ISSN 2237-7662, Florianópolis, SC, v. 22, 1-14, e3331, 2023

DOI: 10.16930/2237-7662202333312
Available at http://revista.crcsc.org.br

INFLUENCES OF BUSINESS MODEL INNOVATION ON ENTREPRENEURIAL ORIENTATION AND ORGANIZATIONAL PERFORMANCE: EVIDENCES FROM SANTA CATARINA SUPERMARKETS

MESSAN KOMLANVI AKOUMANI[1]
Universidade Federal do Paraná
https://orcid.org/0000-0002-0168-7241
messankomlanvi2022@gmail.com

EDICREIA ANDRADE DOS SANTOS
Universidade Federal do Paraná
https://orcid.org/0000-0001-8745-3579
edicreiaandrade@yahoo.com.br

JONATAS DUTRA SALLABERRY
Universidade Federal do Paraná
https://orcid.org/0000-0001-7492-727X
jonatas.sallaberry@ufpr.br

ABSTRACT

The supermarket sector is highly competitive with an intense search for alternatives to overcome business challenges, increase consumption and improve results. In this context, this study analyzed the influences of entrepreneurial orientation on the relationship between business model innovation and organizational performance. To this end, a quantitative, descriptive approach was adopted, and its operationalization took place through a survey with 77 supermarkets, whose data were managed through structural equation modeling. The results reveal that business model innovation does not directly influence organizational performance. Only from the inclusion of entrepreneurial orientation was it possible to reveal the indirect relationship of business model innovation on organizational performance. This evidence reveals that indistinct innovation may not be able to affect performance positively; unplanned innovation can even hurt performance. With this, it is concluded that in a very diverse, competitive segment and direct service to the public, such as the supermarket sector, innovation in the business model may not generate better results. In the non-academic professional scope, the evidence identified allows us to assure the importance of entrepreneurial orientation, and demonstrate that this would be the primary factor to direct innovative efforts and thus improve business performance.

Keywords: Contingency theory. Innovation. Supermarkets. Entrepreneurial Orientation.

Edited in Portuguese and English. Original Release in Portuguese

[1] **Address for correspondence:** Av. Prefeito Lothário Meissner, 668 - 794 | Jardim Botânico | Setor de Ciências Sociais Aplicadas, 1° andar, Laboratório de Controle Gerencial | Curitiba, PR | Brazil.

Received on 09/05/2022. **Revised on** 10/24/2022. **Accepted on** 01/17/2023 by Professor PhD. Rogério João Lunkes (Editor-in-Chief). **Published on** 02/10/2023.

1 INTRODUCTION

In Brazil, the great demand for basic necessities products, the constant changes in consumer habits through digital means, and the increasingly recurring trends in the use of mechanisms that facilitate the lives of consumers constantly challenge the supermarket sector. In this scenario, the companies that want to remain sustainable in the market need to adopt strategic positions, ensuring that their products and services have innovative characteristics against competitors.

Business model innovation is a strategic process for many organizations, on which competitiveness and sustainability depend. This underscores a process of creating new business models and/or transforming those already existing, capable of creating and capturing value in an innovative way, and meeting the customers maximum needs (Osterwalder & Pigneur, 2010).

Business model innovation has been introduced so that organizations achieve their goals, such as creating new markets (Amit & Zott, 2012), achieving long-term profitability (Kastalli & Van Looy, 2013) and performance improvements (Kranich & Wald, 2018). However, how and when to innovate business models are challenges that require the adoption of a strategy called entrepreneurial orientation, because it allows organizations to seek the consumers expectations and needs, observe the movements of competitors and, subsequently, direct this information in the development of the greater effectiveness of its resources and capabilities.

Entrepreneurial orientation is defined as an entrepreneurial strategic decision-making process that managers use to define organizational purposes, sustain their views and create competitive advantage (Rauch, Wiklund, Lumpkin, & Frese, 2009). It covers dimensions such as acting with autonomy, innovation, the ability to take risks, aggressive competitiveness, and proactivity (Lumpkin & Dess, 1996). These dimensions may be present in greater or lesser intensity in an organization, considering some internal and external factors such as structure, availability of resources and demands for products and services (Martens, Gutscher, & Bauer, 2011). With this, Asemokha, Musona, Torkkeli and Saarenketo (2019) claim that entrepreneurial orientation is a decision that involves strategic changes and adjustments of the central elements of organizations, resulting in the innovation of the business model and allowing the organization to stay ahead of its competition. Cassol, Meneghatti, Freitas and Gubert (2020) points out that entrepreneurial orientation brings differences to organizations that know how to apply it, standing out from the others.

In a competitive environment such as the supermarket sector, in which the life cycles of the products are constantly shortened, the entrepreneurial orientation (proactivity, risk propensity, competitiveness) causes changes in the business model of the organization, selecting the activities to be carried out, the ways in which these activities are carried out, and indicating the links of interactivity (Chesbrough, 2010). Innovation, another dimension of entrepreneurial orientation, contributes to overcoming organizational inertia and promoting business model innovation. Through the acting with autonomy dimension, entrepreneurial orientation generates freedom for employees, as well as authority and responsibility to take entrepreneurial initiatives and engage in risk behaviors, which reinforces timely decision making and benefits from short-term opportunities in the environment (Van Doorn, Jansen, Van den Bosch, & Volberda, 2013).

Thus, the entrepreneurial orientation would relate to different dimensions of an organization's performance, such as sales growth and market share and financial return (Baker & Sinkula, 2019). Therefore, this research seeks to answer the following question: *What are the influences of the entrepreneurial orientation in the relationship of innovation of business model and organizational performance?* Thus, the research aims to analyze the influences of the entrepreneurial orientation in the relationship of the business model and the organizational performance. In this way, it is sought in intermediate stages to unravel the direct relationships of the entrepreneurial orientation and innovation of the business model in organizational performance.

Despite its theoretical relevance in the administrative sciences, the research about business model innovation is at its beginning and lacks consistency of research and theoretical connections with the theme organizational performance (Ammirato, Roberto, & Alberto, 2022). Thus, this research contributes to the advancement of this discussion, highlighting the innovation of business model as a support for the viability and continuity of supermarkets, as well as presents the entrepreneurial orientation as an important strategic component that can be adopted by managers to increase their organizational performance.

The supermarket sector is contemplated in this research because of the challenges and trends that incorporate it, such as market volatility, the increase of new competitors, the hyper personalized experience of consumers, and new models of service. Thus, it is expected that the results of this study can help supermarket managers prioritize consumer expectations, their competitors' initiatives and direct all this information in the development of appropriate business models to achieve the desired performance.

2 THEORETICAL FRAMEWORK

2.1 Business model innovation and organizational performance

The business model comprises three fundamental elements (Zott & Amit, 2010; Hiteva & Foxon, 2021), namely: value proposition, value creation and value capture. Consequently, the innovation of the business model involves the discovery and adoption of new techniques of value proposition, value creation and value capture. Through the innovation of the business model, an organization conquers new consumers, develops new market segments and new relationships with consumers (innovation of the value proposition). Thus, it can adopt efficient means and methods to create new values (value creation innovation), as well as innovative defining the construction of its revenue model and cost structure (value capture innovation) (Guoa, Anqi, & Hongjia, 2022).

Geissdoerfer, Vladimirova and Evans (2018) identified four types of business model innovation, namely: (1) *startup*, (2) business model transformation, (3) business model diversification and (4) business model acquisition. *Startup* refers to a situation in which an enterprise experiences its first business model. The transformation concerns changing an existing business model by a newer one. Diversification refers to the adoption of several business models by the enterprise, that is, a situation in which a business model remains in place and another additional business model is created. Acquisition typification refers to an additional business model identified, acquired and integrated.

Regarding the organizational performance, it is defined as the ability of an organization to achieve its predefined goals (Moradi, Jafari, Doorbash, & Mirzaei, 2021), which requires the use of appropriate organizational strategies (Oyemomi, Liu, Neaga, Chen, & Nakpodia, 2019). Venkatraman and Ramanujam (1986) claim that in organizational performance, both non-financial and financial performance indicators stand out. In this way, it is coherent to point out market share, employees turnover, customers retention rate and product quality as non-financial performance indicators; while profits, sales growth, and financial returns as financial performance (Su, Kevin, & Schoch, 2015).

Organizational performance is dependent on internal and external factors, so it can be explained by the Contingency Theory. Burns and Stalker (1961) point out that in the Contingency Theory, performance is the result of a consistent relationship of two or more structural, strategic and environmental factors. Significant evidence shows that business model innovation results in better organizational performance (Chesbrough, 2010; Demil & Lecocq, 2010; Sosna, Trevinyo-Rodriguez, & Velamuri, 2010; Amit & Zott, 2012; Günzel & Holm 2013; Spieth, Schneckenberg, & Ricart, 2014; Hamelink & Opdenakker, 2019; Wirtz, 2019). Although there is great support for a positive

relationship among business models focused on new and performance of the organization, certain relationships and analyzes remain open.

Morten and Günzel-Jensen (2019), for example, started discussions about how organizations design successful business models in a nascent market scenario. The authors also problematize how different approaches to innovate a business model impact the company's performance. Guoa et al. (2022), in their turn, point out that although the overall impact of business model innovation on the organization performance has been well recognized, there is still a limitation on the underlying mechanism by which the three elements of business model innovation (value proposition innovation, value creation, and value capture) together lead to an improvement in company performance.

For this discussion, Khaddam, Hani, Ahmad, Salameh and Suliman (2020) and Guoa et al. (2022) bring as contribution the examination of the impact of business model innovation measured by value creation innovation, value proposition innovation, and value capture innovation in the company's performance. The hypotheses that these three dimensions have effects on the company's performance were supported. Therefore, these results are in accordance with several studies mentioned above, in which the positive effect of business model innovation on organizational performance was established. Based on this, the first research hypothesis is elaborated:

H1. Business model innovation positively influences the organizational performance.

2.2 Contingency Theory, organizational performance, business model and entrepreneurial orientation

Contingency Theory is a theoretical approach capable of explaining organizational performance. The strategic alignment perspective included in this theory suggests that organizational performance is the result of a strategic combination of two or more variables. It points out that there is nothing absolute in organizations, that is, there is no better way to organize. The organizations management may be subject to several internal and external factors. The most discussed contingency factors concern size, sector of action, intensity of competition, environmental uncertainty, technology and strategic posture (Chenhall, 2007).

Donaldson (2001) points out that any variable that has the power to affect the performance and efficiency of an organization can be considered a contingency factor. In this sense, some authors have highlighted the organizational culture, humanistic culture, quantity and quality of corporate social reports, quality management within the organization, effectiveness of internal control, and satisfaction criteria as other factors that could affect the social performance of an organization (Ganescu, 2012). These contingency factors may be significant for some organizations, but they lose relevance in explaining performance for others (Golini & Kalchschmidt, 2015).

The Contingency Theory has its implications in the improvement of business models. Koçoğlu, İmamoğlu, Akgün, İnce and Keskin (2015) claim that business model innovation can depend on organizational emotional capacity. This factor can stimulate innovation or renewal of the business model through the cultivation of adequacy and harmonious integration of emotions at the collective level. In addition, Bhatti, Santoro, Khan and Rizzato (2021) point out that business model innovation can also depend on the ability to absorb knowledge, agility and full attention of senior management. From a managerial point of view, these mentioned factors are important, as an organization needs to focus on the background to make the necessary changes in its business models in order to improve its competitive advantage and performance.

The entrepreneurial orientation affects the business model by generating endogenous changes in the perseverance of *the status quo* of the organization (Koçoğlu et al., 2015), which can reduce the gap between the innovations planned and implemented in the business model. In addition, it takes advantage of experimentation and probing for new potential business models, before any external

change that makes the existing business model redundant (Chesbrough, 2010; Demil, Lecocq, Ricart, & Zott, 2015).

Lumpkin and Dess (1996) and Shirokova, Bogatyreva, Beliaeva and Puffer (2016) addressed the relationship entrepreneurial orientation and organizational performance, taking into account the contingency factors. Lumpkin and Dess (1996) pointed out that variables such as environment, strategy and structure affect the configuration of entrepreneurial orientation in achieving organizational effectiveness and efficiency. Shirokova et al. (2016), in their turn, analyzed the environmental hostility and market growth in the relationship between entrepreneurial orientation and performance, noting that for better performance, the impact of these factors on entrepreneurial orientation should be considered. Given the above, the second research hypothesis is formulated:

H2. The entrepreneurial orientation significantly influences the relationship between business model innovation and organizational performance.

Thus, Figure 1 is presented with the design of the research, for which it is inferred that the entrepreneurial orientation measures the relationship between Business Model Innovation and organizational performance.

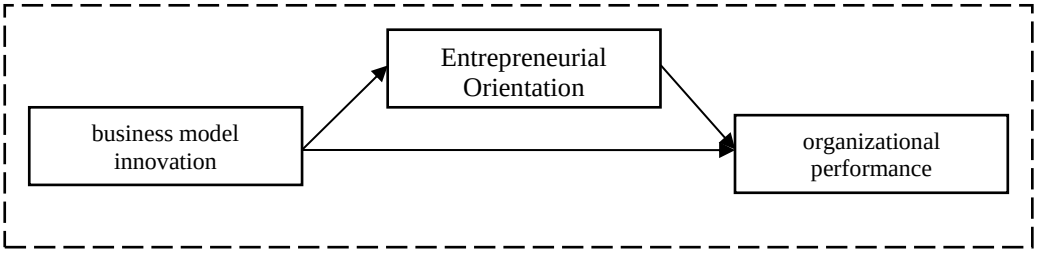

Figure 1. Theoretical model of research
Source: The authors (2022).

In accordance with the hypotheses and with the theoretical model, it is assumed that the innovation of the business model positively influences the entrepreneurial orientation and organizational performance.

3 METHODOLOGICAL PROCEDURES

To meet the general objective of this research, a quantitative and descriptive approach is adopted, using *the survey* as a data collection strategy. The perception was obtained through the application of a questionnaire to managers of supermarket units in the State of Santa Catarina, whose selected region was through availability.

The choice of the supermarket segment is due to the characteristics of the sector with highly competitive level and essentiality of the business, even at a contingency moment, as the Covid-19 pandemic was. Supermarkets represent an essential business because society needs to consume food and hygiene products continuously, so a significant segment to analyze relationships from the contingency perspective (Golini & Kalchschmidt, 2015). This highly competitive supermarket segment and under the contingency of Covid-19 social isolation measures is also relevant to analyze the relationship of innovation in the organizational environment (Khaddam et al., 2020; Guoa et al., 2022).

The managers contacts who composed the sample were obtained through their respective commercial services, whose e-mail addresses are available on the websites of the respective

supermarkets. From the sample collected, the questionnaire was intended for 210 supermarkets in the state of Santa Catarina, from February 5th to April 25th, 2022, timely in time after the restrictions imposed for containment of the pandemic, this allows a better reflection on the innovative measures implemented and the performance achieved, especially in the financial year 2021 closed. It is worth mentioning that, in each locality, by availability, a supermarket was chosen, resulting in a sample of different locations, which makes the sample more representative of the different localities and sub-regional cultures.

After sending, a new round of collection was sent to the supermarket set, obtaining a final sample of 77 managers of these supermarkets. Although with a small size of respondents, the sample applied in a model with two independent variables, calculated from the application of *G*Power* software, with a test power of 95%, corresponding to the significance level of 5% (F test, LMR, SD 0, a priori), allowed to ensure effect between medium and large, of 0.22 (F2), requiring a minimum sample of more than 74 valid responses (Cohen, 1988; Faul, Erdfelder, Buchner, & Lang, 2009; Hair Jr., Hult, Ringle, & Sarstedt, 2016).

The research instrument was developed and applied in *the online* format on *the Google forms* platform. The assertions in the first part are measured on a *Likert* scale of 5 points (from totally disagree to totally agree). Table 1 shows the first part of the research instrument.

Table 1. Research instrument

Constructs	Assertive	Authors
Business Model Innovation (BMI)	1. My organization regularly changes the way it creates value (quality, service, purchase conditions, and time invested) to our customers. 2. My organization regularly seeks new sales strategies to generate revenues. 3. My organization experiences new business models in our markets. 4. My organization often changes the costs' structure (fixed and variable).	Bouncken and Fredrich (2016)
Entrepreneurial Orientation(EO)	1. The top managers of my organization focus on innovations and *marketing* of tested and proven products or services. 2. My organization has traded new products or service lines in the last three years. 3. My organization has promoted new products or service lines in the last three years. 4. My organization typically initiates actions that competitors respond to. 5. My organization is often the first to market new products/services, administrative techniques, operational techniques, etc. 6. My organization usually takes a highly competitive stance against competitors. 7. The main managers of my organization have a strong propensity for high-risk projects in order to achieve organizational goals. 8. The main managers of my organization believe that, by the nature of the environment, bold and comprehensive actions are needed to achieve organizational goals. 9. When faced with decision-making situations involving uncertainty, my organization's managers typically adopt a bold stance to maximize the likelihood of exploiting potential opportunities.	Mendez-Ferrers, Olmos-Penuela, Salas-Vallina and Alegre (2021)
Organizational performance (OP)	1. The organization's profit goals have been achieved in the last three years. 2. The organization's sales goals have been achieved in the last three years. 3. The organization has achieved a financial return in the last three years according to the expected objectives. 4. The products/services of the organization are of superior quality than that of our competitors. 5. The organization has a higher customers retention rate than our competitors. 6. The organization has a lower employees' turnover rate than our competitors. 7. In the last three years, my organization's market share ratio has increased, that is, new customers have been acquired, either they are our competitor or not.	Su, Kevin and Schoch (2015)

Source: The Authors (2022)

In response to the assertions, the respondents were asked to indicate their level of perception on five-point *Likert* additive scales. The second part of the research instrument presented questions related to the profile of managers such as gender, academic training, time of operation, number of employees and city of location.

The data analysis occurred by applying the structural equation modeling technique (SEM) estimated by partial least squares (PLS), which allows estimating a series of interdependent multiple regression equations simultaneously (Dijkstra, 2010; Ringle, Wendew, & Becker, 2015; Hair Jr. et al., 2016), through *SmartPLS 3.3 software*. The statistical model was applied to test the relationships among the variables, focusing on the relationships among the research hypotheses, based on the theoretical framework.

The first research hypothesis formulated (H1) imposed the statement on 'the innovation of the business model positively impacts organizational performance' verified through the direct structural relationship between the variable innovation of the business model and the variable organizational performance. The second research hypothesis (H2) considered the proposition that 'entrepreneurial orientation significantly impacts the relationship between business model innovation and organizational performance'. For this analysis, it was initially considered the direct relationship between the variable entrepreneurial orientation and the variable organizational performance, while the confirmation of the research hypothesis was tested through the structural relationship with the variable entrepreneurial orientation mediating the relationship between the other two.

The applied mediation test is a mechanism by which the independent variable influences the dependent variable, through the transmission of effects of the mediating variable (Baron & Kenny, 1986). This process involves the prior validation of the measurement model and the structural model.

4 ANALYSIS AND DISCUSSION OF RESULTS

4.1 Respondents' profile

The data descriptive analysis allows to know the characteristics of the research sample. Thus, Table 2 presents the demographic data of the respondents of this survey. The descriptive characteristics of the sample shows relative diversity between genders (from 40%).

Table 2. Data of respondents

Gender	**N**	**(%)**	**Schooling**	**N**	**(%)**
Female	38	49.4	High School or Technical	31	40.3
Male	32	41.6	Higher Education	24	31.2
No response / non-binary	7	9.1	Lato sensu post-graduate degree	2	2.6
Total	77	100	Master's degree	19	24.7
N. of employees of the organization	**N**	**DP**	PhD	1	1.3
Up to 70	18	23.4	Total	77	100
71 to 140	24	31.2	**Time**	**Med.**	**DP**
141 to 210	15	19.5	Work in the organization	14.8	8.42
211 or more	20	26.0	Occupation of the current position	11.5	8.27
Total	77	100	Activities in the organization	19.7	9.49

Source: Research data (2022).

However, it is noteworthy the opposition between the relevant management/management

position with a significant number of individuals with a maximum education of medium or technical level (40.3%) and undergraduate level (31.2%). Only the smallest part of the management respondents has degrees at the master and doctoral level (26%), which would ensure greater awareness about the transmission of perceptions in the work environment to the collection instrument.

4.2 Measurement Model

Data analysis using the statistical technique of structural equations was performed using SmartPLS v.3.3.7 *software*. For the evaluation of the validity of the constructs, discriminant validity and convergent validity were observed. Resulting from the analysis of convergent validity, the Extracted Variance (AVE), Composite Reliability (CC), and *Cronbach*'s Alpha, searched respectively from 0.5, 0.7 and 0.7, as well as discriminant validity, with higher loads on the main diagonal, as evidenced in Table 3, were analyzed, even searching for well-defined loads in the corresponding variables of cross loads (Fornell & Larcker, 1981).

Table 3. Model Validities

Constructs	OP	BMI	EO	Alpha	CC	AVE	R2	F2	Q2
Organizational Performance	0.74			0.72	0.83	0.55	0.41	0.025	0.18
Business Model Innovation	0.20	0.81		0.72	0.85	0.65		0.309	
Entrepreneurship Orientation.	0.63	0.49	0.71	0.87	0.90	0.50	0.24	0.617	0.11

Note. BMI - Business Model Innovation; OP - Organizational Performance; EO - Entrepreneurial Orientation
Source: Research data (2022).

In order to achieve the discriminant and convergent validities, it was necessary to exclude three determinants of Organizational Performance variables (OP1, OP2, OP3), resulting in a system of equations with three variables and 16 indicators. The analysis of *the outputs* listed in Table 3 shows that all loads for the AVE were statistically significant, that is, with values equal to or greater than 0.5 (Fornell & Larcker, 1981).

The composite reliability indicator met the borderline values considered satisfactory, in the same way as *Cronbach*'s alpha values all above 0.7 for latent variables. Satisfactory composite reliability indicators and Cronbach's Alpha indicate that the sample is theoretically free of biases and that the instrument of data collection used is reliable (Hair Jr. et al., 2016).

Very important for the analysis of the result is the identification and appropriation of the coefficients of determination (R2) for the variables, which indicates how much the model explains a given variable. In the present study, it was demonstrated that the model explains 39% of the organizational performance. The values for F^2 suggested by Hair Jr. et al. (2016) reveal an effect between medium and large, which denotes the existence of a substantial impact on the dependent construct. Similarly, the Q^2 criterion, higher than zero, indicates that the model approaches its expected in the model prediction (Geisser, 1974; Stone, 1974).

The next step of discriminant validity analysis is the verification of the model latent variables. Following the premises of Fornell and Larcker (1981), this validity was confirmed by means of the square root value of AVE greater than the absolute values of the correlations with the other latent variables, as shown in Table 3.

The analysis of the structural model allows to statistically validate the relationships between the constructs and the connections constructed according to the structure of a path diagram on a theoretical basis (Hair Jr. et al., 2016). In *bootstrapping*, the subsamples are created with observations randomly taken from the original data set (with substitution) and then used to estimate the PLS path model. In this case, N = 3,000 different subsamples were generated, as recommended by Hair Jr et al.

(2016) whose results are presented in Table 4.

Table 4. Effects among constructs

Structural relationship	β	Statistics T	p-value	H.
Business Model Innovation -> Organizational Performance	-0.140	1.237	0.216	1
Business Model Innovation -> Entrepreneurial Orientation	0.486	5.339	0.000***	2
Entrepreneurial Orientation -> Organizational Performance	0.693	9.091	0.000***	
Business Model Innovation -> Entrepreneurial Orientation -> Organizational Performance	0.336	3.973	0.000***	

Source: Research data (2022).

Table 4 also reveals the path *coefficients* with the research hypotheses tested from the *Student's t test*. Except for the relationship between Business Model Innovation in Organizational Performance, the other relationships were significant at 1% levels. The statistical results demonstrate the compatibility of three relationships, in addition to a relationship on which it is not possible to assign a consistent relationship. This non-significant relationship stems from the direct relationship between business model innovation and organizational performance (β -0.140, p. n.s.).

However, the inclusion of the variable entrepreneurial orientation in the model results in confirmation of the relationship between business model innovation and organizational performance by indirect or mediated effect (β 0.336, p.<0.001). This attribution of mediation stems from the positive relationships between business model innovation and entrepreneurial orientation (β 0.486, p.<0.001), and from this in organizational performance (β 0.693, p.<0.001).

After the presentation of the empirical model with the path coefficients, it is described in the sequence the discussion of the results.

4.3 Results Discussion

From the results obtained, it is verified that the model explains 41% of organizational performance through the process of mediation among the variables. The propositions that support the objective of the research had a valid hypothesis while another one had the proposition refuted.

The first hypothesis (H1), which proposed to test if the innovation of the business model impacts organizational performance, was not validated, from the non-rejection of the null hypothesis (β -0.140, p. n.s.). Despite the indication of Hamelink and Opdenakker (2019), which gives the innovation of the business model the possibility of conquering new consumers, developing new market segments and new relationships with consumers, incorporating efficient means and methods to create new values, in addition to building innovative revenue models and/or cost structure, organizational performance did not show a positive relationship as expected.

This direct result opposes that business model innovation results in better organizational performance (Chesbrough, 2010, Demil & Lecocq, 2010; Sosna, Trevinyo-Rodriguez, & Velamuri, 2010; Amit & Zott, 2012; Günzel & Holm 2013; Spieth et al., 2014; Wirtz, 2019). This can happen because innovation for the simple purpose of doing something different may not satisfy the customer or user; it may even create something different and worse than the conventional mode. At this point it is important to resume the indication of Moradi et al. (2021) which states that to improve organizational performance, the use of appropriate organizational strategies is required (Oyemomi et al., 2019).

The results of the research are in line with Guoa et al. (2022), which propose limitations of the mechanism underlying business model innovation in order to achieve an improvement in company performance. However, the results of this direct relationship are not enough to corroborate Khaddam et al. (2020) regarding the indication of the relationship among business model innovation and organizational performance.

The second hypothesis (H2), which aims to test if the entrepreneurial orientation significantly impacts the relationship between business model innovation and organizational performance, was corroborated in the research. This proposed relationship is supported by three relationships among the variables, dependent on the mediation of the entrepreneurial orientation.

To sustain the statistical relationship of total mediation, it is necessary to consider the non-validation of the direct relationship between business model innovation and organizational performance (β -0.140, p. n.s.). However, the innovation of the business model showed a positive relationship with the entrepreneurial orientation (β 0.486, p.<0.001), that is, the occurrence of business model innovation positively affects the entrepreneurial orientation, while the entrepreneurial orientation showed a positive and direct relationship with organizational performance (β 0.693, p.<0.001).

From these results, the evidences of the indirect effects resulted in the confirmation of the relationship between business model innovation and organizational performance by mediated effect (β 0.336, p.<0.001). These results corroborate the highlights for Ganescu (2012) that other environmental factors may affect the social performance of an organization, including the supermarket sector in the relevant group for explanation of Golini and Kalchschmidt (2015).

Likewise, it includes entrepreneurial orientation with the emotional capacity of Koçoğlu et al. (2015), the ability to absorb knowledge, agility and mindfulness of the senior management of Bhatti et al. (2021), and the environment, strategy and structure of Dess (1996), aimed at achieving organizational effectiveness and efficiency. Finally, the relationship with organizational performance corroborates the results of Lumpkin and Dess (1996) and Shirokova et al. (2016) the relationship between entrepreneurial orientation and performance.

5 CONCLUSIONS

In this study, the influences of the entrepreneurial orientation in the relationship between the innovation of the business model and the organizational performance. The intermediate objectives were promoted to achieve the main objective, through the analysis of the direct relationships between entrepreneurial orientation and organizational performance, as well as between business model innovation and organizational performance.

In general, the direct relationships from the inclusion of entrepreneurial orientation in the model began to explain 41% of organizational performance, resulting from the direct and indirect effects of mediation. The results showed that the innovation of the business model did not impact the organizational performance directly. Only from the inclusion of entrepreneurial orientation was it possible to reveal the indirect relationship of business model innovation on organizational performance.

This evidence, of the non-confirmation of the direct relationship between business model innovation and organizational performance, reveals that indistinct innovation may not be able to positively affect performance; thus, an innovation without planning can even impair performance. However, the entrepreneurial orientation proved to be able to direct innovation to result in better performance.

The article contributes with the literature upon evidencing that in a very diverse, competitive segment and of direct service to the public, just as the supermarket one, the innovation in the business

model may not generate better results. In the non-academic professional scope, the evidence identified allows us to assure the importance of entrepreneurial orientation, and demonstrate that this would be the primary factor to direct innovative efforts and thus improve business performance.

This research had limitations, but also opened some directions for new possibilities. The first limitation concerns the small number of supermarkets analyzed, as well as the fact that the study did not include supermarkets in other states of Brazil, only those in Santa Catarina. This implies the impossibility of generalization of the results, and for this need it is suggested that the sample used in future studies is larger, and composed of supermarkets in all states of Brazil.

The second limitation is that the study was carried out with a cross-sectional design for data collection. This means that all data regarding business model innovations, entrepreneurial orientation, and organizational performance were collected at the same time. Therefore, the accomplishment of a longitudinal study may allow future research to test the influence of innovation of the business model and subsequent entrepreneurial orientation on organizational performance in different periods.

REFERENCES

Amit, R., & Zott, C. (2012). Creating value through business model innovation. *MIT Sloan Management Review, 53*(3), 41-49.

Ammirato, S., Roberto, L., & Alberto, M. F. (2022). Business model innovation drivers as antecedents of performance. *Measuring business excellence*, 6-22.

Asemokha, A., Musona, J., Torkkeli, L., & Saarenketo, S. (2019). Business model innovation and entrepreneurial orientation relationships in SMEs: Implications for international performance. *Journal of International Entrepreneurship, 17*, 425-453.

Baker, W., & Sinkula, J. M. (2019). The Complementary Effects of Market Orientation and Entrepreneurial Orientation on Profitability in Small Businesses. *Journal of Small Business Management, 47*(4), 443-464.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*(6), 1173-1182.

Bhatti, S, H., Santoro, G., Khan, J., & Rizzato, F. (2021). Antecedents and consequences of business model innovation in the IT industry. *Journal of Business Research, 123*, 389-400.

Bouncken, R. B., & Fredrich, V., (2016). Business model innovation in alliances*:* successful configurations. *Journal Business Research, 69*, 3584-3590.

Burns, T., & Stalker, J. M. (1961). *The management of innovation*. London: Tavistock.

Cassol, A., Meneghatti, M., Freitas A. G., & Gubert, L. (2020). Análise da relação entre orientação empreendedora, ambiente organizacional e desempenho de empresas de pequeno porte. *Revista Ciências Administrativas*, Edição Comemorativa 30 anos.

Chenhall, R. H. (2007). Theorizing contingencies in management control systems research. *Handbook of Management Accounting Research, 1*, 163-205.

Chesbrough, H. (2010). Business Model Innovation: Opportunities and Barriers. *Long Range Planning, 43*, 354-363.

Cohen, J. (1988). *Statistical Power Analysis for the Behavior* Sciences. New York: Academic Press.

Demil, B., & Lecocq, X. (2010). Business model evolution: in search of dynamic consistency. *Long Range Planning, 43*(2), 227-246.

Demil, B., Lecocq, X., Ricart, J. E., & Zott, C. (2015). Introduction to the SEJ Special Issue on Business Models: Business Models within the Domain of Strategic Entrepreneurship. *Strategic Entrepreneurship Journal, 9*(1).

Dijkstra, T. K. (2010). Latent Variables and Indices: Herman Wold's Basic Design and Partial Least Squares. In W. W. V. Esposito Vinzi, J. H. Chin, & H. Wang (eds.), *Handbook of Partial Least Squares: Concepts, Methods and Applications.* (pp. 23-46), New York: Springer.

Donaldson, L. (2001) *The Contingency Theory of Organizations*. Sage Publications, Inc., New York.

Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2009). Statistical power analyses using G*Power 3.1: tests for correlation and regression analyses. *Behavior Research Methods, 41*(4), 1149-1160.

Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research, 18*(3), 382-388.

Ganescu, M. (2012). Assessing corporate social performance from a contingency theory perspective. *Procedia Economics and Finance*, 999-1004.

Geissdoerfer, M., Vladimirova, D., & Evans, S. (2018). Sustainable business model innovation: A review. *Journal of Cleaner Production, 198*, 401-416.

Geisser, S. (1974). A predictive approach to the random effect model. *Biometrika, 61*(1), 101-107.

Golini, R., & Kalchschmidt, M., (2015). Managing inventories in global sourcing contexts: A contingency perspective. *International Journal of Production Economics, 165*, 64-78

Günzel, F. & Holm, A. B. (2013). One size does not fit all – understanding the front-end and back-end of business model innovation. *International Journal of Innovation Management, 17*(1), 2-34.

Guoa, H., Anqi, G., & Hongjia, M. (2022). Inside the black box: How business model innovation contributes to digital start-up performance. *Journal of Innovation & Knowledge, 7*, 100-188.

Hair Jr., J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016). *A primer on partial least squares structural equation modeling (PLS-SEM).* USA: Sage Publications.

Hamelink, M. & Opdenakker, R. (2019). How business model innovation affects firm performance in the energy storage market. *Journal Renewable Energy*, *131*, 120-127.

Hiteva, R. & Foxon, T. J. (2021). Beware the value gap: creating value for users and for the system through innovation in digital energy services business models. *Technological Forecasting and Social Change*, *166*(81), 120525.

Koçoğlu, İ., İmamoğlu, S. Z., Akgün, A. E., İnce, H., & Keskin, H. (2015). Exploring the Unseen: A Collective Emotional Framework in Entrepreneurial Orientation and Business Model Innovation *Procedia - Social and Behavioral Sciences*, *207*, 729-738.

Kastalli, I. V., & Van Looy, B. (2013). Servitization: Disentangling the Impact of Service Business Model Innovation on Manufacturing Firm Performance. *Journal of Operations Management, 31*(4), 169-180.

Khaddam, A., Hani, J. I., Ahmad, R., Salameh, B., & Suliman, R. S. (2020). The effect of business model innovation on organization performance. *Management Science Letters*, *11*, 1481-1488.

Kranich, P., & Wald, A. (2018). Does model consistency in business model innovation matter? A contingency-based approach. *Creativity and Innovation Management*, *27*(2), 209-220.

Lumpkin, G. T, & Dess, G. G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of management Review*, *21*(1), 135-172

Martens, D., Gutscher, H., & Bauer, N. (2011). Walking in "wild" and "tended" urban forests: The impact on psychological well-being. *Journal of Environmental Psychology*, *31*(1), 36-44.

Mendez-Ferrers, J. L., Olmos-Penuela, J., Salas-Vallina, A., & Alegre, J. (2021). Entrepreneurial orientation and new product development performance in SMEs: The mediating role of business model innovation. *Technovation*, *108*, 102325.

Moradi, E., Jafari, S. M., Doorbash, Z. M., & Mirzaei, A. (2021). Impact of organizational inertia on business model innovation, open innovation and corporate performance. *Asia Pacific Management Review*, *26*, 171- 179.

Morten R., & Günzel-Jensen, F. (2019). Business model design and performance in nascent markets. *Management Decision*, *58*(5), 927-947.

Osterwalder, A., & Pigneur, Y. (2010). *Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers*. John Wiley and Sons.

Oyemomi, O., Liu, S., Neaga, I., Chen, H., & Nakpodia, F. (2019). How cultural impact on knowledge sharing contributes to organizational performance: Using the fsQCA approach. *Journal of Business Research*, *94*, 313-319.

Rauch, A., Wiklund, J., Lumpkin, G. T., & Frese, M. (2009). Entrepreneurial Orientation and Business Performance: An Assessment of Past Research and Suggestions for the Future. *Entrepreneurship Theory and Practice*, *33*(3), 761-787.

Ringle, C. M., Wendew, S., & Becker, J. M. (2015). *SmartPLS 3*. Boenningstedt: SmartPLS GmbH. Retrieved from http://www.smartpls.com.

Shirokova, G., Bogatyreva, K., Beliaeva, T., & Puffer, S. (2016). Entrepreneurial orientation and firm performance in differentes environmental settings: Contingency and configurational approaches. *Journal of Small Business and Enterprise Development*, *23*(3),703-727.

Sosna, M., Trevinyo-Rodriguez, R. N., & Velamuri, S. R. (2010). Business model innovation through trialand-error learning: the Naturhouse case. *Long range planning*, *43*, 383-407.

Spieth, P., Schneckenberg, D., & Ricart, J. E. (2014). Business Model Innovation – State of the Art and Future Challenges for the Field. *R& D Management*, *44*(3).

Stone, M. (1974). Cross-Validatory Choice and Assessment of Statistical Predictions. *Journal of the Royal Statistical Society*, *36*(2), 111-147.

Su, S., Kevin B., & Schoch, H. (2015). The moderating effect of organizational life cycle stages on the association between the interactive and diagnostic approaches to using controls with organizational performance. *Management Accounting Research*, *26*, 40-53.

Van Doorn, S., Jansen, J. J., Van den Bosch, F. A., & Volberda, H. W. (2013). Entrepreneurial orientation and firm performance: Drawing attention to the senior team. *Journal of Product Innovation Management*, *30*(5), 821-836.

Venkatraman, N. & Ramanujan, R. (1986). Measurement of Business Performance in Strategy Research: A Comparison of Approaches. *Academy of management review*, *11*(4), 801-814.

Wirtz, B. W. (2019). *Digital Business Models*. Springer Nature Switzerland.

Zott, C. & Amit, R. (2010). Business model design: an activity system perspective. *Long Range Planning*, *43*(2/3), 216-226.