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**A guide to the concept and implementation of Business Model Innovation: the 5V BM framework**

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# A guide to the concept and implementation of Business Model Innovation: the 5V BM framework

Business Model (BM) innovation has increasingly been suggested as the way to reconcile the need to detect and respond to environmental challenges with restricted internal resources and capabilities. Despite the importance of BM innovation, and the growing attention to developing its theories, it is still relatively unclear how a BM can be innovated. This paper sets out to provide managers with a clear understanding of the concepts of BM and BM innovation and, more importantly, how the latter can be achieved in practice. We build upon the value-based view of the firm to propose a diagnostic tool for the implementation of BM innovation. The tool underlines the specific practices that allow managers to identify innovation opportunities and ways in which to implement them in one or more of BM's five components(5V), namely, value proposition, value creation, value delivery, value capture, and value network innovation. We use examples from contemporary companies to illustrate how firms can innovate their business model in each of these five components.

## BACKGROUND

The term Business Model (BM) came into popular parlance in the mid-1990s when newly founded internet-based companies emerged, challenging traditional incumbents. Victims of such change are numerous. Take Blockbuster (video renting company) as an example. The managers were too reluctant to incorporate the web into their BM, allowing opportunistic newcomers like Netflix to make the most of the situation and grab their customers. As many business activities such as marketing, sales, information acquisition, and customer communication began to shift to the online environment, companies were forced to revamp their traditional structure into web-based platforms, recognised as "changing their BM". Ever since then, constant academic and business efforts have been devoted to building a clearer picture of the firm’s BM. One of the outcomes of such efforts is the emergence of the concept of Business Model Innovation (BM innovation).

Broadly defined, BM refers to the way a company does business. More detailed definitions of BM vary according to different theoretical views. The value-based view is particularly useful as it draws upon all value aspects of the BM to provide a more comprehensive picture. Taking this view, a BM is a system of interdependent components that depict the way a firm arranges its resources, capabilities and operations in order to produce value. Consequently, BM innovation refers to the practice of innovating one or more (value-based) components of the firm’s BM.

The success and failure of giant corporations in innovating their BM (e.g., IBM when it successfully embarked on service delivery projects while maintaining its hardware production systems; or Google when it failed to compete against Facebook by introducing Google+), triggered vast attention to understanding why some BM innovation efforts achieve spectacular results while others fall short. We believe that one major reason for the failure of BM innovation endeavours is the lack of practical tools to guide managers in their efforts. This paper aims to propose such a practitioner-oriented tool that helps managers diagnose their current BM and highlight the activities they should be engaging on a regular basis to ensure the successful consideration of BM innovation opportunities. No single set of innovation practices work universally for all companies. Instead, the success of BM innovation depends on the alignment between the firm's BM and a variety of internal and external conditions. Therefore, companies must continuously scan their external environment and critically assess their internal culture, strategy, resources and capabilities so the changes they implement are adjusted to their specific circumstance. We also try to elucidate the dynamic nature of BM innovation by exploring the interconnections among the value-based components.

## BM AND BM INNOVATION - EXPLORING VALUE-BASED CONCEPTS

Although there is no unanimous consensus about the definition of Business Model, it is increasingly accepted that a firm's BM is made up of several interdependent components (building-blocks), the central pillars of its value chain, that must be in sync with each other.

To approach the challenge of covering the key components of BM, the *value-based view* is particularly practicable as it is anchored in the importance of *value* to the organisation. Key to this perspective is the notion of 'added value'. The value added by the firm itself is the value created by all the value chain members minus that created by both the suppliers and customers, acknowledging that each player shares in the value created. That is, the ability of a firm to capture value depends on its ability to add positive value to the value chain. By emphasising the whole chain, from inbound to outbound operations, the value-based perspective recognises that value-based strategies are not limited to capturing financial value from product/service delivery, highlighting instead the whole set of activities involved in creating added value. Moreover, this view underlines the importance of those resources and capabilities that are rare and difficult to copy or substitute, in addition to being useful to seize strategic opportunities and avoid or overcome external threats. Furthermore, it helps managers to perceive the dynamic nature of the BM: as the value of resources and capabilities depends on environmental conditions, the dynamic reconfiguration of resources and capabilities plays a vital role in volatile environments.

Taking this view, we propose the 5V BM framework that considers five BM building-blocks (Figure 1), namely: value proposition, value creation, value delivery, value capture, and value network. It is important to understand that BM is not a collection of independent components; rather, these BM components interconnect with one another. Changes in one component generate changes in others. In a well-functioning BM, these components fit together to produce synergy and added value. Managers should carefully consider the interplay between BM components in any BM innovation effort and take care that when one component is changed, appropriate changes in the other components follow suit to ensure alignment. This is one potential reason for the failure of BM innovation practices as managers over-invest in changing one BM component and disregard the corresponding impact in others.

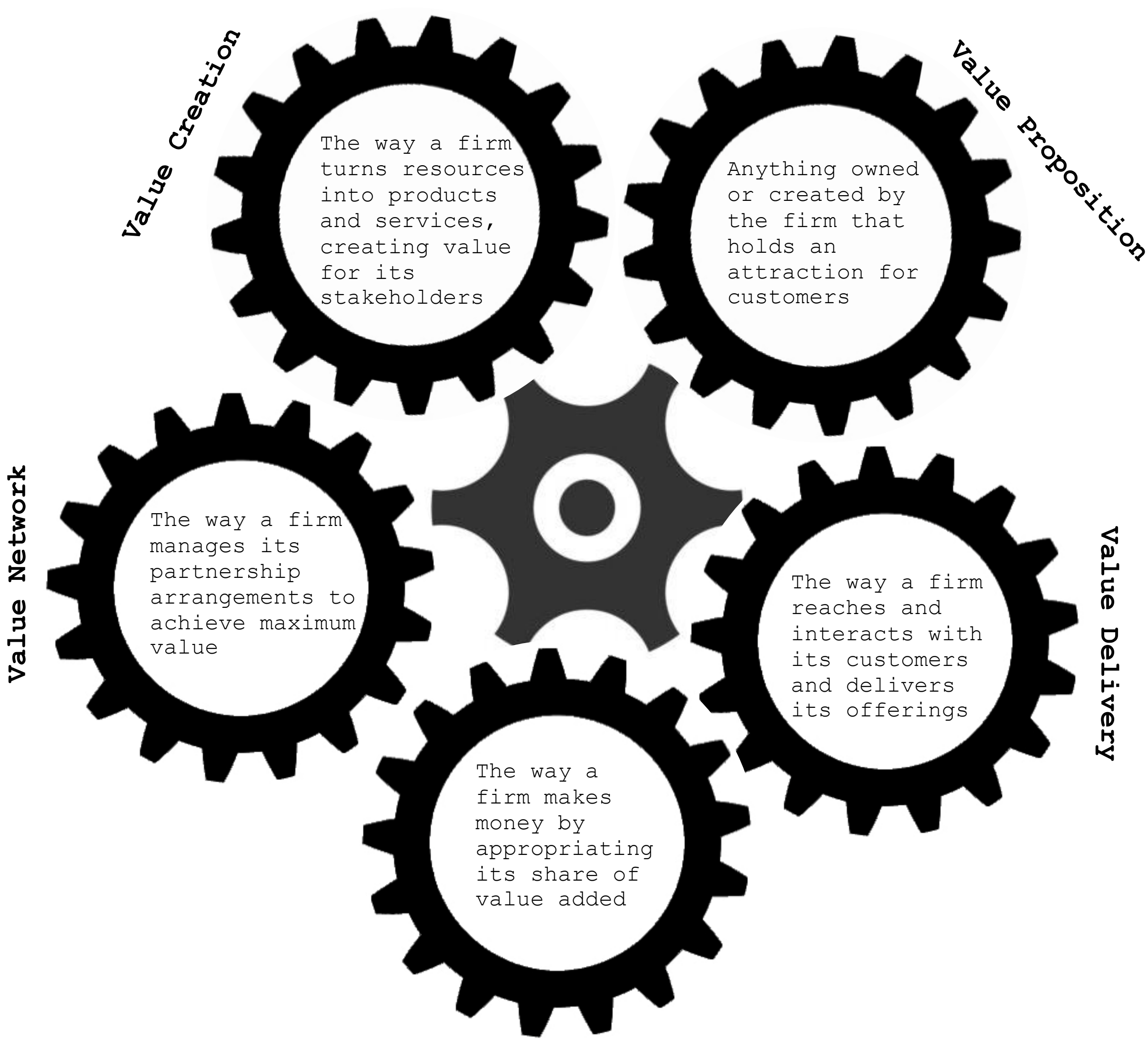


**Figure 1. The 5V BM framework**

Value proposition represents the bundle of offerings and advantages that make the firm attractive to its customers. It includes both tangible offerings, i.e., products and services and their features such as design, price, convenience/usability, and accessibility; as well as intangible, more symbolic benefits associated with offerings such as brand, image, and reputation. The firm's ability to read the market and understand customer needs is essential to produce offerings that maximise customers' willingness-to-pay.

Value creation describes how a firm uses its tangible (resources) and intangible (capabilities) assets to produce its offerings. It includes the development and production processes that result in saleable products/services. The firms' infrastructure, research and technological capacity, and its internal processes are key in this component.

Value delivery centres on ways of reaching customers and delivering the created value to them, including distribution channels, customer interface and customer relationship management. In addition to physically delivering the offerings, it is also essential to ensure communication with customers, both to provide after-sale services and to obtain useful feedback that allows the company to further improve its offerings and encourage customer loyalty.

Value capture describes the cost-saving and revenue-generating practices that allow the firm to improve its financial performance, preferably making a profit. Activities in other BM components usually affect value capture, either by impacting revenue generation prospects (e.g., successful value proposition lead to higher sales) or the cost structure (e.g., more efficient value creation processes lead to reduced costs). Therefore, two types of value capture practices are relevant: direct, profit-generating mechanisms; and indirect, capability development practices. While the former lead to short-term competitive advantages, the latter enable the firm to sustain strategic advantages over time.

Value proposition, creation, delivery, and capture are commonly identified as the four main building-blocks of a firm's BM. We add *value network* as the fifth building-block. This is often assumed as embedded in other components of BM (such as value delivery or value creation). However, as inter-firm collaboration takes on an increasingly fundamental role in sustaining competitive advantages, we propose value network as a specific separate component of BM. Value network therefore addresses the ways the firm structures its network of inter-organisational relationships with external parties (e.g., suppliers, distributors, research institutions) to explore new market opportunities and exploit operational arrangements that lead to greater added value.

Based on the definitions of BM components provided above, we define BM innovation as the practices by which the firm develops new ways to propose, create, deliver, and capture value and also to innovate its partnerships arrangements. In other words, firms can implement BM innovation by making changes in one or more components of their BM. A simple example would be to innovate the firm's BM by introducing new manufacturing mechanisms (value creation) that lead to new products/services (value proposition).

In the next sections, we explore how each BM component can be successfully innovated and propose a diagnostic tool that guides managers in implementing BM innovation. In addition to tackling innovation in each BM component, it also reinforces the notion that a firm’s BM components are interdependent and making planned changes in one component usually triggers changes – even if not to the same extent – in others, which cannot be overlooked. In order to keep the BM consistent, all components need to be adjusted so the whole system can operate well. The use of connected gears in Figure 1 echoes this important aspect of BM innovation. And along the way we call attention to expected repercussions of changes in one BM component on others.

In parallel, innovations to the BM cannot ignore the firm's internal conditions, while seeking to improve alignment with external trends and demands. Therefore, our diagnostic tool directs managers’ attention to continuous environmental scanning and to the need to develop internal capabilities that ensure their products and services are perceived as valuable and unique by customers and are hard to imitate by competitors.

Drawing on the 5V BM framework, our diagnostic tool includes five sections (Table 1 to 5) to address the five components of the BM. In each, it specifies practices that help managers spot opportunities to innovate their BM as well as ways in which to better achieve the required innovations.

**Value Proposition Innovation**

Value proposition is what makes customers prefer the firms' offering, including its inherent features and symbolic associations. Accordingly, value proposition innovation can be implemented by (1) introducing completely new offerings, (2) fine-tuning, adjusting, amplifying the existing products / services, or (3) changing their symbolic associations.

The introduction of new offerings relies heavily on the ability to proactively read the market and respond swiftly with a product that increases customers' willingness-to-pay. This is the case of OPPO Electronics, a less-known company who achieved a remarkable global market share in smartphones in 2017 (7.5%, compared with Apple's 14.7%) by introducing features such as a low-priced rotating camera in smartphones. This allowed users to take the same high-quality pictures from the back and the front of the phone (for those popular selfies), avoiding the need to install a second high-quality selfie camera that would considerably increase the price (with effects on value capture).

Flexibility in adjusting the offerings to suit different customer segments is critical to value proposition innovation (and relies also on the capacity to innovate value creation). Dunkin’ Donuts (coffee and baked goods chain) is a good illustrating example. Serving international markets, they have grasped cultural differences, offering unique place-based products, such as Grapefruit Coolata in South Korea, Mango Chocolate Donuts in Lebanon, and Dunclairs in Russia. Co-creation is another successful way to innovate value proposition, where customers are directly involved in the design of (some features of) the product. Numerous examples can be found in the apparel and accessories industry, where companies try to engage customers in the co-creation of new products by inviting them to suggest design, texture, size, colour, etc.

The rebranding of the aftershave Old Spice is a good example of innovating the value proposition by changing the symbolic associations of the product. An innovative and successful advertising campaign, based on humour with an NFL player, was used to break away from the image of a cheap product for the older generation and rebranding it instead as a new "sexy, surprising, fun, and youthful" line. Vodafone's takeover of Eircell (former Irish mobile cellular network provider) underscores brand value and shows how its loss was minimised by adopting a temporary double-brand strategy. Rather than dropping the notorious Eircell brand straight away, the composite 'Eircell-Vodafone' was chosen as the new brand, and only after about a year was the brand changed to Vodafone. This allowed the customers to get used to the Vodafone brand while initially associating it with Eircell's positive image.

For value proposition innovation, our diagnostic tool (Table 1) specifies practices managers should follow to gain insights into what customers value and about general market trends; and ways in which the value proposition can be innovated accordingly. These practices should ensure products and services are valued by customers and perceived by them as uniquely suited to their needs, which should also make it more difficult for competitors to imitate them. Moreover, these practices are essential to identify and act on external opportunities, like exploring new market segments and maximising revenue potential; and allay potential threats such as being surprised by competitors and losing customers.

| **Table 1. Value Proposition Innovation** | |
|---|---|
| *Understanding what customers value* | - Use marketing research or automatic feedback to regularly acquire information about your customers' satisfaction with (or complaints about) your products/services.<br>- Seek rich customer feedback about what features of your offerings are more valued.<br>- Assess customer feedback specifically for each market segment.<br>- Assess your customers' willingness-to-pay so as to price your offerings more precisely.<br>- Continuously monitor your competitors' strategies and market trends.<br>- Involve customers in co-creating products that they will value more. |
| *Innovating value proposition to match demand* | - Develop value propositions that evolve to match customer preferences.<br>- Adjust your offerings to different market segments so this match is more precise.<br>- Prioritise customisable offerings that may be co-created with customers.<br>- Develop price strategies that meet your customers' willingness-to-pay.<br>- Separate your offerings into basic elements and premium features to suit different customers' willingness-to-pay. |

**Value Creation Innovation**

Value creation describes the way a firm creates value for its customers and other stakeholders through its operations. Value creation innovation relies on the reconfiguration of key resources (human, financial, or technological) and capabilities by introducing new processes, new mechanisms of production, or new technologies, as well as the development of any new resources, skills, or capabilities. The advent of 3D printing technology has provided many appropriate examples illustrating value creation innovation. Boeing, the airline company, was one of the earliest to master this technology, using it to produce several parts for commercial and military planes, and is actually able to build a whole cabin via 3D printing. Ford, the auto company, started using 3D printing to make the engine cover of a new car model, saving thousands of dollars and reducing the production time *from four months to only four days*. This is a prime example of how value creation innovation practices may increase the firm's added value by reducing costs with more efficient operations (thus also affecting value capture).

The *reconfiguration* of resources is an essential part of value creation innovation. This requires a thorough knowledge of assets, capabilities, and resources and the vision to devise novel, more effective and/or efficient ways of combining them. This may entail re-assigning human resources to new activities. Or redirecting financial resources to innovative projects with greater potential. The use of M2M (machine-to-machine) mechanisms is a good example illustrating 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 increase the accuracy of control but, more importantly, to allocate its human resources to more challenging and creative activities.

To innovate value creation (Table 2), managers must follow practices that help them identify where and how to innovate. These practices address the need to continuously assess the alignment of internal resources and capabilities with external demand and market trends to ensure they remain valuable and anticipate possible threats and challenges. Moreover, they emphasise internally developed capabilities that are hard to copy by competitors. Implementation practices also seek to ensure companies develop the capacity to make the changes needed to seize opportunities in a timely manner.

| **Table 2. Value Creation Innovation** | |
|---|---|
| *Spotting opportunities for value creation innovation* | - Continuously assess the alignment of your current resources, processes, capabilities and technologies with external demand and market trends.<br>- Use information from customer feedback mechanisms to spot new product development opportunities.<br>- Regularly scan the environment by monitoring your industry's best-practices and technological development trends.<br>- Develop a system to collect and process improvement ideas from your employees (e.g., suggestions programme).<br>- Associate with external R&D institutions in joint projects. |

| | |
|---|---|
| *Implementing value creation innovation* | - Allocate R&D capabilities to new process as well as new product development.<br>- Prioritise flexible production systems that can be easily adjusted to produce a variety of products/services.<br>- Invest in in-house, tailored production processes that will be harder to copy or replicate.<br>- Invest in keeping your employees' capabilities up to date through training and development.<br>- Prioritise flexible arrangements of human, financial, and technological resources that can be quickly reconfigured for new products/services and processes. |

**Value Delivery Innovation**

Value delivery innovation relates to new or improved ways of reaching customers. This includes both distribution channels and communication practices. Effective communication with customers is not only pivotal to deliver the firm's offerings. Obtaining rich customer feedback also enables the firm to implement effective promotion strategies and customer segmentation, as well as improvements to the value proposition itself, maximising customers' willingness-to-pay. The ability to involve customers in the value chain is an additional opportunity sought by increasingly more companies. Teespring (https://teespring.com), for example, provides online self-design platforms letting users design their own T-shirts. Their advertising slogans – "Find something made for you"; "Every product, made for you" – clearly convey the company’s desire to involve users in innovation processes.

In addition, part (if not all) of the value proposition is based on information and messages that convey to customers, not only the offerings' characteristics and advantages but also their symbolic associations. The case of Old Spice described above illustrates this perfectly: although there is a physical product, the innovation described affected only the communication of the value proposition, allowing the firm to reach new customers with the same product. Besides, as the service and digital economy gain pace, what some firms deliver to customers consists solely of communication and information. Such are the cases of Dropbox and Applause presented later in this article.

Package-pickup service is another triumph of value delivery innovation, illustrating both a strategy that may raise customers' willingness-to-pay through greater convenience, and a strategy to reduce costs and increase added value (leading to improved value capture). PostNord (http://www.postnord.se), a Swedish postal company, is well-known for a service called ‘PostNord MyPack Collect’ that provides customers with about 6,000 shops in the Nordic region as pick-up points. This service is of major advantage for the sender, the recipient, and the shop (parcel pick-up place). First, the sender avoids extra shipment costs caused by second or more return trips when the recipient is not at home. Secondly, the recipient can choose when and where to collect the parcel and does not have to stay home waiting for the delivery. Thirdly, the shop is given the opportunity to have new customers at their shop who might also buy their own products.

Market segmentation and channel type are essential parts of value delivery. The goal here is, not only to ensure the best fit between offerings and customers, but also to maximise the firm's added value by reaching customers who have the highest willingness-to-pay (positively affecting value capture). It is therefore essential for the firm to take into consideration the optimum channel type [e.g., business-to-business (B2B), business-to-customer (B2C), or both]; the geographic market area, i.e., local, national, or overseas; and customers' characteristics. Dell Inc. is well-known for building distinct supply chains, each focused on certain customer segments, yet taking advantage of synergies created by the effective configuration of its different supply chains. Another great example of particularly innovative value delivery is the case of the Inditex Group (Spanish clothing and fashion group) which delivers its products to separate segments of customers through its corporate-owned subsidiaries, including Zara (general clothing for men, women, and kids), Zara Home (home and decoration textile), Pull & Bear (casual wears for teenagers), Bershka (clothing for fashion-conscious teenagers), Massimo Dutti (urban styles for men and women), Stradivarius (casual wears for young women), Oysho (lingerie, and beachwear for women), and Uterqüe (accessories and leatherwear for women).

For value delivery innovation (Table 3), our diagnostic tool specifies practices focused on the delivery of offerings. In addition to endorsing the search for efficient solutions, it stresses the need to seek distribution channels that are consistent with the value proposition, increasing its value and uniqueness. Practices that ensure effective communication channels with customers are instrumental for this, allowing the company to spot opportunities and be prepared for potential threats.

| **Table 3. Value Delivery Innovation** | |
|---|---|
| *Innovating the delivery of offerings* | - Regularly monitor distribution trends to find alternative ways to reach your customers and deliver your products/services.<br>- Consider alternative distribution channels, including online retailing, that are consistent with your value proposition (e.g., positioning, price, brand image).<br>- Consider alternative distribution systems that provide more efficient solutions, like online retail platforms and pick-up points.<br>- Use multichannel distribution systems to reach multiple customer segments.<br>- Prioritise delivery solutions that provide the best customer buying experience, inducing (re)purchase.<br>- Use platforms that reach a wider range of customers and allow you to more easily collect customer feedback. |

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|---|---|
| *Innovating communication with customers* | - Devise ways in which to systematically and timely obtain feedback from your customers that will enable you to improve offerings, segmentation strategy, delivery solutions, and customer loyalty.<br>- Use after-sale services to secure a communication channel with your customers and increases customer loyalty.<br>- Use internet-based systems as the main delivery platform or as a supplement to physical platforms to obtain (potentially automated) feedback from customers. |

**Value Capture Innovation**

Value capture determines the way a firm generates financial profits, not only by developing new sources of revenue but also by reducing costs. Apart from the internal reallocation of funds, this 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 value.

Internal reallocation of funds can be illustrated by the shift of retailers from bricks-and-mortar stores to selling online. By divesting from physical shops, they can channel these funds into the online business, or otherwise reinforce investment in new business areas. While closing over 130 apparel stores, J.C. Penney is opening 100 new home appliance showrooms and extending into home services.

The cost-revenue balance is influenced by various factors. Price strategy, for instance, plays an important role in allowing the firm to push the price as close as possible to customers' maximum willingness-to-pay without losing sales (potentially relying on value proposition innovation). This may entail segmenting customers according to their willingness-to-pay. One innovative pricing strategy that has become a growing trend is what has become known as 'freemium', that is, combining the offer of free products (typically more basic versions) with premium products, where customers are charged for better versions with extra and more advanced functionalities or services. Cloud storage platforms like Dropbox are cases in point: they offer a free limited storage plan and customers can upgrade to extra storage and file sharing functionalities by paying a subscription fee. Nespresso is another classic example of employing an effective price strategy, where the profit is made on a wide and varied selection of coffee capsules while coffee machines are sold at low prices. Adopting this 'razors-and-blades' price strategy, Nespresso persuades people into buying the low-priced coffee machines that will only work with their premium-priced coffee capsules.

On the side of cost savings, any number of efficiency improvements can contribute (usually relying on value creation innovation). Some companies use cost-driven BMs, trying to minimise costs by using low-cost resources, automatic mechanisms, and outsourcing. Online order processing systems and fast turnover of stock are the other features of cost-driven BMs. IKEA saves millions by making their products ready-to-assemble flat-packs. Passing on to customers the assembling activities enables IKEA to keep more stock in its self-service warehouses while reducing the inventory costs, effectively transferring to customers part of the costs of the value added along the whole vertical chain.

To innovate value capture innovation, our diagnostic tool (Table 4) addresses the aspects managers should consider to diversify and expand revenue generation and reduce costs. They concentrate mostly on direct, profit-generating mechanisms. Indirect, capability development practices that have a longer-lasting effect on competitive advantage are covered mainly in other BM components.

| **Table 4. Value Capture Innovation** | |
|---|---|
| *Innovating the revenue model* | - Innovate your offerings to suit your customers' demands so they can command higher prices.<br>- Price your products/services as close as possible to customers' willingness-to-pay.<br>- Segment customers according to their willingness-to-pay.<br>- Separate your offerings into more basic elements and premium features to seize customers with different willingness-to-pay.<br>- Provide lower-priced (or free) entry offerings that allow you to “lock-in” customers for extended offerings as they avoid the costs and difficulties of switching to another supplier. |

| | |
|---|---|
| *Innovating the cost structure* | - Seek efficiency improvements when innovating value creation and delivery activities.<br>- Share resources with external partners, especially in new ventures or if your company is small, to reduce costs while still accessing valuable resources and capabilities.<br>- Exploit synergies among different business units, facilities and delivery platforms to expand your customer-base and/or reduce costs. |

**Value Network Innovation**

BM innovation must not be restricted to internal processes. New ways of doing business can be based on new forms and structures configured around a network of partners that share activities and resources along the value-chain. If the company's BM is not open enough to embrace inter-organisational relationships with external parties, it may fail to exploit more efficient operational configurations that lead to greater added value and to explore new market opportunities with offerings for which customers are willing to pay more. Open innovation networks and valuable partnerships facilitate the acquisition of relevant information by the company encouraging the exploration of external, upcoming opportunities. Similarly, the support from suppliers and other partners may be pivotal in exploring new opportunities in foreign markets.

The Spanish apparel company Zara is a case in point as it owes much of its success to its agile and flexible supply chain that pivots around a tightly knit global network of contractors, contributing with design, manufacture, and retail in a most cost-effective and responsive manner. This is only possible because the necessary levels of transparency and control are granted to the relevant members of the network, through accurate and timely information-sharing, thus ensuring confidence in the supply chain.

Value network determines the way a firm adopts its position within the network of partners, including suppliers, distributors, and other business partners. This will include new arrangements in the network (extending or reducing the number of partners and rearranging the established relationships) and new ways of collaborating and communicating with partners. Making changes in both the structure and collaboration system of the network of partners is key to creating and sustaining competitive advantages. Ending unproductive or even damaging relationships, and in turn building up new partnerships with greater compatibility and complementarity, 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's second super brand in 2002 to 89th in 2010, Nokia was operating on the razor’s edge due to the fierce competition with emerging players in the low-cost segment as well as high-end leaders such as Apple. Hence, the CEO found a way out by prioritising its relationship with Microsoft as a particularly beneficial partner, making it possible for Nokia to introduce their own new smartphones featuring Microsoft software.

The partnership between Wal-Mart and Procter & Gamble illustrates innovations in collaboration that result in increased value for both partners and for the customers. They transformed their tense customer-supplier relationship into a valuable partnership as they started sharing real-time data on sales, inventory and prices by using an electronic-data-interchange system. This allowed them to anticipate sales and automatically manage orders. The system covers the entire order-to-delivery cycle, with invoicing and transfer of funds also processed electronically, greatly reducing costs for both parties (of inventory, human error, admin operations, stock-outs, etc. - improving value capture) and ensuring product availability to customers (improving value proposition).

All of these examples highlight also that commitment to partnerships is predicated on interdependence and trust. Mere opportunism will not secure inter-firm collaborative efforts. Instead, genuine commitment to long-term relationships based on mutual trust and cooperation is key to the success of this component of BM innovation, with direct impact on suppliers' opportunity costs and overall added value. Moreover, when considering value network innovation, managers must also take care not to jeopardise future collaborations by damaging trusting relationships.

For value network innovation, our diagnostic tool (Table 5) highlights practices to assess and reconfigure the network of partners and to concentrate efforts on the more strategic ones, that allow the company to share resources, risks and costs and develop capabilities that are valuable, rare and difficult-to-imitate. Partnering with external stakeholders requires particular care so as not to expose the company to copy by competitors. Building trust within the network is therefore crucial.

| **Table 5. Value Network Innovation** | |
|---|---|
| *Reconfiguring value network* | - Map your network of external partners assessing the relative dependence of your business towards them (and vice-versa) and relative contribution of each partner to the value chain.<br>- Use this map to categorise external partners into different levels of strategic importance.<br>- Assess the possibility of re-configuring your partner network to increase its value, prioritising more strategic partners.<br>- Build a comprehensive understanding of your BM to identify opportunities to draw value from collaborating with (new) external partners.<br>- Continuously scan the environment to find potentially suitable new strategic partners. |
| *Building strong value networks* | - Seek partners whose goals, culture, strategies and activities are compatible with your business to secure mutual benefits.<br>- Prioritise partners with higher potential to improve the different elements of your BM.<br>- Build trust within long-term relationships with your strategic partners, based on transparency and the balanced sharing of information and control. |

## INTERDEPENDENCIES AMONG BM INNOVATION COMPONENTS

As explained and illustrated above, a firm's Business Model constitutes a system of integrated components that are interdependent. Alignment among these components is therefore vital for the system to work well and produce synergies and added value. Effectively aligned BMs with the correct interactions among components make them more successful. On the other hand, as BM components are interdependent, BM innovation will likely disrupt previously established alignment as changes in one component inevitably carry consequences in others.

The case of Applause App Quality, Inc. (https://www.applause.com) is a concrete example illustrating BM innovation interdependence. This web-based company provides software developers with technical feedback on their websites and mobile apps, including digital testing, usability feedback, and human user experience feedback. Applause has built a global network of expert users (with more than 500,000 members in 200 countries and territories as of 2020) that feed their databases and testing tools as well as providing market insights. Applause's unique competitive advantage lies in the effective use of crowd-testing which capitalises on an extreme network of testers all around the world to provide its customers with software testing, debugging and upgrading that are essential in software development projects. Applause's services are therefore of high value for developers who are willing to pay for the service (from individuals to huge tech companies). And it is also of value for the testing community (suppliers) that see their opportunity costs reduced: Applause provides training and encourages interaction among community members, making it more worthwhile for them to work with Applause than on their own. So, the company offers a new high-value proposition that itself relies on network value innovation, as the service provided is only possible because of the extended network of expert users they engage. They use the reviews, likes, and dislikes made by the users on the testers' reports to recruit new software experts and extend the network. This value proposition based on value network relies also on an innovative value creation approach, as Applause has mastered the technology that enables any web-browser, any device on any operating system to become a part of the testing network. The company also has the capability of processing the information gathered to serve each customers' needs. Value capture is also innovative as Applause generates revenue from aggregating the collective contribution of a globally dispersed community of expert software users and delivering it to software providers. The testing community members are paid for input that is approved by Applause customers (with a bonus for high-value input). This is important to attract a truly global and widespread network of expert testers while making it financially sustainable for Applause and its customers to afford the service. Finally, as for value delivery, the services (testing results, user reports, market insights and customer support) are all provided online, maximising the delivery speed and responsiveness, which is part of what customers appreciate in the service (value proposition).

Applause's example illustrates how the various components of the business model are intertwined and innovation in one component depends on innovation in all other components so that the whole configuration is consistent and works together.

Further evidence of the interactional effect among BM innovation components can be recognised through other examples already provided in this article. For example, a freemium pricing strategy, as used by Dropbox, is an innovative value capture alternative that requires firms to adjust their product lines (value proposition) accordingly. In the case of PostNord, it is clear that value delivery and value network are inextricably linked. The company uses its network of partners (shops as pick-up points) to deliver parcels to customers. And Ford's example demonstrates how value creation innovation (in this case, introducing 3D printing) can impact value capture as the new technology led to important cost savings. Indeed, value capture benefits, in the form of increased revenue and cost savings, will be the underlying desired goal of most BM innovation initiatives.

## IMPLEMENTING BM INNOVATION

In turbulent environments in which customers change their demands rapidly and competitors come up with disruptive innovations frequently, firms face a strong pressure to develop new business models. This has led to a growing interest in studying the concepts of the Business Model (BM) and BM innovation.

We clarify the concept of BM around five components, proposing the 5V BM framework. BM innovation thus represents efforts in innovating any of these components. Conscious of the importance of internal and external contingencies, our BM analysis calls attention to the fact that BM innovation efforts should seek to improve the alignment with forces from both within and outside the firm. As such, when introducing changes in their BM, managers should strive to develop resources and capabilities that are of value, rare and hard to copy or substitute. Similarly, BM innovation should respond to the opportunities and threats faced by their businesses. In our diagnostic tool, this is reflected in the items that draw managers' attention to the dynamic reconfiguration of resources and capabilities as well as the continuous scanning of the business environment.

When contemplating value proposition innovation (see Table 1), managers should concentrate on tracking market trends and obtaining rich feedback from current customers to acquire a better understanding of their needs and wants. The ability to adjust their offerings to match them ensures customer satisfaction and loyalty. New and improved offerings also enable the company to explore different market segments and expand the customer base. This may also result in products/services that may be priced closer to customers' willingness-to-pay, favourably impacting revenue and therefore value capture.

Value creation innovation relies on closely monitoring technological as well as market trends and being able to (quickly) reconfigure current R&D and production resources and processes to bring about new or improved offerings that meet market demands or aspirations. In addition to following customers and competitors, partnering with suppliers and research institutions (drawing on value network capabilities) will allow the business to keep up with the latest market and technological developments and even take advantage of joint efforts to develop and implement product and/or process innovations.

To innovate value delivery, managers must consider different ways in which to reach customers, both to deliver offerings and to ensure effective communication. Delivery solutions must be consistent with the value proposition as delivery impacts product/brand image and is integral to customer experience. A convenient, enjoyable purchase experience helps secure customer satisfaction and loyalty. Physical premises provide direct contact with customers and ample opportunities to enhance customer experience, but may be less effective than internet-based operations to obtain systematic and rich feedback, especially if the customer base is sizeable. This information is pivotal in gaining critical knowledge to innovate the value proposition (which may, in turn, require value creation innovations) and inform more effective pricing and promotion strategies, affecting value capture. In B2B operations, there is greater scope for developing long-term relationships with clients that facilitate ongoing communication, assessment of client satisfaction and even direct cooperation. Delivery innovation should also target efficiency gains in order to obtain cost savings.

Most innovations in other BM components will impact value capture, either by improving revenue streams or reducing costs. Alternative or increased revenue streams rely heavily on value creation and value proposition capabilities. Innovative offerings, suited to segmented customer needs, attract more buyers and command higher prices. Improvements in efficiency occasioned by process innovation and increased volume (value creation) are the main sources of cost reductions. But important savings may also come from innovations in delivery solutions (e.g., internet based rather than physical stores) and synergies among different business units, like shared services or infrastructure for different products/services. And relying on your network of partners may enable your business to share the costs of certain resources and capabilities, including knowledge and expertise, access to customers and specialised facilities.

Innovations in value network entails reconfiguring your network of external partners to seek new valuable collaboration opportunities in each of the other BM components. Value proposition may benefit from partnering, for example, with industry associations to keep up with market trends or with celebrity brand ambassadors for promotion purposes. Partners such as R&D institutions and suppliers may be critical for value creation activities, enabling the sharing of expertise, technology and facilities. Value delivery can be improved, among others, by sharing (online) retail outlets with other businesses. Value capture will be impacted by all partnerships that result in increased revenues and cost savings. Assessing the relative contribution of each partner and their interdependence with your business will allow you to stratify your partners according to their strategic importance, which may be used as a basis for network reconfiguration. Key strategic partners warrant investing in a long-term relationship based on mutual trust and convergent goals and values. Some partners may be redundant or inadequate and should be dropped or replaced.

The proposed diagnostic tool also underlines the configurational nature of BM innovation, accounting for the interdependencies among the different components, as highlighted throughout the text. We stress the dynamic nature of BM innovation whereby, inevitably, changes in one BM component impact others, sometimes eliciting further change.

**Selected Bibliography**

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