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Gestão estratégica da inovação orientada à sustentabilidade: relação do modelo de negócio e desempenho em empresas familiares

Strategic management of sustainability-oriented innovation: association between business model and performance in family business

Gestión estrategica de la innovación orientada a la sostenibilidad: relación entre el modelo de negocio y desempeño en empresas familiares

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PALAVRAS-CHAVE
Inovação Orientada à Sustentabilidade, Gestão Estratégica, Empresa Familiar

Resumo: A inovação orientada à sustentabilidade é um assunto que se mostra cada vez mais pertinente e no qual muito se tem avançado em nível mundial. Além disso, empresa familiar é uma das configurações de empresa mais comuns no Brasil, portanto, é considerado relevante analisar o posicionamento das empresas familiares quanto à questão da sustentabilidade. O objetivo desse artigo é analisar, por meio de estudos de caso, a gestão estratégica da inovação orientada à sustentabilidade e sua relação com o modelo de negócio e o desempenho em empresas familiares. Para isso, foi levantado o perfil das empresas, analisada a postura estratégica e práticas de inovação sustentável por meio de dados qualitativos e verificada a relação da gestão estratégica da inovação sustentável com o modelo de negócios e o desempenho empresarial. Percebeu-se, então, que as empresas familiares demonstram incluir em seu planejamento estratégico ações pertinentes à sustentabilidade ambiental e social adotando práticas que demonstram isso. Também é possível perceber que essas empresas obtêm um retorno positivo dessas ações, o que é refletido em desempenho.

KEYWORDS
Sustainability-oriented innovation, strategic management, family business

Abstract: *Sustainability-oriented innovation is a relevant issue and its importance at international level has grown. In addition, family businesses are some of the most popular kinds of companies in Brazil; consequently, it is important to assess family business' positioning towards the sustainability issue. The aim of the present article is to analyze the strategic management of sustainability-oriented innovation and its link to business model and performance in family business, based on a case study. The assessed companies` profile was described, and their strategic stance and sustainable innovation practices were analyzed based on qualitative data. The association between strategic management of sustainability-oriented innovation, and business model and performance, was assessed. According to the results, family businesses develop actions in their strategic planning to adopt environmental and social sustainability practices. Moreover, these companies get positive outcomes because of these actions, a fact that was highlighted by their performance.*

PALABRAS CLAVE
Innovación orientada a la sostenibilidad; gestión estratégica; empresa familiar

Resumen: *La innovación orientada a la sostenibilidad es un tema aún más relevante y su importancia ha crecido a nivel internacional. Además las empresas familiares están entre las compañías más populares en Brasil, por lo que es importante evaluar el posicionamiento de esas empresas sobre el tema de la sostenibilidad. El propósito de este documento es analizar la gestión estratégica de la innovación orientada a la sostenibilidad e su vínculo con el modelo de negocio y el desempeño en las empresas familiares a través de un estudio de caso. Así, se describió el perfil de las empresas y se analizó la postura estratégica y las prácticas de innovación sostenible a través de los datos cualitativos, para verificar también la relación entre la gestión estratégica de la innovación orientada a la sostenibilidad con el modelo de negocio y el desempeño. Luego, los resultados indicaron que las empresas familiares incluyen acciones en su planificación estratégica para lograr que las prácticas de sostenibilidad ambiental e social presenten resultados. Además, estas empresas obtienen resultados positivos a través de estas acciones, lo que se demuestra por su desempeño.*

Introduction

It is easy to observe that sustainability-oriented innovation has been arousing the interest of society, researchers and governmental bureaus (Lopez-Veleiras, Gomez-Conde & Naranjo-Gil, 2015). Uncontrolled consumption, as well as the consequent environmental degradation and social inequality, have opened room for the awareness of interested parts on these issues, as well as have made companies seek economic development based on the sustainability triple by Adms, Jeanrenauld, Bessant, Denyer & Overy (2016). In other words, there has been demand for products, services, processes and business models that, actually, account for the positive performance and impact on environmental, social and economic issues.

Companies are focusing on innovations forms aimed at sustainability to adjust themselves to these demands. According to Szekely and Strebel (2013), there is no "recipe" for sustainability-oriented innovation, companies must have a critical view of the context they operate in to find out where to concentrate their innovation efforts on, so that they can be sure about the success of their operations. These innovation efforts can include radical, incremental, product, service and organizational innovations. It is possible observing that companies driven to this issue start from taking discrete measures and end up reaching relevant cuts in costs due to efficiency gains and increased participation in the market (Szekely & Strebel, 2013). According to Maletic, Maletic and Gomiscek (2016), these measures reflect on better overall performance.

Thus, it is essential taking family businesses into account, since they are often against risks involved in innovation processes; however, they are extremely concerned with their reputation, since these ventures usually bring along the family's name (Doluca, Wagner & Block, 2018). Nevertheless, such a care with the idea society has about the company makes these business types invest in innovation to seek practices capable of showing their care with both the environment and society, because it helps improving companies' image (Berrone, Cruz, Gomez-Mejia & Larraza-Quintana, 2010; Doluca, Wagner & Block, 2018). The present study is an analysis of strategic management applied to sustainability-oriented innovation in family businesses.

Considering the reality of these company types is essential, because they account for 48% of Brazil's GDP and for 60% of all job positions in the country (Petry & Nascimento, 2009; Frezatti, Bido, Mucci & Beck 2017). Yet, with respect to these companies' issue, it is important analyzing their business model, since it implies in how value is created, a fact that highlights the way to get revenues and their position in the value chain (Chesbrough & Rosenbloom, 2012).

If one takes into consideration such a context, the present study is justified by the fact that it shows that family businesses can invest in sustainability-oriented innovations that, in their turn, lead to positive outcomes and to good financial performance. According to Nidumolu, Prahalad and Rangaswami (2009), several managers still act as if they had to choose between products' development and sustainable processes, and the financial costs of such actions.

However, this is a quite limited view because sustainability, besides boosting technological and organizational innovations, is also seen as companies' duty. In addition, sustainable ventures tend to have reduced costs, including with production, because these practices encourage energy efficiency and the efficient use of resources (Nidumolu, Prahalad *et al.*, 2009). Accordingly, sustainability-oriented innovation is a relevant topic for both companies and the academic field.

Given the importance of this topic for the moment we are experiencing regarding innovation, which is getting more disruptive and aimed at solving matters linked to the efficient use of resources, the research problem of the present study lies on

analyzing family businesses' sustainable innovation cases, their business models and performance in Rio Grande do Sul State.

Therefore, its main aim is to analyze family businesses' sustainable innovation cases, their business models and performance through semi-structured interviews, observation and documental research. Its specific aims are to screen the respondent-companies' profile; to analyze their strategic position towards sustainable innovation and to their sustainable innovation practices based on qualitative data, as well as to assess their sustainability-oriented innovation management practices according to their business models and performance.

Research theoretical elements

This section will approach the main topics in the literature for the development of the present study. Firstly, it brings up the concept of sustainability-oriented innovation and, at the end, it addresses company performance and its association with sustainability-oriented innovation.

Sustainability-oriented innovation (SOI)

Companies have been realizing the importance of being aware of the excessive consumption of resources, environmental degradation and social inequalities. Such a concern has led to the search for a more sustainable society (Adms et al., 2016). It is also known that organizations, themselves, can get numerous competitive advantages through sustainability-oriented innovation, if one takes into account that the development of new products, processes and management ways, linked to the sustainability premises, can put organizations in an outstanding position before the interested parts, a fact that leads companies to higher performances (Kneipp, Gomes, Bichueti, Müller & Motke, 2018).

Therefore, companies have innovated to seek more sustainable activities. According to the Oslo Handbook (1997), innovation concerns the implementation of a new or significantly improved product (be it a good or a service), a new process or a new marketing method, which can be also a new organization method for businesses practices regarding working station organization or even changes in external relationships.

Schumpeter (1963) stated that innovating is the way to move the production process and to address this issue as factor involving evolution, as the way or method to achieve economic change. This author also advocated that innovation changes the establishment by generating disorder, which motivates other businessmen to seek to adjust to these new parameters. Therefore, it leads to an organization that slowly gets back to order (Schumpeter, 1963).

From 2000 onwards, it was possible witnessing the rise of a new term, "innovation echo", which called researchers' attention. From this moment on, the number of research in this field has significantly increased. After 2006, this term outspread in several scientific communities, despite the lack of studies focused on its concept (Karakaya, Hidalgo & Nuur, 2014). This term may have meant "green innovation", "sustainable innovation" or, yet, "environmental innovation", in some studies (Xavier, Naveiro, Aoussat &Reyes, 2017).

The concept of the term 'sustainability-oriented innovation' is complex, given its multi-disciplinary nature and the different approaches adopted to conceptualize and operationalize the constructs for this innovation type (Cillo, Petruzzelli, Ardito & Del Giudice, 2019).

However, the concept by Boons, Montalvo, Quist and Wagner (2013, p. 2), which approaches this term as being "innovation to improve performance, and this performance includes ecological, economic and social criteria" (Boons, Montalvo, Quist & Wagner, 2013, p. 2), was herein adopted. This definition meets the aspects introduced in the Triple Bottom Line, which is a term that has been used since 1994 by Johan Elkington.

According to Elkingon (2006), the

dimensions to be covered when one seeks to establish a sustainable business are economic, social and environmental. Based on his study, it is necessary for companies to fully follow these three aspects, not just in their process and product concepts, but also in the environment they are inserted in, in their supply chain.

Companies have to take into consideration that, besides generating revenues, they have the potential to help decreasing social inequality and to preserve natural resources, while they become more competitive in the market (Elkington, 2018).

Bocken (2014) also states that innovations in business models focused on sustainability are defined as the ones capable of creating positive meaning and/or of significantly reducing environmental and/or social impacts through changes in their organization form and by creating value in their relationship networks, by delivering and capturing value or changes in the proposed values.

Yet, with respect to the definition of sustainable innovation, it is essential highlighting three dimensions of the conceptual structure of this innovation type: (1) technical/people dimension, which regards focus on innovation in the company, since it is necessary thinking about how innovations will be used, about who will use them and on what will be its impacts; (2) insular/integrated dimension, which regards how the company understands itself in society, if it is self-centered (insular) or systematic (sees itself as part of an organizational ecosystem); (3) the extent to which innovation is set in the company, if it involves only one department/sector or if it is integrated, if it is in the company's DNA (Adms et al., 2013).

According to Schaltegger and Wagner (2011), changes in regulations, customers' demands or even demands for changes in the management team, are factors encouraging companies to make sustainability-oriented innovations. As for its advantages, these authors give the following examples of company-image improvement: cost reduction due to innovations and social benefits. The more relevant the recorded individual benefit, the higher the potential of innovation to be compensated by the social effects from it, since innovation implies high consumption of resources (Schaltegger & Wagner, 2011).

Adams, Jeanrenaud, Bessant, Denyer and Overy (2013) carried out a literature review of texts published between 1992 and 2012; they summarized the factors making companies implement the Sustainable-Oriented Innovation. These factors are (1) operational optimization, whenever there is internal orientation to sustainability, which refers to making the same things but in a better way by adopting practices aimed at reducing costs through incremental innovations – that can be induced by regulations or for the search of greater efficiency -; (2) organizational transformation, which adopts the approach of keep on going with production and with the search for innovation, although it is oriented to internal processes – it is done to exceed the company's limits -; and (3) building processes to turn the company into the agent of institutional changes within a broader social context.

Business model and family businesses

The concept of business model reflects the organizational structure and the way companies communicate with the interested parts to generate value for customers and society (Kneipp, Gomes, *et al.*, 2018). According to Chesbrough and Rosenbloom (2002, p.533), the business model defines "the logics for value creation in a company by illustrating how they get revenues and by specifying their position in the value chain". However, research on sustainable innovation has neglected the fact that, in order for companies to get to achieve sustainable innovation for the market, they must combine value proposition and the company's value chain, up- and downstream, to the financial model (Boons & Lüdeke-Freund, 2013).

Thus, a study of the literature carried out by Bocken, Short, Rana and Evans (2014), that has

combined Osterwalder (2004) and Doganova and Eyquem Renault (2009), highlighted four elements that feature an overall concept of business model, namely: (1) value Proposition – value included in the product/service provided by the company -; (2) Supply chain – how the upstream relationships with suppliers are set in a structured and managed way; (3) Interface with customers – how the downstream relationships with structured and managed customers are set -; (4) Financial model – costs and benefits from the three previously mentioned factors and their distribution over the business model and the interested parts.

Sustainable business models can work as vectors to coordinate technological and social innovations by adopting sustainability at system level (Bocken, Short, et al., 2014). Accordingly, companies tend to provide market-oriented solutions that prioritize win-win relationships to all stakeholders. This process leads to higher competitiveness (Nosratabadi, Mosavi, Shamshirband, Zavadskas, Rakotonirainy & Chau, 2019).

According to findings by López-Pérez, Melero-Polo, Vázquez-Carrasco and Cambra-Fierro (2018), a company's reputation has positive influence on its brand and financial value, which, in their turn, tend to be better when the business model prioritizes social accountability. In the case of family businesses, the company is seen as an extension of the family, itself; therefore, pro-sustainability practices tend to sensitize managers even more, because they do not want to have their personal image linked to bad socio-environmental practices (López-Pérez et al., 2018).

The business models of two family businesses, one from the industry and another from the supermarket retail sector, will be herein analyzed. It is essential taking into consideration these companies' configuration, because this is the prevailing model in Brazil and abroad (Frezatti, *et al.*, 2017). Based on Lody (1998, p.6), family business "[...] is that in which consideration about direction succession is linked to the hereditary factor, whose company's institutional value is identified with the family's surname or with a founding figure". Petry and Nascimento (2009) state that for most authors, a company is featured as family business when its family management prevails; it does not see restrictions to previous successions.

As for numbers, estimates show that family businesses account for 48% of Brazil's GDP and that they involve approximately 60% of all job positions in the country (Petry & Nascimento, 2009). Based on data provided by Sebrae Nacional (2016), Brazilian family businesses tend to have a small administrative structure, whose single command allows taking fast actions at times of emergency, besides the construction of important community and commercial relationships deriving from a respectful name, as well as certainty of a loyal and dedicated internal organization.

According to Frezatti, et al. (2017), family businesses' behavior is different from that of the non-family ones, given the relevant part played by their members and because their goals aim the family, the close focus on accumulation and conversion of socio-emotional richness and on long-term orientations, as well as on reputation aspects and on the prevention against risky ventures.

However, family businesses face the process to choose between accepting risks and on long-term decisions, mainly when it comes to innovation and on the lower intensity of variables related to the environment (Doluca et al., 2018). Thus, while product and process innovation represents high risk to these companies, the same does not happen after the adoption of certifications on commitment to sustainability, which are considered positive (Doluca et al., 2018).

Just as any other company type, family businesses owners and managers must think about strategies to ensure the longevity and sustainability of these organizations by achieving consistent profit and financial potential. Accordingly, family businesses' longevity means to be capable of innovating in terms of products, services,

technologies and processes, with emphasis on customers (Ahmad, Omar & Quoquab, 2021).

In compliance with these premises, the longitudinal study by Doluca et al. (2018), carried out with family and non-family businesses in Germany, showed that the aversion to risk presented by this company type would have the potential to negatively influence investments in sustainable innovation. However, ideas focused on long-term and on concern with ones' own reputation, leads to higher consistency in these organizations, when it comes to the environmental issue, than in non-family companies.

Company performance and SOI

De Azevedo Rezende (2019), by analyzing data from 356 multinationals, found evidences that the positive association between innovation in the sustainability field and financial results gets more interesting overtime. In other words, results from this innovation type are positive in the short term, but they tend to get smaller in the long term.

Studies by Aguilera-Caracuel and Ortiz-de-Mandojana (2013) pointed out that companies that invest in sustainability-oriented innovation get better financial performance than those that do not invest in this field. This process assumingly takes place because companies get better reputation and legitimacy in the eyes of external agents, a fact that leads to increase in gross revenues. Furthermore, these companies are often seeking advantages from the sustainable management of their processes, in order to improve their environmental preservation performance and to reduce operational costs. Thus, the very business gets a longer life due to the positive effects from their financial, social and environmental outcomes.

With respect to performance, it is important taking into consideration that sustainable innovations make companies reach strategical differences and, consequently, they add more value to their products/services that, in their turn, contribute to these companies' performance. Similarly, this differentiation aims the search for new markets (Lopez-Valeiras, Gomez-Conde & Naranjo-Gil, 2015). Maletic, Maletic, *et al.* (2014, p. 186) suggest that sustainable innovations should be completed by "the organization's ability to measure and manage the interaction among, business, society and the environment". These authors also state that sustainable exploration practices are the factors mostly influencing the effects of quality performance.

It is also necessary taking into account that adopting an attitude heading towards "sustainable innovation" involves some barriers and difficulties, such as price increase due to more sustainable measures, the manufacturing of green products that, actually, do not have a performance as good as that of competitors, among other measures highlighted by Aguilera-Caracuel and Ortiz-de-Mandojana (2013). According to these authors, even when companies overcome these barriers and innovate, this is not a guarantee of achieving a better financial performance, since there will be other expenses with training, product quality or costs with security.

However, the most recent studies, such as that by Tariq, Badir and Chonglerttham (2019), show that sustainability-oriented innovation, in the case of products, increases profitability and reduces companies' financial risks. This relation is influenced by the markets' intensity of resources and by technological and market disturbances (Tariq et al., 2019).

Based on the herein approached concepts and topics, the aim of the present study was to analyze family businesses focused on sustainable innovation, as well as the association between this innovation and business model, and company performance. Thus, the next section will introduce the method applied to study development.

Research methodological elements

The present study is featured as case study. Option was made for this design because, according

to Yin (2015), case studies make it possible accomplishing a holistic perspective of organizational and managerial processes based on in-depth analysis of a nowadays phenomenon and on its daily context. Thus, the aim was to analyze sustainable innovation and its association with business model and family business performance. The case study methodology requires using multiple converging information sources; its results are substantiated by theoretical propositions prior to data collection and analysis (Gil, 2008).

A qualitative research was carried out to meet the proposed goals; interviews, formal observation and documental analysis were performed for data collection purposes. According to Yin (2015), interviews are an important source of information for case studies. Interviews allow investigating the past facts, getting to know people's opinion about facts, observing individuals' feelings towards a specific fact, finding out what was, is, or would be, the behavior of people and organizations, as well as finding out what the factors influencing thoughts or actions are (Lakatos & Marconi, 2010).

Standardized or structured interview was herein carried out based on a previously established script. The aim of this interview type is to get answers from interviewees to the same questions; differences must emerge from respondents rather than from questions (Marconi & Lakatos, 2002). The performed interviews were audio-recorded upon interviewed professionals' authorization.

Direct observation was also carried out. According to Marconi and Lakatos (2002), observation is essential for the research because it allows researchers to identify and get evidences, besides leading to straight contact with reality, a fact that can point out facts that were not observed in the interview's script. Thus, several aspects reported during the interviews could be confirmed by formal observation. Documental analysis aims at reinforcing results gotten from the interview and the observation. Documental sources are much more numerous and diversified, since any element containing data can be considered a document (Gil, 2008). The analyzed documents were websites and presentation materials used in lectures and conferences, invoices and material published on Facebook.

The interview script taken from a PhD thesis was the adopted one. The assessed companies were called "alpha" and "Beta", and they were a factory and a supermarket, respectively. Dimensions and categories of the analysis applied to the qualitative research encompassed data collection (Chart 1).

Chart 1 - Analysis categories and variables

Analysis categories	**Variables**
Sustainable innovation strategic management Strategic attitude towards sustainable innovation	
Strategic attitude	– Proactive in roduct/process; – fitting in product/process; – Defensive in roduct/process.
Sustainable innovation practices	
Business adjustments for society	– Integration among company, local communities and other stakeholders to generate social and environmental benefits. – Interaction mechanisms between company and stakeholders
Development of sustainable solutions	– Sustainable solutions to maximize benefits for society and environment – Solutions for products and services that aim at reducing consumption;
Maximizing energy and water efficiency, as well as reducing emissions	– Practice to improve energy efficiency. – Practice to improve water efficiency. – Practice to

	improve the emissions from the supply chain.
Value creation based on waste.	– Economic and environmental costs are reduced by inputs' reuse and the transformation of waste into value
Replacement of renewable and natural processes	– Innovation in products and production processes by using renewable resources and energy, and by conceiving new solutions to mimic natural systems
Delivering functionality rather than property	– Alternatives to replace products by services – product-service system (PSS). – Actions seeking to create and develop new sustainable needs capable of changing the current life styles of the population

Source: adapted from Kneipp et al., 2018.

Results presentation and discussion

The results below will be described based on four analysis categories, as previously addressed, namely: company featuring, strategic management applied to sustainable innovation, business model and company performance.

Professionals in strategic positions were selected for the interviews; in both cases, interviewees owned their respective companies and had appropriate qualification and vast knowledge on business activities. Thus, they could contribute with relevant information to research.

Companies' featuring

Chart 2 introduces a synthesis of companies' features to make their visualization easier. The following aspects were taken into consideration: time acting in the market, location, activity sector, number of employees, gross operational revenue in the previous year, capital type.

Chart 2 - Feature of the assessed companies

Organizational features	**Alpha Company**	**Beta Company**
Foundation year	1987	1974
Location	Frederico Westphalen (RS), Joinville (SC), Montes Claros (MG), Tauá (CE), Rio Branco (AC)	Frederico Westphalen
Activity sector	Manufacture with glass fiber and polyethylene	Supermarket retail
Number of employees	450 employees	77 employees
Mean gross operational revenue in the last three years	between 90 and 300 million	Between 16 and 90 million
Capital type	Closed capital	Closed capital
Main innovation type	In product and service	In process

Source: Elaborated by the authors

Both companies are traditional in their cities; they have been in the market for 31 and 44 years, respectively. Therefore, it is possible assuming that they have considerable management maturity and, although they act in different sectors (industry and supermarket), both are family businesses, what gives them some similar features.

In the last few years, they have observed the changes taking place in the Market, in society's behaviors and in its priorities. Accordingly, they started to adjust their activities to meet the new demands. As for the industry, there was the demand for more sustainable practices that, in their turn, have reflected on product and process innovations. With respect to the supermarket, the main innovations regarding sustainability were applied to processes. Besides being a family business somehow traditional in the regional market, the Alpha company is accountable for 450 employees; Beta has 77 employees.

It is also important taking into account that these companies deliberately adopted sustainability

practices. As for Alpha, it was part of its strategy to remain competitive in the market, since it has a line of products focus on efficient water use. Beta, in its turn, was concerned with sustainability reflex on its values. The adopted practices were not the result of legal demands, either from the search for some stamp or certification.

Strategic management applied to sustainable innovation

Sustainable innovation-oriented strategic management was analyzed based on the strategic attitude adopted by the companies and on their sustainability practices, as shown in Chart 3 .

Chart 3 - Sustainable innovation-oriented strategic attitude

Company	Variable	Evidences
Alpha	Innovation type	"it is obvious that in terms of product, they are almost always radical " But he states that there are incremental innovations for the company in terms of process, as well.
	Novelty degree	He states that there are radical and incremental innovations. However, as for products, most of them are radical.
	Sustainability level	"... in terms of product, it is always proactive, in our viewpoint. The agent tries to anticipate itself by bringing in a Market trend. With respect to our production process, then it is somehow pointing towards fitting and defensive. Then, if there is a legal demand, we will do something to meet the legislation, for example. But, we always try to be a step ahead or at least to use the best we have internally in terms of technology…"
Beta	Innovation type	- "Our company aims at innovating in processes"; documental part (invoices) for waste collection in butcher houses and of oil used in bakery production.
	Novelty degree	It is incremental because it adjusts existing innovation practices focused on sustainability to its business model and sector
	Sustainability degree	It stays between proactive, because it invests in innovations, without expecting any demands from any governmental bureau;

Source: Elaborated by the authors

The Alpha company sees its innovations in products as sometimes radical and, in some other moments, it sees them as incremental, from some aspects, if one takes into account that it started making satellite dishes, at its early history, and changed it to water tanks that stopped being made out of asbestos (a product capable of causing cancer) and started being manufactured with polyethylene. However, based on Beltramello, Haie-Fayle and Pilat (2013), radical innovations focused on sustainability involve technological changes in the economic regime, because they are a complex innovation type that regards not just technological factors, but also several actors. The interviewed manager stated to manufacture in the company many machines used in the production line, and he sees it as a radical innovation. Innovations pointed out in the interview are new to the company, but, actually, they are not new to the market.

As for sustainability level, Alpha Company sees itself as proactive, because it does not wait for governmental bureaus' demands; it seeks to anticipate the trends. It was stated because its products are focused on sustainability practices.

Beta Company sees itself as incrementally innovative in processes; it is justified by the statement that it adjusts its activity to processes already in place in other companies, such as waste reuse, trade and recycling. With respect to sustainability level, it agrees that the company matches the proactivity concept, because it invests in some innovations focused on sustainability. It is so, because the only legal demand for the supermarket sector is set by the municipality; it encompasses ecological actions such as garbage separation for selective collection.

Despite some excesses, both companies adopt incremental innovations and it meets the statement by Szekely and Strebel (2013): incremental innovation involves a certain level of novelty in processes, operations, systems, and in business model and thinking; this innovation level is the most common in family businesses. Furthermore, because they are family companies, and by taking into consideration the five stages pointed out by Nidumolu, Prahalad and Rangaswami (2009), it is possible stating that these companies are in an intermediate stage in their search for sustainability. It is so for Alpha, but Beta remains in the initial stage. It is easy observing the interest of both companies in making these practices perpetual.

Chart 4 introduces the SOI practices adopted by both companies in order to adjust their businesses to society and to the environment.

Chart 4 - Sustainable innovation practices – adjustments in business for society and the environment

Company	Variable	Evidences
Alfa	Mechanisms to interact with stakeholders	It promotes lectures and visitations to make society aware of environmental issues;
	Mechanisms to interact with society	"One of the main tools we use are lectures. We have many lectures and meetings, we bring people to the company, schools, universities, companies, customers, class entities"
Beta	Mechanisms to interact with stakeholders	There are partnerships with local universities and with our suppliers. One example of it would be our project, the Super Kids, which is the distribution, and the follow-up of these distributed seedlings and the prize to the ones who have planted them. It is done through a register made at the time to send out the seedlings, for example"
	Mechanisms to interact with society	- They sponsor soccer teams in the community, and encourage the practice of sports; - it sets partnerships with the forest and environment engineering course of the Federal University through the Super Kids project, which distributes native-tree seedlings;

Source: Elaborated by the authors.

With respect to mechanism to interact with stakeholders, the interviews and the consultation to Alpha companies' presentation materials allowed observing that it is truly concerned with interacting with society, with encouraging its employees to join class entities, service and religious groups to take the company's name to the places they go to. Besides, it was possible observing that this company is always available and open to host college students for their studies, a fact that must be taken as a huge differential. This company also invests in lectures for the communities it acts in. It is done in order to outspread the relevance of using water based on the awareness that this is a finite resource.

The Beta Company also states to keep its interaction with the local community by setting partnerships with universities, by sponsoring sports teams' uniforms in rural communities and by being always available for scholars when they have to carry out their research. However, the "Super Kids" project stands out among all these examples; it has been run for two years now. The Beta Company, in partnership with the Forest Engineering Course of Federal University of Santa Maria, has been distributing seeds of native trees to children.

Children must apply for follow-up and for further awarding for those who have actually planted their trees.

These results corroborate the study by Doluca et al. (2018), who have stated that family businesses seek to invest in actions that reflect on society and on the environment because they are quite concerned with their image and reputation, besides having great orientation to long-term actions. Furthermore, these authors show that these companies, despite investing less resources in these actions, can get greater benefits from them than other companies.

Chart 5 - Introduces information about the development of sustainable solutions and incentives to sufficiency.

Company	Variables	Evidences
Alfa	Sustainable solution for products	"... when a person puts up the Rainwater capture system, it has been green, ecological, it is thinking on the environment, thinking that the water from the sanitation company will not be used. Then, there will be lower consumption for society as a whole...". - Development and construction of water treatment stations. "So, those are products that people have the true perception that they benefit from. And they actually do."
	Sustainable solutions for processes	"We are always thinking about doing the same things with less resources or about doing more with the resources we already have". "We keep on developing new techniques in order to reduce waste and to reduce process time"
Beta	Sustainable solutions for processes	"We support society through financial donations and by donating products whenever they are requested, and through the practice of separating garbage, of selling waste, of treating sewage, among others". Reuse of card-paper boxes to pack goods and the distribution of eco-bags

Source: Elaborated by the authors

As for the Alpha Company, it sees that sustainable development and incentive to sufficiency are closely linked to what it offers as value in its products. Its managers state that they analyze the benefits the products they develop will generate for the community. They have environmental management policies in their facilities to meet the legislation and to seek continuous improvement technique for processes. They do so, by reusing resources and by recycling what cannot be reused. The company's website and its presentation materials express its concern with the environment and with sustainability. It runs the "Water for All" project in partnership with the federal government in Northeastern Brazil. The company shows that its mission is "to act through environmental solutions for human survival, by making sure that wherever there is water, there will be life". This very same material introduces info-graphs showing drinking water consumption through daily food items, the amount of drinking water available on the planet, and encourages a more conscious water consumption. This material aims at evidencing the relevance of the products it sells for a more efficiency use (for example, cisterns and treatment systems).

There is an excerpt in this material that makes it clear that the company is committed to the Water for All project since 2014, and it evidences its social accountability and how its innovative products and solutions can have positive impact on people's lives. In order to do so, managers decided to get to know the reality of the Northeastern population and produced a documentary about life in Northeastern Brazil.

The Beta Company, in its turn, does not seek sustainable solutions for its products, because its is a retail company. However, its manager shows great interest in developing processes capable of making its economic activity less harming for the environment and for society. It oftentimes makes financial donations to schools and soccer teams in rural communities, besides including garbage separation for products that cannot be sent for selective collection. In other words, this company is quite concerned with reducing waste production in its processes and with ruling out waste. The Beta

company also involves its employees in this process by encouraging them to use less plastic bags, to replace them by card-paper boxes to pack the goods and to distribute eco-bags to their customers. However, employees' awareness is limited to it, the company does not train them for more actions.

According to Bocken, Short, et al. (2014), companies seek to develop sustainable actions to generate benefits for the community and for the environment. However, these actions, in the case of Beta Company, are not outspread in the media. Therefore, most of the local society is not aware of them.

Chart 6 introduces actions focused on maximizing energy, water and gas-emission reduction efficiency.

Chart 6 - Maximization of energy, water and gas-emission reduction efficiency

Companies	Variables	Evidences
Alpha	Energy efficiency	- aims at using natural lighting and low-consumption light bulbs, such as the LED ones
	Water efficiency	We have systems that treat 99% of the generated sewage. So, in these cases, we can reuse this water;" "what we try to do is to use rainwater as much as possible".
	Reduction of supply-chain emissions	We monitor our suppliers, you know, but we do not have a clear policy for exclusive supply by companies with stamps, credentials and such. We do not get to such a level and again we indirectly try to encourage actions".
Beta	Energy efficiency	– It only uses LED lamps; – It has a diesel generator to be used at peak times to reduce the price of electric power;
	Water efficiency	"Taps in the butchery sector and in the bakery have sensor and pedals. We also capture rainwater, which is used in the restrooms and in cleaning.
	Cahin-supply emissions control	"We do not have a hard control of our suppliers' sustainability practices" - They seek for suppliers that make reverse logistics in the case of batteries and light bulbs.

Source: Elaborated by the authors

With respect to pursuit of energy efficiency, the Alpha Company has planned its facilities to get the most natural lighting possible, besides changing conventional light bulbs for LED lamps, and common monitors for those with lower consumption. However, few measures could be observed other than these ones. As for water efficiency, its manager has stated that they sell and use systems that treat up to 99% of the generated sewage. The practice the company has implemented to use rainwater, which is captured by the cisterns produced by the company itself, was observed during observation process. Regarding the water used in production, it was said that it is not disposed with waste in it; therefore, it can be taken back to the environment.

Regarding the reduction of supply-chain emissions, neither Alpha nor Beta have effective control over suppliers' practices. Alpha manager stated that the company seeks integration with other elements in the chain to pursuit better practices and technologies, to use inputs in a more efficient way. However, there is no effective control over its suppliers' sustainability practices.

Beta, in its turn, aims at increasing its energy efficiency by using a diesel oil generator to reduce costs with electric power, at peak times. This measure leads to short-term economic outcomes; however, it generates more losses to the environment, a fact that is acknowledged by the company, which states to have a project for new company facilities holding solar panels to reduce cost with electric power and to cause lower environmental impacts.

When it comes to water efficiency, the company is quite concerned with it, because it sees water as an important resource. Thus, it has a cistern to capture rainwater, which is further used for cleaning and in toilet flush. As for its supply chain, its actions are limited to set relationships with suppliers that work

with reversed logistics and that collect the lamps and stacks consumers bring to the company after their use.

We can observe that both companies seek measures to increase their energy, water and emissions' reduction efficiency, even small ones. It makes these companies stand out, since these practices are not common among companies in this region. According to Nidumolu *et al.* (2009), several companies believe that measures to pursuit environmental sustainability will reduce their competitiveness and financial outcomes. However, in order to get benefits, companies must seek to increase efficiency in all their value chain, and it does not yet happen with the herein assessed companies.

Chart 7 provides information about value creation based on waste generation.

Chart 7 - Value creation based on waste generation

Companies	Variables	Evidences
Alpha	Waste management	It always tries to develop tools and new procedures to minimize waste production. Everything that is possible to be recycled is recycled". "... we must have strict control so people do not dispose their PPEs in case it is not necessary… because they are a non-recyclable waste
	Cost reduction through reuse and waste reduction	"we have paper and metals that can be recycled". "Those are also the ways we found to minimize waste"
Beta	Waste management	- we recycle papers and plastic; - "there is a company that collects them and it has a financial value to the company due to the products it takes away. We also have vegetable oil, which is used in the bakery, it is packed and another company collects it"; There is the collection of butchery waste by a specialized company; There is a sewage and production treatment system that filters up to 80% of residues
	Reducing costs through reuse and waste reduction	- it aims at reusing water resources and package materials

Source: Elaborated by the authors

When Alpha talks about creating value based on reducing waste production, it always states its will to seek the development of tools and new work procedures to minimize waste production, by recycling as much as possible. The interviewed manager said that they have much care with the use of PPEs, which is monitored, as well as with their disposal. Because PPEs are hard to recycle, the company aims at prolonging their lifespan to generate less disposals. It was also said that the company has a hard time reusing glass fiber waste, since it involves chemical processes and its reuse is quite limited, a fact that makes its reuse by the company unfeasible. Yet, it was reported that the company made some investments a few years ago to try to recycle and reuse this waste, but it has triplicated the demand for electric power to reach a very low reuse level, which has made this strategy unfeasible due to the invested amount of money. This finding shows the relevance of the economic aspects linked to sustainability.

The Beta Company sells all the paper and plastic used in it to a recycling company. The oil used for frying things at the bakery sector is also sold to a soap manufacturer, as well as the butchery waste, which is sold to a feed manufacturer. As previously mentioned, all water flowing down to the sewage goes to a treatment station to make possible taking it back to the environment with 80% less pollutants. The supermarket also has a policy to reduce the use of plastic bags, and it always tries to encourage customers to use eco-bags or card-paper boxes to carry their goods. Accordingly, the company has financial gains, since it sells the material about to be disposed in regular garbage. According to Nidumolu

et al. (2009), companies' initial goals when they try to adjust to the sustainable profile lies on improving their image; however, most companies end up reducing costs and even creating new businesses.

Chart 8 regards the replacement by renewable and natural processes.

Chart 8 - Replacement by renewable processes

Companies	Variables	Evidences
Alpha	Innovation for products and development of new solutions for processes	- Does not know a technology to provide new and more sustainable solutions for the production process.
Beta	Innovation for products and processes based on new solutions	- Intends to soon implement solar plates.

Source: Elaborated by the authors

The Alpha Company does not see the possibility, so far, to replace the used sources by renewable and natural processes. It was stated, during the interview, that the renewable technologies available do not meet the company's production processes. In other words, in the case of several processes, the company does not see the use of renewable power as alternative. The professional belonging to Alpha reported that several recycling and reuse practices are already in place. However, many others have started, but they did not last because they were not economically feasible (they demanded too much power). The visit to the company allowed observing investments in cisterns to capture rainwater, as well as natural lighting in the production facilities, even in the offices.

As for Beta, this renewable power issue is feasible. As already mentioned, the supermarket is developing the project to install solar panels in its new shops. It is seen as an important issue in the pursuit of reducing the environmental impacts of the venture.

Sustainable exploration practices adopted by a given economic activity are emphasized by the need of companies to keep making incremental improvements to reduce costs through material and energetic efficiency (Maletic, Maletic, *et al.*, 2018). It meets what Bocken, Short, *et al.* (2014) observed about the need of reducing environmental impacts by identifying the limitations of resources linked to non-renewable resources and to the current production systems.

Chart 9 concerns functionality delivery in companies rather than property selling.

Chart 9 - Functionality delivery rather than property

Companies	Variables	Evidences
Alpha	Public/private partnerships with customers	"We haven't been acting towards this line, but our customers can do it". The company sells to other companies that establish public/private partnerships.
	Creation and projection of new sustainable needs	"... a while ago, and even nowadays, there is no sewage treatment in many regions. It is a deficiency, right? There is a huge gap in there".
Beta	Focused on product selling	It is a supermarket; therefore, it only sells goods.
	Incentives to sustainability	"Our company seeks to encourage our customers and suppliers to implement this practice"

Source: Elaborated by the authors

Based on the collected information, it is possible saying that the Alpha Company tries to deliver functionality through public/private partnerships, and through partnerships with customers who by sewage treatments, for example. As for the line of cisterns and sewage treatment stations, its engineering sector develops projects based on demand, but it does get to replace products by services. As for actions aimed at the creation and development of new sustainable needs that, in their turn, can influence the course of current life styles experiences by the population, the interviewed manager sees that the company does take actions that aim this effect. His justification lied on

the fact that there is still much to be explored in the environmental field when it comes to make the community aware of how important it is to collect rainwater and to treat sewage before releasing it back in the environment.

He also sees that the company has moved forwards in the awareness path, and it has changed people's attitudes. The company also encourages the use of biodigesters (another product produced by this company) that allow the generation of clean energy.

As for Beta, the interviewee did not see that replacing products by services, property by functionality, is feasible, since providing service lies on delivering products to customers. As for actions aimed at creating and developing new sustainable needs, it was observed that this company has some attitudes towards making customers and employees aware of the relevance of adopting practices to benefit society and the environment. However, it actually does not create new needs.

According to Hansen, Grosse-Dunker and Reichwald (2009), the production-service system (PSS) has some limitations, because it only mitigates the negative impacts of innovations in products. However, nowadays, the structures needed to keep lifestyles are bigger threats to sustainability, as well as to meet the needs of customers. This innovation type has the potential to make significant improvements in sustainability outcomes because it develops alternative solutions, without using new resources and, yet, it meets customers' needs.

Chart 10 shows some variables linked to the adoption of leadership.

Chart 10 - Leadership in the company

Companies	Variables	Evidences
Alpha	Adopted attitude	- It adopts the leadership attitude;
	Care with employees' health condition	- It highlights the relevance of taking care with safety and occupational health;
Beta	Adopted attitude	- it is a follower;
	Care with employees' health	"...the company provides health plan, and life insurance... we also provide PPEs, ergonomics at work, as well. And we always try to have a healthy environment".
	Partnerships with suppliers to develop sustainable projects	- aims at supporting suppliers and customers through education institutions to implement environmental projects;

Source: Elaborated by the authors

The attitude adopted by Alpha Company is of leadership at 80% of its existence time, when it comes to practices to ensure the well-being of the involved parts; it aims at adding social value to its products. It is always very concerned with its employees' occupational health. Therefore, it always invests in safety at work, in occupational health and psychological follow-up. The interview also showed extreme concern with making sure about products' technical quality, mainly of those related to water storage, so they cannot release residue (it is done by making internal and external analyses to measure such a feature).

On the other hand, it is possible observing that Beta is also quite concerned with the quality of life of its employees. It reported to provide health plan and life insurance, besides having deep care with ergonomics and with the use of PPE by employees in the butchery and bakery sectors, since they have constant training.

Most of these measures are demanded by the labor legislation; therefore, they are not voluntary actions taken by this company. Nevertheless, the fact that it is a family business that always try to provide a welcoming environment to employees and customers is seen as a differential by the interviewed manager. Its main values are ethics and full respect for diversity, since it does not tolerate any discrimination type. This company is proud to have more than 70% of its staff working in the company for more than 10 years, and 70% of this number has been in the company for more than 30 years in the same position.

According to Seuring and Müller (2014), the

search for deeper care with stakeholders is the factor encouraging businesses to aim at sustainability. Customers would be the most relevant among all stakeholders because no innovation or service would have value if they were not accepted by them. It must be followed by demands from governmental bureaus referring to occupational safety, in our case.

The next section will address the business model features of both companies.

Business model

Charts 11, 12, 13, 14 and 15 regard aspects of the business models adopted by the assessed companies based on their value proposition, degree of modification in business model in terms of sustainability, relationship with the supply chain, relationship with customers, financial model and company performance.

Chart 11 - Company's propostion of value

Companies	Variables	Evidences
Alpha	Business model definition	- promoting sustainable products that can improve the quality of people's lives; "the very view of the company heads to this direction, which means acting with environmental solutions to human survival, making sure that wherever there is water there will be life"
	Proposition of value	- it focuses on customers and results; "this commitment also reaches communities where we are inserted in and the environment. So, they are aligned".
Beta	Business model definition	- It aims at providing a differentiated environment for customers and employees because this is a family business; "we treat all of them as if they were family...".
	Proposition of value	- Meet customers' demands promptly, and prioritize ethics and respect to diversity

Source: Elaborated by the authors

With respect to the company's proposition of value in its business model, Alpha stated that it aims at providing sustainable products that generate well-being and quality of life for customers (this idea is included in company's view). It was also reinforced that this brand is always seeking to benefit the community.

As for Beta, it has reinforced the idea of being a family business that tries to treat customers and employees in a welcoming way, with ethics and respect, to build a pleasant environment for all. Besides, it thinks that financial value generation in the company must reflect on well-being for the society it is related with.

This outcome corroborates some aspects highlighted by Cruz, *et al.* (2010) and Block and Wagner (2014), who showed that family companies are much more concerned with non-financial goals, such as identity, longevity, resources' preservation, and with having a positive image related to its reputation. These priorities would lead these companies to a business model that would focus on social issues and stakeholders.

Chart 12 is an analysis of the modification degree of business models.

Chart 12 - Modification degree of business models

Companies	Variables	Evidences
Alfa	Different production cycles	- the company has already made changes in its business model over its history. "So, the company has been reinventing itself over the years".
Beta	Without innovation in the business model, but sustainability was included.	- it never got to change its business model. It only included sustainable practices that were not carried out before

Source: Elaborated by the authors

With respect to changes in the degree of

modification in its business model, Alpha faced some changes over the years, and passed through different cycles. The company started manufacturing and selling satellite dishes, and changed its manufacture to water tanks and to waste treatment focused on sustainability. Thus, the change was quite clear, because the way to add value was changed.

Beta did not record modifications in its business model by adding to the concern with sustainable innovations. The interviewed manager stated that concern with sustainable issues corroborate the company's proposed model and that there were adjustments and improvements in this direction.

The Beta Company does not meet statements by Schaltegger, Lüdeke-Freud and Hansen (2012). These authors state that sustainability-oriented businesses demand continuous adjustments, or even a radical change in the business model - this radical change could only be observed at Alpha.

Chart 13 regards supply chain and its sustainable management.

Chart 13- **Management of sustainable supply chain**

Companies	**Variables**	**Evidences**
Alpha	Sustainable supply chain	"We aim at being connected to good suppliers" "and, as Bakof stands out in the market, it is also a supplier, thus, any suppliers. It is often linked to the main suppliers at Brazil level and at world level. Thus, these companies are also well connected to the environmental sustainability issue…"
Beta	Sustainable supply chain	- it does not have control over sustainability practices adopted by suppliers, except for the case of stacks and light bulbs;

Source: Elaborated by the authors

The Alpha Company was asked about the sustainable management of its supply chain and stated that it seeks to be connected to suppliers that show good attitudes and that, at least, fulfil the legal requirements for environmental management. Moreover, because it has an outstanding position in its sector, it keeps commercial relationships with the main suppliers in it, at national and international level. Yet, it understands that, oftentimes, these companies are concerned with social and environmental issues, or, at least, they strictly fulfil the demands from governmental bureaus.

As for Beta, there is no supply chain management, because it depends quite much on some suppliers. The company does not see how to demand the adoption of more sustainable processes. However, it reports to be more selective towards suppliers when it comes to the provision of stacks and lamps; besides prioritizing local products at its beef, fruits, vegetables and green vegetables' purchases.

About supply chain, Boons and Lüdeke-Freund (2013) highlight the part played by suppliers in supply chain' sustainable management. The herein assessed companies still need to advance towards this goal, so they can join a sustainable supply chain.

Chart 14 assesses companies' relationship with customers based on the sustainability challenge.

Chart 14 - Relationship with customers

Companies	Variables	Evidences
Alpha	Aim at making customers understand the relevance of sustainability	"I guess that the closest relationship we have aims awareness through lectures and meetings promoted by us…". "we are, actually, planting there, a seed of sustainability. Because, of course, it is linked to our product"
Beta	Projects to encourage sustainable attitudes	""One of the cases would be the Super Kids Project, with children, to encourage them to have sustainable practices, to plant native trees, to keep them and to award these children"

Source: Elaborated by the authors.

The Alpha company has reported that it aims at making its customers aware of the importance of

sustainability by highlighting the advantages of adopting a life style focused on the conscious use of resources, since it sells products that mean a solution for activities accountable for harming the environment. Beta Company calls the attention to the Super Kids projects, which aims at making children committed to planting native trees. This project encourages a bigger concern with the environment, and it points out that there is not much engagement to this issue, assumingly because it does not bring direct financial gains, such as in the case of Alpha.

Again, Boons and Lüdeke-Freund (2013) restate the relevance of involving customers in the company's sustainable practices and in the search for a more conscious consumption.

Chart 15 provides the information collected about the herein assessed companies' financial models.

Chart 15 - Financial model

Companies	Variables	Evidences
Alpha	Financial model to value people	"We have a policy to valorize people, of internal promotion. Because we have facilities in different areas, in different states, it also allows people's mobility, ones' own professional growth". Management systems applied to wage and benefits; Training and qualification actions
Alpha	Financial model as accountable for ecological and social impacts on the company	"... as I have mentioned, in the last ten years we have used a good share of the budget in this area".
Beta	Financial model focused on sustainability	It provides life insurance and health plan to motivate employees. "In the case of paper and plastic selection and classification […] the company gets return by selling this product. It brings financial return to the company".
	Financial return encourages actions focused on social and environmental sustainability	"... in financial terms, it only brings benefits to the company, you know. So, these environmental projects: Super Kids project, the garbage selection project, they make our customers look to our company with positive eyes. So, it brings us good financial return, as well "

Source: Elaborated by the authors

With respect to financial model, Alpha sees that its model is focused on valorizing people, since it subsidizes transportation and food, and it is also accountable for financing measures that have positive impact on socio-environmental issues. The presented arguments lie on the fact that the company has a policy to valorize people, because it has a careful management strategy focused on wage and benefits, besides using a large volume of resources to make people aware of the relevance of sustainable actions.

As for Beta, its financial model is also quite focused on social and environmental issues, because it takes into account investments in actions, such as the Super Kids project and the collection of used lamps and stacks, besides the selling of waste for recycling, since it is a source of income and improves the company's image.

This financial model aims at the proper sharing of costs and economic benefits among the interested parts. Once more, it corroborates information in the study by Boons and Lüdeke-Freund (2013), who state that the financial model must show that costs and economic benefits have been properly shared

among agents involved in the business.

Chart 16 shows company performance.

Chart 16 - Company performance

Companies	Variables	Evidences
Alfa	Financial performance	"within the standards of our segment".
	Innovation performance	grade 8;
	Production performance	"Quite high [...] actually, this is the core of our activity, we are reinventing on a daily basis, analyzing indicators, proposing improvements".
	Market performance	Research in specialized journals show good market performance "…there is significant participation in the market; we are leaders, in Southern Brazil, in the water tank's sector […]. We are the second company at Brazil level in the water tank sector. We did not supply to the Northeast, in 2014 we started to act in that region and, from this time on, we can say that we act at national level"
Beta	Financial performance	"...I guess that our company [...] is within the average in our region. [...] I think that this is good".
	Constant pursuit of innovation	- It seeks process innovations to improve customers' assistance; - These innovations are new to the company, but not to the market;
	Production performance	- It sees the financial performance as a good one;
	Market performance indicated through marketing survey	- It makes marketing surveys to assess market performance; "…if we take into consideration a regional reality, nowadays, based on survey applied to our customers, in our city, in the region, our company is one the leaders in the supermarket sector…"

Source: Elaborated by the authors

Alpha reported financial performance within the sector's standards, i.e., "as expected". This outcome confirms the care with the economic sustainability issues applied to the adopted practices. With respect to innovation, the manager states that within a 0-10 scale, the company would score 8, since it always introduced many innovations at regional level. As for production and market performance, the interviewed professional considered that both items are closely related to each other, because it is a manufacturer. Based on the financial reports and searches on specialized journals, the company has been having a performance above the averages recorded for its competitors.

Beta's financial performance, based on the analyzed projections and indicators, is on the average recorded for the region and the state, in its sector. Regarding innovation, it was reported that the company is always seeking ways to expand its capacity to fulfil customers' demands. As for its production performance, the manager has stated that he always calculates the number of employees based on the financial value generated by the company. Finally, as for marketing performance, it takes into account the regional reality and the marketing surveys made by the company; the manager claims that the company has a high performance in its segment.

With respect to company performance, the study by Aguilera-Caracuel and Ortiz de-Mandojana (2013) shows that companies that innovate towards sustainability, oftentimes do not see much improvement in financial performance in comparison to companies that do not follow such a path, mainly because of cost issues. However, yet, according to them, sustainable innovation is capable of potentially improving companies' financial performance. This effect requires persistence, because it can take some time to be seen in a concrete way, in company reports, since it demands some initial investments. Besides, it is possible observing that energy saving, pollution reduction and waste recycling potentiate positive financial results in the long-run (Aguilera-Caracuel & Ortiz de-Mandojana, 2013).

Final considerations

Based on the analysis applied to the herein assessed Family business, it is possible observing that both companies have a proactive attitude towards sustainability issues, because they seek to be one step ahead of governmental demands. Accordingly, one can infer that these family businesses, despite having a certain time to adjust to sustainability issues, tend to be less volatile and achieve longer continuity in SOI activities, because, although they are averse to risks, they are quite concerned with their image in society. Although incremental, one cannot deny the relevance of practices adopted by these companies, mainly when factor time is taken into account (Rezende et al., 2019).

The analyzed companies do not have corporative environmental management, or any stamp to prove their pursuit of sustainability through incremental innovations. However, this concern with the *Triple Bottom Line* issues (economy, people and the environment), presented by Elkington (1994), can be proven by their actions, although they are still at elementary phase, since they are at initial stage. It also shows that managers, although acknowledging socio-environmental actions, prioritize the ones that generate some income on the short-term, assumingly because they are afraid of having to afford economic losses deriving from these actions.

Different from Alpha, Beta does not explore sustainable innovation practices in the company's marketing sector, and it could be done by the company, since it has been making numerous investments to reduce ecological impacts. This attitude does not meet that by other supermarkets in the region – customers have been valuing such practices.

With respect to business adjustments to society, one can consider that the fact that they are located close to cities is an influential element. As for Alpha, whose headquarter is in another state, this is not an important factor. However, it is extremely important for Beta to be integrated to, and to have positive impact on, the society it acts in (even at micro-region level). Based on what was reported in the interviews and on the reality they are inserted in, the social issue may have stronger impact on these companies' image and reputations than the ecological issue. Contributions to social issues are more feasible when it comes to the awareness of customers about the care with the environment, mainly for Alpha, and its support to sports, and the support from beta to schools in small rural communities.

Investments in solutions to minimize environmental impacts done by Beta aim at promoting high reuse of resources. However, this company reports that it did not always get financial incomes from it, i.e., companies do not keep solutions, or do not innovate, to the environment or to the society, if these actions do not represent economic sustainability, as well. According to Wagner (2010), actions related to the environmental issue have direct impact on companies' economic performance, mainly on their image, rather than on their financial outcomes.

Actions to maximize energy and water use efficiency were introduced by the family companies. As for water use efficiency, companies have reported to take actions such as rainwater capture and its use in restrooms and for general cleaning. Nevertheless, regarding energy, little was done to use lamps and monitors that demand lesser power. This is another point to prove the priority given to measures that lead to economic income in the short-term.

It was possible concluding that both companies are concerned and see the feasibility of creating value, mainly financial value, based on waste reuse and recycling. As for replacing renewable and natural processes, the companies have shown to know the relevance of adopting these resources to help the environment and the future of society.

However, both companies concluded that there is no governmental incentive towards this topic, although these options required a large financial investment. With respect to Alpha, the interviewed professional considered that, because they intensely use power in their production, they did not find other feasibly economic options, yet. It is known that there

are options, but they just generate economic resources in the mid-long terms.

Therefore, the priority to these practices only take place based on business sector. This finding corroborates Maletic *et al.* (2018), who have made statements about the practices to sustainably to explore a given economic activity: they are emphasized by the need companies have to keep on making incremental improvements to reduce costs.

Although case studies cannot generate information, the evidences shown, so far, make it clear that the herein assessed family businesses face sustainability as a subject to be dealt with based on strategic actions, since they understand that investments in sustainability-oriented innovations bring along countless benefits to them and to their surroundings. One can observe that the assessed companies see the relevance of acting strategically to generate sustainability-oriented innovation, so that it can reflect on their business model and on their company performance. This understanding can be seen in their positive results through their decades acting in a city with 40 thousand inhabitants, in Northeastern Rio Grande do Sul State.

Future research must focus on quantitative studies to broaden the number of assessed family businesses, in order to assess whether strategic innovation management applied to sustainability can be perceived as positive in a larger sample. Another suggestion would be a study about sustainability-oriented innovation management strategy to compare family and non-family businesses, based on other variables, such as employees' view about the actions taken by the company.

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