

---- EARLY VIEW ----

## INTERFACE BETWEEN ENTREPRENEURIAL ORIENTATION, STRATEGIC PLANNING AND BUDGET: CONFIGURATIONS FOR HIGH PERFORMANCE

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### ABSTRACT

**Study objective:** To analyze and identify the configurations capable of promoting high organizational performance, based on the relationship between innovativeness, risk-taking, proactiveness and strategic planning and budget. **Methodology/approach:** Data collected by survey with companies linked to the Chamber of Commerce, belonging to one of the municipalities with the highest development rates in Brazil; and analyzed using the fuzzy-set Qualitative Comparative Analysis (fsQCA) technique. **Main Results:** The findings indicate that innovativeness is necessary and proactiveness is almost always necessary to promote high organizational performance. For this, three solutions (*S*) are sufficient: the presence of innovativeness and proactiveness (*S1*); the presence of innovativeness, risk-taking and strategic planning and budget (*S2*); and the absence of risk-taking, as well as strategic planning and budget (*S3*). **Theoretical and Methodological Contributions:** Theoretically, the findings add the budgetary perspective to the discussion on strategic planning, entrepreneurial orientation (EO) and performance. **Relevance/originality:** The study is relevant, as it permits the identification of the strategic planning and budget interface in detriment to EO elements, which is in accordance with the causal conditions that promote high performance. **Social/management contributions:** This study brings new meanings to the pertinence of the interface between entrepreneurial elements and the strategic planning and budget, highlighting possible configurations for organizations to reach a high performance level.

**Keywords** Entrepreneurial orientation. Strategic planning and budget. Management control. Organizational performance. fsQCA.



## Interface entre orientação empreendedora, planejamento estratégico e orçamento: configurações para o alto desempenho

### RESUMO

**Objetivo do estudo:** Analisar e identificar as configurações capazes de promover o alto desempenho organizacional, a partir da relação entre comportamento inovador, assunção de riscos, proatividade, e planejamento estratégico e orçamento. **Metodologia/abordagem:** Dados coletados por *survey* com empresas vinculadas à Câmara de Dirigentes Lojistas, pertencentes a um dos municípios com os maiores índices de desenvolvimento do Brasil; e analisados pela técnica *fuzzy-set* Qualitative Comparative Analysis (fsQCA). **Principais resultados:** Os achados indicam o comportamento inovador é necessário e a proatividade é quase sempre necessária à promoção do alto desempenho organizacional. Para tanto, são suficientes três soluções (*S*): a presença de comportamento inovador e da proatividade (*S1*); a presença do comportamento inovador, da assunção de riscos, do planejamento estratégico e de orçamento (*S2*); e a ausência da assunção de riscos, do planejamento estratégico e de orçamento (*S3*). **Contribuições teóricas:** Teoricamente, os achados acrescentam a perspectiva de orçamento nas discussões sobre o planejamento estratégico, a orientação empreendedora (OE) e o desempenho. **Relevância/originalidade:** O estudo é relevante, pois permite identificar a interface do planejamento estratégico e o orçamento, em detrimento das posturas de OE, que é consonante às condições causais promotoras do alto desempenho. **Contribuições sociais/para a gestão:** Este estudo traz novas explicações para a pertinência da interface entre as posturas empreendedoras, o planejamento estratégico e o orçamento, evidenciando possíveis configurações para as organizações alcançarem o alto desempenho.

**Palavras-Chave:** Orientação empreendedora. Planejamento estratégico e orçamento. Controle gerencial. Desempenho organizacional. fsQCA.

### 1. INTRODUCTION

Entrepreneurial Orientation (EO) is directly linked to the success of organizations, whether during their insertion, maintenance or expansion of business (Covin & Wales, 2019; Palmer, Niemand, Stöckmann, Kraus & Kailer, 2019; Semrau, Ambos & Kraus, 2016). EO can be perceived as a cultural construct (Knight, 2003), contemplating dimensions such as innovativeness, risk-taking and proactiveness (Covin & Steven, 1989; Lumpkin & Dess, 1996; Miller, 1983).

Traditionally, EO has been investigated and exploited at the organizational level, in which it is considered that the proprietor/manager passes on and perceives such positions in the firm (Covin et al., 2020; Wales, Gupta & Mousa, 2013). In general, EO has to do with positions that influence the decision-making process and, consequently, organizational performance (Covin & Slevin, 1989; Galbreath, Lucianetti, Thomas & Tisch, 2020; Lyon, Lumpkin & Dess, 2000).

Different combinations of EO can promote high organizational performances, and may vary according to the businesses' own characteristics and the environment in which they are inserted (Covin et al., 2020; Palmer et al., 2019). In this perspective, fuzzy-set Qualitative Comparative Analysis (fsQCA) appears as an emerging and pertinent technique in research on entrepreneurship and innovation, as it permits the analysis of complex solutions that have equifinality (Kraus, Ribeiro-Soriano & Schüssler, 2018).

Through fsQCA, previous studies have analyzed the EO configurations that lead to better performances, taking into consideration more predictive variables, such as cost leadership and differentiation (Linton & Kask, 2017), mastery and self efficacy (Palmer et al., 2019), trust and commitment (Covin et al., 2020)



and strategic planning (Rigtering, Eggers, Kraus & Chang, 2017), among others. Regarding strategic planning, it is important to point out that the budget, which is a fundamental control for management and precedes high performance (Carraro, Meneses & Brito, 2019), should be aligned with and result from strategic planning (De Baerdemaeker & Bruggeman, 2015; Ekholm & Wallin, 2011).

Despite the importance that the budget has in the establishment of strategic planning, no studies were found that included budget and EO in the consecutive relationship with organizational performance. Thus, the present study aims to analyze which configurations in EO (innovativeness, risk-taking and proactiveness), strategic planning and budget promote high organizational performance. To achieve this goal, the data is analyzed with the fsQCA technique in order to identify the sets of conditions that promote equifinality.

Among the most studied subjects in the fields of entrepreneurship and management, EO is noted as one of the most relevant and crucial topics for organizations (Ferreira, Fernandes & Kraus, 2019). In order for businesses to achieve better performances, multiple combinations of EO dimensions subsist alongside other variables (Lisboa, Skarmeas & Saridakis, 2016). In this sense, strategic planning and budget may contemplate this viewpoint (De Baerdemaeker & Bruggeman, 2015; Rigtering et al., 2017).

Within the studies that analyze the link between EO and performance, there is a consensus that the impacts may vary in accordance with the other observed variables, such as the sector of activity and the type of business, among others (Covin & Wales, 2019). In this interim, samples from different countries may show peculiarities in the results, since the investigations are usually concentrated in the United States and western Europe (Galbreath et al., 2020; Rauch, Wiklund, Lumpkin & Frese, 2009). Thus, in many cases, such findings cannot be generalized, which justifies the need to conduct research in new contexts (Basco, Hernández-Perlines & Rodríguez-García, 2019; Martens, Lacerta, Belfort & Freitas, 2016; Shu, De Clercq, Zhou & Liu, 2019).

The investigation brings about theoretical contributions, as in addition to the previous studies that used fsQCA to analyze the dimensions of EO in relation to performance, both strategic planning (Rigtering et al., 2017) and budget are considered from the background perspective. As for its practical implications, the study shows managers possible conditions for obtaining high organizational performance, which could become a source of competitive advantage (Ho, Plewa & Lu, 2016).

This article is divided in five sections, beginning with this introduction. Afterwards, there is the literature review, which provides support for the construction of the theoretical proposals. The third section explains the methodology that was adopted and is followed by the section containing the data analysis and discussion. Finally, the fifth section contains the final considerations, which include the conclusions, limiting factors and suggestions for future research.

## **2. LITERATURE REVIEW**

### **2.1 Entrepreneurial Orientation**

The environment in which the firms are inserted is described as dynamic and competitive, which denotes the pertinence of adopting entrepreneurial strategies in order to remain in the market (Linton & Kask, 2017; Pekkola, Saunila & Rantanen, 2016). In this perspective, EO consists as an organizational attribute that expresses itself and fosters the investigation of the entrepreneurial spirit in management decision-making and in organizational performance (Rua & Rodrigues, 2018; Wales, Covin & Monsen, 2020; Jeong et al., 2019).



The contextualization of EO initially has to do with the identification of organizational behaviors that may allow for higher or lower intensities of entrepreneurial capability (Miller, 1983; Wales et al., 2020). This capability, in turn, reflects on the strategic decision processes through practices, processes, controls and decision-making, in order to constitute an organization's EO configuration (Lumpkin & Dess, 1996; Gupta & Dutta, 2018).

The comprehension of the EO concept must resonate as an intermediary mechanism for reaching the desired performance level, from the viewpoint of the decisions that must be made in conformity with this trajectory (Gupta & Batra, 2016; Jiang, Liu, Fey, Jiang, 2018). The EO position adopted by the organization can boost organizational performance, helping the business's consolidation and its ascension in the market (Covin & Wales, 2019; McKenny, Short, Ketchen Jr, Payne, Moss, 2018).

Generally, EO expresses itself through innovativeness, risk-taking and proactiveness (Covin & Slevin, 1989; Covin & Wales, 2019; Miller, 1983). The entrepreneurial characteristics observed in EO can be demonstrated exclusively in different types of businesses, markets, countries, cultures and other such variables (Rigtering et al., 2017; Susanto, Abdullah & Wardi, 2019). Despite the fact that EO is one of the most widespread subjects in management and entrepreneurship literature (Ferreira et al., 2019), the studies that seek to analyze different causality configurations that promote better performance (through fsQCA) are recent (Kraus et al., 2018).

Lisboa et al. (2016), used data from 263 Portuguese manufacturing businesses to investigate the causality conditions among EO (innovativeness, proactiveness and risk-taking), resource based vision (differentiation and product launch speed) and dynamic capabilities (exploration and exploitation) that promote high performances. Four solutions were found, permitting the inference of various combinations involving EO that can appear in this logic.

Linton and Kask (2017) studied how EO (innovativeness, risk-taking and proactiveness) alongside Porter's competitive strategies (cost leadership and differentiation) led to the promotion of high performance in 67 small businesses in Sweden. The results showed that for high performance the businesses can focus on differentiation, combined with innovativeness and proactiveness; or with mixed strategies, an absence of risk-taking, low proactiveness and the absence/indifference of innovativeness.

Palmer et al. (2019) investigated the combinations of EO (innovativeness, risk-taking and proactiveness) and psychological traits (dominance and self-efficacy) that promote high performance in the context of 723 small Austrian businesses, dividing them into young and mature firms. For high performance, the results showed that in younger businesses, there are various combinations at the individual level (psychological traits) and the organizational level (EO), while for mature businesses, there are innovative and proactive stances, or the managers must be masterful and self-efficacious.

Singularly, Covin et al. (2020) analyzed EO at an individual level in work teams (750 individuals and 71 teams), along with psychological variables (trust and commitment) in an organization in order to determine the teams' performance. The results demonstrated causality configurations that involve confidence, commitment and innovativeness, or commitment and proactiveness, or confidence, commitment, proactiveness and risk-taking.

## 2.2 Strategic Planning and Budget

Management Control (MC) is the medium through which managers influence the other members of the organization in search of agreement regarding organizational objectives (Anthony & Govindarajan, 2008). From this perspective, Anthony (1965) states that MC permeates the use of tools for the organization to promote efficiency and efficacy among its goals. The pertinence of strategic planning and



budget is cited regarding these mechanisms used to reach organizational objectives (Anthony & Govindarajan, 2008).

In line with the turbulence stemming from contexts that are both internal and external to the organization, strategic planning helps the management deal with these uncertainties and complexities resulting from business dynamics (Eisenhardt & Sull, 2001). The role of strategic planning pertains to strategy development, goal formulation and the analysis of possible strategic alternatives (Armstrong, 1982; Miller & Cardinal, 1994; Powell, 1992).

Generally, strategic planning is a fundamental factor for business management and becomes crucial for decision-making (Miller & Cardinal, 1994; Spee & Jarzabowski, 2011). It is known that strategic planning exerts some type of influence on organizational performance, depending on the context in which the businesses are inserted, as well as their size (Damke Jr., Gimenez & Damke, 2018; Sandada, Pooe & Dhurup, 2014).

Thus, strategic planning (Hansen, Otley & Van der Stede, 2003; Merchant & Van der Stede, 2011) and budget (Frezatti, Aguiar, Guerreiro & Gouvea, 2011) are considered to be vital control instruments in business management. Meanwhile, strategic planning consists of a periodical process that considers the budget (Frezatti, Bido, Cruz, Barroso, Machado, 2013; Ketokovi & Castañer, 2004).

Budget presents itself through multiple facets (Mucci, Frezatti & Dieng, 2016) in a form that can be used in various approaches to promote better performance (Laitinen, Lämsiluoto & Salonen, 2016). From this perspective, the budget can be used as a planning mechanism with the intention to provide symmetrical result predictions of possible solutions in the face of the uncertainties present in this environment (Samuelson, 1986).

Considering that strategic planning and budget can influence organizational performance in various ways, the next paragraphs cover studies that used fsQCA to investigate causality conditions that correlate any of these two variables with other factors and promote high performance.

Rigtering et al. (2017) used an fsQCA analysis to analyze EO configurations (innovativeness, risk-taking and proactiveness) and strategic planning that promote high performance in 2,506 businesses from seven countries. The results showed that innovativeness and strategic planning promote high performance, regardless of the cultural context. Furthermore, proactiveness varies from country to country. However, when aligned with strategic planning it can, in some cases, promote high performance as well.

From a sample of 231 firms, mostly comprised of small businesses, Williams, Smith, Aaron, Manley and McDowell (2020) investigated causality combinations of strategic management practices that stimulate high performance, covering variables such as EO and strategic planning. Six high performance configurations were found through the analyses, among which EO is present in four and strategic planning, in three.

From a panorama of 55 Portuguese startups, Carraro et al. (2019) investigated combinations of management practices that promote high performance. Among the MC artifacts that were studied, the findings showed that budget is among one of the most consistent categories, and that strategy (which encompasses strategic planning) is a necessary MC, with both findings stemming from a high performance perspective.



## **2.2 Interface between Entrepreneurial Orientation and Management Controls**

The EO position assumed by the organization may be reflected in the achievement of better organizational performance, implicating in the development and introduction of new products and technologies, proactiveness and risk-taking for potential opportunities (Covin & Slevin, 1989).

Thus, EO may lead the business to seek excellence and positively influence business success (Acosta et al., Wales et al., 2020). However, aside from this assumed EO position, MC mechanisms such as strategic planning and budget are also mediums for the promotion of organizational success (Carraro et al., 2019; Rigtering et al., 2017).

The exploration of new and emergent opportunities is considered an important factor for businesses' maintenance and growth, especially in small ones that, upon behaving in an innovative and proactive manner and when faced with potential opportunities, may achieve better results and create the conditions needed to obtain competitive advantages (Miller, 1983; Lumpkin & Dess, 1996). Consequently, the EO position denotes benefits in terms of promoting high performance and the business's consequent success (Gupta & Dutta, 2016; Martens, Machado, Martens & Freitas, 2018).

In turn, strategic planning and budget can influence the managers' decision-making, which allows the firms to creatively combine the limited amount of resources that are available with the stipulated goals in order to seize the advantages and opportunities present in the market (Cai, Guo, Fei & Liu, 2017). Thus, planning activities along with MC help the managers to deal with a significant amount of information, conduct analyses, control the strategic stages of business development and subsidies to reach the established goals (Susanto et al., 2019).

Taking into consideration the market's uncertainties and the difficulties that are inherently linked to management, EO (Miller, 1983) and strategic planning (Rigtering et al., 2017) and budget (Mucci et al., 2016) can assume an important role, helping with the management process and, consequently, the firm's performance. To this end, the organizations began to assume different entrepreneurial stances, as well as to use MC mechanisms to obtain a competitive advantage (Laskovaia, Marino, Shirokova & Wales, 2019).

With this in mind, it is possible to assume that:

(P1) Combinations of Entrepreneurial Orientation, Strategic Planning and Budget contribute to the promotion of organizational performance.

## **3. METHODOLOGICAL PROCEDURES**

### **3.1 Population and Sample**

To limit the population, the sample included businesses associated with the Chamber of Commerce in the municipality of Lajeado, located in Vale do Taquari, in the state of Rio Grande do Sul (RS). According to the Firjan Index of Municipal Development (FIDM / IFDM in Portuguese), which evaluates socioeconomic development in all of the Brazilian municipalities based on three pillars (jobs & income, education and health), Lajeado has the 6th highest development index nationally and the 2nd highest one in the state (IFDM, 2020).

Once the population of 513 businesses associated with the city's Chamber of Commerce was determined, the electronic research instrument (QuestionPro®) was sent by email to a proprietor/manager from each business. Additionally, the businesses that had a Facebook social media page were invited to participate



through that medium as well. The data was collected between September and December, 2018, with a final sample size of 44 businesses (8.58% n/N).

Regarding the respondents’ profile, 95.42% (n=42) are proprietors, managers or directors, which is relevant in order to capture the entrepreneurial orientation position. The others (4.55%, n=2) are collaborators. As for the businesses, 90.91% (n=40) have been on the market for at least 10 years and 9.09% (n=4) for less than 10 years. According to Sebrae (2013), the businesses are 31.82% (n=14) being classified as Small Businesses (SB), and 54.55% (n=24) Micro and Small Businesses (MSB). Medium-sized Businesses (MB) make up 9.09% of the total (n=4) and Large Businesses (LB) correspond to 4.54% (n=2) of the sample. Regarding their ownership, 52.27% (n=23) are family-owned and 47.73% (n=21) are not family-owned. As for their sector of activity, 63.64% (n=28) are involved in retail, 31.28% (n=14) are a part of the service sector and 4.54% (n=2) are a part of the manufacturing industry.

**3.2 Variable Measurement**

To measure EO, there were three observed dimensions (innovativeness, risk-taking and proactiveness), and each of them is comprised of three indicators. The essence of the three constructs and their respective indicators was adapted from Lazzarotti, Silveira, Carvalho, Rossetto and Sychoski (2015), who in turn adapted them from Miller (1983) and Covin and Slevin (1989). The average score of its three indicators was used to operationalize each construct.

The businesses’ usage of strategic planning and budget was measured through three items, adapted from Frezatti et al. (2013). Operational performance was measured through five items (Gupta & Govindarajan, 1984; Lazzarotti et al., 2015), that captured the respondents’ self-perception regarding said variables at the present (2018) and during the previous year (2017). Similarly to the EO operationalization, the average score of all five items was calculated for each respondent. Table 1 contains the constructs and indicators.

Constructs
<b>Innovativeness</b>
R&D investments
Introduction of new products/services in the last three years
Search for different ways of conducting actions and solving problems
<b>Risk-taking</b>
Working on high risk projects
Undergoing risky situations to explore opportunities
Taking out financial loans
<b>Proactiveness</b>
Pioneering the implementation of products/services/technologies
Initiatives that cause reactions from competitors
Constant monitoring of customer needs
<b>Strategic Planning and Budget</b>
Formalized Strategic Planning
Annual Budget
The Budget is aligned with the Strategic Planning and is derived from it
<b>Performance</b>
Growth in market participation
Growth in sales volume/service rendering
Growth in profitability
Growth in collaborator contracts
Better general performance



**Table 1**

Research instrument.

Source: Created by the authors based on the cited literature (2021).

The collected data follows the logic of a Likert-type scale, specifically, measurement according to the degree of agreement. In this sense, for the three dimensions of EO and performance, the scale had five points, with 1 = completely disagree, 2 = partially disagree, 3 = neither disagree nor agree, 4 = agree somewhat and 5 = totally agree. To measure the strategic planning and budget variables, there was the addition of point 0 (zero) to identify whether said MC mechanism was not used (did not apply) in the businesses. Different scales can be used in fsQCA (Huang, 2016), depending on what literature was used (Ragin, 2017), as is the case for the inclusion of “0” on the scale for strategic planning and budget.

The calibration codification was listed symmetrically and proportionally to the items used on the scale, transforming the Likert scale into a fuzzy set; that is, this fuzzification consists in calibrating the scales from 1-5 and 0-5 into 0-1. Since EO position is inherent to the organization, and the adoption of MC mechanisms depends on the management, scales with different point scales and, consequently, different calibrations, were used. The justification for this difference in the scales has to do with the very essence of each construct, as it must be in agreement with the theory (Ragin, 2017).

### 3.3 Data Analysis Technique

Based on boolean algebra and set theory, there are some types of qualitative comparative analysis (QCA), such as Crisp-set QCA, Multi-value QCA and fuzzy-set QCA. To analyze the data in the present study, the chosen technique was fuzzy-set QCA (fuzzy sets, fuzzy logic). The technique was applied with fsQCA software 3.1. The justification for using fsQCA has to do with the type of metric used (Likert scale), in which there are more levels of agreement than on binary variables (no and yes – 0 and 1); higher values indicate a stronger presence of the construct, meaning that in these cases, the fuzzy set is the most appropriate technique (Palmer et al., 2019; Ragin, 2008).

Generally speaking, fsQCA consists in the qualitative comparative analysis of fuzzy sets, assigning values between 0 and 1 to the constructs. This technique permits the identification of multiple causality combinations, which can exhibit the necessary and sufficient conditions to achieve success in the dependent variable through equifinality (Fiss, 2011; Ragin, 2017). As for the sample size, applications of fsQCA in similarly sized samples can be found in literature, such as in Samagaio, Crespo and Rodrigues (2018) (n=54), Carraro et al. (2019) (n=55), Ibarra, Bigdeli, Igartua and Ganzarain (2020) (n=78), as it is a technique with good applicability in relatively small sample sizes (Ragin, 2000).

The fsQCA technique can be considered a pertinent one to help test theories and analyze data in general in the context of the social sciences, in subjects such as entrepreneurship (Kraus et al., 2018) and MC (Frare & Beuren, 2020; Lunkes, Rosa, Monteiro & Bortoluzzi, 2020).

Unlike multivariate techniques, such as regressions, the qualitative comparative analysis technique concentrates on identifying which of the possible configurations lead to the dependent construct's success, instead of investigating whether certain independent variables impact the dependent one(s) (Ragin, 2008). As such, the justification for using the fsQCA technique consists in its alignment with the proposed objective, with the intent of finding all possible configurations between EO and MC that are sufficient to promote high organizational performance. Unlike the other techniques, such as regression, fsQCA makes it possible to identify more than one sufficient solution for promoting high performance and not whether there is a set of variables that influences performance or not (Ragin, 2017).



## 4. DATA ANALYSIS

### 4.1 Calibration

This study follows the guidelines established by Ragin (2017) to list relevant conditions (innovativeness, risk-taking, proactiveness, strategic planning and budget) in various causality configurations that can promote high performance.

As for the data fuzzification, the calibration was set for full membership (0.95), crossover point (0.50) and full non-membership (0.05) (Ragin, 2008). Table 2 presents the post-calibration descriptive statistic values.

Conditions	Mean	SD	Theoretical			Observed		
			95%	50%	5%	95%	50%	5%
Innovativeness	0.81	0.14	5	3	1	0.95	0.66	0.38
Risk-taking	0.50	0.27	5	3	1	0.95	0.50	0.05
Proactiveness	0.72	0.17	5	3	1	0.95	0.61	0.27
Strategic Planning and Budget	0.57	0.26	5	2.5	0	0.95	0.50	0.05
Performance	0.69	0.22	5	3	1	0.95	0.50	0.05

**Table 2**

Descriptive statistics

Source: Prepared by the authors (2021).

### 4.2 Necessary Conditions

A condition can be necessary (consistency  $\geq 0.90$ ) or almost always necessary (consistency  $\geq 0.80$ ) for the dependent variable's success (Ragin, 2008), in this case, the high organizational performance. From this perspective, Table 3 contains the analysis of the necessary conditions.

Conditions	Consistency	Coverage
Innovativeness	0.94	0.80
~ Innovativeness	0.26	0.95
Risk-taking	0.67	0.92
~ Risk-taking	0.60	0.83
Proactiveness	0.89	0.85
~ Proactiveness	0.37	0.93
Strategic Planning and Budget	0.73	0.87
~ Strategic Planning and Budget	0.51	0.83

**Table 3**

**Necessary Conditions.**

Note: The tilde (~) represents the absence of said condition.

Source: Prepared by the authors (2021).

It is possible to observe on Table 3 that innovativeness is a necessary condition and proactiveness is almost always necessary to promote high organizational performance within the participating businesses. However, it is important to evaluate whether aside from being necessary, these solutions are sufficient on their own (Ragin, 2008). Thus, the study goes on to the analysis of sufficient conditions.



### 4.3 Sufficient Conditions

A truth table was constructed to analyze the data. Considering the four causality conditions (innovativeness, risk-taking, proactiveness, strategic planning and budget), there is a truth table of 24; that is, 16 rows.

For determining consistency in the configurations stemming from the truth table, the minimum value was set to 0.80 and the minimum number of cases was defined as 1 (Ragin, 2017).

After the aforementioned steps, the solutions found in the truth table were reported. There are three possible results: complex solutions, parsimonious ones or intermediary ones. With this in mind, the intermediary solutions were chosen for the present study, as per Covin et al. (2020), since they do not permit the removal of the necessary conditions, as recommended by Ragin (2000).

In order to visualize the solutions that promote high performance, Table 4 was constructed to demonstrate them visually, as originally proposed by Ragin (2008). In accordance with this logic, black circles (●) represent the condition's presence; White circles with an x (⊗) represent the condition's absence. If there are no circles, the condition is indifferent. From this perspective, fsQCA demonstrates sufficient solutions for high organizational performance.

Conditions	Solutions for high performance		
	S1	S2	S3
Innovativeness	●	●	
Risk-taking		●	⊗
Proactiveness	●		
Strategic Planning and Budget		●	⊗
Raw Coverage	0.87	0.58	0.44
Unique Coverage	0.16	0.01	0.04
Consistency	0.86	0.95	0.86
Overall Solution Coverage		0.92	
Overall Solution Consistency		0.84	

Table 4

#### Intermediary Solutions

Note: (i) Black circle (●) = condition's presence; (ii) White circle with an x (⊗) = condition's absence; (iii) If there are no circles = condition is indifferent to the solution. Sources: Prepared by the authors (2021).

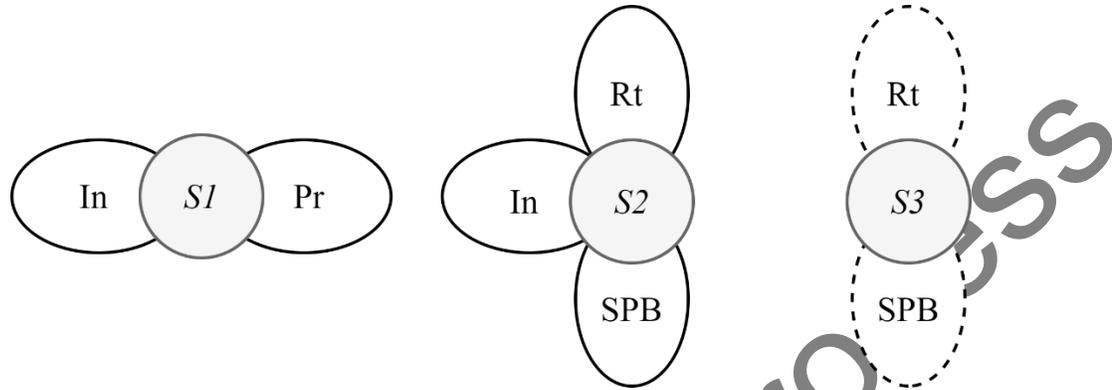
Three causality configurations (S1, S2 and S3) were deemed sufficient for the promotion of high organizational performance. It is notable that despite there being necessary conditions (innovativeness) and ones that are almost always necessary (proactiveness), neither is sufficient by itself; that is, a combination with other conditions is required. All of the solutions that were found have satisfactory consistency (>0.80) and the general consistency of the intermediary solution is also pertinent (>0.80) (Ragin, 2017).

The coverage clarifies the proportion of cases explained by the solutions, which in a way is comparable to the R2 obtained in the regression analyses (Woodside, 2013). Thus, the raw coverage consists in the proportion of solution associations that are explained by each term of the solution while the unique coverage has to do with the proportion of associations in the solution that are explained exclusively by each term in an individual manner (Grofman & Schneider, 2009; Ragin, 2017).



#### 4.4 Results Analysis

As a manner of illustrating the findings, three Euler-Venn diagrams (Figure 1) were created to graphically represent the solutions that promote high organizational performances in the participating businesses.



**Figure 1.** Euler-Venn diagrams of the solutions for high performance.

Note 1: In = Innovativeness; Rt = Risk-taking; Pr = Proactiveness; SPB = Strategic Planning and Budget.

Note 2: (i) Continuous ellipse represents the presence of the condition; (ii) Dotted ellipse represents the absence of the condition; (iii) No ellipse means that the condition is indifferent. Source: Prepared by the authors (2021).

Thus, in solution 1 (*S1*) there is:

$$S1 = \text{Innovativeness} * \text{Proactiveness} (1)$$

This causality configuration for high performance combines the presence of innovativeness (R&D investments, introduction of new products/services in the last three years and the search for different ways to conduct actions and solve problems) and proactiveness (pioneering the implementation of products/services/technologies, initiatives that cause reactions from competitors and constantly monitoring the customers' needs).

Risk-taking (working on high risk projects, undergoing risky situations to explore opportunities and taking out financial loans) and strategic planning and budget (formalized strategic planning, annual budget and having the budget aligned with the strategic planning and based on it) are indifferent.

As such, it is possible to note that a proactive stance and the organization's innovative capability (Covin & Slevin, 1989; Miller, 1983) are postures that strengthen the competitive advantage (Armstrong, 1982; Powell, 1992), which becomes a configuration that leads to high performance.

Since risk-taking is indifferent, it appears that the participating businesses may obtain growth through relationship and sales (since most of them are in retail and services), but not necessarily through high risk projects that require financial loans (Covin & Slevin, 1989).

In the study conducted by Palmer et al. (2019), the authors found that for older businesses, there were EO conditions in the context of innovativeness and proactiveness. However, although the present study does not use the businesses' time in the market as a factor in the analysis, it is notable that more than 90% of the sample has been in the market for more than 10 years, which in a way can be considered a level of maturity.

Since innovativeness and proactiveness represent important mediums for the businesses, they identify new opportunities to innovate and institutionalize new technologies and this helps boost better

performances. With this, competitive advantages are consolidated with the intent to improve the businesses' organizational performance (Linton & Kask, 2017; Bouwman, Nikou & Reuver, 2019).

In solution 2 (S2), there is:

*S2 = Innovativeness \* Risk – taking \* Strategic Planning and Budget (2)*

This causality configuration for high performance includes three conditions: innovativeness (R&D investments, introduction of new products/services in the last three years and the search for different ways to conduct actions and solve problems), risk-taking (working on high risk projects, undergoing risky situations to explore opportunities and taking out financial loans) and strategic planning and budget (formalized strategic planning, annual budget and having the budget aligned with the strategic planning and based on it).

Proactiveness (pioneering the implementation of products/services/technologies, initiatives that cause reactions from competitors and constantly monitoring the customers' needs) is indifferent in this case.

Considering this, high performance is visible through two dimensions of EO and MC and it is possible to presume that the businesses benefit from the innovation and the management practices linked to decision-making. Thus, it appears that the managers systematize the available resources in order to exploit unpredictable events and emerging opportunities through budgetary practices and controls (Gupta & Batra, 2016, Laskovaia, Marino, Shirokova & Wales, 2019).

The alignment of the business's EO stance, strategic planning and budget conducted by the managers may open up various pathways to success, thus reflecting on innovative strategy and the tendency towards risk-taking in decision-making in order to achieve better results and create competitive advantages for positioning and maintaining the business's market presence (Susanto, Abdullah & Wardi, 2019; Martens, Machado, Martens & Freitas, 2018; Acosta et al., 2018; Wales et al., 2020).

The existence of EO configurations and strategic planning to promote high performance was also brought to light in the study conducted by Williams et al. (2020) in which at least half of the possible configurations for better performance contained combinations of the aforementioned variables.

Furthermore, in agreement with Carraro et al. (2019), it is visible that the adopted strategies, as well as strategic planning and budget, are a fundamental MC.

Williams Jr. et al. (2020) conducted a study that showed that the MSBs use EO, sometimes combined with strategic planning to enable the establishment of goals that mirror the aspirations and continuous improvement in organization management and performance. Basically, when this EO stance is aligned with strategic planning and budget, there is a causality combination that promotes high organizational performance.

On correlating S1 and S2, it is possible to notice that innovativeness is present in both of the solutions; that is, performance is preceded by innovation (R&D investments, introduction of new products/services in the last three years and the search for different ways to conduct actions and solve problems) (Miller, 1983).

On analyzing the specificities of each solution, the first one (S1) includes proactiveness, which is characterized by pioneering spirit and initiative. As for the second one (S2), proactiveness is replaced by formalized strategic planning and budget, with the undertaking of high risk projects and financial loans (which suggests infrastructure, for example).



This leads to two possible management positions: the first one (S1) is more agile and dynamic with fewer controls and the second one (S2) is more closely managed and structured, with a stronger presence of MC. Both lead to high organizational performance.

This finding reinforces the equifinality that fsQCA can present (Ragin, 2008), demonstrating the asymmetrical nature of the data and that there is more than one way for the businesses to achieve success in organizational performance, depending on which position they take.

In solution 3, there is:

$S3 = \sim Risk - taking * \sim Strategic\ Planning\ and\ Budget\ (3)$

The third solution involves the absence of risk-taking (working on high risk projects, undergoing risky situations to explore opportunities and taking out financial loans) as well as the absence of strategic planning and budget (formalized strategic planning, annual budget and having the budget aligned with the strategic planning and based on it). The remaining elements are indifferent.

This finding is interesting since, unlike S2, in which risk-taking and MC (strategic planning and budget) were present, S3 suggests that for the set of businesses that tend to take risks, it is necessary to adopt MCs. In this sense, considering the universe in question, when businesses do not tend towards risk-taking, there is apparently no need for sophisticated MC.

It is important to point out that this solution is the one with the smallest number of cases (raw coverage = 0.44) and that it may have to do with mature businesses that, alongside EO and MC, have already “adapted” regarding contingencies (Chenhall, 2003) and already have their place in the market, which guarantees them high performance.

This may indicate that the businesses that correspond to this solution (S3) are already established in the market and have no perspectives of taking risks in search of new opportunities (Miller, 1983). Thus, this “stability” contributes as a success factor, which is capable of guaranteeing these businesses’ high performance and allowing them to maintain their performance without expending significant efforts in terms of MC. This is corroborated in Palmer et al. (2019), in which risk-taking is an inevitably absent factor in established firms’ high performance combinations.

It is also necessary to consider the specific characteristics and the business environment in which the MSBs (which represent most of the sample) are inserted. The MSBs are strictly characterized by the management’s behavior and how the manager will conduct risk-taking and organization planning (Rofiq & Pramono, 2019), which may possess a bias pertaining to market time (stability), being based on other formal and/or informal MC forms, as well as not assuming a position that is aligned with the assumption of new risks, in order to remain within the conventional business model they follow.

Strategic planning may be supported by the need businesses have to formulate strategies that assure their maintenance and survival in the market (Hansen, Herrmann, Becker & Santos, 2014). Thus, the businesses that are stable and do not intend to take risks, as they have already reached performance levels that can be considered “high”, may not use formal planning, but instead they may use other MC mechanisms. In agreement with this, Santos, Alves and Almeida (2007) argue that few MSBs use formal planning, which strengthens the search for other possible management tools.

Furthermore, in agreement with Woods and Joyce (2003), there may be a tendency for managers who report a lower use of management mechanisms to demonstrate that the lack of MC knowledge and usage does not interfere in strategic planning. Woods and Joyce (2003) argue that this may be one of the main points that justify the absence of strategic planning in this type of organization. Based on the present



study's findings, the absence of risk-taking seems to be combined with the absence of strategic planning, based on the last two solutions.

Another perspective is that in new businesses, the absence of planning is frequently combined with the absence of risk-taking and that with other combinations, this may promote high performance (Villani, Linder & Grimaldi, 2018).

As previously shown, aside from established businesses that do not possess a tendency towards risks, expansion and changes, new businesses may also not use planning (formal) and still achieve high performance through other endogenous mechanisms.

With these three combinations of causality conditions that were found (S1, S2 and S3), as well as the discussion presented in this section, despite each solution's peculiarities, there is enough evidence to not reject proposal (P1), which states that combinations of Entrepreneurial Orientation, Strategic Planning and Budget contribute to organizational performance.

## **5. FINAL CONSIDERATIONS**

This study aimed to analyze which causality configurations between EO (innovativeness, risk-taking and proactiveness) and MC (strategic planning and budget) promote high organizational performances.

To fulfill this goal, the data analysis was conducted through a fuzzy-set qualitative comparative analysis (fsQCA) technique with the intent to investigate which sets of conditions promote equifinality.

The conclusion is that for the investigated sample there are three causal solutions that are sufficient to promote high organizational performance. The interfaces between EO and MC that promote high performance are brought to light, with an emphasis on innovativeness, proactiveness and strategic planning and budget. Thus, there are combinations of EO, strategic planning and budget that contribute to organizational performance.

### **5.1 Theoretical Implications**

Regarding theoretical implications, this article complements previous studies (Covin et al., 2020; Linton & Kask, 2017; Lisboa et al., 2016; Palmer et al., 2019) that investigated EO through fsQCA and, unlike said studies, uses a sample comprised of Brazilian businesses; that is, from a developing country.

Specifically in relation to the interface between EO and MC, despite the fact that a previous study has analyzed this from the perspective of strategic planning (Rigtering et al., 2017), the present study has included budget in the discussion.

As for the possible causality combinations for the promotion of high performance, there are three causality conditions that may be sufficient to bring about high organizational performance. This finding contributes by reinforcing the fact that EO is configured multidimensionally along with the other variables and with performance; that is, through different facets and intensities of the dimensions, in agreement with Wales et al. (2020).

From this viewpoint, it is possible to assume that for the sample in question, innovativeness, proactiveness, and strategic planning and budget are essential elements in the configurations to achieve high performance.

Special emphasis goes to the need for strategic planning and budget when there is a tendency towards risk-taking. This finding contributes to the literature because through these various successful



combinations generated through fsQCA, multiple facets can be observed, unlike with other techniques, such as regression.

## 5.2. Managerial Implications

The findings from this study bring about evidence to support both the importance of EO positioning characteristics (innovativeness, risk-taking and proactiveness) and the pertinence of adopting MC mechanisms (strategic planning and budget) in order to obtain high organizational performance. In this context, three causality combinations are shown.

Regarding a business's chosen EO stance, there are many causality combinations of variables that can lead to its success. The managers can explore new and emerging opportunities, promoting innovation in products and services; they can be proactive in order to gain market space and tend to take risks to reap potential returns. If they take risks, it is necessary for them to use strategic planning and budget. Since most of the businesses are small or medium, decision-makers may have the necessary support to take on the challenge of being innovative without risking too much, while basing themselves on the MC mechanisms.

The managers must be aware of the impact that using strategic planning and budget causes. By adapting the entrepreneurial position and the competitive strategy (by using MC mechanisms), which correspond to the EO characteristics combined with strategic planning and budget, it is possible to create pathways to increase the competitive advantage and improve organizational performance.

This study can contribute to management by demonstrating that in order to obtain high performance, various entrepreneurial positions may be combined with the use of management mechanisms. Furthermore, innovativeness and manager proactiveness are crucial factors for high performance and, consequently, for these businesses' maintenance and survival.

## 5.3 Limitations and Future Research

The findings stemming from this investigation must be interpreted in keeping with its limiting factors. Initially, the study considers three dimensions of EO, not covering dimensions such as autonomy and competitive aggressiveness (Lumpkin & Dess, 1996). However, the three dimensions that were covered (innovativeness, risk-taking and proactiveness) are traditionally known as the classic manner of conducting EO research (George & Marino, 2011).

As for the constructs that were used, the study is limited in that it measures strategic planning and budget jointly. From a conceptual perspective of said construct, especially regarding budget, future studies may take into account tools derived from this one, such as the rolling forecast and the flexible budget (Ekholm & Wallin, 2011) as a part of the list of causality conditions that may possibly promote high performance.

The research only considers constructs at the organizational level, which may be considered a partial limitation. Although EO is defined as a strategic approach at the organizational level (Covin & Lumpkin, 2011), there is a discussion that considers the possibility of it encompassing the individual level (Frese & Gielnik, 2014). In the meantime, new studies could add individual psychological characteristics, as is the case with Palmer et al. (2019), who covered manager mastery and self efficacy.

The sample's representativity is somewhat low in relation to the population (+/- 8.5%). Although this is not a problem for fsQCA (Ragin, 2000), this does not permit the findings to be generalized. As for the sample's peculiarities, there were no segregated analyses conducted on the configurations that promote high performance in businesses regarding their ownership (family and non-family), as well as by size



(SB and MSB) and other such demographic variables. Thus, these limitations bring to light new research opportunities.

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