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## BUSINESS MODEL INNOVATION INFLUENCING FACTORS: AN INTEGRATIVE LITERATURE REVIEW

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### ABSTRACT

**Highlights:** Proposal to integrate the Business Model Innovation (BMI) influencing factors in a single framework. Twelve BMI influencing factors found through an integrative literature review. Factors grouped through an affinity diagram to design the framework architecture, containing four categories. The study highlights the importance for companies to consider the interrelationship between the influence factors to be successful in their BMI initiatives.

**Goal:** This paper aims to provide an integrated framework that comprises influence factors for business model innovation, and describe them by exploring the linkages between different factors.

**Design / Methodology / Approach:** an integrative literature review was conducted using PRISMA work flow to manage this kind of methodology.

**Results:** This work finds 12 main potential influence factors for business model innovation. All factors have been grouped into four different categories, using the affinity diagram approach.

**Limitations of the investigation:** Business model innovation is a recent research topic, and not all its influence factors are agreed upon. Despite the importance of grouping, those already described in a single framework, there may be other relevant factors not mapped.

**Originality / Value:** Despite the existence of bibliographic material on specific influencing factors, there is, to the best of the authors' knowledge, no study that integrates all the explored factors. This work contributes to literature by integrating the diverse factors into a single framework.

**Practical implications:** It contributes to practice, enticing managers to reflect on their own environment, and on the possible paths to follow for succeeding with its business model innovations efforts.

**Keywords:** Business model innovation; influencing factors; strategic management; integrative literature review.

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## 1. INTRODUCTION

Despite the growing importance of business model innovation, its execution is not a simple task. According to Christensen's et al. (2016) study, business model innovation initiatives success rate is low, which reflects in a high failure index. Therefore, Hock et al. (2016) argue that business model innovation capabilities need to take part in an organization's dynamic activity system. In this sense, it is important to better understand what the influencing factors around the BMI process are.

This is important to several industries, since the increase in market changes and disruptions frequency results in shortening business model life cycles. In turn, it implies that there is a constant threat to the sustainability of the existing business model (Lindgardt et al., 2012). Additionally, the business model innovations brought to market pose a significant challenge even for companies that successfully deliver products and process innovations (Doz and Kosonen, 2010), because the processes and routines designed to promote product innovation are not necessarily the proper ones to develop novel business models (Eichen et al., 2015). Therefore, it is safe to say that the interest to better understand the phenomenon is relevant not only for practitioners, but also to academics. Thus, understand the influencing factors aims to reduce the failure index and promote the competitiveness of the organization.

Despite this growing interest on influencing factors, studies focus is on specific factors, such as cognitive barriers, separately. In this line of thinking, there is, for instance, a discussion that managerial cognitive barriers play an important role influencing the business model innovation process (Chesbrough and Rosenbloom, 2002; Martins et al., 2015). Moreover, to the best of the authors' knowledge, the consulted literature does not provide an integrative view of these factors. Thus, there is a need to better understand the whole, by integrating all the different influence factors, to contribute to the business model innovation initiatives success rate (Keller et al., 2017; Wrigley et al., 2016). The purpose of this work is, therefore, to answer the following research question: what are the main influencing factors concerning the organization's business model innovation initiatives?

To answer this question, an integrative literature review was conducted, aiming at combining the different factors into a single framework. This work contributes to both literature and practice. First, it contributes to literature by integrating the diverse factors into a single framework. This is important to engage researchers to further investigate the influences of the whole instead of treating them separately. Second, it contributes to practice, enticing managers to reflect on their own environment, and on the possible paths to

follow if it is to succeed with its business model innovations efforts.

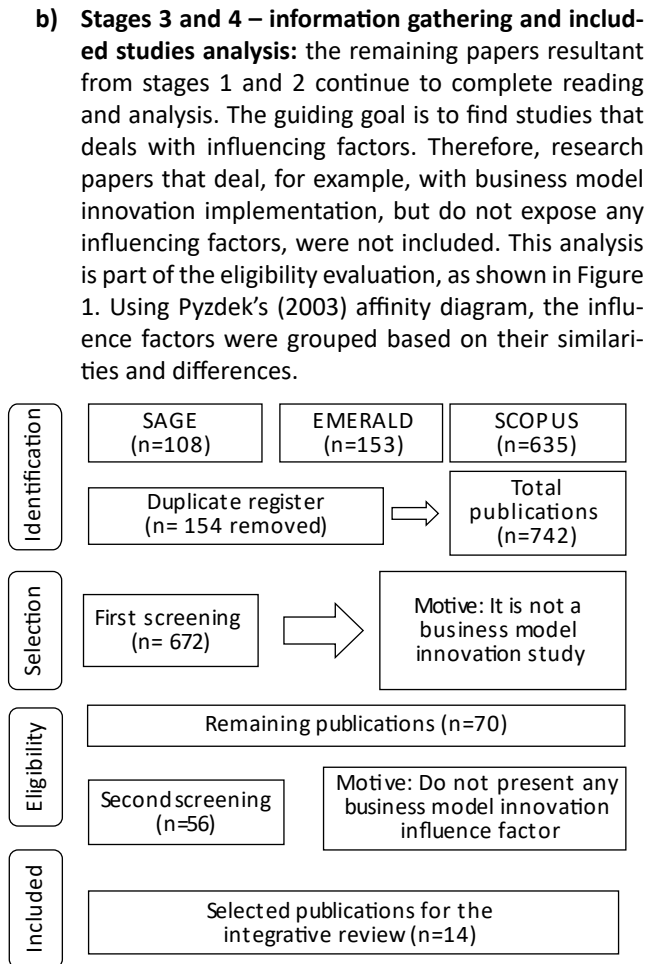
## 2. METHOD

Through identifying a gap pretraining the business model innovation influencing factors, an integrative literature review was conducted as a mean to begin filling this gap. This specific review method considers both experimental and non-experimental studies in its analysis. Since business model innovation is still a recent research line, using this approach makes sense to broaden the coverage and to allow more studies in the analysis. As a result, by using this approach it is possible to evaluate different publications and, thus, provide a general analysis of this body of knowledge (Botelho et al., 2011).

### 2.1 INSTRUMENTATION

For the integrative review approach, Souza et al.'s (2010) and Whitemore and Knafli's (2005) frameworks were used:

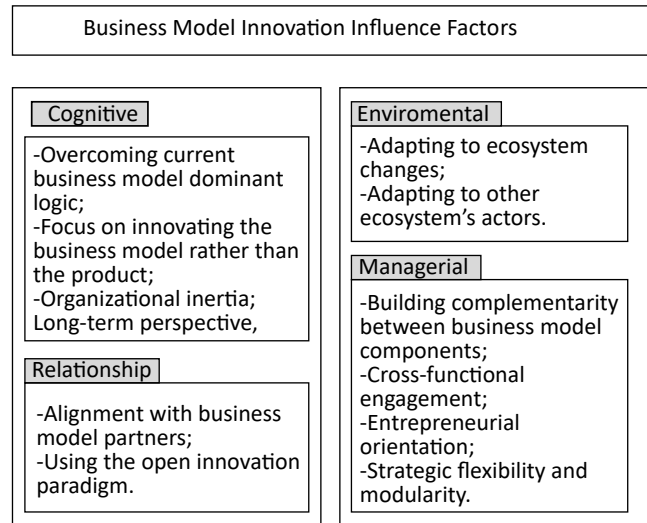
- a) **Stages 1 and 2 – problem identification and literature search:** the problem selected is the abovementioned in the introduction; afterwards, this study advances to the literature search strategy. First, the database selection consists on finding the main distribution channels for the subject. Therefore, SCOPUS, Emerald insight, and SAGE online journals were selected. In the sequence, the publication gathering begins by choosing proper search words and linkages between them. In this sense, the words "business model innovation", "procedure", and "implementation process" were chosen, all linked through the Boolean connector "AND". That is because the aim is to find publications that have all three words at the same time, and not each isolated. In addition, as the inclusion criteria, it was opted to search for these words in the full paper (not only on titles, keywords and abstract), also to broaden the coverage. All papers should be in English, published between 2013 and 2017 and indexed on the selected databases. Also, we considered only publications that were business model innovation studies, since some studies included, for instance, business model innovation as the outcome of another process. For the summary and presentation of the findings PRISMA (Preferred Reporting Items for Systematic reviews and Meta-Analyses) was used. This method is a mean to improve the systematic reviews and meta-analyses report, and it is suitable to display integrative factors (Moher et al., 2010). Figure 1 presents the publication selection funnel, based on PRISMA.



**Figure 1.** PRISMA workflow, adapted for integrative literature review application

Source: Adapted from Oliveira et al. (2017)

**c) Stages 5 and 6 – data analysis and results presentation:** these analyses were based on the business model innovation influencing factors, especially taking the resulting groups into account. By doing this, it is possible to draw conclusions from the literature analysis, especially about challenges and gaps existent that could base a future research agenda. Figure 2 presents the resultant affinity diagram, and represents the structure from which the conclusions and the framework of this work were drawn. The diagram makes it easier to understand the discussed influence factors, and how they relate to one another with business model innovation. In total, it was identified 14 research papers addressing 12 different business model innovation influence factors.



**Figure 2.** Affinity diagram comprising the business model innovation influencing factors grouping

Source: Authors

### 3. BUSINESS MODEL INNOVATION INFLUENCE FACTORS

#### 3.1 COGNITIVE FACTORS

**a) Overcoming current business model dominant logic:** several authors highlight the relevance of this first barrier. Consolidated business models are usually successful ways of doing business, as they have been successful in the recent past. Thinking about changing a business model that is working is, therefore, not a simple task; instead it proves to be a complex one. Accordingly, Frankenberger et al. (2013) use the expression "breaking the industry's law" as a reference to this cognitive barrier. This factor is relevant for the early business model innovation stages, which consists in identifying the need to change and designing the change. Frankenberger et al. (2013) and Täuscher and Abdelkafi (2017) for instance, highlight the challenge to overcome this existent and successful business model logic during the ideation stage. Additionally, Eichen et al. (2015) explore this barrier by showing that, occasionally, the business model logic makes no sense. The authors cite Skype's example: its business model creates value to several different customer segments, but captures part of this value only through a few of them. Wrigley et al. (2016) also explore this barrier, and they advocate in favor of a dynamic view of the business model. For the authors, however, there is a lack of



proper tools to “[...] provoke and facilitate divergent thinking regarding business model design” (p. 30). Addressing this issue, Täuscher and Abdelkafi (2017) suggest several visual tools for business model creation as possible paths to help overcoming the dominant logic. Their systematic literature review on visual tools for business model innovation maps out the possibilities, which contexts favor each use, which are their advantages and weaknesses, and how to better use them. Herbes et al.’s (2017) study complements these views by citing diverse cognitive barriers, characterized by the authors as risk and change aversion. Finally, Laudien and Daxböck (2017) assert that the dominant logic barrier “[...] acts as a blinder toward market-based opportunities and threats”.

- b) Focus on innovating the business model rather than the product:** this barrier is almost a reflection of the first, because product and service innovations take part in the mainstream business logic whereas business model innovation does not. Changing the focus from the first to the second, thus, poses a significant challenge. Through several interviews, Frankenberger et al. (2013) show that the studied companies exhibit a notorious orientation toward a product and service innovation culture. The authors infer from interviewees’ comments that: there is a lack of a business model innovation culture and proper tools to systematically develop novel business model ideas, while there are plenty to support product and service innovations; and the financial investment is already committed to product and service’s innovation portfolio. Despite this reality, Lindgardt et al. (2012) highlight that business model innovations often produce higher profits than product and service innovations. In addition, Eichen et al. (2015) support the notion that, often, even successful technological innovations need a complementary business model innovation to create value. The business model innovation literature, in general, also provides support to this notion. See, for example, Chesbrough and Rosenbloom (2002).
- c) Organizational inertia:** Huang et al. (2013) define this barrier as an organization’s inability to respond efficiently to changes. The authors separate the inertia in three dimensions: thought inertia, action inertia, and psychological inertia. The former is the inability of an organization’s members to realize that there are external changes that require internal changes to respond to them. Action inertia, in turn, is when an organization notices the existence of external factors that require internal changes; however, there is slow or no movement to do so. Finally, the latter is a psychological resistance to accept the change.

Thus, it happens when the organization recognizes the need to change and has the capacity to change; however, for a plethora of reasons, it chooses to keep the *status quo*. Huang’s et al. (2013) findings show that the negative effects of the organizational inertia on business model innovation have two main reasons. First, they may threaten to break the current structure of power and interests of the company, resulting in resistance against its occurrence. Second, it is a challenge for employees to adapt to new operation procedures, norms, and management behavior. Gärtner and Schön (2016) argue that “inertia” and “path dependency” are synonyms. This is because the positive rewards overtime, the organization’s history, and its past success create rigidity toward changes.

- d) Long-term perspective:** according to Karlsson et al. (2017), long-term perspective is the main factor regarding the implementation success of a new business model. Its study, however, is specific to the bio-gas industry and, thus, it is hard to generalize that long-term perspective is an overriding factor. Also, it is the only study that highlights this factor. Nevertheless, even though there may be business model innovations that occur in the short-term, it seems logical to understand the phenomenon as a long-term perspective. That because it often involves several experimentations and trial-and-error learning loops, knowledge management, and changes in the fundamental way of doing business. Altogether, this points towards business model innovation as a long-term goal, rather than a short-term one.

### 3.2 MANAGERIAL FACTORS

- a) Building complementarity between business model components:** the misalignment between different business model dimensions results in implementation errors and difficulties (Frankenberger et al., 2013). Changing one specific business model component may seem trivial in theory, as a simple choice adjustment. However, a business model is systemic in its nature, in that it is more than just a listing of components, and thus the interactions between its parts is relevant. This particular characteristic means that changing one component often needs a full system review, and often requires changes in the whole business model. In other words, modular changes in the business model are rare, and will depend on the level of its complementarities (Foss and Saebi, 2018). Täuscher and Abdelkafi (2017) therefore argue that managers’ inability to align different business model components comprises a relevant barrier, and there is a need to transform ideas

into consistent business models to overcome it. To sum up, managers need to direct its focus in recognizing inconsistencies in the business model and represent this knowledge clearly and concisely.

- b) Cross-functional engagement:** despite the business model innovation literature pointing to the leadership as responsible for it, Winterhalter's et al. (2017) single case study with BASF highlights that it is rather a cross-functional process. In this particular case, the company aims at delivering business model innovations to its customers through a central unit that integrates diverse functions, such as marketing, R&D, and operations. This unit is responsible for putting together this knowledge diversity and has direct contact with the board of directors to assure leadership's attention and support. Although only one publication using a single case study approach represents this factor, it makes sense to understand the cross-functional need to business model innovation. This makes sense especially considering the previous factor, in which there is a need to integrate the different business model components.
- c) Entrepreneurial orientation:** Bouncken and Fredrich (2016) propose that this is a key factor for successful business model innovation and, in fact, the authors consider it the most important one. Specifically concerning the inertia barrier addressing the risk aversion behavior, entrepreneurial orientation offers means to overcome it and create novel business ideas. Other authors provide complements to this line of thinking and corroborates Bouncken and Fredrich's (2016) view. Guo et al. (2013), for instance, suggest that entrepreneurial abilities help managers sensing and seizing opportunities, guiding their attention towards business model innovation. Likewise, Karlsson et al.'s (2017) study on biogas industry's business model innovations shows that all success cases involved entrepreneurial characteristics, such as problem solving and risk-taking behavior. It is important to note that these characteristics exist in both cases that involved entrepreneurial initiatives and the ones that did not.
- d) Strategic flexibility and modularity:** even though strategic flexibility and modularity are not synonyms, they do present relevant similarities with each other. According to Gärtner and Schön (2016), strategic modularity favors the flexibility which, in turn, is a positive business model innovation antecedent. Modularity's main idea is to build complex systems from smaller, simpler, subsystems named modules. These are different sets of specialized operations that interact among one another and that enable re-

combination and new configurations without losing the whole system functionality (Campagnolo and Camuffo, 2010). Similarly, Bouncken et al. (2016) assert that the capacity to reconfigure resources and capabilities through modularization positively influence business model innovation. To illustrate this factor, Gärtner and Schön (2016) use Amazon's case, since the company successfully turned different business model elements into independent modules. The AWS (Amazon Web System), for instance, is an information technology infrastructure system that attends both the Amazon's electronic-commerce services and the market. To achieve these two different goals, Amazon had to develop this infrastructure as a separate module, since its full integration would make one them less efficient. Strategic flexibility, in turn, is the capacity to quickly adjust, add, remove or reconfigure the resources to respond to a changing environment (Schön, 2012). It is relevant to highlight, however, that modularization may also lead to path dependency since changing modularly is easier and convenient, detracting attention from aimed to systemic changes (Gärtner and Schön, 2016).

### 3.3 ENVIRONMENTAL FACTORS

- a) Adapting to ecosystem changes:** Frankenberger et al. (2013) note that this factor is a significant challenge in stages before the search for business model innovation ideas. When facing, for instance, regulatory changes imposed by the government or by the society, it is important to adapt early to these changes. Similarly, different technological changes often call for an adaptive movement to provide changes in the mainstream business model. The Internet illustrates this fact, since it enabled a plethora of new business model configurations (Timmers, 1998). According to Winterhalter et al. (2017), technological changes comprises an important trigger for business model innovation efforts. Schneider et al.'s (2013) study on maintenance, repair and aviation revision companies mapped different factors influencing business model innovations, such as technological development, economic changes and deregulation. Finally, Herbes et al. (2017) call attention to ethical concerns, a barrier that is not well explored by the business model innovation literature. Their study focuses on German energy cooperative and shows that climate change concerns guide the need to innovate the business models to accordingly deal with it.
- b) Adapting to other ecosystem's actors:** similar to the previous factor, this also comprises ecosystem



changes, since another actor's movements is an external environmental change. Actors such as customers, suppliers, competitors, universities, and government exert influences the focal firm operations. Understanding these actor's needs and movements is important especially to business model innovations' initial stages. In support of this argument, Schneider et al. (2013) show that changes in maintenance, repair and aviation revision industries' demand influences the business model components of these companies. According to Zhu et al. (2017), a business model innovation is successful when it is capable of strategically responding to demand opportunities by offering products or services that attend customer preferences in appropriate time. The authors illustrate this argument through an analysis of China's cell phone manufacturers. Their analysis shows that having the most efficient or the most innovative business model in this industry does not mean having competitive advantage. This latter is rather associated with those companies offering the best solution to attend specific customers' preferences to seize a demand change opportunity. In line with the notion of adapting to customer demands, Winterhalter et al. (2017) emphasize market pressures as an important business model innovation catalyst.

### 3.4 RELATIONAL FACTORS

- a) **Alignment with business model partners:** all stakeholders need to support the innovating business model. If it is to be successful, otherwise it will be difficult to manage and to operationalize (Frankenberger et al., 2013). Business model's central role is to create and deliver value to all involved stakeholders (Chesbrough and Rosenbloom, 2002; Teece, 2010). Accordingly, Guo et al. (2013) use the managerial bonds concept, which represents, for instance, the capability to create relationship with business partners. The link between managerial bond and business model innovation occurs by allowing access to better business opportunities and market information (Guo et al., 2013). The authors' results show positive influence when entrepreneurial orientation complements these managerial bonds. That because, when only connected to managerial abilities, it leads to exploitation and optimization of current resources, and not to a business model innovation.
- b) **Use the open innovation paradigm:** Huang et al. (2013) explore open innovation's efficiency in overcoming organizational inertia and backing business model innovation, and its resulting impact on the

organization's performance. The study shows that open innovation reduces organizational inertia and positively influences business model innovation. Chesbrough and Rosenbloom (2002) also defend open innovation usage, and encourage organizations to promote innovative ideas flow from both outside-in and inside-out, by opening this process to external agents (Chiaroni et al., 2011; Dodgson et al., 2006). To summarize, it means that, by understanding the world as a globalized entity, organizations should seek knowledge outside its internal departments' boundaries and, as a result, search for new ways to achieve competitive advantage through innovation.

### 4. CONCLUSION

This study proposed to answer the research question regarding the main factors that influence the business model innovation process. To this end, the integrative literature review method was used to map and explain all the explored factors so far in a single framework. As a result, the factors were grouped in four different macro groups, and each group was described in detail. It is relevant to note that, despite separating the factors in four different groups, they display interactions among each other. To illustrate, an organization with an entrepreneurial orientation may present higher tendency to successfully adapt to external ecosystem changes and to overcome the inertia.

The influence factors framework proposed in this paper can evolve alongside the business model innovation concept, since it is a recent research topic. In this sense, there may be new factors, not so far identified, that can complement the framework in the future. Moreover, the categories proposed in this article may not represent the totality of factors, as new factors do not necessarily need to fit inside those. Updating the framework is relevant to help understanding why some business model cases are successful and others are not.

This study contributes to the practice that the described factors provide means for the management's reflection before, during, and after its business model innovation efforts. Especially in companies willing to achieve competitive advantage through business model innovation or needing to adapt to new business models from its competitors. Both strategic modularization and flexibility factor may be of particular interest to the manufacturing field. As pictured by Amazon's case, in which the company explored its service and information technology infrastructure to develop a new business model. Similarly, there might be latent business model innovation opportunities inside different organizations' manufacturing systems.

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