



DIMENSIONS OF AMBIDEXTERITY AND ORGANIZATIONAL PERFORMANCE OF BRAZILIAN EXPORTING COMPANIESRodrigo Marques de Almeida Guerra^{1*}  & Iuri Leonan Campos Souza² ¹Universidade Federal de Santa Maria – Santa Maria (RS), Brazil.²Universidade Federal do Pará – Belém (PA), Brazil.

ARTICLE DETAILS

Article history:

Received on March 18, 2021

Accepted on August 2, 2022

Available online on September 23, 2022

Double Blind Review System**Editor in Chief:**

Fernanda Cahen

Keywords:

Organizational ambidexterity

Exploration

Exploitation

Sales growth

Profitability

ABSTRACT

Objective: To investigate the effect of exploration, exploitation, sales growth and profitability of exporting companies located in four Brazilian states.**Method:** Data were processed and analyzed based on multivariate statistical procedures and Structural Equation Modeling with 216 exporting companies located in four states of Brazil, an emerging economy country.**Main Results:** The findings reveal a positive and significant effect of the exploration and exploitation dimensions on sales growth and profitability in the sample of companies investigated.**Relevance / Originality:** The analyzed regions are considered important for the Brazilian economy because they have different characteristics in geographic position, an abundance of natural resources, export of products and diversity of human knowledge. Finally, a theoretical framework was developed that covers the theory of Resource-Based View (RBV), exploration, exploitation and organizational performance dimensions.**Theoretical / Methodological Contributions:** The proposition of a theoretical framework containing relational aspects of the dimensions of ambidexterity (exploration and exploitation) and organizational performance (sales growth and profitability) associated with the RBV theory can contribute to the theoretical improvement of administrative sciences.**Social / Management Contributions:** The analyzed sample showed low profitability is more prone to exploitation capabilities. On the other hand, companies with high profitability showed a greater inclination towards exploration capabilities. Companies with low sales growth indicate a greater inclination towards exploration capabilities, despite the small difference between exploration and exploitation for a group of companies.**INTRODUCTION**

The empirical relationship between the dimensions of ambidexterity and organizational performance has attracted the attention of researchers and academics (He & Wong, 2004), mainly from

developed countries. Organizational ambidexterity is the ability of a business unit to explore, market, and generate knowledge and resources simultaneously with a new market, products and new opportunities not yet identified by the market (Gibson & Birkinshaw, 2004).

*Corresponding author: rmaguerra1@gmail.com<https://doi.org/10.18568/internext.v17i3.668>

Within the organizational context, the exploration and exploitation dimensions act both in the domestic and international environment to measure the organizational performance of the main rivals (Han & Celly, 2008; Battaglia, Neirotti, & Paolucci, 2018; Lin & Si, 2019).

The fact that a company can deal with paradoxical structures contributes to superior organizational performance (Gibson & Birkinshaw, 2004; Jansen et al., 2009a; Papachroni, Heracleous, & Paroutis, 2015). Thus, influence is generated by tangible and intangible resources, distinctive skills and competencies, routines, divergent processes and decision rules (Teece, Pisano, & Shuen, 1997; Teece, 2007) which can interfere with organizational performance (Barney, 1991, 2001; Raisch & Birkinshaw, 2008; Simsek, 2009; Patel, Terjesen, & Li, 2012; O'Reilly III & Tushman, 2013).

Bandeira-de-Mello, Fleury, Aveline, & Gama (2016) developed a research demonstrating how a late participant of an emerging economy company manages organizational ambidexterity aiming to compete simultaneously in emerging and international markets based on exploration and exploitation capabilities. Given this reality, this article demonstrates the effects of the exploration and exploitation dimensions on organizational performance, especially in emerging economies such as Brazil (Derbyshire, 2014; Ardito, Besson, Petruzzelli, & Gregori, 2018; Campanella, Del Giudice, Thrassou, & Vrontis, 2020; Tang, Gu, Xie, & Wu, 2020).

When analyzed individually, the exploration and exploitation dimensions are neglected (Severgnini, Galdamez & Vieira, 2019). This empirical gap has encouraged Brazilian researchers and academics to investigate the effect of ambidexterity dimensions on organizational performance (Marques & Silveira-Martins, 2017; Moura & Floriani, 2017).

Ambidexterity is the organization's ability to combine efforts with different purposes, through the exploration and exploitation dimensions, to achieve organizational performance in the long term (Severgnini, Takahashi & Abib, 2019). Some research involving ambidexterity, its dimensions and organizational performance approach national and international companies (Albuquerque Filho, Garcia, Vasconcelos, & Lima, 2021; Guerra & Camargo, 2021; Silvestre, Borges & Paula, 2022).

Guerra and Camargo (2021) suggest the need to develop new skills and organizational competencies, aiming to strengthen structures and mechanisms related to organizational ambidexterity and its dimensions, especially in environments of uncertainty. Internationalization has a positive effect on the organizational performance of small and medium-sized enterprises — SMEs (Moura & Floriani, 2017). Albuquerque Filho et al. (2021) show that the effect of internationalization on the financial performance of Brazilian and European companies is enhanced when associated simultaneously with innovation activities. Silvestre et al. (2022) reiterate that exploration, exploitation and organizational ambidexterity contribute to different possibilities for innovation, strategic renewal and competitiveness of breweries headquartered in Uberlândia, state of Minas Gerais, Brazil.

However, the results involving the dimensions of ambidexterity and organizational performance are not trivial. Severgnini, Galdamez & Vieira (2019) state that the interaction between exploration and exploitation is not related to organizational outcome, despite the convergence between the variables having increased. Marques and Silveira-Martins (2017) modelled ambidextrous actions and the exploration and exploitation dimensions on the performance of a pharmacy chain in the state of Rio Grande do Sul. The results confirm the positive and significant influence of ambidexterity on organizational performance. However, there is no significance between the isolated effects, that is, independent of exploration and exploitation, on the performance of companies.

The article investigates the effect of exploration, exploitation, sales growth and profitability of exporting companies in four Brazilian states. To achieve this objective, we used multivariate statistics and structural equation modelling to analyze 216 cases of exporting companies located in four Brazilian states in the North and Northeast regions of the country.

1. THEORETICAL DEVELOPMENT AND HYPOTHESES

1.1. Resource-based view

A company must protect its strategic assets from the competition (Barney, 1986) through mechanisms that avoid product substitution or imitation. In addition, it must assess organizational performance and

the efficient allocation of capital (Dierickx & Cool, 1989). The market concept of strategic factors involves assets that can be bought and sold. Thus, the strategy must assess the opportunity-cost relationship (Barney, 1986; Dierickx & Cool, 1989).

From this, the Resource-Based View (RBV) emerges based on three theories, based on: industry determinants about company performance, neoclassical microeconomics and evolutionary economics (Barney, 2001). The choice of a better alternative will depend mainly on the context of the company's insertion and access to a base of resources (valuable, rare and impossible to imitate or replace), efficient processes and superior performance in relation to the main rivals (Peteraf & Barney, 2003).

RBV analyzes the logic of sustainable competitive advantage (Barney, 1991, 2001; Peteraf, 1993) based on the correlation of company and industry performance measures (Henderson & Cockburn, 1994). However, what contributes to the achievement of competitive advantage, and consequently to organizational performance, is the creation of strategies based on intangible assets instead of aptitude focused only on tangible assets (Barney, 2001).

Classical microeconomics theory, which emphasizes equilibrium analysis, suggests that market forces are determinants for the quantity, quality, and price of traded goods and services. Thus, if the demand for a particular resource or capacity increases, the price and the total amount of available resources will also increase (supply elasticity) (Barney, 2001). To RBV, some converging points concern economic actors and the variation of market, competitiveness and information maximizers. The divergent points are associated with the difficulty of developing resources and capabilities in the short and medium terms, which will provide above-normal profits and sustained competitive advantage due to the inelasticity of supply (Peteraf, 1993; Barney, 2001).

Evolutionary economics, which does not consider equilibrium analysis, is based on three processes: variation, selection and retention. Variation is a routine used in business management that influences the achievement of competitive advantage, and can be more efficient and effective than others (selection mechanisms). Retention occurs when a company develops a routine that ensures organizational survival. Routines are resources and capabilities that

can be managed in different ways contributing to the achievement (or not) of the company's heterogeneity (Nelson & Winter, 1982; Barney, 2001).

RBV is more clearly understood when associated with resource heterogeneity (Hoopes, Madsen, & Walker, 2003; Wernerfelt, 2013), development of new capabilities (Teece et al., 1997; Teece, 2007) and idiosyncratic features (Ahuja & Katila, 2004). Heterogeneity is considered one of the most relevant elements for achieving superior organizational performance and sustainable a competitive advantage (Barney, 2001). Barney (2001) says that the resources and capacities can generate a competitive advantage for competing companies due to the heterogeneity of resources in idiosyncratic situations for a long time.

1.2. Organizational ambidexterity

Organizational ambidexterity emerged from the publication of the seminal article "The ambidextrous organization: designing dual structures for innovation", where Duncan (1976) establishes the need to align environmental changes for the survival of organizations. Organizational ambidexterity is the ability of an organization to adapt to environmental changes efficiently (Duncan, 1976). Duncan (1976) considers that organic organizations adapt more quickly to the business environment than so-called mechanical organizations (Burns & Stalker, 1961; Hambrick, 2017).

Despite this, it was March (1991) who spread the concept of organizational ambidexterity when considering its two dimensions of analysis: exploration and exploitation. For him, Duncan (1976) considered organizations from two perspectives: initially those of greater complexity, less formalization and decentralization of information; later, based on implementation capacity, which required a high level of formalization and centralization and low capability to carry out complex activities.

Compared to humans using both hands with equal dexterity (Lubatkin, Simsek, Ling, & Veiga, 2006; Simsek, 2009), organizational ambidexterity is the ability to act with the exploration and exploitation dimensions (Gibson & Birkinshaw, 2004; O'Reilly III & Tushman, 2008). March (1991) suggests that the scope of organizational ambidexterity occurs when a company learns and develops actions aimed at balancing exploration and exploitation.

Organizational ambidexterity can influence several areas, such as learning, innovation, adaptation/change and strategy (Gibson & Birkinshaw, 2004; Raisch & Birkinshaw, 2008). Its multidimensional concept can generate attributes for organizational performance (Chang, Hughes, & Hotho, 2011), internationalization (Han & Celly, 2008; Battaglia et al., 2018; Lin & Si, 2019), dynamic capabilities (Wilden, Gudergan, Nielsen, & Lings, 2013; Guerra, 2017; Popadiuk, Luz, & Kretschmer, 2018) and entrepreneurial orientation (Tuan, 2016; Guerra, 2017; Oehmichen, Heyden, Georgakakis, & Volberda, 2017).

Lennerts, Schulze & Tomczak (2020) claim that there may be an asymmetric relationship between the mutual effects of exploration and exploitation on innovative performance. Thus, maintaining a symmetrical balance between exploration and exploitation is fundamental to the performance of the innovation. Madhok and Keyhani (2012) reveal that asymmetry happens mainly for two reasons: first, the multinational is looking for asymmetric resources, mainly intangible (e.g., learning); second, internationalization is motivated by the possession of common resources, which does not differentiate it from other multinationals.

1.3. Exploration and exploitation effect on sales growth and profitability

High levels of exploitation can compromise performance for innovation (Rothaermel & Alexandre, 2008), that is, they can compromise innovation performance and inhibit the development of new strategies for new markets (Bernal, Maicas, & Vargas, 2019). The company context can impact innovation performance (Jansen, Van Den Bosch, & Volberda, 2006). Similarly, exploration and exploitation influence sales growth and profitability in different ways (Lubatkin et al., 2006; Sahi, Gupta, & Cheng, 2020).

Innovation strategies for exploration and exploitation can positively influence sales growth (Kristal, Huang, & Roth, 2010). In contrast, the imbalance between the two dimensions can harm the development of the firm's performance (He & Wong, 2004). Although the exploration and the exploitation of the concept are conflicting and paradoxical, the challenge of organizational ambidexterity is in the coexistence of both (Jansen et al., 2009b).

These voltages require the need for formulating strategies, processes and structures in a balanced and harmonious manner (Raisch, Birkinshaw, Probst, & Tushman, 2009; Ardito et al., 2018). Therefore, it is necessary to unpack the concepts of exploration and exploitation, to understand its operating mechanisms and management (Turner, Swart, & Maylor, 2013; Wei, Yi, & Guo, 2014; Bandeira-de-Mello et al., 2016; Oehmichen et al., 2017; Knight & Cuganesan, 2020).

The concept of exploitation refers to the use of highly formalized structures, hierarchical, with interconnected systems, focused on the ancillary activities of the process, scripted and bureaucratic (Eisenhardt & Brown, 1998; He & Wong, 2004; Cho & Pucik, 2005). The exploitation ability refers to the use of tangible and intangible assets of the institution or related persons to the main activity of the business (Popadiuk, 2015). Besides that, its essence is the refinement and extension of technological skills (March, 1991) in addition to the improvement of knowledge, resources and results for companies (Vogel & Güttel, 2013).

The ability to explore requires new knowledge, specific routines and internal and external processes for the organization (March, 1991; Cho & Pucik, 2005). In general, knowledge arises from the external environment (Wilden et al., 2013) and encompasses creativity, cultural adaptation (Chang et al., 2011), investments in new products and new technologies to expand its operations in new markets (He & Wong, 2004; Han & Celly, 2008; Battaglia et al., 2018).

Tsai (2001) and Jansen et al. (2006) analyzed financial performance using the profitability rate per surveyed business unit. Morbey and Reithner (1990) reveal that research and development (R&D) investments are strongly correlated with sales growth, however, they do not demonstrate a relationship with profitability. The organizational ambidexterity dimensions are analyzed from a managerial perspective, aiming at optimization, profitability (Sahi et al., 2020) and sales growth (Lubatkin et al., 2006).

Based on the theoretical review, the hypotheses tested are:

- H1a: There is a positive relationship between the dimensions of exploration and sales growth;
- H1b: There is a positive relationship between the exploration and profitability of the dimensions;

- H2a: There is a positive relationship between the dimensions of exploitation and profitability;
- H2b: There is a positive relationship between the dimensions of exploitation and sales growth.

2. METHOD

2.1. Data collection and sample

Data were collected from the sample of 2,255 exporting companies registered with the Ministry of Economy, Development, Industry and Commerce (MDIC). To be registered, companies must have exported in the last five years.

Research data were collected through an online questionnaire developed using Google Forms (Appendix 1). The collection was carried out between April and October 2019, including the application of the pre-test carried out with a hundred companies. The pre-test was applied to verify possible adjustments in the questionnaire. Despite this, it was not necessary to make substantial changes. Schulze, Townsend & Talay (2022) emphasize that the pre-test assesses the quality, face validity and content validity of the measures used.

Initially, three trained fellows helped to update the database, for example, e-mail, person in charge, company size, operations in the foreign market etc. Subsequently, the questionnaires were sent out in four sets, in addition to telephone calls. Even so, of the total of 239 companies, 23 had to be excluded due to missing data, outliers or biased responses (from a single item).

After the exclusions, 216 valid cases remained — 115 companies in the Northern region and 101 in the Northeast region. This required sending the questionnaire out to companies that did not respond in four waves, in addition to making phone calls. The main researcher supervised this entire process.

2.2. Research environment

The states of Amazonas, Pará, Pernambuco and Bahia were chosen due to the accessibility of the sample, the geographical position, favourable to the export of products, and the abundance of tangible resources and the intangible differential. Theoretically, exporting companies have trained human resources,

with a high level of education. In addition, the chosen states are economically representative of their respective regions.

The states of Amazonas and Pará stand out for their abundance of natural resources, such as metallic and non-metallic ores, fresh water and navigable rivers, as well as their geographic proximity to countries in Central America and the Caribbean, North America and Europe. The richness of natural resources attracts the attention of multinationals interested in establishing themselves in the Northern region of Brazil. In turn, Pernambuco and Bahia stand out for the presence of the manufacturing industry, such as manufacturing of drinks, manufacturing of rubber and plastic products, petroleum products and biofuels, pharmaceutical manufacturing products and pharmaceutical chemicals, metallurgy, computer and optical products.

2.3. Data analysis

The questionnaire comprised 18 specific questions, distributed between the constructs exploration (EXT), exploitation (EXP), sales growth (SALES) and profitability (PROFIT), and had the participation of employees of the companies. The issues of the organizational environment were adapted from Jansen et al. (2006) and later applied by Jansen, Vera & Crossan (2009b), Jansen, George, Van Den Bosch, & Volberda (2008), Kollmann & Stöckmann (2014) and Guerra (2017).

According to a theoretical review, the ambidexterity constructs are EXT and EXP. In turn, the organizational performance constructs were SALES and PROFIT. Previous research also made use of the same constructs in exporting companies (Guerra, 2017; Guerra & Camargo, 2021).

Thus, the chosen constructs are due to adherence to the foreign market. Recent publications detail studies of Brazilian companies that operate in the international market based on the relevance of constructs and quantitative approaches (Moura & Floriani, 2017; Albuquerque Filho et al., 2021; Guerra & Camargo, 2021).

The survey research requires obtaining a large sample of data, which justifies the analysis through statistical software, such as Statistical Package for the Social Sciences (SPSS®) and Analysis of Moment Structures (Amos®), to examine multivariate statistics and structural equation modelling (SEM).

3. RESULTS

3.1. Descriptive statistics

The survey involved 216 exporting companies in the states of Amazonas (15.3%), Pará (38.0%), Bahia (20.4%) and Pernambuco (26.4%), of which 48 reported being small (22.2%), 52 medium-sized (24.1%) and 116 large-sized (53.7%). About the age of the respondents, 64.3% reported being 41, indicating a greater maturity of the participants. The percentage of respondents aged under 40 years was 35.7% of the sample.

As the area of activity, we used the National Classification of Economic Activities (CNAE) from three groups of activities: Agriculture, forestry, research and aquaculture (CNAE_A), extractive industries (CNAE_B) and manufacturing industries (CNAE_C). The first group, defined as CNAE_A, is responsible for 13% of the activities of the respondents, covering the field of agriculture businesses, livestock and related services (6.9%), forestry (3.7%) and fisheries and aquaculture (2.3%). The second group, CNAE_B, is responsible for coal mining activities (4.6%), metallic mineral extraction (7.4%), extraction of non-metallic minerals (6.9%) and the support activities of the extraction of minerals (13%).

The third group, CNAE_C, includes beverage manufacturing demands (5.6%), manufacture of apparel and accessories (4.2%), manufacture of pulp, paper and paper products (5.6%), manufacture of coke, petroleum products and biofuels (9.7%), manufacture of chemicals (8.3%), manufacture of pharmaceuticals and pharmaceutical chemicals (2.8%), manufacture of rubber products and materials plastic (10.6%),

metallurgy (4.6%) and manufacture of computer equipment, electronic and optical products (3.7%).

3.2. Confirmatory factor analysis

Table 1 indicates the strong correlation between observed variables (positive and > 0.7). In addition, it shows suitability for mean, standard deviation, Cronbach's alpha (> 0.8), average variance extracted (AVE) (> 0.5) and composite reliability (CR) (> 0.8), the premises of Fávero, Belfiore, Silva, and Chan (2009), Field (2009) and Hair Jr., Black, Babin, Anderson, and Tatham (2009). These findings suggest that the tested models feature convergent and discriminant validity in addition to the internal consistency of the questionnaire (Fornell & Larcker, 1981).

Table 1 indicates the range of discriminant analysis using the values in bold. Items off the main diagonal indicate the correlations between the constructs. Thus, the Pearson correlation coefficients analyzed were positive and significant among themselves (Table 1).

To ensure the absence of multicollinearity between the latent variables, the variance inflation factors (VIF) indicators were analyzed using multiple linear regression, obtained with the help of the IBM SPSS® statistical software. To avoid multicollinearity between the constructs, the values of the VIFs must be less than five ($1.352 \leq VIF \leq 2.347$), that is, there is absence of multicollinearity (Hair Jr. et al., 2009).

3.3. Structural equation modeling

After the reference data set, the confirmatory factor analysis (CFA) indicated good level adjustment

Table 1. Results of the measurement model and descriptive statistics (by construct).

Variables	Items	Mean	Standard Deviation	Alpha (α)	AVE	CR	1	2	3	4	VIF
1. EXT	5	16.32	4.91	0.86	0.59	0.87	.765				1.534
2. EXP	5	16.03	5.07	0.90	0.65	0.90	.456*	.805			1.839
3. SALES	4	15.64	5.39	0.91	0.71	0.91	.579*	.665*	.843		2.347
4. PROFIT	4	15.81	4.64	0.79	0.50	0.80	.347*	.407*	.496*	.708	1.352
			Mean	0.86	0.61	0.87					

AVE: average variance extracted; CR: composite reliability; VIF: variance inflation factors. Values in bold indicate the square root of the AVE. Items outside the diagonal are the correlations between the constructs. Significant at the level of *0.01.

Source: Survey data (2019).

for the complete structural model (model 3): $\chi^2=274.175$; degrees of freedom — $df=128$; $p=0.000$; $\chi^2/df=2.142$; comparative fit index — $CFI=0.938$; goodness of fit index — $GFI=0.878$; incremental fit index — $IFI=0.939$; root mean square error of approximation — $RMSEA=0.073$; $P(RMSEA)<0.001$. The result of the structural model meets the theoretical assumptions (Hair Jr. et al., 2009; Marôco, 2010; Vieira & Ribas, 2011).

Table 2 suggests that the tested models are satisfactory and meet the requirements of the academic literature. Although expected, model 3 (complete) showed a better fit for SEM due to the large sample size (>200). Even with a smaller sample (approximately a hundred cases), model 2 (Northeast) showed a good fit ($\chi^2=205.771$; $df=128$, $p=0.000$; $\chi^2/df=1.608$; $CFI=0.926$; $GFI=0.823$; $IFI=0.928$; $RMSEA=0.078$; $P(RMSEA)<0.001$). Due to the good results of SEM, this research is considered relevant for organizational ambidexterity due to the scarcity of approaches involving the subject.

All hypotheses were accepted (Table 3). H1a ($\beta=0.517$, $p<0.001$) showed a positive and significant effect of SALES on EXT. Klomp & Van Leeuwen (2001) observed that the relationship between innovative behaviour (exploration) and performance in sales, productivity (measured by sales per employee ratio) and employment growth are correlated positively and significantly.

Figure 1 reveals the results of the tested hypotheses. The image confirms the four hypothesized relationships (H1a, H1b, H2a and H2b), demonstrating the relevance of the proposed model to the sample of companies surveyed.

H1b was accepted (EXT \rightarrow PROFIT). The magnitude of the effect of exploring the variable on profitability suggests the acceptance of hypothesis H1b ($\beta=0.256$, $p<0.005$). In general, organizations are encouraged to present positive results on sales growth and profitability (Chakravarthy & Lorange, 2008). Thus, exploration allows the prospecting of new profits and longevity of processes resulting from increased revenue (Karrer & Fleck, 2015).

The exploitation of variable impact on profitability shows a positive and significant effect (H2a: $\beta=0.336$, $p<0.001$), resulting in the H2a accepted hypothesis. Han, Kim and Srivastava (1998) measured the financial performance for the average value of profitability for two years. Li and Atuahene-Gima (2001) obtained the performance of the management units by the result of the value of the rate of return. Similarly, Tsai (2001) measured the construct of organizational performance on profitability.

H2b has been accepted (EXP \rightarrow SALES). The satisfactory results showed a positive and significant influence of EXP on SALES ($\beta=0.561$, $p<0.001$). The imbalance between the dimensions of exploration and exploitation impacted sales growth (He & Wong, 2004). Therefore, companies need to manage the

Table 2. Results of the setting region by structural equation modeling.

Variable / Model	Model fit index	Model 1	Model 2	Model 3
Region	-	North	Northeast	Full
Sample	The bigger better	115	101	216
χ^2	The smaller better	204.298	205.771	274.175
df	-	128	128	128
χ^2/gL	≤ 5	2.065	1.608	2.142
p-value	<0.001	<0.001	<0.001	<0.001
CFI	≥ 0.9	0.902	0.926	0.938
GFI	≥ 0.9	0.800	0.823	0.878
IFI	≥ 0.9	0.903	0.928	0.939
RMSEA	≥ 0.05 to ≤ 0.08	0.097	0.078	0.073

N: sample; df: degrees of freedom; p: significance; CFI: comparative fit index; GFI: goodness of fit index; IFI: incremental fit index; RMSEA: root mean square error of approximation.

Source: Survey data (2019).

conflicting demands (stress) between the exploration and exploitation architectures to achieve higher growth rates compared to other industries (Tushman & O’Reilly III, 1996).

4. DISCUSSION

4.1. Relationship between variables

Other relationships took place. For this, the analyzed sample used lower and upper confidence intervals and non-standardized beta values obtained by multiple linear regression. It was necessary to use the mean value ± a standard deviation to identify the significant intersections of the multiple regression (West, Aiken, & Krull, 1996; Preacher, Rucker, & Hayes,

2007). West, Aiken and Krull (1996) tested a multiple regression model that protects against false conclusions regarding the impact of predictor variables on the interactions between the constructs.

Figure 2A indicates companies with low exploitation capacity (0.417) and high exploration capacity (1.710). In addition, there is a group with an intermediate level of exploitation and exploration capacity (1.064) simultaneously. It is worth mentioning that the group with low profitability showed high dispersion of values ($0.417 \leq \text{PROFIT} \leq 1.710$). Likewise, Figure 2A shows a group with high profitability and low-value dispersion: high exploitation (2.279), intermediate level (2.137) and high exploration (1.994).

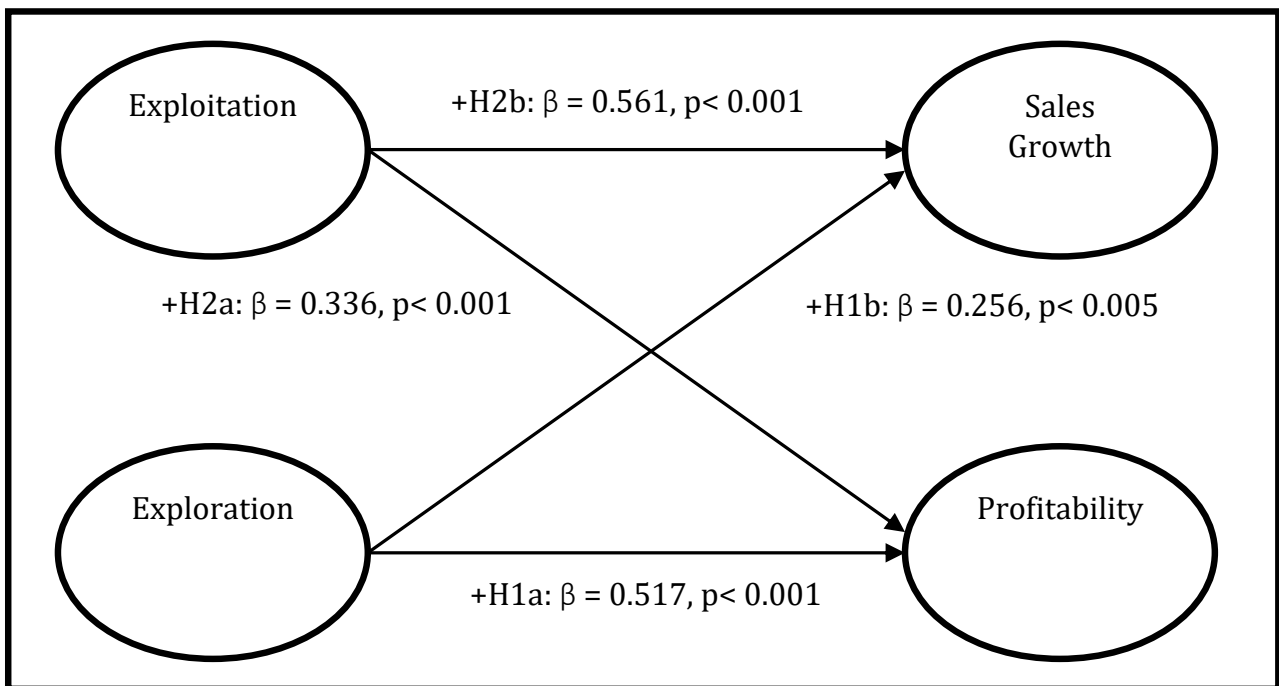
Figure 2A reveals managerial implications: first, companies with low profitability are prone to explora-

Table 3. Results of hypothesis testing.

Hypothesis	Hypothesized relationships	Loading	SE	t-value	p-value	Supported?
H1a	SALES ← EXT	0.517	0.095	5.457	***	Yes
H1b	PROFIT ← EXT	0.256	0.090	2.839	0.005	Yes
H2a	PROFIT ← EXP	0.336	0.073	4.617	***	Yes
H2b	SALES ← EXP	0.561	0.077	7.262	***	Yes

Significant at the level of ***0.001; SE: standard error; t: statistic t.

Source: Survey data (2019)



Source: survey data (2019).

Figure 1. Empirical model result.

tion (1.710). Second, companies with high profitability showed a greater inclination towards exploitation capacity (2.279). Third, it seems that the level of competition is fiercer in the group with lower profitability (the greater dispersion of values can generate lower profit margins) than in the cluster with higher profitability (lower margins are offset in other businesses).

Similarly to the previous analysis, Figure 2B groups companies with low and high sales growth. The image reveals the following findings: first, organizations with low sales growth stand out for having a greater inclination to exploitation capacity and less dispersion of values ($0.418 \leq \text{SALES} \leq 0.291$), which may mean less competition between companies. Second, companies with high sales growth are prone to exploitation and greater value dispersion, which suggests rivalry over sales growth.

Thus, high and low profitability and sales growth reveal important managerial implications. The investigated companies are in a dynamic and complex environment, with an abundance of tangible resources, financial capital restrictions, high specific knowledge of human resources and a geographic position to export products to new markets. Therefore, these contributions can help managers' decision-making regarding exploration and exploitation capacity, aiming to define deliberate strategies for the dimensions of organizational ambidexterity, profitability and sales growth.

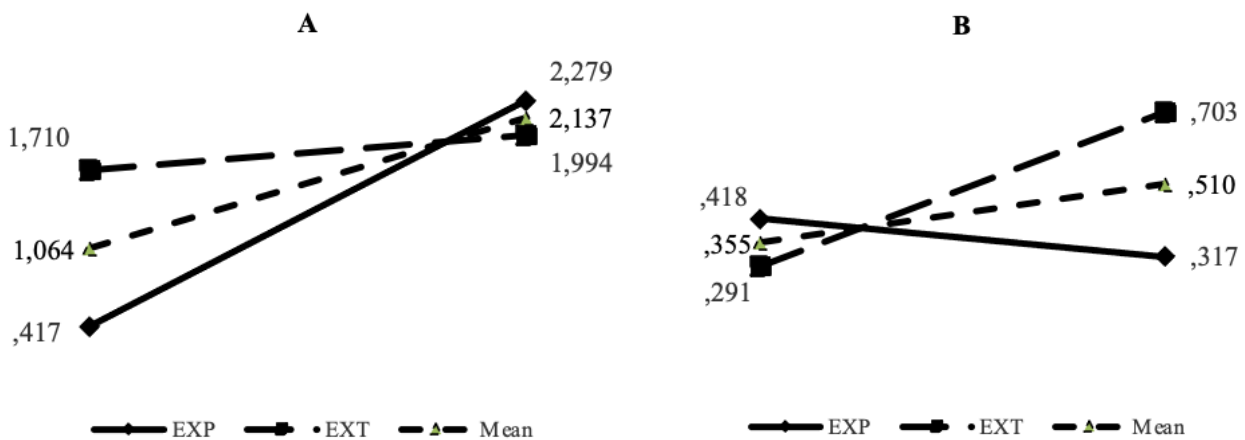
4.2. Resource-based view framework

RBV was created from the need for organizations to establish strategies to obtain a competitive advantage

over competitors. From this gap, Barney (1986, 1991, 2001) created the concept of valuable resources, rare, difficult to imitate and replace (VRIO), later related to idiosyncratic, heterogeneous resources and the need for new capabilities (Teece et al., 1997; Hoopes et al., 2003; Ahuja & Katila, 2004; Teece, 2007).

Based on the reviewed literature (Barney, 1986, 1991, 2001; Dierickx & Cool, 1989; Hoopes et al., 2003; Peteraf & Bergen, 2003; Wernerfelt, 2013), we arrived at the proposition of a generic framework that establishes a re-reading of the RBV based on the findings of this article. To this end, the logic of organizational ambidexterity was used as an essential infrastructure to establish a connection between VRIO resources and organizational performance.

The proposed framework advances in the academic literature on RBV as it contributes to the decision-making of tactical and strategic managers. For Bandeira-de-Mello et al. (2016), little is known about how ambidexterity can be implemented. Moura and Floriani (2017) state that high internationalization contributes to the ambidexterity and performance of SMEs. Furthermore, internationalization suggests a positive effect on organizational performance in small and medium-sized companies. Albuquerque Filho et al. (2021) point out that the high level of internationalization does not guarantee the financial performance of Brazilian companies and that the relationship negatively influences the return on assets (ROA) of European firms. Therefore, ambidextrous innovation can resolve this conflict, contributing to the positive impact of the relationship.



Source: survey data (2019).

Figure 2. Relationship between exploration, exploitation, profitability and sales growth: (A) exploration, exploitation and profitability; (B) exploration, exploitation and sales growth.

Organizational ambidexterity is still a nebulous field for management, which requires more theoretical and empirical publications aiming at new findings. Frogeri et al. (2022) recommend that the three approaches to ambidexterity (structural, contextual and sequential) be associated with dynamic capabilities. Guerra and Camargo (2021) warn of the need to develop skills and competencies in managers, aiming to create structures and mechanisms that support organizational ambidexterity.

To solve this gap, Figure 3 indicates the three theories of RBV as principles for achieving sustainable competitive advantage. Barney (2001) points out that, even having chosen the theories based on the determinants of the industry for the company’s performance, any of the three could have explained the RBV. Therefore, in addition to VRIO resources, the company must develop an organizational structure that supports tangible and intangible resources to generate value for products to achieve a competitive advantage.

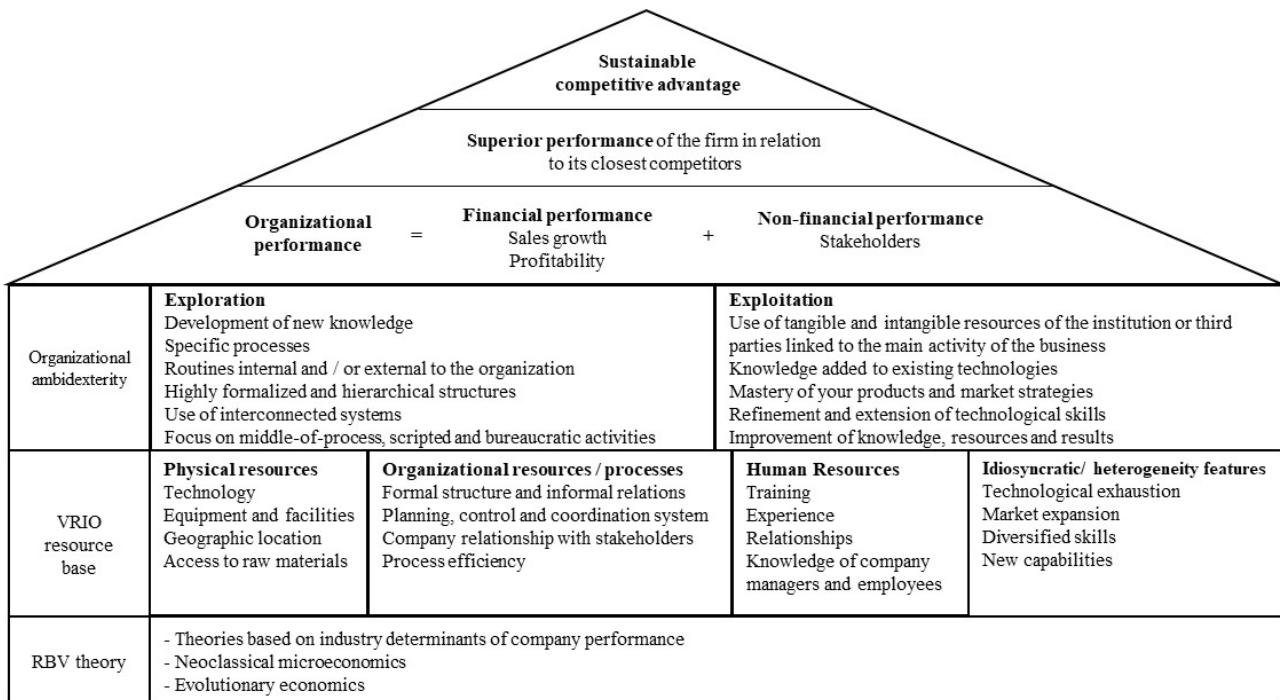
In this sense, the organization holds tangible and intangible resources formed by capacities, competencies, skills, idiosyncratic resources and heterogeneity. In this perspective, resources of RBV are enhanced by

being processed together, never in isolation. Thus, the management of these resource groups is not trivial, since it is an element that differentiates organizations.

This fact reinforces the need for an organizational infrastructure that supports the domestic market (exploitation), the international (exploitation) market or both. Organizations have complex and paradoxical structures to available resources and capabilities, which demonstrates the ambiguity of tensions inside and outside the company, affecting groups and work teams.

Organizational ambidexterity is a clear example of how the company needs to be aware of conflicting resources. The exploration dimension is concerned with knowing the new, developing new capabilities, and launching new products and markets through the use of disruptive innovation. On the other hand, the exploitation dimension focuses on a known horizon and seeks to expand the current market, routines, processes and organizational structures.

The next step is to measure organizational performance. To do that, the company must use two indicators: financial (sales growth and profitability) and non-financial (stakeholders). Figure 3 indicates examples of indicators that may be useful to trained employees.



VRIO: valuable resources, rare, difficult to imitate and replace; RBV: resource-based view. Source: prepared by the authors (2019).

Figure 3. Managerial implication of RBV framework.

Achieving superior performance is the desire of many organizations. However, being a market leader requires time, team training, investment, discipline, generation and transfer of knowledge and organizational culture aligned with the efforts of senior management. In turn, sustainable competitive advantage is a concept obtained only by organizations worthy of such an achievement. To achieve this, the organization must be specialized in the sector in which it operates, relying on the knowledge of executives and managers. Leadership must dominate organizational processes and routines, focusing on people, results, innovation and insertion in international markets.

5. CONTRIBUTIONS AND MANAGERIAL IMPLICATIONS

Investigating the effect of the dimensions of ambidexterity and organizational performance can help managers in decision-making due to the scarcity of resources, knowledge and skills. Thus, understanding the influence of tensions and paradoxes between the exploration and exploitation variables can support the creation of strategies for sales growth and profitability in the company. However, further research should be carried out to clarify the relationship between these variables.

This work has important practical implications for the managers of the investigated companies. The positive and significant relationship between the dimensions of ambidexterity and organizational performance can help in making decisions, given that:

- Maintaining a balance between the dimensions of ambidexterity is reasonable in the search for innovation strategies; however, it involves the organization's ability to reconfigure its resources;
- It seems relevant to map the internal and external processes, aiming to identify the stages of development of (new) products for the domestic and international market. Therefore, the dynamic market and the adaptation to the organizational culture require new knowledge and skills from employees;
- The integration and reconfiguration of organizational resources and capabilities are fertile ground for the ambidextrous environment;
- International emerging markets can be prone to scale exploration due to the increase in sales and possible profitability of exporting companies.

6. LIMITATIONS AND FUTURE RESEARCH

This article also has limitations: the sample of companies from the North and Northeast regions was a constraint. Thus, future research should increase the number of investigated cases and analyze other Brazilian regions. The use of financial dimensions was a limitation. Future studies should use the variables stakeholders, corporate reputation, customer satisfaction and brand equity.

Furthermore, future research should compare the opposing realities of countries in emerging economies. Analyzing countries with different socioeconomic and cultural aspects is relevant for new findings. Small and medium-sized companies are fertile ground for current research on organizational ambidexterity. Understanding the impact of scarce resources can clarify the paradoxes of organizational ambidexterity dimensions. Furthermore, in research involving new international projects, it is essential to identify the main tensions/conflicts between the ambidexterity organizational dimensions.

The number of companies should be higher in future research, which will help in decision-making involving companies of different sizes and sectors. The use of mediating variables can make the empirical model more complex, such as, for example, dynamic capabilities and entrepreneurial orientation. In addition, future research should use control or moderating variables, such as company lifetime, size, gender, internationalization and sector of activity.

CONCLUSION

We recognize the dimensions of ambidexterity and organizational performance as relevant to the area of strategy. Organizational ambidexterity is a topic widely discussed in international publications; nevertheless, further research should advance, especially in emerging countries. Finally, empirical research should make empirical models more complex and continue to investigate the exploration and exploitation dimensions of sales growth and profitability.

Therefore, the research instrument must improve to obtain more robust results. Perhaps the explanatory power of the results is different in other Brazilian markets and regions. This perception requires constant improvement in future research.

Future research should continue to investigate the context of Brazilian exporting companies located in the North and Northeast regions of the country due to their peculiarities and asymmetries compared to other locations. However, it was possible to identify distinctive characteristics for the group of companies, such as geographical position, abundant natural resources, product exports and diversity of human resources and knowledge.

REFERENCES

- Ahuja, G., & Katila, R. (2004). Where do resources come from? The role of idiosyncratic situations. *Strategic Management Journal*, 25(8-9), 887-907. <https://doi.org/10.1002/smj.401>
- Albuquerque Filho, A. R., Garcia, E. A. R., Vasconcelos, A. C., & Lima, A. C. (2021). Efeito moderador da ambidestria da inovação na relação entre internacionalização e desempenho em empresas brasileiras e europeias. *Revista de Educação e Pesquisa em Contabilidade*, 15(3), 329-353. <https://doi.org/10.17524/repec.v15i3.2880>
- Ardito, L., Besson, E., Petruzzelli, A. M., & Gregori, G. L. (2018). The influence of production, IT, and logistics process innovations on ambidexterity performance. *Business Process Management Journal*, 24(5), 1271-1284. <https://doi.org/10.1108/BPMJ-11-2017-0306>
- Bandeira-de-Mello, R., Fleury, M. T. L., Aveline, C. E. S., & Gama, M. A. B. (2016). Unpacking the ambidexterity implementation process in the internationalization of emerging market multinationals. *Journal of Business Research*, 69(6), 2005-2017. <https://doi.org/10.1016/j.jbusres.2015.10.146>
- Barney, J. B. (1986). Organizational culture: can it be a source of sustained competitive advantage? *Academy of Management Review*, 11(3), 656-665. <https://doi.org/10.5465/amr.1986.4306261>
- Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120. <https://doi.org/10.1177/014920639101700108>
- Barney, J. B. (2001). Resource-based theories of competitive advantage: A ten-year retrospective on the resource-based view. *Journal of Management*, 27(6), 643-650. <https://doi.org/10.1177/014920630102700602>
- Battaglia, D., Neirotti, P., & Paolucci, E. (2018). The role of R&D investments and export on SMEs' growth: a domain ambidexterity perspective. *Management Decision*, 56(9), 1883-1903. <https://doi.org/10.1108/MD-02-2017-0136>
- Bernal, P., Maicas, J. P., & Vargas, P. (2019). Exploration, exploitation and innovation performance: disentangling the evolution of industry. *Industry and Innovation*, 26(3), 295-320. <https://doi.org/10.1080/13662716.2018.1465813>
- Burns, T., & Stalker, G. (1961). *The Management of Innovation*. Tavistock.
- Campanella, F., Del Giudice, M., Thrassou, A., & Vrontis, D. (2020). Ambidextrous organizations in the banking sector: an empirical verification of banks' performance and conceptual development. *International Journal of Human Resource Management*, 31(2), 272-302. <https://doi.org/10.1080/09585192.2016.1239122>
- Chakravarthy, B., & Lorange, P. (2008). *Profit or growth?: why you don't have to choose*. Pearson Prentice Hall.
- Chang, Y. Y., Hughes, M., & Hotho, S. (2011). Internal and external antecedents of SMEs' innovation ambidexterity outcomes. *Management Decision*, 49(10), 1658-1676. <https://doi.org/10.1108/00251741111183816>
- Cho, H. J., & Pucik, V. (2005). Relationship between innovativeness, quality, growth, profitability, and market value. *Strategic Management Journal*, 26(6), 555-575. <https://doi.org/10.1002/smj.461>
- Derbyshire, J. (2014). The impact of ambidexterity on enterprise performance: Evidence from 15 countries and 14 sectors. *Technovation*, 34(10), 574-581. <https://doi.org/10.1016/j.technovation.2014.05.010>

- Dierickx, I., & Cool, K. (1989). Asset Stock accumulation and the sustainability of competitive advantage: reply. *Management Science*, 35(12), 1504-1511. <https://doi.org/10.1287/mnsc.35.12.1514>
- Duncan, R. B. (1976). The ambidextrous organization: Designing dual structures for innovation. *The Management of Organization*, 1(1), 167-188.
- Eisenhardt, K. M., & Brown, S. L. (1998). Competing on the edge: strategy as structured chaos. *Long Range Planning*, 31(5), 786-789. [https://doi.org/10.1016/s0024-6301\(98\)00092-2](https://doi.org/10.1016/s0024-6301(98)00092-2)
- Fávero, L. P., Belfiore, P., Silva, F. L., & Chan, B. L. (2009). *Análise de dados: modelagem multivariada para tomada de decisões*. Elsevier.
- Field, A. (2009). *Finding using SPSS statistics* (2nd ed.). Porto Alegre: Artmed.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50. <https://doi.org/10.2307/3151312>
- Frogeri, R. F., Portugal Jr., P. dos S., Piurcosky, F. P., Sanacato, V., Calle, J. L. de, Gazzola, S. B., & Oliveira, F. F. de. (2022). Dynamic ambidexterity: proposal of a theoretical and hypothetical model. *Revista de Administração Contemporânea*, 26(6), 1-26. <https://doi.org/10.1590/1982-7849rac2022210088.en>
- Gibson, C. B., & Birkinshaw, J. (2004). The antecedents, consequences, and mediating role of organizational ambidexterity. *Academy of Management Journal*, 47(2), 209-226. <https://doi.org/10.2307/20159573>
- Guerra, R. M. A. (2017). *Dynamic capabilities and organizational ambidexterity as mediating variables in the relationship between entrepreneurial orientation and organizational performance* [Doctoral thesis on Administration, Universidade de Caxias do Sul]. Retrieved from: <https://repositorio.uces.br/xmlui/handle/11338/3019>
- Guerra, R. M. A., & Camargo, M. E. (2021). Understanding the logic of organizational ambidexterity. *Revista Pensamento Contemporâneo em Administração*, 15(1), 90-106. <https://doi.org/10.12712/rpca.v15i1.49694>
- Hair Jr., J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2009). *Análise multivariada de dados* (6th ed.). Bookman.
- Hambrick, D. C. (2017). Some tests of the effectiveness and functional attributes of Miles and Snow's strategic types. *Academy of Management Journal*. *Academy of Management*, 26(1), 5-26. <https://doi.org/10.5465/256132>
- Han, J. K., Kim, N., & Srivastava, R. K. (1998). Market orientation and organizational performance: Is innovation a missing link? *Journal of Marketing*, 62(4), 30-45. <https://doi.org/10.2307/1252285>
- Han, M., & Celly, N. (2008). Strategic ambidexterity and performance in international new ventures. *Canadian Journal of Administrative Sciences*, 25(4), 335-349. <https://doi.org/10.1002/cjas.84>
- He, Z. L., & Wong, P. K. (2004). Exploration vs. exploitation: An empirical test of the ambidexterity hypothesis. *Organization Science*, 15(4), 481-495. <https://doi.org/10.1287/orsc.1040.0078>
- Henderson, R., & Cockburn, I. (1994). Measuring competence? Exploring firm effects in pharmaceutical research. *Strategic Management Journal*, 15(Suppl. 1), 63-84. <https://doi.org/10.1002/smj.4250150906>
- Hoopes, D. G., Madsen, T. L., & Walker, G. (2003). Guest editors' introduction to the special issue: Why is there a resource-based view? Toward a theory of competitive heterogeneity. *Strategic Management Journal*, 24(10), 889-902. <https://doi.org/10.1002/smj.356>
- Jansen, J. J. P., George, G., Van Den Bosch, F. A. J., & Volberda, H. W. (2008). Senior team attributes and organizational ambidexterity the moderating role of transformational leadership. *Journal of Management Studies*, 45(5), 982-1007. <https://doi.org/10.1111/j.1467-6486.2008.00775.x>

- Jansen, J. J. P., Tempelaar, M. P., Van den Bosch, F. A. J., & Volberda, H. W. (2009a). Structural differentiation and ambidexterity: The mediating role of integration mechanisms. *Organization Science*, 20(4), 797-811. <https://doi.org/10.1287/orsc.1080.0415>
- Jansen, J. J. P., Van Den Bosch, F. A. J., & Volberda, H. W. (2006). Exploratory innovation, exploitative innovation, and performance: Effects of organizational antecedents and environmental moderators. *Management Science*, 52(11), 1661-1674. <https://doi.org/10.1287/mnsc.1060.0576>
- Jansen, J. J. P., Vera, D., & Crossan, M. (2009b). Strategic leadership for exploration and exploitation: The moderating role of environmental dynamism. *Leadership Quarterly*, 20(1), 5-18. <https://doi.org/10.1016/j.leaqua.2008.11.008>
- Karrer, D., & Fleck, D. (2015). Organizing for ambidexterity: a paradox-based typology of ambidexterity-related organizational states. *Brazilian Administration Review*, 12(4), 365-383. <https://doi.org/10.1590/1807-7692bar2015150029>
- Klomp, L., & Van Leeuwen, G. (2001). Linking innovation and firm performance: A new approach. *International Journal of the Economics of Business*, 8(3), 343-364. <https://doi.org/10.1080/13571510110079612>
- Knight, E., & Cuganesan, S. (2020). Enabling organizational ambidexterity: Valuation practices and the senior-leadership team. *Human Relations*, 73(2), 190-214. <https://doi.org/10.1177/0018726718823247>
- Kollmann, T., & Stöckmann, C. (2014). Filling the entrepreneurial orientation-performance gap: The mediating effects of exploratory and exploitative innovations. *Entrepreneurship: Theory and Practice*, 38(5), 1001-1026. <https://doi.org/10.1111/j.1540-6520.2012.00530.x>
- Kristal, M. M., Huang, X., & Roth, A. V. (2010). The effect of an ambidextrous supply chain strategy on combinative competitive capabilities and business performance. *Journal of Operations Management*, 28(5), 415-429. <https://doi.org/10.1016/j.jom.2009.12.002>
- Lennerts, S., Schulze, A., & Tomczak, T. (2020). The asymmetric effects of exploitation and exploration on radical and incremental innovation performance: An uneven affair. *European Management Journal*, 38(1), 121-134. <https://doi.org/10.1016/j.emj.2019.06.002>
- Li, H. & Atuahene-Gima, K. (2001). Product innovation strategy and the performance of new technology ventures in China. *Academy of Management Journal*, 44(6), 1123-1134. <https://doi.org/10.2307/3069392>
- Lin, S., & Si, S. (2019). The influence of exploration and exploitation on born globals' speed of internationalization. *Management Decision*, 57(1), 193-210. <https://doi.org/10.1108/MD-08-2017-0735>
- Lubatkin, M. H., Simsek, Z., Ling, Y., & Veiga, J. F. (2006). Ambidexterity and performance in small-to medium-sized firms: The pivotal role of top management team behavioral integration. *Journal of Management*, 32(5), 646-672. <https://doi.org/10.1177/0149206306290712>
- Madhok, A., & Keyhani, M. (2012). Acquisitions as entrepreneurship: asymmetries, opportunities and the internationalization of multinationals from emerging economies. *Global Strategy and Emerging Economics*, 2(1), 26-40. <https://doi.org/10.1002/gsj.1023>
- March, J. G. (1991). Exploration and exploitation in organizational learning. *Organization Science*, 2(1), 71-87. <https://doi.org/10.1287/orsc.2.1.71>
- Marôco, J. (2010). *Análise de equações estruturais: fundamentos teóricos, software & aplicações*. ReportNumber.
- Marques, J. L., & Silveira-Martins, E. (2017). Presupostos do desempenho: um estudo da ambidestria, exploração e exploração em uma rede de farmácias do rs. *Gestão & Regionalidade*, 33(97), 118-136. <https://doi.org/10.13037/gr.vol33n97.3831>
- Morbey, G. K., & Reithner, R. M. (1990). How R&D affects sales growth, productivity and profitability. *Research-Technology Management*, 33(3), 11-14. <https://doi.org/10.1080/08956308.1990.11670656>

- Moura, G. B., & Floriani, D. E. (2017). A evolução da ambidestria internacional nas pequenas e médias empresas (PMES). *Revista de Administração FACES Journal*, 16(4), 102-117. <https://doi.org/10.21714/1984-6975FACES2017V16N4ART4553>
- Nelson, R. R., & Winter, S. G. (1982). *An evolutionary theory of economic change*. Belknap Press of Harvard University.
- Oehmichen, J., Heyden, M. L. M., Georgakakis, D., & Volberda, H. W. (2017). Boards of directors and organizational ambidexterity in knowledge-intensive firms. *International Journal of Human Resource Management*, 28(2), 283-306. <https://doi.org/10.1080/09585192.2016.1244904>
- O'Reilly III, C. A., & Tushman, M. L. (2008). Ambidexterity as a dynamic capability: Resolving the innovator's dilemma. *Research in Organizational Behavior*, 28, 185-206. <https://doi.org/10.1016/j.riob.2008.06.002>
- O'Reilly III, C. A., & Tushman, M. L. (2013). Organizational ambidexterity: Past, present, and future. *The Academy of Management Perspectives*, 27(4), 324-338. <https://doi.org/10.5465/amp.2013.0025>
- Papachroni, A., Heracleous, L., & Paroutis, S. (2015). Organizational ambidexterity through the lens of paradox theory: building a novel research agenda. *The Journal of Applied Behavioral Science*, 51(1), 71-93. <https://doi.org/10.1177/0021886314553101>
- Patel, P. C., Terjesen, S., & Li, D. (2012). Enhancing effects of manufacturing flexibility through operational absorptive capacity and operational ambidexterity. *Journal of Operations Management*, 30(3), 201-220. <https://doi.org/10.1016/j.jom.2011.10.004>
- Peteraf, M. A. (1993). The cornerstones of competitive advantage: a resource-based view. *Strategic Management Journal*, 14(3), 179-191.
- Peteraf, M. A., & Barney, J. B. (2003). Unraveling the resource-based tangle. *Managerial and Decision Economics*, 24(4), 309-323. <https://doi.org/10.1002/mde.1126>
- Peteraf, M. A., & Bergen, M. E. (2003). Scanning dynamic competitive landscapes: A market-based and resource-based framework. *Strategic Management Journal*, 24(10), 1027-1041. <https://doi.org/10.1002/smj.325>
- Popadiuk, S. (2015). *Exploração, exploração e ambidestria: inovação para a geração de valor*. São Paulo: Mackenzie.
- Popadiuk, S., Luz, A. R. S., & Kretschmer, C. (2018). Dynamic capabilities and ambidexterity: how are these concepts related? *Revista de Administração Contemporânea*, 22(5), 639-660. <https://doi.org/10.1590/1982-7849rac2018180135>
- Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007). Addressing moderated mediation hypotheses: theory, methods, and prescriptions. *Multivariate Behavioral Research*, 42(1), 185-227. <https://doi.org/10.1080/00273170701341316>
- Raisch, S., & Birkinshaw, J. (2008). Organizational ambidexterity: antecedents, outcomes, and moderators. *Journal of Management*, 34(3), 375-409. <https://doi.org/10.1177/0149206308316058>
- Raisch, S., Birkinshaw, J., Probst, G., & Tushman, M. L. (2009). Organizational ambidexterity: Balancing exploitation and exploration for sustained performance. *Organization Science*, 20(4), 685-695. <https://doi.org/10.1287/orsc.1090.0428>
- Rothaermel, F. T., & Alexandre, M. T. (2008). Ambidexterity in technology sourcing: the moderating role of absorptive capacity. *Organization Science*, 20(4), 759-780. <https://doi.org/10.1287/orsc.1080.0404>
- Sahi, G. K., Gupta, M. C., & Cheng, T. C. E. (2020). The effects of strategic orientation on operational ambidexterity: A study of Indian SMEs in the industry 4.0 era. *International Journal of Production Economics*, 220, 107395. <https://doi.org/10.1016/j.ijpe.2019.05.014>
- Schulze, A., Townsend, J. D., & Talay, M. B. (2022). Completing the market orientation matrix: The impact of proactive competitor orientation on innovation and firm performance. *Industrial Marketing Management*, 103, 198-214. <https://doi.org/10.1016/j.indmarman.2022.03.013>

- Severgnini, E., Galdamez, E. V. C., & Vieira, V. A. (2019). Efeitos do exploration, exploitation e ambidestria no desempenho das organizações de software. *Revista de Administração Contemporânea*, 23(1), 111-134. <https://doi.org/10.1590/1982-7849rac2019170330>
- Severgnini, E., Takahashi, A. R. W., & Abib, G. (2019). Risco e ambidestria organizacional: uma meta-síntese dos estudos de caso e proposta de um framework. *Brazilian Business Review*, 16(5), 470-499. <https://doi.org/10.15728/bbr.2019.16.5.4>
- Silvestre, J., Borges, A. F., & Paula, V. A. F. (2022). Empreendedorismo estratégico: exploration, exploitation e ambidestria em cervejarias artesanais de Uberlândia, MG. *Revista de Administração Mackenzie*, 23(1), eRAMR220091. <https://doi.org/10.1590/1678-6971/eRAMR220091>
- Simsek, Z. (2009). Organizational ambidexterity: Towards a multilevel understanding. *Journal of Management Studies*, 46(4), 597-624. <https://doi.org/10.1111/j.1467-6486.2009.00828.x>
- Tang, Q., Gu, F. F., Xie, E., & Wu, Z. (2020). Exploratory and exploitative OFDI from emerging markets: Impacts on firm performance. *International Business Review*, 29(2), 101661. <https://doi.org/10.1016/j.ibusrev.2019.101661>
- Teece, D. J. (2007). Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13), 1319-1350. <https://doi.org/10.1002/smj.640>
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-533. https://doi.org/10.1142/9789812796929_0004
- Tsai, W. (2001). Knowledge transfer in intraorganizational networks: effects of network position and absorptive capacity on business unit innovation and performance. *Academy of Management Journal*, 44(5), 996-1004. <https://doi.org/10.2307/3069443>
- Tuan, L. T. (2016). Organizational ambidexterity, entrepreneurial orientation, and i-deals: the moderating role of CSR. *Journal of Business Ethics*, 135, 145-159. <https://doi.org/10.1007/s10551-014-2476-1>
- Turner, N., Swart, J., & Maylor, H. (2013). Mechanisms for managing ambidexterity: A review and research agenda. *International Journal of Management Reviews*, 15(3), 317-332. <https://doi.org/10.1111/j.1468-2370.2012.00343.x>
- Tushman, M. L., & O'Reilly III, C. A. (1996). Ambidextrous organizations: Managing evolutionary and revolutionary change. *California Management Review*, 38(4), 8-29. <https://doi.org/10.2307/41165852>
- Vieira, P. R. C., & Ribas, J. R. (2011). *Análise Multivariada com uso do SPSS*. Ciência Moderna.
- Vogel, R., & Güttel, W. H. (2013). The dynamic capability view in strategic management: A bibliometric review. *International Journal of Management Reviews*, 15(4), 426-446. <https://doi.org/10.1111/ijmr.12000>
- Wei, Z., Yi, Y., & Guo, H. (2014). Organizational learning ambidexterity, strategic flexibility, and new product development. *Journal of Product Innovation Management*, 31(4), 832-847. <https://doi.org/10.1111/jpim.12126>
- Wernerfelt, B. (2013). Small forces and large firms: foundations of the RBV. *Strategic Management Journal*, 34(6), 635-643. <https://doi.org/10.1002/smj.2043>
- West, S. G., Aiken, L. S., & Krull, J. L. (1996). Experimental personality designs: analyzing categorical by continuous variable interactions. *Journal of Personality*, 64(1), 1-48. <https://doi.org/10.1111/j.1467-6494.1996.tb00813.x>
- Wilden, R., Gudergan, S. P., Nielsen, B. B., & Lings, I. (2013). Dynamic capabilities and performance: strategy, structure and environment. *Long Range Planning*, 46(1-2), 72-96. <https://doi.org/10.1016/j.lrp.2012.12.001>

DIMENSÕES DA AMBIDESTERIDADE E DESEMPENHO ORGANIZACIONAL DAS EMPRESAS EXPORTADORAS BRASILEIRAS

Rodrigo Marques de Almeida Guerra^{1*} & Iuri Leonan Campos Souza²

¹Universidade Federal de Santa Maria – Santa Maria (RS), Brazil.

²Universidade Federal do Pará – Belém (PA), Brazil.

DETALHES DO ARTIGO	RESUMO
<p>Histórico do artigo: Recebido em 18 de março de 2021 Aceito em 2 de agosto de 2022 Disponível online em 23 de setembro de 2022</p> <p>Sistema de revisão “Double blind review”</p> <p>Editora chefe Fernanda Cahen</p> <hr/> <p>Palavras-chave: Ambidestria organizacional Exploração Exploração Crescimento das vendas Lucratividade</p>	<p>Objetivo: Investigar o efeito da exploração, exploração, crescimento em vendas e rentabilidade de empresas exportadoras localizadas em quatro Estados brasileiros.</p> <p>Método: Os dados foram processados e analisados com base em procedimentos estatísticos multivariados e Modelagem de Equações Estruturais, com 216 empresas exportadoras localizadas em quatro Estados do Brasil, país de economia emergente.</p> <p>Principais Resultados: Os achados revelam efeito positivo e significativo das dimensões de exploração e exploração sobre o crescimento de vendas e a lucratividade na amostra de empresas investigadas.</p> <p>Relevância / Originalidade: As regiões analisadas são consideradas importantes para a economia brasileira por apresentarem características diferenciadas em posição geográfica, abundância de recursos naturais, exportação de produtos e diversidade de conhecimento humano. Por fim, foi desenvolvido um referencial teórico que abrange a teoria da <i>Resource-Based View</i> (RBV), as dimensões de exploração, exploração e desempenho organizacional.</p> <p>Contribuições Teóricas / Metodológicas: A proposição de um referencial teórico com aspectos relacionais das dimensões de ambidestria (exploração e exploração) e desempenho organizacional (crescimento de vendas e lucratividade) associados à teoria RBV pode contribuir para o aprimoramento teórico das ciências administrativas.</p> <p>Contribuições Sociais / para a Gestão: A amostra analisada mostrou que a baixa rentabilidade é mais propensa às capacidades de exploração. Por outro lado, as empresas com alta rentabilidade apresentaram maior inclinação para as capacidades de exploração. Empresas com baixo crescimento em vendas indicam maior inclinação para as capacidades de exploração, apesar da pequena diferença entre exploração e exploração para um grupo de empresas.</p>

Como citar este artigo:

Guerra R. M. A. & Souza I. L. C. (2022). Dimensions of ambidexterity and organizational performance of Brazilian exporting companies *Internext*, 17(3), 364-381. <https://doi.org/10.18568/internext.v17i3.668>

Appendix 1. Questionnaire and descriptive statistics by variables and construct.

Dimensions / assertions	Statistical results				
	Mean	SD	Alpha	AVE	CR
Exploration					
EXT1: The company accepts requirements that go beyond existing products and services.	3.29	1.30	0.86	0.59	0.87
EXT2: The company invents new products and services.	3.22	1.16			
EXT3: The company is experimenting with new products and services in the local market.	3.29	1.18			
EXT4: The company often uses new opportunities in new markets.	3.34	1.41			
EXT5: The company regularly seeks to approach new customers in new markets.	3.17	1.07			
Exploitation	Mean	SD	Alpha	AVE	CR
EXP1: The company often improves the supply of existing products and services.	3.31	1.20	0.90	0.65	0.90
EXP2: The company regularly implements minor adaptations to existing products and services.	3.25	1.09			
EXP3: The company introduces improvements, but there are products and services for the local market.	3.11	1.23			
EXP4: The company improves the efficiency of the offer of products and services.	3.09	1.20			
EXP5: The company increases economies of scale in existing markets.	3.27	1.28			
Sales Growth	Mean	SD	Alpha	AVE	CR
SALES1. The company is able to sell products with higher profit margins.	3.17	1.28	0.91	0.71	0.91
SALES2. The company is able to quickly generate sales of new products.	3.11	1.12			
SALES3. The company has the capacity to produce a high market share in relation to the territory in which it operates.	3.13	1.26			
SALES4. The company is able to exceed our sales goals and objectives.	3.15	1.35			
Profitability	Mean	SD	Alpha	AVE	CR
PROFIT1. The company has the capacity to generate profitable sales.	3.25	1.07	0.79	0.50	0.80
PROFIT2. The greater the market orientation, the greater the company's profitability.	3.19	1.19			
PROFIT3. Sales training increases the commercialization of products, consequently the company's profit.	3.17	1.25			
PROFIT4. Exporting products increases the company's profit.	3.14	1.15			

SD: standard deviation; Alpha: Cronbach's alpha; AVE: average variance extracted; CR: composite reliability.

Source: survey data (2019).