



Distribuição de valor pelo modelo de negócio: o caso da MRV Engenharia

Value distribution through business models: the case of MRV Engineering

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Nota de esclarecimento:

Comunicamos que devido à pandemia do Coronavírus (COVID 19), o IX SINGEP e a 9ª Conferência Internacional do CIK (CYRUS Institute of Knowledge) foram realizados de forma remota, nos dias **20, 21 e 22 de outubro de 2021**.

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Objetivo do estudo

Este estudo discute a relação entre modelo de negócio (MN) e sua capacidade de criar e distribuir valor para os stakeholders em uma organização no setor da construção civil para o segmento de baixa renda.

Relevância/originalidade

Emprego de framework próprio de análise do modelo de negócio (VoC - The Value of Choices) que permite a descrição e análise da relação entre as escolhas do modelo e suas consequências em termos de valor gerado para a empresa e stakeholders.

Metodologia/abordagem

A pesquisa empírica seguiu o método qualitativo com estudo de caso único. A análise de conteúdo dos dados derivados das entrevistas em profundidade e dos dados secundários foi realizada com o emprego do software NVivo.

Principais resultados

Os resultados indicaram que o modelo de negócio analisado envolve práticas frequentes de distribuição de valor para os stakeholders: clientes, agentes financeiros, prestadores de serviço, fornecedores, investidores e sociedade.

Contribuições teóricas/metodológicas

Na perspectiva teórica, este estudo contribui para a compreensão do valor distribuído que vá além da análise da criação e captura de valor comumente identificada na literatura sobre modelos de negócios

Contribuições sociais/para a gestão

Na prática, a pesquisa destaca a relevância da distribuição de valor por meio das escolhas envolvidas em um modelo de negócio.

Palavras-chave: Modelo de negócio, Distribuição de valor, Criação de valor, Construção civil para baixa renda



Value distribution through business models: the case of MRV Engineering

Study purpose

The study reported here discusses this relationship between business model (hereafter BM) and its capacity to create and distribute value to stakeholders in a large-size organization in the low-income civil construction segment.

Relevance / originality

Use of authors' own business model analysis framework (VoC-The Value of Choices) that allows the description and analysis of the relationship between the model's choices and its consequences in terms of value generated for the company and stakeholders.

Methodology / approach

The empirical research followed the qualitative method with a single-case study. Content analysis of data derived from in-depth interviews and categorised secondary data was conducted by using the NVivo software application.

Main results

Results indicate that the BM analysed includes frequent practices of value distribution to stakeholders such as clients, financial agents, service providers, suppliers, investors, and society

Theoretical / methodological contributions

This study contributes, from a theoretical perspective, to understand the distributed value in a way that goes beyond the value creation and capture analyses usually identified in the literature on BMs.

Social / management contributions

In practice, the research highlights the unquestionable relevance of value distribution by means of practices guided by the existing BM.

Keywords: Business model, Value distribution, Value creation, Low-income construction

1 Introduction

This article conceives the BM as the business logic of the company. Through that logic, a company's management mobilises its internal and external resources to competitively make offers to its target audiences. Therefore, the BM expresses the understanding of how the company organises itself to generate value for its stakeholders (Baden-Fuller & Mangematin, 2013; Wirtz, Pistoia & Ulrich, 2016)

The literature has proposed different frameworks to facilitate the identification of the BM components. However, according to Massa, Tucci & Afuah (2017, p. 97) literature still demands "information necessary to understand the relative merits of each formal model". Therefore, Salum, Coleta, Ferraz and Lopes (2018) developed a framework called "the value of choices" (VoC) based on a comparative analysis of three other frameworks in the light of value outcomes. Thus, the VoC synthesizes: the Casadesus-Masanell and Ricart (2007) "Choices and Consequences"; the RCOV framework developed by Demil and Lecocq (2010); and the Business Model Canvas as proposed by Osterwalder and Pigneur (2011).

The VoC emphasizes the fact that BM choices result in both tangible and intangible value, either from the perspective of the company or of its stakeholders. In addition, the VoC does not limit itself to the description of the architecture of the value offer, but allows one to keep in mind its relationship to other value outcomes that derive from it, not only in terms of creation and capture but in the BM's ability to keep generating and distributing value in the future.

The objective of this article is to apply the VoC framework to the analysis of the BM adopted by MRV, a Brazilian company that operates in the low-income construction industry. The research question that guided the empirical study was: how do the components of MRV's business model influence the distribution of value to its stakeholders?

MRV, founded in the late 1970s, is the largest home construction company in Brazil and ranks third in the world in number of units built. The company focuses on the desire of the Brazilian low-income population for their own houses. In 2009, the segment experienced a strong growth following the launching of the 'Minha Casa Minha Vida' (My Home, My Life) programme by the Federal Government. The programme allowed MRV to improve its BM value generation both for the company and for its many stakeholders, such as end customers, investors, employees, suppliers, financial agencies, government and the Brazilian society.

From a theoretical point of view, this study is relevant in that it analyses other BM value outcomes beyond the company's usual economic and financial perspectives, thus including value distribution. In practice, the research points out the relevance of a company's perception about how its BM guides the distribution of value to stakeholders.

2 Theoretical foundations

The emergence of the BM concept is related to three major phenomena that happened towards the end of the twentieth century, namely: (a) the birth and proliferation of virtual environment, (b) the specificity of companies operating in the e-business segment, and (c) the growing number of references to this term by executives (Teece, 2010; Amit & Zott, 2001).

Current literature on the subject still debates the definition and application of the concept. There are clearly divergent views on its nature (what is it?) and its function (what is it for?). Therefore, the academic debate suffers from a terminological inconsistency that hinders integrated research efforts (Chesbrough & Rosenbloom, 2002; DaSilva & Trkman, 2014; Massa, Afuah & Tucci, 2017; Wirtz *et al.*, 2016).

The BM literature has tried to define the concept as well as theoretically support it, distinguish it from other themes, classify its types, and exemplify it empirically to highlight the usefulness of the BM as a concept in the realm of the strategic management field (Casadesus-Masanell & Ricart, 2010; DaSilva & Trkman, 2013; Magretta, 2002; Teece, 2010; Wirtz *et al.* 2016).

The BM construct is not conceived as having rigid functional and structural components. On the contrary, its components must be assessed over time, so as to make sure they remain interrelated and thus guarantee continuity of revenue generation, even after new strategic decisions or in response to new realities emerging in the external context (Demil & Lecocq, 2010). BMs are illustrative representations of key elements of a business strategy that plays an essential role in the value creation and in the relationship among different players in the market (Osterwalder & Pigneur, 2011).

However, even though not all organisations adopt a defined and published strategy, they all have a BM in practice (Casadesus-Masanell & Ricart, 2010). Thus, it is possible to recognise their underlying BM whose analysis explains how they operate to create value.

The literature includes studies that picture BMs as narratives and graphic representations by using visual elements to illustrate ideas and consequently fulfilling functional expectations of managers (Casadesus-Masanell & Ricart, 2010).

In this particular case, frameworks are used to visually map critical points of BM activities (Richardson, 2008). Thus, BMs are interpreted as a representation of reality, a simulation of the real world accomplished by means of the connection among its components (DaSilva & Trkman, 2013).

BMs provide a comprehensive description of how stakeholders of a given production chain may perceive the value created and capture this value in a sustainable way (Zott, Amit & Massa, 2011; Casadesus-Masanell & Heilbron, 2015).

2.1 The Value of Choices Framework (VoC)

Different frameworks have been proposed by the literature to make easier the identification of BM components (Alberts, 2011). However, review conducted by Massa *et al.* (2017, p. 97) highlights the fact that the literature still lacks the “necessary information to understand their relative merits”.

In this study, we used the framework developed by Salum, Coleta, Ferraz and Lopes (2018), the outcome of a comparative analysis of three different frameworks present in the BM literature. The first one is the Choices and Consequences (**C / C**), proposed by Casadesus-Masanell and Ricart (2007). It suggests a cause and effect logic connecting the components of the value creation and capture model, it also represents an outside-in perspective of business strategy. The **RCOV** – **r**esources and **c**ompetencies, **o**rganisation and **v**alue proposed by Demil and Lecocq (2010), on the other hand, emphasises the dynamic relationship among components and expresses an outside-in view of the strategy. Finally, the Business Model Canvas (**BMC**) suggested by Osterwalder and Pigneur (2011), appears here because it counts among the most adopted by practitioners and integrates elements that are external and internal to the company into the value composition.

The new framework named “Value of Choices” (VoC) is intended to make clear the fact that any BM is made of choices, and that the consequences of said choices are, ultimately, the value, from the point of view of the company and its stakeholders. Consequently, the VoC framework is not limited to describing the choices related to the operation of the company, but

rather enables the manager to keep in mind the dimensions that go beyond the offer alone, namely created, appropriated, generative and distributed value.

As for its theoretical foundations, the VoC framework is aligned with the thoughts of Demil and Lecocq (2010) with regard to the adoption of the Firm Growth Theory (Penrose, 1959). Two reasons justify this alignment, the first one being related to a dynamic point of view of the operation of companies and of the results generated. Thus, it is expected that a BM framework reflects this dynamism, rather than limits itself to a static description of the options facing the company. It must help enhance awareness of the interrelations among the parts and the impact of a component on another and on the expected results. The second reason is the possibility of overcoming the Industrial Organisation (IO) versus Resource-Based View (RBV) dichotomy by integratively adopting both outside-in and inside-out views of strategy. Penrose (1959) is usually considered as having inspired the RBV, in opposition to the positioning tendency. However, Foss (2002) argues that the thought of the economist is not limited to one or to the other tendency, and this is a significant aspect of the concept of BM, since its analysis reconciles both tendencies (Massa *et al.*, 2017). The strategic decision making from the point of view of Penrose consists of a process according to which the “permanent unbalance” between the company and its environment must be understood (Penrose, 1959). Thus, the understanding here is that internal and external choices are not mutually exclusive, but rather recursively pendular. In consequence, the elements of the model are constantly interacting with each other and must be reviewed and adjusted to ensure that the chosen BM continues to generate value.

Figure 1 depicts the framework used in this work. Its eight components are divided in two groups. The first group is that of the **choices**, to the left, and its four components fit together to offer value to stakeholders. The **management** includes strategic guidelines, practices and policies that ensure the operation of the BM. At this point, there is a connection between the thoughts of Casadesus-Masanell and Ricart (2010), whose framework indicates that the strategic choices are assigned to assets, policies and governance. The management’s focus mobilise choices related to resources and positioning in order to put forward a value proposition.

‘**Resources**’ is a very frequently mentioned component in the literature on BMs (Wirtz *et al.*, 2016). For the VoC, resources may be physical, financial and human, also involving competencies and activities developed in order to construct the value proposition. In addition, said resources may be owned by the company itself or belong to third parties. On the other hand, the **positioning** component reflects the options related to the segment of clients served by the value proposition, including all kinds of relationship established with them and the access channels employed. Next, the **value proposition** incorporates the choices made relative to the previous components and because of that it is the component that connects to the consequences of the model. The products or services that solve problems or respond to needs of clients represent the offer.

The second group of components, to the right, determines the value of the choices made relative to the first group. Therefore, the value of the choices is given by the **consequences**, and they can be observed in current, past and future times. They contemplate both tangible and intangible aspects of value that may be examined from the viewpoint of multiple agents. Since the creation of value is a concept that admits many interpretations, the VoC recognises the **value created** by the company as the expression of its competitive advantages; in other words, to what extent the choices made are different from or overcome those made by its direct and indirect competitors. The **appropriated value** is a predominantly economic and financial component that indicates how much the company has captured from the transactions carried

out by the market, that is, it is the result of the production and the marketing of a company's value proposition in favour of itself and its shareholders. The **generative value**, on the other hand and as mentioned earlier, indicates the potential to generate future value based on innovations of which the company has not effectively got hold as yet. And finally, the **distributed value** adds to the debate on BMs the fraction that was captured by the other stakeholders, be it tangible or not.

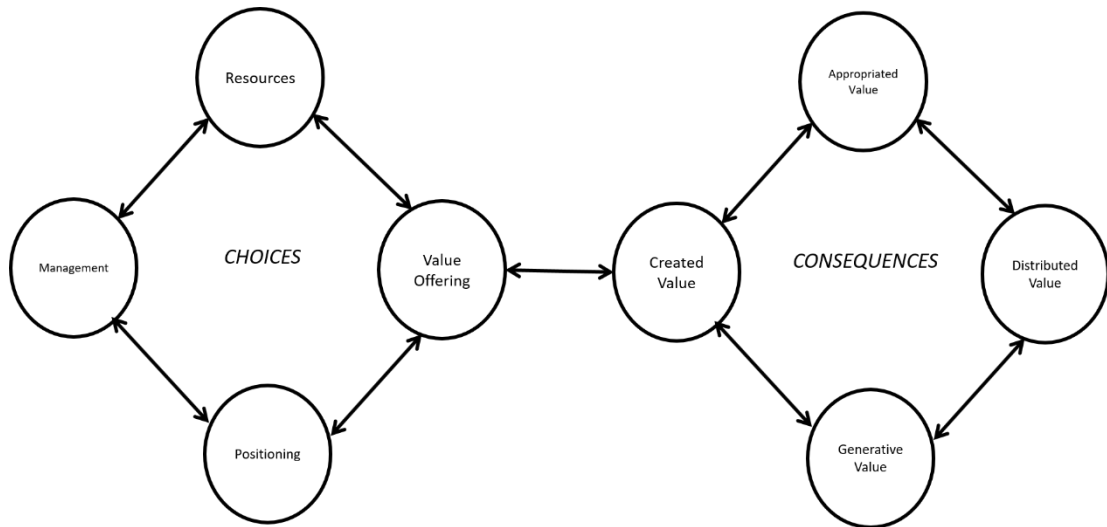


Figure 1. “The Value of Choices” (VoC) Framework
 Source: Salum *et al.* (2018, p. 21)

The VoC is read from left to right, in Figure 1. However, we may start or focus our analysis on any point, as long as we keep in mind the recursiveness indicated by the double arrows that cross the whole model. This framework shows the BM as a machinery, a bicycle's sprocket wheel and chain being a metaphor of the independent and dynamic flow of a BM. Thus, the dimensions of value derive from the choices made by the company and return to the system, feeding it with insights on the results and on what must be adjusted for the next round, and so on, continually. Therefore, when using the framework, it is important not only to list the elements that will be part of each component, but also to establish the relationship among them, thinking of the VoC as a system where there are both independence and interplay. The continuous interaction among these elements reflects the BM with which the company has chosen to compete and cooperate in its field of activity.

The VoC emphasises the fact that the choices of a BM result in both tangible and intangible values, either from the company's point of view or from that of its stakeholders. In addition, the VoC is not limited to a description of the architecture of the value offered by the business model, but rather enables the analyst to keep in mind its connections with the value dimensions that derive from it, not only in terms of creation and capture, but also in terms of the capability of the model to continue generating and distributing value in the future.

The distributed value, on the other hand, enables the BM to keep under control not only the company's own perspective, but also that of its stakeholders. The literature emphasises that the BM reaches beyond the borders of the company, as stated by Amit and Zott (2001), but the frameworks under study do not point in that direction, analysis being centred on the company itself.

According to De Brito and Brito (2012), one perceives that the process of value creation, followed by the distribution of said created value, brings about effects on many dimensions of

the organisational performance. Thus, it may be concluded that value creation is linked to an understanding of the functional interrelations between the assets and the resources that the organisation may have. This interrelation, when successful, generates value - though related to aspects internal to the company - that can be regarded as a competitive advantage, acknowledged by players in the production chain.

Hence, this work proposes the inclusion of this concept as a component of the BM. Value distributed is seen as a benefit that stakeholders reap. There are many different ways of distributing value: social programmes that provide services to communities, more competitive wages for employees, better conditions when negotiating with suppliers, lower prices to clients, educational development of employees via voluntary programmes, among other alternatives (Harrison, Bosse, & Phillips, 2010).

According to Sarturi *et al.* (2015), value distribution is a combination of tangible results, such as wages, better quality products and dividends, and intangible results, such as occupational safety and stable relationship, that a company distributes to its stakeholders, as long as they are enough to respond to the demands of the relationship.

Therefore, the value distributed may be regarded as a result, in terms of benefits to stakeholders. However, different stakeholders may have different ideas about what is valuable, say Lepak *et al.* (2007). And this is so because of their respective knowledge, objectives and context. These variables may affect the assessment of a novelty and an appropriate evaluation of the value proposition of a new product or service and of its perceived potential value.

In this context, the work of Harrison *et al.* (2010, p. 157) stimulates the debate on the following statement: “The phenomenon of value creation and distribution is a combination of inseparable aspects of an integral structure”. However, these authors understand that organisations have managers that, at least, exercise some discretion or impose some censorship with regard to how created value is shared among their stakeholders.

3 Methodology

This article presents a single case study that highlights the singularities of the subject and the holistic nature of the context. Thus, an analysis of the context and of the processes that illustrate the theoretical debate is developed (Eisenhardt, 1989; Hartley, 2004; Yin, 2009).

The research tries to identify a way, a frequency and a type of value distribution that may create some kind of perception in stakeholders. Additionally, it is also intended to understand the role of stakeholders and their possible capacity for influencing MRV's BM, as in a reverse process.

A small pre-selected group was created specifically to validate the tool. In addition, the interview script was validated by three academics, all of them very experienced in qualitative research.

Both primary and secondary data were collected right after formal authorisation for the beginning of the work, including access to MRV's facilities, in March 2017. Collection lasted until February 2018. Qualitative data were collected by means of individual semi-structured interviews, direct observation and documents research. As primary data collection tool, interviews were conducted with seventeen employees of the organisation. Interviews lasted seventy minutes on average, having been recorded at the company's headquarters in Belo Horizonte city (Brazil) and, later, transcribed and then analysed. It is worth mentioning that the selection of respondents fully respected the gender diversity, the time of employment, the hierarchic level and the area of activity of participants. Interviewees were selected by the human resources division of MRV and jointly validated by the Board. Participants occupy executive

positions in different areas of competence and tacit knowledge. The selection was intentionally and conveniently conducted in order to reach a broad spectrum, capable of representing the different divisions of the company.

Secondary data were obtained accessing internal documentation provided by MRV and by exploratory research on websites of companies operating in the low-income home construction segment, in addition to those of research institutes and class associations. To complement and enrich the collected data, company's internal documents were analysed.

Still as a source of secondary data, a technique of participating observation was applied during the interviews. The collection of data by means of the observation technique is an attempt to obtain information using the senses in the process of reaching certain aspects of reality, incomprehensible at first sight.

The analysis of the qualitative data was conducted by applying the content analysis technique that, according to Bardin (2010), consists of a set of communication analysis techniques that employs systematic and objective procedures to describe the contents of messages. The objective of the content analysis is to bring an end to uncertainties and enrich the interpretation of the collected data. This technique is organised in three phases: (a) pre-analysis, (b) exploration of the material and (c) handling of results, inferences and interpretation.

The analysis and the combination of the data obtained from several different sources have been handled by means of the triangulation technique, to avoid distortions, especially those derived from respondents' biases. By triangulation technique we mean the procedure that combines different data collection methods, different theoretical perspectives and different moments to consolidate its conclusions about the phenomenon under investigation.

Given the amount of data obtained from primary and secondary sources and all the material collected by triangulation, decision was made to use the software NVivo version 11 to process the transcriptions of the interviews and the secondary data, in order to speed up and increase confidence of the analysis (Mozzato & Grzybovski, 2011). The NVivo software offers the advantage of organising all data in a single platform, enabling the researcher to explore several sources at the same time, when developing the codification. Last but not least, there is the methodological rigour, since conclusions become more evident in the results provided by the software application (Silverman, 2013).

4 Results and discussion

The present analysis is individual rather than generalist. It intends to detail the case and the empirical study so as to identify its respective patterns and particularities. Formats and results analysed are not intended to have generic amplitude or application with regard to the value distributed to MRV's different stakeholders.

In the collection of data, higher priority was assigned to the identification of respondents holding different positions and carrying out managerial and leadership functions, as well as their cumulative time at the company. The sample profile shows that 58% of respondents occupy strategic-level positions as presidents or directors, as demonstrated by Table 1. On the other hand, 47% of them occupy tactic-level managerial positions in the company. Considering these characteristics, it can be inferred that the respondents are close to subjects related to strategy and definition of the business model.

Table 1
Office of respondent

Office	Frequency	Percentage	Cumulative Percentage
President	2	11.8%	11.8%
Director / Executive Director	7	41.2%	53%
Manager / Executive Manager	8	47%	100%
Total	17	100%	

Another aspect worth mentioning is the permanence of respondents in the same position. For 64.7% of the sample, respondents joined the company six to nine years before the study. For the following 35.3% of respondents the range includes employees who occupy the same position for three to five years.

Shifting our analysis from the characteristics of the sample into the components of MRV's Business Model, it should be first of all clear that the NVivo application required the establishment of categories (named 'node' by the software application), subcategories (subnode) and sub-subcategories (sub-subnode). Taking the VoC framework as reference, the fields 'choices' and 'consequences' are considered categories, the eight components of each field are subcategories and the reading-flow relationships among them are the sub-subcategories. Forty-eight sub-subcategories have been, therefore, defined in the software application.

In the hierarchy of nodes and subnodes indicated by the NVivo application, the category 'choices' obtained higher representativeness from the subcategory 'management', followed by 'value proposition' and 'resources'. The most prominent sub-subcategory is the 'management – resources' flow. On the other hand, in the category 'consequences', 'distributed value' reached higher representativeness.

In addition, the subcategory 'management' presents higher accumulated frequency of nodes per kind of source analysed. This statement is based on the cluster analysis by the NVivo, which groups words according to similarity, using the Pearson correlation coefficient as the system of measuring.

In the VoC field reserved for choices, the components 'management' and 'resources' obtained the two highest numbers in references codified by the NVivo application. On the VoC field of consequences, on the other hand, the highest frequency in references is that of the component 'distributed value'. These data are depicted in Figure 2, which shows the accumulated frequency of node categories per source.

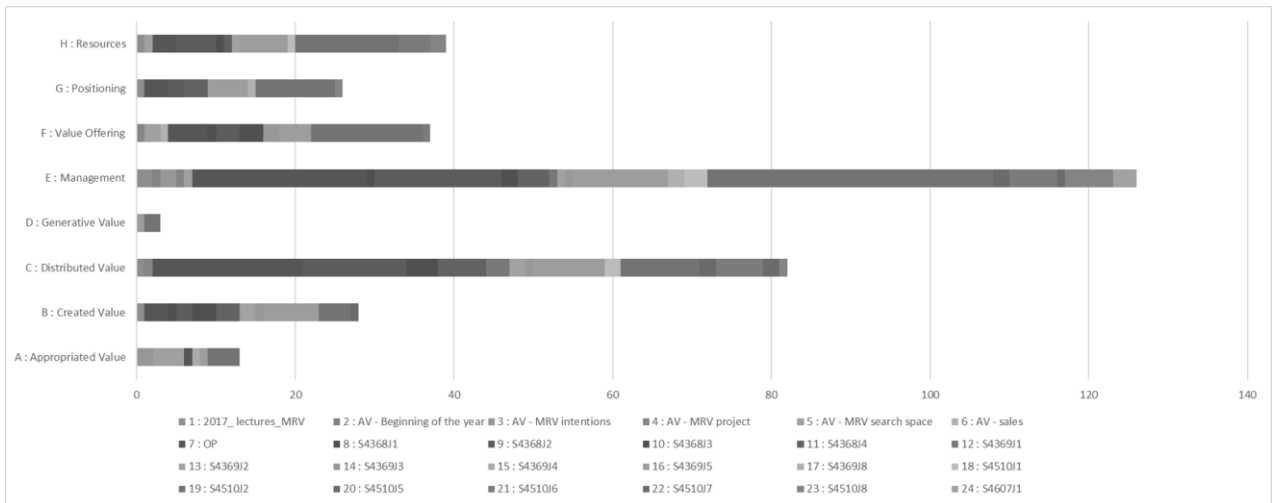


Figure 2. Accumulated Frequency of Nodes by Source

Source: research data - Nvivo software v.11

In the cluster analysis based on the similarity of words, the subcategories that exhibit higher correlation in both fields, choices and consequences, were also ‘management’ and ‘distributed value’, as shown by Figure 3, to be read from right to left, from bottom to top.

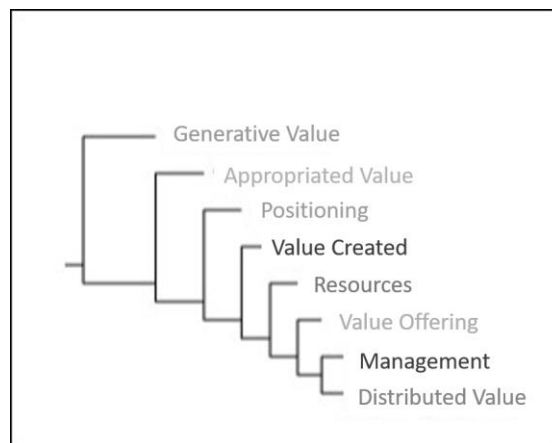


Figure 3. Nodes in clusters by the similarity of words

Source: research data – Nvivo software v.11

Another aspect worth mentioning are the results of the analysis of contents categorised into the component ‘generative value’. The latter does not relate to any other specific subcategory, but rather to the whole set of the other subcategories. This is true because the generative value depends on the aggregate result of the remaining subcategories to be able to create value in the future. The generative value is the potential to continue generating value and may be interpreted as the capacity of a company vis-à-vis its business model and not necessarily as an outcome.

In the cluster analysis by similarity of codification, in which the similarity of words per source used is weighted, higher correlation has also appeared in the subcategories ‘management’ and ‘distributed value’ (Figure 4).

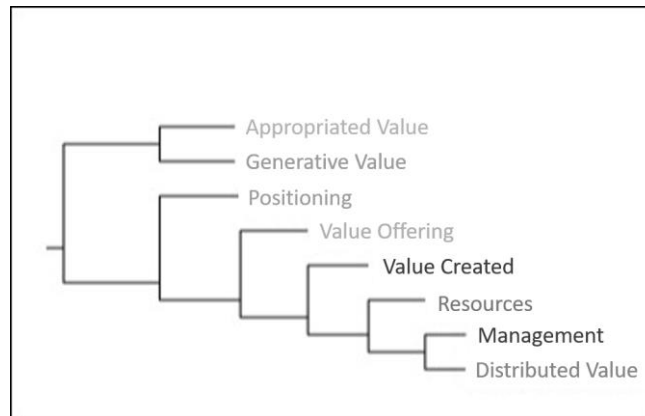


Figure 4. Nodes in clusters by encoding similarity

Source: research data - Nvivo software v.11

Content analysis results confirm the causal relationship between the category of choices in subcategory ‘management’ and the emphasis on the subcategory ‘distributed value’ as a consequence. This means that the subcategory ‘distributed value’ is the most prominent relative to the value addressed to stakeholders. Another aspect that attracts attention in the results exhibited by Figure 4 is the separation of the group of categories. In the lower part of the figure, there are pairs of subcategories that present themselves in similarity groups, from ‘distributed value’ to ‘positioning’, as part of a set or cluster. In another cluster, in an upper part of Figure 4, two subcategories are grouped apart from the first set. They are the ‘appropriated value’ and ‘generative value’, and are positioned as a pair of subcategories without any links to any of those in the first set.

The recorded interviews show close alignment between the managerial options and the practical results of MRV’s business model to its stakeholders. However, although recordings made clear the distribution of value to stakeholders, the interviewees themselves did not easily grasp this concept, since this seemed to them a natural and inseparable part of their managerial principles. These clusters call attention to the influence of each group of respondents as for the interpretation of the questions, taking into consideration their hierarchic and operational functions within the company.

The content analysis showed that the strategy adopted along the development of MRV, based on a unified culture, determined how it interacted with its many stakeholders such as clients, employees, financial agents, suppliers, investors, government and the whole Brazilian society. Accordingly, the company created and captured value through a relationship between these stakeholders and its respective business models.

4.1 Distribution of value to clients

MRV’s target public is composed of young people (50% of them are 30 years of age or less) of the low-income segments C and D (65% earn incomes equal or below) interested in buying a home in order to start their families. Data provided by the company show that the three aspects the interest clients the most are price (24%), location (23%) and easy payment plan (19%). The company develops its products to make its clients’ dreams of owning a home come true.

Following the launching of the ‘*Minha Casa Minha Vida*’ or MCMV (My Home, My Life) programme by the Federal Government, MRV started to operate exclusively in the low-

income segment, which benefit families with maximum gross incomes of R\$3,600 and R\$6,500, respectively.

In 2017, decision was made to interrupt the older production lines in order to accommodate innovations developed by the company, adding novel value attributes to the product. Among these, the company prioritised the clients' perception of value by appealing to sustainability, class of finishing, incorporated technological solutions, design security and connectivity in condominia. Innovations embedded in the new production lines included physical and technological preparation of common areas of residential condominia to accommodate WiFi data transmission networks, USB ports, security systems, photovoltaic electric power generation, possibility of renting MRV's bikes and orchard.

"One out of two hundred Brazilians lives today in a unit built by MRV. If we delivered bad products the company would be no longer up and running", highlights Rafael Menin, co-president at MRV.

Data obtained from the content analysis reflect and materialise the relevance of the strategy to MRV's relationship and positioning vis-à-vis its target publics. Rodrigo Resende, MRV's marketing, commercial and internal communication director, shares this understanding. In his own words:

Reputation, nowadays, when we consider all the connection and social networks, is a determining factor behind success or failure. Reputation, for us, is a lot more important than operating costs. What is the use in having a low operating cost company that enjoys bad reputation? Or one that serves clients poorly? Or a company that delivers low quality products? That doesn't deliver units as scheduled? Until when is it going to be able to keep its operating efficiency?

Clients are important and enjoy high status at MRV, because of the internal strategy of specialisation in this commercial niche, and of external factors, such as growing competition, operation in more demanding markets, amendments to the consumer protection act, implementation of the PBQP - *Programa Brasileiro de Qualidade e Produtividade* (Brazilian Quality and Productivity Programme) and popularisation of the social networks.

Up to the final delivery of a unit's keys to a client, referred to by MRV as the "delivery of a dream", the technical assistance division works together with that of production. After delivery, the technical assistance division assumes full responsibility for the development.

Among the services offered to dwellers there are courses on financial education and the projects named "*Mão na Roda MRV*" (Easy Way MRV) and "*Meu Decorado*" (My Decorated One). The former project consists of an exclusive website where dwellers of MRV-built condominia may offer products and services to other residents and look for providers of general services. The latter is a contest that offers sustainable, accessible and innovative solutions for the decoration of units sold by MRV, its main challenge being that of combining low cost, functionality and design.

4.2 Distribution of value to financial agents

MRV and the civil construction segment have always depended on public financing and incentives in order to ensure availability of credit for low-income populations. Consequently, MRV enjoys a long-term relationship with financial institutions, especially with *Caixa Econômica Federal* – CEF (Federal Savings Bank), the main supporter of civil construction in Brazil. The relevance of MRV's relationship with financial agents to the company's business model comes from the cash flow dynamics provided by the credit plans offered as part of the 'Associative Credit' model.

MRV has always operated, since its very foundation, with associative credit, consisting of obtaining financing for a client right from the beginning of construction and collecting financial resources gradually provided by banks as the construction evolves. José Adib Simão, executive director of real estate credit at MRV.

Real estate development projects usually involve heavy cash expenditures during the construction phase, resulting in increasingly negative accumulated cash flows, because cash resources collected during construction correspond to less than 30% of a project's overall sale's price. However, when financed by CEF or by *Banco do Brasil* through the 'Associative Credit' model, construction companies and developers may collect up to 100% of the VGV, still during the construction phase.

MRV's executives emphasise that negotiations with CEF relative to the MCMV programme are so successful because of MRV's capillarity and quality of management, and of the way the company attracts clients and evaluates its clients, subsequently forwarding them to the financial institution. This impacts positively the relationship between the two institutions.

Another contribution or value distributed by MRV to CEF is the quality of its products and services, which reflect not only the value clients assign to the developments, a fact that reduces the number of contracts cancelled but also the high quality standards that will have to be followed by the other construction companies and developers participating in the MCMV programme.

4.3 Distribution of value to collaborators

For both MRV's co-presidents, Eduardo Fisher and Rafael Menin, the distribution of value to collaborators is a must and a priority for MRV, because the company's business involves construction sites that are permanently undergoing transitions, each one exhibiting its own peculiarities, a condition that requires strong presence in front lines. This sharing takes place based on an internal culture developed over the years. Proximity and informality, relevant characteristics of the company's upper management, are transmitted to the other levels of the organisation, thus contributing to efficiency and to integration between the several divisions. This provides flexibility and offers freedom to employees at all hierarchic levels to interact with top management regarding day-to-day issues. "Our strategic shifts do not always come from the top management", emphasises Rodrigo Resende.

Employees' recognition and rewarding, as well as stimuli and training programmes, are values that MRV has distributed and preserved for decades. There are several rewarding mechanisms such as profit sharing by means of generous and variable remunerations and opportunities to acquire shares, for instance.

MRV pursues long-term relationships with its collaborators that begin when a trainee is hired and continues through the stages of confirmation, permanence and assignment to a specific function in the company. The development of 'internal' workforce is thus common in the company. Collaborators who occupy leadership positions (as directors, managers and coordinators) are usually those who joined the organisation ten or more years ago.

4.4 Distribution of value to service providers

In the civil construction segment, outsourcing of some activities is very common and includes employing building subcontractors and real estate brokers or agencies to sell the units. MRV also adopts this practice but is trying to internalise these activities to tap into the

higher productivity of its employees. Knowledge on the company and immersion in its culture are significant causes of such higher productivity.

MRV's construction sites usually employ 50% of personnel directly hired by the company and 50% of outsourced workforce, the goal being that of reaching 70% of directly hired collaborators. Workers directly hired earn a fixed wage plus additional productivity remuneration, the latter being a way of distributing value.

Considering the recession the country is currently undergoing, few companies are in a position to offer such an additional remuneration. Workers have, therefore, an extra financial motivation to join MRV.

The company develops many initiatives to make the environment more pleasant at construction sites. They include keeping construction sites tidy, a goal achieved by preparing the common areas of a development before advancing to other areas, providing equipment that protects against sunlight, drinking fountains, TV sets for use at lunch time, cultivation of vegetables to be consumed by the employees, training programmes related to the safety of workers at construction sites that comply with and even exceeds all legal requirements. These are intangible values distributed to stakeholders as part of the core business activities.

The company also invests in the qualification of professionals by means of the “*Escola Nota 10*” (Grade A School) project, conducted during working hours and at the workplace of employees. Through this project, *MRV Engenharia* has already put up more than one hundred and seventy illiteracy-reduction, digital inclusion and professional development schools in its construction sites. Since 2011, the company develops this programme in all its regional branches and 3500 workers of many different areas have already benefitted from it.

On the other hand, real estate agencies have always been a bottleneck to MRV's growth. The company then decided to change the way it related to its outsourced sales structure. A sales' channel named IMOB was created and real estate agencies were removed from the company's sales stands. After creation of the IMOB, real estate agencies started to operate enjoying the exclusive support of a MRV's internal broker. Since the company's operating scheme is unique in the sales segment - credit being approved before the sale is completed, proprietary information system and negotiation procedures – this support was considered necessary to ensure connection to MRV.

4.5 Distribution of value to suppliers

Substantial benefits brought to suppliers include frequent purchases, on time payments, operations in the main Brazilian cities and the constant flow of new residential developments by MRV. “When MRV shows how many lots it owns in the city, suppliers come to us almost spontaneously”, emphasises Homero Paiva, executive production director at MRV.

Historically, many suppliers have regionally spread their operations over Brazil in response to the homologation by MRV of cost-price contracts that did not include the supplier's administrative costs. These contracts opened the doors to the capture of new profitable clients in the regions to where they expanded their activities.

The development of long-term relationships with suppliers is an objective pursued by MRV, and this makes symbiotic growth opportunities even more real for both the company and its suppliers. Seventy per cent of the suppliers enjoy a longer-than-thirty-year relationship with MRV.

Today, many suppliers concentrate their sales on MRV, a fact that creates heavy dependence. On the other hand, the company exerts strong pressure on the suppliers to lower its costs. It is also very careful about paying on time so as to be able to force clients to supply

on schedule.

The relationship between MRV and its suppliers is based on a compliance model that relies on the mature corporate governance MRV has adopted over more than a decade, since the company was listed on the São Paulo Stock Exchange (Bovespa). The best purchase practices end up being transferred into the value proposition by means of, for instance, the quality delivered to clients by MRV.

4.6 Distribution of value to municipalities, society and investors

The value created for clients by MRV developments reaches the municipalities where the residential units are built. This happens because the company often decides to contribute to neighbour communities, especially when the residential developments are large enough. Usually, the contribution includes the construction of streets, squares, schools and police stations and is part of the process of negotiation with municipalities, being regarded as ways of raising the value of MRV's enterprises in addition to generating impact on the areas where the company operates.

Some of MRV's developments may be characterised as districts, since they include complete infrastructure. To carry out such projects, MRV uses areas it owns in noble regions of cities, well served by roads and public transportation. In such developments, MRV invests to achieve up-to-date urbanisation and landscaping. These are ways of sharing value with municipalities and members of society; by offering differentiated products and bringing about improvement to the vicinities of said developments.

Investors

As for investors, the civil construction segment is marked by strong seasonal changes, a fact that explains the high number of companies declaring bankruptcy in times of lower demand. MRV's policy to deal with these seasonal changes is to keep a highly positive cash flow, thus ensuring the survival and the recovery of the company after crises. Right after the IPO, the company faced challenges posed by its lack of maturity in relating to investors. The company felt the pressure to grow and to respond to the short-term expectations of investors, a condition that led to decisions that favoured the growth of the company but ended up reducing margins.

“After the IPO, we closed a couple of bad deals. At that time we were adopting very short-time policies. Now, we want to be sure we are making what will be best for MRV in five years. We do not sacrifice margins anymore. To focus on the long term was something we had to learn”, reveals Rafael Menin, co-president at MRV.

The fact that the Menin family holds 35% of the company's shares favours the long-term perspective. Growth after the IPO, that is, after 2007, happened at a very fast rate, net income increasing 80% in 2008 and 120% in 2009. From 2007 to 2013, production raised from 4.000 units per year to approximately 40.000 units per year, in more than 100 cities. However, the core nucleus of the company did not grow at the same speed.

In 2013, the financially worst year for the company, a critical moment for the world's economic crisis, the company reported profits of 350 million Reals. The period from 2014 to 2016 was a time to “clean the house”. The company did not grow, but structured itself better and improved its processes. Accordingly, the company sees itself as prepared to face its third growth cycle. The reorganisation process was also intended to review the general and administrative expenses, with regard to MRV's net income.

5 Conclusion

The Business Model - BM as a concept may be interpreted as a real attribute of a company or as an analytical instrument. In both cases, the literature indicates that its nature and function are related to the creation of value. If it is considered an attribute of the company in the real world, there is a direct connection between the concepts, that is, the Business Model of a company is responsible for the creation of value. According to this interpretation, the business model is empirically determined and is equivalent to the dynamics of operation of the company itself, considering the complex combinations of strategic choices and their respective consequences, which directly involve the capacity for creating value.

However, if it is considered to be a conceptual representation, as in this particular study, the BM is a tool that describes how value is created. According to this point of view, the relationship among the concepts is indirect. The BM is a mental scheme (either formal or informal) that makes easy to understand and to communicate how a company organises itself to create value. Therefore, analysed from a descriptive perspective, a given BM is not an agent, but rather the tool that offers answers on how a company creates value. For that purpose, the literature is making use of frameworks. Each framework represents a possibility of analysis of the Business Model adopted by a company.

This study adopted the “Value of Choices” (VoC) framework developed by Salum *et al.* (2018). It employs the causal logic of choices and consequences, distributing its components among these two broader fields. This new arrangement contributes to prevent the analysis of a BM from concentrating only on one single static dimension relative to the description of a company’s choices and operation. However, it should be kept in mind that the choices are made considering what the company wants to offer and what can actually be appropriated, generated and distributed to stakeholders.

The components of the VoC framework were adopted as categories for the conduction of the content analysis carried out by this research using the NVivo software application.

In the interpretation of the results, the ‘management’ and ‘distributed value’ categories maintained their positions as resultants of all the tests performed, both in terms of frequency and correlation between words.

From a practical point of view, the lessons learned from a company focused on the low-income public are summarized as follows: (1) the company's management style over four decades has been guided by principles of value distribution; (2) although the construction industry has management practices that favour value distribution through its BM, the benefits of this alignment for future value generation are not always clear; (3) choices about resources - technical, managerial, human - involve criteria of long-term relationship which strengthen the management stability concerning BM choices and consequences; (4) the company has affirmed its BM positioning focus over time and has made a single diversification movement but has chosen to continue and consolidate the same market base; (5) in a low-cost construction company focused on the low-income public, any failure to control operation and production processes has huge impacts on both value created and distributed.

Limitations arising from a single case study do not allow the generalization of the results. The value distribution from the company’s point of view (only) is another research limitation. However, given the scarcity of empirical studies about value distributed to stakeholders, this work contributes, in a theoretical perspective, to the understanding of this value outcome. Thus, it goes beyond traditional analysis of value creation / capture in the literature on Business Models - BMs. The authors recommend future quantitative studies that put the VoC framework into operation in order to widen the scope of analysis and applicability.

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