in vain. Two important factors cited by scholars (e.g., Ghezzi et al., 2015) in delivering value are the distribution channels and customer relationship management (CRM) practices. Flexibility of the firm's distribution channels enables it to quickly adapt its BM and seize abrupt market opportunities. The term "flexible BM" is conceptualised by the transactions in distribution channels. In accordance with Combe et al. (2012), for instance, the flexibility of a firm's BM depends highly on the extent to which its relationships with distributors can vary in terms of the costs of transactions, sharing long-term objectives, and the control of supply chain partners. Therefore, to achieve a flexible BM, flexible delivery of offerings is necessary.

Value delivery innovation addresses new ways of delivering offerings to the customers (Rayna and Striukova, 2016). The advent of e-shopping is perhaps the best case in point to illustrate this type of BMI. Internet-based selling systems have helped lots of companies to reach a broader range of customers around the world. Apart from companies born as dot-com retailers like eBay, other companies have attained great success after launching their online deals platforms. The apparel industry has been affected considerably by customers' online purchase behaviours, particularly in recent years. And that seems to be the reason why giant web-based retailer companies like Amazon have begun to invest heavily on the online apparel and accessories market (Rey, 2016).

Another important aspect of Value delivery innovation is the activity of mapping proper customer segments for the offerings. This is emphasised by a variety of BM scholars. Morris et al. (2005), taking it as a whole dimension of BM, assert that it is essential for a firm to take into consideration some factors, such as the

optimum form of value delivery, viz. business-to-business (B2B), business-to-customer (B2C), or both; specification of the targeted geographic market area, i.e., local, national, or overseas; and customer position in the value chain. There are many cases of failure, where companies generate new, saleable products, yet fail to succeed in the market principally because of targeting the wrong groups of customers. In India, for example, e-commerce is heavily populated with big companies and as a result, small start-ups who decide to focus on domestic, rather than global markets, largely fail to survive (Velayanikal, 2015). This mostly results from a lack of ability in engaging customers in the development process, so that value propositions do not meet the real needs of the targeted customers (Wellner and Herstatt, 2014). Thus, to supply the products to proper destinations, a deep understanding of the market is needed. Success examples of effective customer targeting are numerous. "Fashion To Figure", a US apparel retailer, captured a particular niche of the clothing market by focusing on women's plus-size dresses. Founded in 2002, the company grew rapidly as it established an unexploited market niche and in 2010, they commenced selling online to access as many customers as possible.

Value delivery innovation works best in situations when a company wants to target a new geography, or where an innovative way of delivering to the same market areas is of major benefit. In both cases, adaptations to value delivery are required, either by making radical changes (such as closing all the physical distribution channels and selling products online) or by restructuring the existing chain and adding new distributors, for example.

Value capture innovation

Financial aspects have always been of importance in measuring firms' organisational performance. That is the grounds for assigning a whole building block of BM to the economic model of a firm (Chesbrough, 2007; Teece, 2010). Generally speaking, the value capture element entails the way a firm makes money. The sources of revenue are a focal point in defining this dimension of BM. However, profit maximisation can also be achieved by reducing costs. Therefore, an evaluation of the fixed and variable costs of value creation, proposition, and delivery is embedded in the value capture component. That is to say, this dimension of BM is directly influenced by the other elements. Considering the revenue and cost structures as the two main factors in capturing value, there are other sub-dimensions affecting the cost-revenue balance. Price strategy, for instance, plays an important role in making profits. Nespresso is a classic example of employing an effective price strategy, where the profit is made on a wide and varied selection of coffee capsules rather than the coffee machines (Matzler et al., 2013). Adopting this "razors-and-blades" price strategy, Nespresso persuades people into buying the low-priced coffee machines, while making large profits on sale of coffee capsules with different flavours.

Value capture innovation therefore means the practices of ensuring profit growth by changing the balance of revenue and costs. It can be achieved by either finding new sources of revenue and investment through creating new ways of monetising the business and attracting potential investors and financial supporters, or by decreasing the costs of creating, proposing, and delivering the value. Selling products/services at a discount is a way of companies increasing their revenue despite selling at a lower price. Another case in point is Starbucks (coffee company), which made dramatic profits by cutting its costs through closing less profitable stores. The capital saved by this cost reduction strategy was invested in the other more efficient shops (Steverman, 2008). One factor that is important in changing the value capture systems is the extent of flexibility of revenue sources and prices. Indeed, value capture innovation relates strongly to the extent to which a business is able to quickly gather the capital required to launch a new project or the extent to which it can accommodate the detrimental effects of price reduction.

This type of BMI applies best to particular situations. First, this strategy is of value for those companies suffering from a temporary performance degradation. Cost-saving strategies therefore help them retrieve from the situation and keep bankruptcy at bay. The second case in point is where a company intends to procure a new large-scale project and to achieve that, additional financial capital is required. Hence, it may achieve value capture innovation by streamlining its production systems or distribution channels.

Value network innovation

The importance of inter-organisational collaboration strategies in gaining competitive advantages is widely acknowledged in the business literature. However, BM scholars generally regard it as a sub-factor of a specific element of BM. According to Arbussa et al. (2017), for instance, one of the value propositions of a firm to its customers is to make them see it as trustworthy. We however postulate the value network as a separate dimension of BM, pertaining to the way a firm manages its interactions with a network of partners, including suppliers, distributors, stakeholders, and the other business partners. If the company's BM is not open enough to embrace inter-organisational relationships with external parties, it may fail to explore and exploit new market opportunities. Effective networks and valuable partnerships facilitate the transmission of information to the

company encouraging the exploration of external, upcoming opportunities. Correspondingly, the support from suppliers and other partners reinforces the ability to exploit new opportunities arising from foreign markets.

Making changes in both the structure and arrangements of the network of partners is key to creating and sustaining competitive advantages. Ending the relationship with those partners who have not added value to the company's BM, and building up new partnerships with more appealing players of the market in turn, can save a company from bankruptcy. A good illustrating example can be seen in the case of the Nokia-Microsoft alliance. Crashing from the UK second super brand in 2002 to 89th in 2010 (MacIntosh and Maclean, 2014), Nokia was operating on the razor's edge due to the fierce competition with emerging players in low-cost market as well as leaders such as Apple. Hence, the CEO found it beneficial to join Microsoft, recovering by the introduction of new products, such as smartphones with Nokia hardware and Microsoft software. Value network innovation is not limited to new partnership initiatives, but reconfiguring the arrangements also counts. In some cases, it is essential to re-align the priorities of partners, allocating more resources and time to collaborating with the more value-adding ones.

This type of BMI is of especial interest for small firms and start-ups, on the grounds that the partnership initiatives can compensate for the disadvantage of resource scarcity. The other situation is where a company's offerings are complementary to those of the other companies. Accordingly, building inter-firm relationships could bring about synergistic advantages for both parties.

Conclusion

This article tries to highlight the importance of distinguishing different types of BMI and their associated factors. It brings to the fore the reality that BMI can be implemented in different ways and assorted outputs therefore might arise from each type. To achieve optimal results, certain types of BMI should be applied in particular circumstances. As such, we have advanced a BMI typology to better clarify the complex array of factors that determine specific ways of implementing BMI. Taking the value-based view, five types of BMI are proposed in terms of value creation innovation (new ways of creating value), value proposition innovation (new bundle of products/services), value delivery innovation (new ways to deliver the offerings to the customer), value capture innovation (new ways of customising the costs-revenue balance to maximise profits), and value network innovation (new ways to partner effectively). Illustrating examples are provided to reinforce the theoretical tenets of the proposed BMI types.

This study contributes to the BMI literature by advancing a value-based typology. To clarify how companies can innovate their BMs is a way to figure out what really is BMI. This study presents also managerial implications illustrated by success and failure stories of several companies. Particular circumstances under which a company can employ each type of BMI are outlined to provide the CEOs and other senior managers guidance on when and how to benefit from BMI implementation. Finally, we conclude with some suggestions for future research on BMI. First and foremost, empirical studies are needed to investigate the applicability of the proposed typology. The importance and validity of the factors determining each type of BMI can be examined by the means of quantitative methods. Another promising area of research involves studying both BM and BMI taxonomies (see, for example, Groth and Nielsen, 2015). The proposed BMI typology in this study is anchored in the value-based perspective. That is, taking other theoretical perspectives such as the resource-based view of the firm, or the organisational learning theory could be of interest for BMI scholars.

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