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ENTREPRENEURIAL ORIENTATION EFFECT ON ORGANIZATIONAL PERFORMANCE

EFEITO DA ORIENTAÇÃO EMPREENDEDORA SOBRE A PERFORMANCE ORGANIZACIONAL

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Abstract

The relationship between Entrepreneurial Orientation (EO) and Organizational Performance (OP) is still widely discussed in national and international publications in the area of entrepreneurship and organizational strategy. However, the type of effect can be different depending on the context analyzed. The purpose of this article is to investigate the strength of the relationship between the dimensions of OE and the direct effect of OE on PO. The survey gathered 252 responses obtained by a five-point Likert questionnaire. The data were analyzed using the Structural Equation Modeling, in addition to other statistical tests that proved the positive and significant effect of the proposed hypotheses. The results suggest advances in the development of new theoretical-empirical research that indicate robust measurement models involving the dimensions of EO and OP. Regional development was influenced by European culture, entrepreneurial vocation and companies with attributes of proactivity, innovativeness and competitiveness. As a contribution, this study demonstrates the positive effect of EO on OP from the perspective of employees of companies of different sizes and sectors located in the northeast region of the state of Rio Grande do Sul/RS.

Keywords: Entrepreneurial orientation. Organizational performance. Regional development. Organizational strategy. Entrepreneurship.

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Resumo

A relação entre Orientação Empreendedora (OE) e *Performance Organizacional* (PO) ainda é bastante discutida em publicações nacionais e internacionais da área de empreendedorismo e estratégia organizacional. No entanto, o tipo de efeito pode ser diverso dependendo do contexto analisado. O objetivo desse artigo é investigar a força da relação entre as dimensões da OE e o efeito direto da OE sobre a PO. A pesquisa *survey* reuniu 252 respostas obtidas por um questionário do tipo Likert de cinco pontos. Os dados foram analisados a partir da Modelagem de Equações Estruturais, além de outros testes estatísticos que comprovaram o efeito positivo e significativo das hipóteses propostas. Os resultados sugerem avanços no desenvolvimento de novas pesquisas teórico-empíricas que indiquem modelos robustos de mensuração envolvendo as dimensões da OE e da PO. O desenvolvimento da região foi influenciado pela cultura europeia, de vocação empreendedora e de empresas com atributos de proatividade, inovatividade e competitividade. Como contribuição, esse estudo demonstra o efeito positivo da OE sobre a PO na perspectiva de funcionários de empresas de diversos portes e setores localizadas na região nordeste do estado do Rio Grande do Sul/RS.

Palavras-chave: Orientação empreendedora. Performance organizacional. Desenvolvimento regional. Estratégia organizacional. Empreendedorismo.

Introduction

Academic debates about entrepreneurial organizational strategy have been expanded since Mintzberg (1973). Ten years later, Miller (1983) suggests three key concepts for an entrepreneurial company: innovation, pioneering spirit (proactivity) and risk-taking. However, only in the mid-1990s, Lumpkin and Dess (1996) expanded Miller's initial view (1983) from the recommendation of two new dimensions of Entrepreneurial Orientation (EO) (autonomy and competitive aggressiveness), having been added Miller's initial proposal (1983). The five dimensions of EO (innovativeness, proactivity, risk-taking, autonomy and competitive aggressiveness) reverberate until today as the main variables that guide an entrepreneurial organization.

Recent research is not yet conclusive about the direct relationship between EO and OP (GUERRA, 2017; CANNAVALE; NADALI, 2018). Covin and Lumpkin (2011) state that new scientific studies should examine the configuration of the dimensions of the EO, since they do not have the same degree of influence on OP (MCKENNY et al., 2018). Thus, it is necessary to advance the development of theoretical-empirical research that indicates new models of measurement and conceptualization involving EO (COVIN; WAVES, 2018).

Quantitative models that assess the strength of the relationship between the EO and OP constructs are measured under different contexts, to name a few examples: companies in the transformation sector (GUERRA, 2017), organizational culture (LEE; HOWE; KREISER, 2019; WALES et al., 2019), respondent training (ABOU-WARDA, 2015; NIELSEN; GARTNER, 2017; MARQUES et al., 2018), entrepreneurial education (HASAN; KHAN; NABI, 2017; CHEN; AGRAWAL, 2018), organizational structure (MILLER, 1986; YANG; DESS; ROBINS, 2019), intangible assets (ANDERSON; ESHIMA, 2013) and environmental sustainability (AMANKWAH-AMOAH; DANSO; ADOMAKO, 2019).

In general, the variables of the EO construct include the models of Miller (1983) and Lumpkin and Dess (1996). However, identifying a new configuration, based on the existing dimensions (WALES; GUPTA; MOUSSA, 2013), can be an opportunity for new findings, especially if the region investigated has characteristics focused on dimensions. Inserting variables related to the Organizational Performance (OP) construct can make the investigated model even more complex (MCKENNY et al., 2018).

The research environment presents companies of different sizes and sectors, located in the northeastern region of the state of Rio Grande do Sul/RS. The rapid economic and regional development is due to business proactivity, entrepreneurial vocation and innovation of products manufactured and sold to different regions of the country and the world.

In view of this, the question is: *How does the strength of the dimensions of the EO influence the construct itself and its direct effect on the OP?* In order to answer this question, the objective of

this research is to investigate the strength of the relationship between the dimensions of the EO and the direct effect of the EO on the OP.

Theoretical review and empirical model

In general, organizations from different sectors are inserted in an increasingly dynamic and turbulent environment, requiring a high level of entrepreneurship and innovation on the part of (new) businesses (FREEL, 2005; MARTENS et al., 2015). Bernardo and Araújo (2016, p. 304), says that “Brazil is considered one of the most entrepreneurial countries in the world”. In order for the vocation to entrepreneurship to continue, it is necessary to stimulate an entrepreneurial culture and education that assist in the development of trained professionals for the constitution and maintenance of successful enterprises (FREEL, 2005; MONTEIRO et al., 2019; BERNARDO; ARAÚJO, 2016).

EO can be considered as the combination of methods, practices or styles of running a company, with the purpose of unifying the best techniques to achieve superior performance in the market (COVIN; SLEVIN, 1991; MILLER, 1983; ZAHRA, 1993). It is related to the model for managing the organization, present in companies characterized by having an entrepreneurial posture (COVIN; SLEVIN, 1991).

The academic literature indicates five dimensions of EO: autonomy, competitive aggressiveness, risk-taking, innovativeness and proactivity (MILLER, 1983; LUMPKIN; DESS, 1996; MCKENNY et al., 2018). Despite this, previous research is not yet conclusive about the direct impact of EO on OP (WALES; GUPTA; MOUSSA, 2013).

Previous studies (WALES; GUPTA; MOUSSA, 2013; SAEED; YOUSAFZAI; ENGELEN, 2014) emphasize the need for studies involving the relationship between the EO and OP constructs. However, depending on the context, organizational culture (WALES; GUPTA; MOUSSA, 2013; SAEED; YOUSAFZAI; ENGELEN, 2014; LEE; HOWE; KREISER, 2019; WALES et al., 2019), complexity of the relationship (KOHTAMÄKI; HEIMONEN; PARIDA, 2019), sector of activity and sample size, non-conclusive results regarding the right and indirect effect of EO can be obtained.

Hypothesis 1 (H1): EO positively affects OP.

Competitive aggressiveness (COA) is an EO dimension related to risk taking. For Lumpkin and Dess (2001), competitive aggressiveness is related to the way companies deal with competitive trends and market demands. It can take place through actions that inhibit the growth of competitors with the intention of increasing the company's performance in the market (BARRETO; NASSIF, 2014).

Dess and Lumpkin (2005) list two common ways that established companies adopt to be competitive and inhibit competitors. The first is to drastically reduce sales prices, as smaller companies find it difficult to compete with lower prices and do not have much capital to support lower margins. The second is to copy the successful business and technical practices of competing companies.

Hypothesis 2a (H2a): COA positively affects EO.

Innovativeness (INO) refers to the search for new ideas, creative processes and the development of new products and processes for the market (LUMPKIN; DESS, 1996; RAUCH et al., 2009; KOLLMANN; STÖCKMANN, 2014). When it comes to the external environment, innovativeness makes exporting organizations more speedy, since the national environment can be a limiter for the success of new products (COOPER; KLEINSCHMIDT, 1993; LI; NICHOLLS; ROSLOW, 1999).

Hypothesis 2b (H2b): INO positively affects EO.

Proactivity (PA) is identified as the company's effort, aiming to take advantage of new opportunities, such as: monitoring trends, identifying future needs of customers as well as anticipating changes to solve problems. Proactivity means having a vision for the future, seeking new possibilities for growth and development (DESS; LUMPKIN, 2005). Chen and Agrawal (2018) suggest that entrepreneurial students should exercise proactive attitudes towards team behavior.

Lumpkin and Dess (2001), claim that proactivity is in the way companies face market opportunities when taking initiatives to take advantage of them. Proactivity assists in the ability to predict market trends, consumer needs, action and anticipated solutions (BARRETO; NASSIF, 2014).

Hypothesis 2c (H2c): PA positively affects EO.

OP, in turn, is seen as a complex construct to be evaluated and can be influenced in several ways (CALLADO; CALLADO; ALMEIDA, 2008). Measuring OP is one of the main concerns, since it directly impacts management and decision-making processes (LUMPKIN; DESS, 1996).

OP is an important multidimensional construct in the management area (COMBS; CROOK; SHOOK, 2005; RICHARD et al., 2009; STARLING; PORTO, 2014), being considered difficult to measure (BEHRMAN; PERREAULT, 1982; CALLADO; CALLADO; ALMEIDA, 2008), due to the diversity of metrics (VIEIRA; PIRES; GALEANO, 2013).

The measurement of the OP construct can be performed through two dimensions: financial and non-financial performance (COMBS; CROOK; SHOOK, 2005; MARQUEZAN; DIEH; ALBERTON, 2013; CARMONA; ZONATTO, 2017). Financial performance (FP) is measured quantitatively, for example: return on sales, sales growth, total revenue, earnings before interest, taxes, depreciation and amortization (CARMONA; ZONATTO, 2017).

In turn, non-financial performance (NFP) considers intangible aspects, such as: intangible assets, stakeholders, creation of social value and sustainable solutions (MARQUEZAN; DIEH; ALBERTON, 2013; ANDERSON; ESHIMA, 2013; MOURA; THEISS; CUNHA, 2014; CARMONA; MARTENS; FREITAS, 2018) among others.

Hypothesis 3a (H3a): NFP positively affects OP.

Hypothesis 3b (H3b): FP positively affects OP.

Methodological procedures

Research environment

The research environment was restricted to companies located in the northeast region of the state of Rio Grande do Sul / RS. This region is characterized as being thriving, having provided rapid growth for the region, due to its entrepreneurial vocation, European migration and higher education.

The region investigated stands out for its Italian descent, a large number of large and medium-sized companies, particularly industrial: metal-mechanic, wine and furniture, to name a few examples. It is known for its high Human Development Indexes (HDI) and for the quality of life provided to the population, particularly in the municipalities of Serra Gaúcha / RS. The research environment was chosen due to accessibility to respondents.

Data collect

The sample involved 252 professionals from different sectors who work in the administration and accounting areas of the investigated companies. To obtain the answers, the questionnaires were made available via electronic link and made available based on the database of FIERGS (Federation of Industries of the State of Rio Grande do Sul / RS), between the months of April and May 2018. The items of analysis (Appendix A) were measured using the five-point Likert scale: 1 strongly disagree and 5 strongly agree.

The research questionnaire was adapted from Hughes and Morgan (2007), Covin and Slevin (1989), Naman and Slevin (1993) and Guerra (2017), consisting of 34 specific questions, in addition to 6 general statements involving gender, age, higher education, sector of activity, time of firm in the market and size of the company.

With regard to specific issues, each dimension received a code for identification: innovativeness (INO1 to INO5), proactivity (PA1 to PA5), competitive aggressiveness (COA1 to COA5), financial performance (FP1 to FP8) and non-performance (NFP1 to NFP4).

Data sample and analysis

Initially, a pre-test was applied in order to previously analyze the data obtained and verify the best technique for statistical analysis. The pre-test was applied to 146 cases, of which 17 questionnaires were identified with errors in filling, missing and / or doubtful items, having been excluded from the research. Thus, the valid sample of the pre-test was 129 cases.

The pre-test data were analyzed in order to adapt to multivariate statistics. For this, the dependent variable EO and the male and female genders were used to construct the histogram (mean = 88.07, standard deviation = 16.44, n = 58), Q-Plot graph, asymmetry ($| Sk | < 3$) and kurtosis ($| Ku | < 10$), box plot graph (both genders), Kolmogorov-Smirnov test (p-value > 0.200) and Shapiro-Wilk (p-value > 0.900). The results meet the Normal distribution. There were no severe outliers.

The 129 pre-test cases indicated satisfactory results for the continuity of EFA (exploratory factor analysis): Cronbach's alpha of 0.957 for 38 items, KMO of 0.899 and Bartlett's Sphericity Test (p-value <0.001). Then, the questionnaire was applied to another sample of 141 respondents (second wave of application), of which 18 cases were excluded due to problems in filling out the questionnaires and missing, leaving 123 valid answers.

The same pre-test analysis procedures were adopted for the total sample, involving 287 employees, and it was necessary to exclude 35 cases due to the presence of (severe) outliers, leaving 252 valid cases (valid final sample). There was no significant difference in relation to the mean and standard deviation of the two application waves. After the first application, it was not necessary to make adjustments to the questionnaire for the second wave.

With regard to the number of respondents per question, the present study obtained 7 (seven) responses per observable variable, which exceeds the minimum recommended by the academic literature, which is 5 (five) valid responses per element of analysis (HAIR et al., 2009).

In order to avoid the existence of a type I error, the sample was divided by gender and higher education. The difference test between means proved the rejection of the null hypothesis (H_0), with no significant differences between the respondents investigated.

Of the total of 252 valid responses, the sample was further divided into two groups at random, in order to purify the scale. Regarding the first group, the statistical procedure applied was the EFA, with satisfactory results being obtained. The second group was also submitted to EFA, aiming at further purification. The purification of the scale was performed due to the increase in OP through FP and NFP.

The statistical procedures applied for data analysis were descriptive statistics, exploratory factor analysis (EFA), confirmatory factor analysis (CFA) and SEM. The analyzes were performed using the statistical software IBM® SPSS® and Amos® (Analysis of Moment Structures).

Search results

Descriptive statistics

The result of descriptive statistics reveals that the percentage of female respondents was higher (n=144; 57.1%) compared to male (n=108; 42.9%). With regard to age, the following answers were obtained: between 19 to 24 years (n=7; 2.8%), between 25 to 30 years (n=73; 29.0%) between 31 to 40 years (n=87; 34.5%), 41 to 50 years old (n=32; 12.7%), 51 to 60 years old (n=17; 6.7%) and over 61 years old (n=36; 14.3%). Respondents have higher education (or in progress) in administration (n=149; 59.1%) or accounting sciences (n= 103; 40.9%). The industrial sector had a greater participation (n=121; 48.0%), followed by the services sector (n=75; 29.8%) and the commercial sector (n=56; 22.2%).

Of the surveyed companies, 91 cases were micro-enterprises (33.3%), 84 respondents work in small companies (30.6%) and 77 participants work in medium-sized companies (36.1%). With regard to working time in the company, the group with the largest participation has between 5 and 10 years of work activity in the organization (49.6%); secondly, there are 55 cases of employees with "less than 1 year" of work in the company (21.8%); thirdly, 56 respondents reported that they worked at the company for 6 to 10 years; the other cases opted for another answer.

Exploratory factor analysis (EFA)

In relation to EFA, the cronbach's alpha obtained was 0.948 for 37 items and KMO equal to 0.926 for p-value<0.001. The total explained variance indicated 63.448% of explanation for 7 components. The varimax orthogonal rotation method was used to maximize the load dispersion of the factors, enabling a better interpretation of the clusters (FIELD, 2009). This article made use of the factor loading factor above 0.5, as predicted by Hair et al., (2009). The communality values were met (above 0.5), according to Pestana and Gageiro (2005), Fávero et al. (2009) and Hair et al. (2009).

Confirmatory factor analysis (CFA)

The convergent and discriminant validity of the original structural model was analyzed using corresponding statistical tests. Initially, Cronbach's alpha (α) for each of the constructs reached a value above 0.8 (PESTANA; GAGEIRO, 2005; HAIR et al., 2009), varying between 0.83 to 0.88 (Table 1).

Secondly, the convergent validity was tested in relation to the average value of the AVE (Average Variance Extracted), obtaining indexes higher than the reference, which is 0.5 (FORNELL; LARCKER, 1981), having varied between 0.50 to 0.64. Third, the internal consistency of the scale was evaluated using the composite reliability test (C.C.), obtaining values above 0.7, according to Hair et al. (2009) (Table 1).

The diagonal values in bold (Table 1) indicate suitability for discriminant analysis, since the values of the rows and columns are greater than the square root of the stroke in relation to the other constructs (HAIR et al., 2009).

Table 1: Cronbach's alpha, AVE, C.C and discriminant analysis

Construct	Variables	Items	α	AVE	C.C.	COA	INO	PA	NFP	FP
EO	COA	5	0.867	0.59	0.88	0.77				
	INO	5	0.838	0.59	0.85	.554**	0.77			
	PA	5	0.842	0.50	0.83	.729**	.770**	0.71		
OP	NFP	4	0.879	0.64	0.88	.488**	.569**	.598**	0.80	
	FP	7	0.855	0.59	0.85	.623**	.600**	.651**	.610**	0.77
Mean			0.856	0.582	0.857					

Source: Research data (2018)

**p<0,01

Structural equation modeling (SEM)

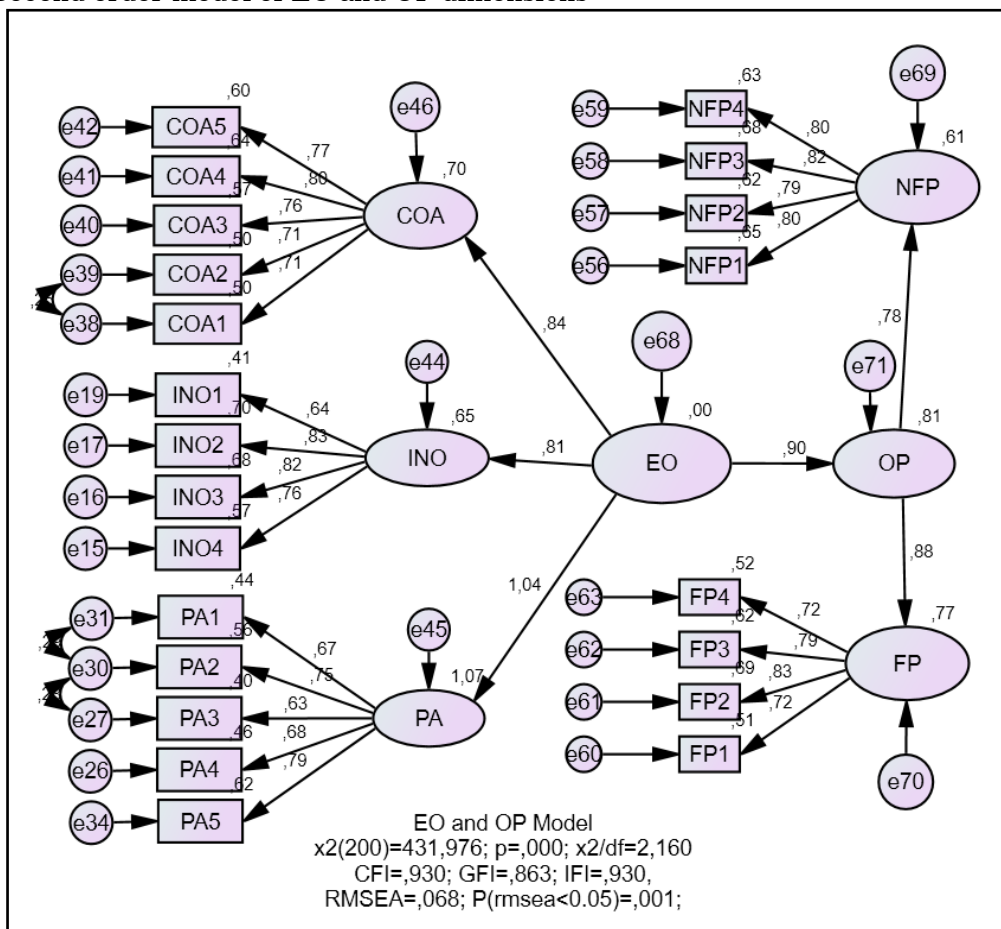
SEM must be applied through a graphic modeling, allowing the treatment of multiple simultaneous relationships based on the estimation of latent variables (HAIR et al., 2009; BYRNE, 2010; MARÔCO, 2010).

The analyzed structural model is considered second order, since it indicates two levels of relationship between the EO and OP constructs, making the analysis more complex. Hair et al. (2009), state that the second order model occurs when the measurement of the model is divided into two layers of latent variables (Figure 1).

All variables with factor loads below 0.5 were excluded (FP6, FP7 and FP8). This may have occurred because the sample applied was not the same as the model initially proposed by Hughes and Morgan (2007), Covin and Slevin (1989), Naman and Slevin (1993) and Guerra (2017). Despite this, the exclusion is supported by the academic literature, aiming at a better adjustment (HAIR et al., 2009; MARÔCO, 2010).

In general, the SEM values do not indicate “magical results”, and should be evaluated with caution, that is, a set of indices must be evaluated in relation to the result obtained by the structural model (HAIR et al., 2009). Therefore, the adjustment indexes chosen for the SEM model were as follows: CFI (Comparative Fit Index), GFI (Goodness of Fit Index) and IFI (Incremental Fit Index), which must present values equal to or greater than 0.9 (HAIR et al., 2009; VIEIRA; RIBAS, 2011). The RMSEA (Root Mean Square Approach Error) can vary between 0.05 to 0.08 (HAIR et al., 2009; VIEIRA; RIBAS, 2011).

Figure 1: Second order model of EO and OP dimensions



Source: Research data (2018)

The reference value of χ^2 suggests adjustment of the model, and should be as low as possible (HAIR et al., 2009). Depending on the number of variables tested, a high value for χ^2 can be obtained. In relation to χ^2 / df , the reference value must be >2 and <5 (HAIR et al., 2009; VIEIRA; RIBAS, 2011).

After defining the model's evaluation values, the MEE indicated a good level of adjustment: $\chi^2 = 431.976$; $df = 200$; $p = 0.000$; $\chi^2 / df = 2,160$; $CFI = 0.930$; $GFI = 0.863$; $IFI = 0.930$; $RMSEA = 0.068$; $P(rmsea) < 0.001$. The result of the structural model meets the theoretical assumptions (VIEIRA; RIBAS, 2011; MARÔCO, 2010).

Hypothesis test results

Table 2 shows the result of the hypothesis test, where the acceptance of all hypothesized relationships is perceived. The results show that there is an influence of the EO construct on the OP, confirming the positive and significant relationship between the FP and NFP dimensions on the OP, as well as the COA, INO and PA dimensions about the EO.

Table 2 suggests that the level of significance $p < 0.001$ was obtained for all tested hypotheses. The standard error values S.E. (standard error) and the estimated deviation from standard error, abbreviated by the acronym C.R. (critical ratio), can also be observed. The latter indicates a result greater than 1.9, considered recommended to obtain a p -value < 0.001 (HAIR et al., 2009). Thus, **all the tested hypotheses are confirmed.**

Table 2: Result of the hypothesis test of the hypothesized relationships

Hypothesis	Hypothetical relationships	Estimate	S.E.	C.R.	p-value	Supported?
H1	OP ← EO	0.971	0.112	8.660	***	Yes
H2a	COA ← EO	0.963	0.108	8.883	***	Yes
H2b	INO ← EO	1.013	0.111	9.098	***	Yes
H2c	PA ← EO	1.000			***	Yes
H3a	NFP ← OP	0.779	0.089	8.707	***	Yes
H3b	FP ← OP	1.000			***	Yes

Source: Elaborated by the authors (2018)
***p<0,001

The positive and significant relationship between EO and OP is also demonstrated in previous research, such as Covin, Green and Slevin (2006), Anderson, Covin and Slevin (2009), Raush et al. (2009), Soininen et al. (2012), Kollmann and Stöckmann (2014) and Guerra (2017). This finding is important, however it cannot be conclusive.

In other words, previous research involving different insertion contexts, organizational cultures (WALES; GUPTA; MOUSSA, 2013; SAEED; YOUSAFZAI; ENGELEN, 2014), model complexity (KOHTAMÄKI; HEIMONEN; PARIDA, 2019), scales (MILLER, 1983 ; LUMPKIN; DESS, 1996; COVIN; SLEVIN, 1991), types of leadership (LEE; CHONG; RAMAYAH, 2019), mediator / moderator variables and control variables (ANDERSON; COVIN; SLEVIN, 2009), results can be evidenced contradictory or mixed.

As for the OP construct, the FP and NFP dimensions were confirmed, in accordance with results from previous studies (CALLADO; CALLADO; ALMEIDA, 2008; MOURA; THEISS; CUNHA, 2014). This discovery can generate new insights, based on a better investigation of the findings about the FP and NFP dimensions.

Discussion and contributions

The aim of the research was to investigate the strength of the relationship between the dimensions of the EO and the direct effect of the EO on OP. One can infer the achievement of a positive and significant relationship between EO and OP, corroborating with Miller (1983) and Lumpkin and Dess (1996).

Regarding the dimensions of the OP, although the two variables have presented satisfactory results, a slight superiority of the correlation and factorial loads (loadings) of the FP dimension is perceived, when compared to NFP. This result was already expected due to the quantitative perception of FP.

The theoretical advancement of this article is anchored in the use of three dimensions of EO (innovativeness, proactivity and competitive aggressiveness) over OP, and this with its respective dimensions (FP and NFP) (MCKENNY et al., 2018). The confirmation of the direct relationship between the latent variables EO and OP, as well as the positive strength of the FP and NFP dimensions, on the OP construct, reinforce the empirical contribution of this research. The validation of the questionnaire is another important theoretical contribution, since future research can make use of this data collection instrument.

Covin and Waves (2018) suggest that new research advances in proposing new theoretical-empirical measurement models involving EO. Wales, Gupta and Mousa (2013) indicate the need for studies on the five dimensions of EO (LUMPKIN; DESS, 1996). Therefore, this research generates a future opportunity for the multivariate analysis of the dimensions not evaluated: autonomy and risk-taking.

At the end of this study, important contributions can be inferred: the sample involved a group of employees of companies inserted in a dynamic, turbulent and complex business context, which may have contributed to the results obtained; the article confirms previous empirical research on the effect of the relationship between EO and OP; the use of the stakeholders variable as an element of the NFP had a positive and significant effect in relation to OP; this research made it possible to

refine the dimensions of the EO and OP, in addition to suggesting a new scale of EO and OP, based on the adaptation of Hughes and Morgan (2007), Covin and Slevin (1989), Naman and Slevin (1993) and Guerra (2017).

Future studies and research limitations

Future research should investigate the relationship between EO and OP under new contexts and control variables, such as: organizational culture, sector of activity, gender of respondents, training of respondents and the company's existence. Possible discrepancies (or confirmations) of results can be decisive for the emergence of new empirical models.

Expanding the identification of new constructs related to EO can be important for the theoretical and empirical consolidation of the areas of entrepreneurship and strategy. It is recommended to analyze the contextual aspects that interfere in the relationship between EO and OP, such as: age of the company, intangible resources (ANDERSON; ESHIMA, 2013), environmental sustainability (AMANKWAH-AMOA; DANSO; ADOMAKO, 2019) and organizational structure (MILLER, 1986; YANG; DESS; ROBINS, 2019).

In addition, new studies should involve the latent variables dynamic capacities, organizational ambidexterity (GUERRA, 2017), absorptive capacities (HUGHES et al., 2018), networking capacity (ACOSTA; CRESPO; AGUDO, 2018) and internationalization (COVIN; MILLER, 2014; WALES et al., 2019; ALAYO et al., 2019; KARAMI; TANG, 2019) as mediating constructs of the relationship between EO and OP. The analysis of the organizational ambidexterity and EO constructs can be important for theoretical advances in the strategy area. Similar empirical research was applied by Guerra (2017), Luu (2017), Luu, Dinh and Qian (2019).

This article helped to clarify the effect of the direct relationship between the EO and OP constructs. The results of this investigation should be analyzed with caution, since they are limited to the sample of respondents, and it is not possible to generalize them.

Final considerations

The study of EO and OP should be encouraged during university education, aiming at the initial contact with the concepts. This statement is in line with Monteiro et al. (2019), whose understanding is that the culture of entrepreneurship and innovation should be disseminated in universities.

The emphasis on entrepreneurship, associated with organizational strategy, must address the analysis of multiple dimensions, which can generate important managerial implications regarding decision making in relation to the dimensions of EO and OP.

This research contributes to the academic literature. The positive and significant impact of the EO construct on OP can generate new insights for regional development. The northeastern region of the state of Rio Grande do Sul / RS has an entrepreneurial vocation, particularly focused on the diversity of industrial companies: metal-mechanic, wine, furniture and transformation sectors.

Rethinking management practices and encouraging actions aimed at entrepreneurship and organizational strategy can be some alternatives for times of crisis. The northeastern region of the state of Rio Grande do Sul / RS is characterized by its vocation to entrepreneurship, qualified labor, Italian and German culture, strong signs of innovativeness, competitive aggressiveness and proactivity on the part of companies. The set of these attributes contributes to the economic development of the region.

However, the industrial sector is not the same as in previous decades, and it is a challenge to rethink it. Its reconfiguration must start from the rupture of the traditional management model. Thus, identifying new business opportunities from the available regional resources can be a stimulus for the continued development of the northeast region of the state of Rio Grande do Sul / RS.

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Appendix A: Research questionnaire

Assertions	M	SD
INO1. We often introduce improvements and innovations to our business.	3,55	1,06
INO2. Our business is creative in its methods of operation.	3,31	1,10
INO3. Our business seeks new ways of doing things.	3,52	1,12
INO4. Our company has a strong emphasis on R&D, technological leadership and innovation.	3,19	1,25
INO5. Our company has had many new product lines in the past five years (or since its inception).	3,17	1,32
PA1. We always try to take the initiative in all situations (eg against competitors, on projects and when working with other suppliers).	3,31	1,09
PA2. We stand out in identifying opportunities.	3,33	1,09
PA3. We initiate actions to which other organizations respond.	3,23	1,09
PA4. Our company is often the first to introduce new products.	2,72	1,20
PA5. Our company generally adopts a very competitive strategy.	3,38	1,21
COA1. Our business is intensely competitive.	3,58	1,23
COA2. In general, our business takes a bold or aggressive approach when competing.	3,15	1,16
COA3. The company tries to undo and maneuver the competition as well as we can.	3,31	1,07
COA4. When dealing with competitors, our organization normally adopts a very competitive posture with the aim of surpassing competitors.	3,31	1,10
COA5. When dealing with competitors, our organization often leads the competition, initiating actions to which our competitors have to respond.	3,13	1,06
FP1. The company is able to sell products with higher profit margins.	3,23	1,29
FP2. The company is able to quickly generate sales of new products.	3,12	1,22
FP3. The company has the capacity to produce a high market share for the company within the territory in which we operate.	3,30	1,12
FP4. The company is able to exceed our sales goals and objectives.	3,62	1,07
FP5. The company has the capacity to generate profitable sales.	3,83	1,04
FP6. The greater the market orientation, the greater the company's profitability.	3,80	1,00
FP7. Sales training increases the commercialization of products, consequently the company's profit.	3,81	1,07
FP8. Exporting products increases the company's profit.	3,37	1,37
NFP1. My company is competent and fully capable of establishing a relationship with one of the interested parties.	3,52	1,01
NFP2. I feel that the attributes (or characteristics) of the company are adequate for establishing relationships with stakeholders.	3,50	0,93
NFP3. I realize that it is easy for the company to maintain a relationship with one of the interested parties.	3,40	0,98
NFP4. My company is competent and fully capable of maintaining a relationship with one of the interested parties.	3,69	1,00

Note: M = Mean; SD = Standard Deviation; INO: Innovativeness; PA: Proactivity; COA: Competitive aggressiveness; FP: Financial performance; NFP: Non-financial performance.



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