ALCANCE

ATTITUDINAL ANTECEDENTS OF DYNAMIC CAPABILITIES

ANTECEDENTES ATITUDINAIS DE CAPACIDADES DINÂMICAS

ANTECEDENTES ACTITUDINALES DE CAPACIDADES DINÁMICAS

MARCELO APARECIDO ALVARENGA
Doctor
Universidade Nove de Julho – Brazil
ORCID: 0000-0002-2012-9990
prof.marcelo.alvarenga@gmail.com

PRISCILA REZENDE DA COSTA
Doctora
Universidade Nove de Julho – Brazil
ORDIC: 0000-0002-7012-0679
priscilarc@uni9.pro.br

ROBERTO LIMA RUAS
Doctor
Universidade Nove de Julho – Brazil
ORCID: 0000-0002-2901-6378
roberuas@gmail.com

Submitted on: 11/04/2020
Accepted on: 11/08/2021

Doi: 10.14210/alcance.v29n1(jan/abr).p105-121

ABSTRACT

Objective: The main objective of this article is to identify the attitudinal antecedents of dynamic capacities. For this, the method of grounded theory was used.
Design/methodology/approach: The data collection strategies used were oral history interviews of thematic life, and in-depth interviews. The method of constant comparisons and the processes of open, axial, and selective coding were also used.
Results: Based on the substantive theory that emerged from the research field, it was concluded that individual capacities underpin the intrapreneurial attitudes of managers of innovation projects. These capacities are associated with the organizational capacities of perception (self-knowledge, autonomy, emotional evaluation, detail, and initiative), apprehension (positive perspective, abstraction, critical analysis, emotional control, creativity, satisfaction with learning, and strategic vision), and reconfiguration (argumentation, self-confidence, communication, discipline, empathy, active listening, flexibility, dealing with pressure, resistance to frustrations, and systemic vision). This aggregated analysis revealed emerging cognitive and emotional elements that differed from the routine aspects of project management, underpinning the intrapreneurial attitude of the managers participating in this study.
Originality/value: The main contribution of this study is the identification of individual capacities and collective behaviors that act as attitudinal triggers for the organizational capacities of perception, apprehension, and reconfiguration of pro-innovation resources. Potentially, this contribution can be used by innovation project managers when conducting recruitment/selection and training processes.

Keywords: Dynamic capabilities. attitudinal antecedents. individual capabilities. collective behaviors.

RESUMO

Objetivo: O objetivo geral foi identificar os antecedentes atitudinais de capacidades dinâmicas. Para tal, foi adotado o método baseado na *grounded theory*.
Design / metodologia / abordagem: Como estratégias para coleta de dados, foram realizadas entrevistas de história oral de vida temática e entrevistas em profundidade. Foram adotados o método das comparações constantes e os processos de codificação aberta, axial e seletiva.
Resultados: Foi possível concluir, a partir da teoria substantiva que emergiu do campo de pesquisa, que as capacidades individuais fundamentaram a atitude intraempreendedora dos gestores de projetos de inovação. Essas capacidades individuais se associaram às capacidades organizacionais de percepção (autoconhecimento, autonomia, avaliação emocional, detalhismo e iniciativa), de apreensão (perspectiva positiva, abstração, análise crítica, controle emocional, criatividade, satisfação com aprendizagem e visão estratégica) e de reconfiguração (argumentação, autoconfiança, comunicação, disciplina, empatia, escuta ativa, flexibilidade, lidar com pressão, resistência a frustrações e visão sistêmica). Esta análise agregada revelou elementos cognitivos e emocionais emergentes, que romperam com os aspectos rotineiros do gerenciamento de projetos, consubstanciando a atitude intraempreendedora dos gestores participantes deste estudo.
Originalidade / valor: A principal contribuição do estudo foia identificação de capacidades individuais e de comportamentos coletivos que funcionam como gatilhos atitudinais das capacidades organizacionais de percepção, apreensão e reconfiguração de recursos pró-inovação. Potencialmente, essa contribuição pode ser usada para a condução de processos de recrutamento/seleção e capacitação de gestores de projetos de inovação.

Palavras-Chave: Capacidades dinâmicas. antecedentes atitudinais. capacidades individuais. comportamentos coletivos.

RESUMEN

Objetivo: El objetivo general fue identificar los antecedentes actitudinales de las capacidades dinámicas. Para esto se adoptó el método basado en la teoría fundamentada.
Diseño / metodología / enfoque: Se realizaron histórias orales de entrevistas de vida temáticas y entrevistas en profundidad. Se adoptó el método de comparaciones constantes y los procesos de codificación abierta, axial y selectiva.
Resultados: De la teoría sustantiva surgida en el campo de la investigación se pudo concluir que las capacidades individuales sustentaban la actitud intraemprendedora de los gestores de proyectos de innovación. Capacidades individuales se asocian a las capacidades organizacionales de percepción (autoconocimiento, autonomía, evaluación emocional, detalle e iniciativa), aprehensión (perspectiva positiva, abstracción, análisis crítico, control emocional, creatividad, satisfacción con el aprendizaje y visión estcratégica) y r econfiguración (argumentación, autoconfianza,

comunicación, disciplina, empatía, escucha activa, flexibilidad, manejo de la presión, resistencia a las frustraciones y visión sistémica). Análisis agregado reveló elementos cognitivos y emocionales emergentes, que rompían con los aspectos rutinarios de la gestión de proyectos, lo que corrobora la actitud intraemprendedora de los gerentes que participan en este estudio.
Originalidad / valor: La principal contribución de este estudio fue la identificación de capacidades individuales y comportamientos colectivos que actúan como desencadenantes actitudinales para las capacidades organizacionales de percepción, aprehensión y reconfiguración de recursos pro-innovación. Potencialmente, esta contribución se puede utilizar para llevar a cabo procesos de reclutamiento / selección y capacitación para gerentes de proyectos de innovación.

PALABRAS CLAVE: Capacidades dinámicas. antecedentes actitudinales. capacidades individuales. comportamientos colectivos.

1 INTRODUCTION

Faced with competitive scenarios, permeated by changes and instabilities, associations have often been challenged to innovate (Einsenhardt & Martin, 2000; Nobre, Tobias, & Walker, 2011). To meet these challenges, associations have also been driven to readjust their capacities and resources to respond to the transformations in the markets in which they operate (Teece, 2007; Hitt, Ireland, & Hoskisson, 2007; Pavlou & Sawy, 2011).

Teece, Pisano, and Shuen (1997) referred to a readjustment that relies mainly on the configuration and reconfiguration of organizational competencies arising from resources that are dynamic. Capabilities that possibly favor the achievement of organizational competitive advantages have been the object of studies focusing, above all, on the possible institutional and behavioral aspects favorable to their development (Teece & Pisano, 1994; Wilden, Gudergan, Nielsen, & Lings, 2013; Wilden, Devinney, & Dowling, 2016).

Organizational routines and processes form dynamic resources. Teece (2007) named these resources micro-foundations; they allow associations to develop as resources for both perception and apprehension, as well as the reconfiguration of resources to respond to the market. By contributing to the generation of innovative practices (firm level) and attitudes (individual level), these routines and processes provide opportunities to achieve distinct competitive advantages in the markets in which they operate (Bock, Opsahl, George, & Gann, 2012; Meirelles & Camargo, 2014; Dobelin, 2015; Salvato & Vassolo, 2018; Mudalige, Ismail, & Malek, 2019).

Organizational routines and processes that form dynamic resources are sometimes linked to the cognitive (Adner & Helfat, 2003; Helfat & Peteraf, 2015; Wilden et al., 2016), emotional, and intuitive resources (Hodgkinson & Healey, 2011) of the firm's managers. In association with behavioral elements, they are individual resources that guide the attitudes or reaction patterns of these managers (Alvarenga & Costa, 2019; Wójcik & Ciszewska-Mlinarič, 2020) when faced with decision-making situations that demand perishing, apprehension, or reconfiguration of resources to respond to the market (Bock, Furtado, & Teixeira, 2002; Aragón & Sharma, 2003; Pavlou & Sawy, 2011; Gavetti, 2012).

Organizations depend on a culture that favors the carrying out of pro-innovation routines and processes and, consequently, their managers' attitudes towards the development of dynamic capabilities. Herrmann, Sangalli, and Teece (2017) and Wilden et al. (2016) highlighted, as a theoretical gap, the association between the attitudes and behaviors of managers and the development of dynamic capabilities. This gap is substantiated by the fact that most studies on dynamic capabilities emphasize the firm level, and do not explore the individual level (Einsenhardt & Martin, 2000; Aragón & Sharma, 2003; Teece, 2007; Pavlou & Sawy, 2011; Bock et al., 2012; Wilden et al., 2016; Salvato & Vassolo, 2018; Mudalige, Ismail, & Malek, 2019).

In this work, we emphasize the theoretical and empirical gap in field research, in an emerging country, on the attitudes and behaviors of managers of innovation projects and the development of dynamic capabilities. We identify, in recent articles, proposals for future studies to address: the sources of dynamism of dynamic capabilities at the individual level (Salvato & Vassolo, 2018); the micro-foundations of dynamic capabilities based on the CEO's personality (Bendig et al, 2018); entrepreneurial initiatives as a micro-foundation of dynamic capabilities (Mahringer & Renzl, 2018); the role of the individual level in the dynamic capabilities of the firm level (Mudalige, Ismail, & Malek, 2019); and cognitive and behavioral factors from the perspective of dynamic capabilities (Wójcik & Ciszewska-Mlinarič, 2020).

The general objective of this study is to identify the attitudinal antecedents to dynamic capabilities, based on the proposition that when acting in organizational contexts favorable to the perception, apprehension, or reconfiguration of resources, managers of innovation projects constitute key elements in the antecedent attitudinal dynamic capabilities.

This is an unusual research proposal, performed in an emerging country, Brazil. Its main theoretical contribution is the identification of individual capacities and collective behaviors that function as attitudinal antecedents of the organizational capacities of perception, apprehension, or reconfiguration of pro-innovation resources. In the field of managerial practices, this research observes that the identification of attitudinal antecedents capable of playing an important role in the construction of dynamic capabilities would undoubtedly be relevant elements in the selection, training, and development processes of innovation project managers.

2 DYNAMIC CAPABILITIES

As a theoretical support premise for the study, it is important to emphasize the understanding of Bock et al. (2002) that attitude is the tendency or pattern of reaction that an individual adopts when faced with specific situations. As substantiated by the authors, attitude is a predisposition to react, involving thoughts (cognitive elements) and emotions (emotional elements), which are mobilized when this individual is faced with different situations, and which are linked to specific ways of acting (behavioral elements). These thoughts and emotions are understood, in this study, as capabilities that enable managers of innovation projects to configure specific actions (behaviors), resulting in attitudinal antecedents of dynamic capabilities.

Starting from the need to integrate organizational strategies and management practices of companies to new scenarios, in order to increase performance standards and different forms of competitive advantage, Teece et al. (1997) proposed the development of the dynamic capabilities approach. Capabilities that are substantiated through processes and routines linked to organizational capabilities of perception, apprehension, and reconfiguration of resources (Teece, 2007) are identified by Meirelles and Camargo (2014) as responsible for the reconfiguration of key capabilities in organizations.

The ability to perceive is configured through processes and routines that enable the organization to map information related to scientific and technological developments, market innovations, and the needs of its current and potential customers. The ability to capture this information allows for the development of new solutions for these customers, adjustments to the organization's business model, the establishment of partnerships with other organizations, greater commitment of work teams to innovation, and the creation of protocols for decision-making. Integrated with these capabilities, the processes and routines linked to the reconfiguration capability enable the realignment of tangible and intangible assets, depending on decentralized decision-making processes, on business units integrated among themselves, and on the management of co-specializations between complementary assets (Teece, 2007).

This work discusses, in an integrated way, the influence of individual capabilities on each of the organizational capabilities underlined by Teece (2007). This relevance is largely due to the importance of managerial performance, at both strategic and tactical-operational levels, for the development of these organizational capabilities (Adner & Helfat, 2003). This performance is the result of the cognitive (Nobre et al., 2011), emotional, and intuitive (Hodgkinson & Healey, 2011) capacities of the managers involved (Alvarenga & Costa, 2019; Wójcik & Ciszewska-Mlinarič, 2020).

An organization's perception capacity (Teece, 2007) is a capacity that is closely linked to the cognitive abilities of perception and attention, structured from the experiences of these managers and the beliefs and knowledge resulting from such experiences. Just as this capacity for perception is responsible for the way these individuals interpret data, recognize patterns between new and old data, and outline new business opportunities for organizations, it is this capacity for attention that also allows these individuals to maintain their specific focus on the stimuli that were interpreted and assessed as relevant to organizations (Helfat & Peteraf, 2015).

On the other hand, emotional capacities can interfere with the cognitive capacities of perception and attention, as individuals may experience certain emotional discomforts when faced with the unknown. These discomforts, when minimized through psychological means, can lead to a disconnect with new and relevant information for the organization. A similar interference that can also occur through the implicit knowledge arising from the intuitive capacity of these same individuals (Hodgkinson & Healey, 2011 Mahringer & Renzl, 2018; Alvarenga & Costa, 2019).

Regarding the ability to capture new market information (Teece, 2007), we have an organizational capacity that is linked to managers' ability to reason and to exert a more fluid intelligence. This enables them to resolve complex problems that often culminate in a review of the organization's business models. Solving these problems involves more than merely applying the responses previously adopted in other situations (Helfat & Peteraf, 2015).

Similarly, this same apprehension capacity (Teece, 2007) involves the generation of images related to new business opportunities. In addition to cognitive abilities, image generation involves the abilities of these managers to experience positive emotions about favorable and negative future scenarios that can overcome the inadequacy of the organizational strategies adopted so far. Thus, cognitive and emotional capacities enable these individuals to commit to new organizational strategies (Hodgkinson & Healey, 2011; Alvarenga & Costa, 2019; Wójcik & Ciszewska-Mlinarič, 2020).

Concerning the ability to reconfigure resources and skills (Teece, 2007), the cognitive abilities of managers, especially those associated with communication processes, are essential to promote adherence to new initiatives, align ways of thinking and acting in different areas of the organization, transfer knowledge, and drive innovation processes. Such processes require social cognitive skills that enable managers to understand other members of the organization, establish trusting relationships, and overcome any resistance to change (Helfat & Peteraf, 2015; Salvato & Vassolo, 2018; Mudalige, Ismail, & Malek, 2019).

From another perspective, the ability to reconfigure is sometimes associated with the organization's need to transform its identity and modify its view of itself in order to keep up with changes taking place in the markets. Accomplishing this organizational transformation often requires that individuals and groups go through processes of transformation of their own identities, processes that involve both cognitive and emotional elements (Hodgkinson & Healey, 2011).

When mobilized, these cognitive and emotional elements predispose managers to act in a specific way, which allows us to infer that such elements, understood as generators of individual capabilities, in association with behavioral elements, shape the attitudes of these managers (Bock et al., 2002; Alvarenga & Costa, 2019; Wójcik & Ciszewska-Mlinarič, 2020). This movement occurs in situations that require the conduct of processes and routines in association with dynamic organizational capabilities (Teece, 2007). Herrman, Sangali, and Teece (2017) identify attitudes of perception, apprehension, and reconfiguration as promoters of dynamic capabilities in organizational environments that value and encourage innovation.

3 RESEARCH METHODS AND TECHNIQUES

Based on an interpretive paradigm of a qualitative nature, this study adopted an exploratory methodological approach, to investigate elements associated with a phenomenon about which knowledge is poorly systematized (Vergara, 1990). This approach is in line with the adopted method, grounded theory, which presupposes the emergence of substantive theories of the phenomenon investigated from the research field (Bandeira-de-Mello & Cunha, 2006).

Considering the grounded theory method, we adopted circular movements between the data collection and analysis phases (Corbin & Strauss, 1990; Bandeira-de-Mello & Cunha, 2006). For this purpose, to seek and codify historical evidence (Meihy & Ribeiro, 2011), we conducted oral history interviews of thematic life, as well as in-depth interviews, to obtain and codify evidence of current performance (Mattos, 2006) with eighteen managers of innovation projects, characterized in Table 1. These subjects were considered loci of attitudinal antecedents of dynamic capabilities, given the need to identify their attitudes towards the routines and processes of perception, apprehension, and reconfiguration of resources for the Marketplace.

Meihy and Ribeiro (2011) consider oral life stories to be a technique that aims to investigate and understand a specific theme based on personal stories that, in this study, are associated with the construction of a protean career by project managers who work in innovative companies.

Table 1.
Study subjects

Profiles of the Study Subjects							
Interviewee (code)	**Current Position**	**Age**	**Experience in Project Management**	**Educational Background**	**Interviews TOHI* e IN-DI** (minutes)**	**TOHI (pages - total)**	**IN-DI (pages - total)**
E1	PMO	53	25	Professional Master's in Project Management	240	35	46
E2	Technology Manager	31	4	MBA in Project Management (Specialization)	78	13	14
E3	Project Manager	31	7	MBA in Project Management (Specialization)	71	10	10
E4	Marketing, Strategy and Project Management Director	57	8	Professional Master's in Project Management	69	11	13
E5	Controller in South America	51	20	Master's Degree in Accounting	100	10	18
E6	Global Infrastructure Support Manager	43	10	Bachelor of Computer Science	51	7	10
E7	Director's Assistant	42	10	Doctorate in Administration	91	13	16
E8	Senior Manager	48	21	MBA in Strategic Planning for e-Business Implementation (Specialization)	81	21	15
E9	Innovation Manager	38	15	MBA in Business Management (Specialization)	40	6	9
E10	PMO	30	9	MBA in Project Management (Specialization)	69	13	11
E11	Senior Systems Analyst	51	22	Doctorate in Administration	80	22	25
E12	Commercial Manager	33	12	Bachelor of Information Systems	75	16	14
E13	Digital Solutions Project Manager	41	6	Specialization in Project Management	80	21	20
E14	Senior Manager	41	14	Specialization in Project Management	63	16	17
E15	Business Director	35	13	Bachelor of Computer Science	77	18	11
E16	General Director	40	12	Master's in Administration with a focus on IT	70	17	25
E17	Owner-Partner	39	10	Master's in Administration - Project Management	97	38	19
E18	Systems Manager	41	5	Doctorate in Administration	78	14	15
MEAN		41.4	12.4	TOTAL	1510	301	308

Source: research data.
Notes: TOHI* (thematic oral history interview) and IN-DI** (in-depth interview).

From Table 1, we identified that the social subjects of the research were, on average, 41 years old, with twelve years of professional experience in project management and educational backgrounds that ranged from bachelor's to doctorate degrees.

The choice of eighteen innovation project managers as the unit of analysis for this study, whose organizational contexts of action are described in Figure 1, was based on the responsibilities of these professionals in the following areas: (a) keeping up with changes in the market (Kerzner, 2011), (b) collecting and processing market information (Sabbag, 2013), and (c) allocating organizational resources (Carvalho and Rabechini, 2011) to the specific development of innovation projects. These responsibilities are in line with the organizational capabilities of perception, apprehension, and reconfiguration presented by Teece (2007).

Table 2.
Data from companies where innovation project managers worked.

Company Profiles							
Company (code)	Sector	Industry	Profit-making	Type	Unit	Number of employees	Size
EMP1	Industry and Services	Building Automation, Industrial Refrigeration, and Transport Systems	Yes	M	São Paulo	1300 (Brazil) 120,000 (World)	L
EMP2	Services	Information systems	Yes	N	São Paulo	52	M
EMP3	Services	Startup - Financial Sector	Yes	N	São Paulo	100	M
EMP4	Industry and Services	Telecommunications	Yes	M	Sorocaba	1300 (Brazil) 120,000 (World)	L
EMP5	Industry	Building Automation, Industrial Refrigeration, and Transport Systems	Yes	M	São Caetano do Sul	5500 (Brazil) 80,000 (World)	G
EMP6	Industry	Food Products (humans and animals)	Yes	M	Guararema	80,000 (World) 3000 (Brazil)	G
EMP7	Services	Scientific and Cultural Association	No	N	São Paulo	17	S
EMP8	Services	Consulting (Audit, Taxes, and Transactions)	Yes	M	São Paulo	5000 (Brazil) 100,000 (World)	
EMP9	Services	Process Outsourcing	Yes	N	São Paulo	55,000	L
EMP10	Services	Financial	Yes	N	São Paulo	1000	L
EMP11	Services	Financial	Yes	M	São Paulo	4000 (Brazil) 200,000 (World)	L
EMP12	Services	Software	Yes	N	São Paulo	3000	L
EMP13	Services	Telecommunications	Yes	M	São Paulo	40,000 (Brazil	L
EMP14	Services	Information Technology	Yes	M	Campinas	2050 (Brazil) 2300 (World)	L
EMP15	Services	Information Technology	Yes	M	Princeton (USA)	2500 (World)	L
EMP16	Services	Solutions Consulting (Processes, Systems, and People)	Yes	M	Alphaville	39	S
EMP17	Comercial	Natural rock	Yes	N	Guarulhos	12	S
EMP18	Services	(Retail)	Yes	M	São Paulo	76,000	L

Note. Size: S – small; M – medium; L: large. Type: M – multinational; N – national.
Source: research data.

Reviewing Table 2, it was possible to outline the following aggregated profile of the companies for which the innovation project managers worked: of the 16 companies, 11 are multinational, 15 are profit-making, 11 are large, two are medium sized, and three are small (Brazilian Institute of Geography and Statistics, 2012). In Table 2, the codes EMP1 and EMP4, as well as EMP14 and EMP15, refer to the same companies.

After conducting two interviews with each of the innovation project managers characterized in Table 1, the data substantiated 36 primary documents, 18 from the oral history interviews of thematic life and 18 from the in-depth interviews, totaling 1510 minutes of interviews and 609 transcribed pages. As a strategy for analyzing and coding these data, we implemented the method of constant comparisons, involving theoretical and incident-incident comparisons (Bandeira-de-Mello, 2002).

Based on the understanding that the coding process comprises the interpretation of data and aims to identify concepts, as well as their respective properties and dimensions (Mendonça, Remonato, Maciel, & Balbinot, 2013), we then moved on to the open, axial and selective dyr[d for data encoding (Corbin & Strauss, 1990; Böhm, 2004; Bandeira-de-Mello & Cunha, 2006). The category "Attitudinal Antecedents of Dynamic Capabilities" emerged from the field (421 citations) as the substantive theory, with the components: (a) individual capabilities and (b) collective behaviors, as described in Table 3.

We identified theoretical saturation as the point at which the incremental improvement of the theory was shown to be minimal, i.e., when the collection of additional data did not provide any further foundation for theorizing. This theoretical saturation point was confirmed in the validation of the results.

Table 3.
Category of analysis and degree of substantiation of its respective components

Category of analysis	Components (codes)	Degree of reasoning (Number of quotes)
Attitudinal Antecedents of Dynamic Capabilities	Individual Capacities	251
	Collective Behaviors*	170
Aggregated rationale from empirical data		421

Source: research data. Note: *Component (code) that emerged from the field.

4 ANALYSIS AND DISCUSSION OF THE RESULTS

Based on the definition of attitudinal antecedents of dynamic capabilities already presented in the theoretical framework, which places an emphasis on individuals (innovation project managers), the data revealed the existence of individual capabilities and behaviors that involve collective actions, determined by Robbins (2005) as determinants for the performance of organizations, behaviors linked to social subjects. However, these elements are not restricted to these individuals.

4.1 Individual Capacities

Following an integrative analysis of the data, we found that the social subjects interviewed displayed an intrapreneurial attitude when managing the valuable resources present in innovation projects, because they had historically and recursively developed individual capacities: (a) perception: self-knowledge, autonomy, emotional assessment, detail, and initiative; (b) apprehension: positive perspective, abstraction, critical analysis, emotional control, creativity, satisfaction with learning, and strategic vision; and (c) reconfiguration: argumentation, self-confidence, communication, discipline, empathy, active listening, flexibility, dealing with pressure, resistance to frustration, and systemic vision (Figures 1, 2 and 3).

These individual capacities (perception, apprehension, and reconfiguration) evidenced the intrapreneurial attitudes of the innovation project managers as being the most relevant to the development of dynamic capacities (Figures 2, 3, and 4). This aggregated analysis revealed emerging cognitive and emotional elements, which differed from the routine aspects of project management, substantiating the intrapreneurial attitudes of the managers, as postulated by Antoncic and Hisrich (2003).

Considering individual perception capacities as those associated with personal beliefs and expectations that enable the individual to interpret and compare data to identify opportunities for new businesses (Helfat & Peteraf, 2015; Mahringer & Renzl, 2018; Alvarenga & Costa, 2019), it was found that the subjects of this study demonstrated the individual perception capacities described and evidenced in Figure 1.

Individual Perception Capabilities		
Capacity	**Quote**	**Description**
Self-knowledge	Then I said to someone I know it's crucial: "I want to hear...". I want to hear from my friends, but I want to hear who's going to criticize me, so that I know. E11	Capacity that allows the individual to recognize their thought patterns, patterns that constitute filters for their perception.
Autonomy	In the beginning, I asked for support and the guy wouldn't give it to me. I did it kind of without support and without telling everything. And when he saw it, it was ready, giving good results. E8	Capacity that gives the individual greater independence and willingness to explore information.
Emotional Evaluation	I say to you: "it will cost 100,000.". When I tell you 100,000, I know something will happen. You will make a face of either disapproval or relief. E1	Capacity that allows the individual to assess other peoples' emotional states, enabling more accurate perception.
Detailing	So, like this, I love the detail, how do you import that spreadsheet to get to the base? It was this passion for minutiae got me there. E2	Capacity that allows the individual to focus on details, enabling a more accurate perception.
Initiative	I like to follow technological moves. People like to lean on the axis. I don't want to stay at the axis, I want to go to the edges, I'm very supportive of the technological movement. E12	Capacity that gives the individual a greater willingness to explore information on their own.

Figure 1. Individual Perception Capabilities.
Source: research data

The analysis of such individual perceptual capabilities (Figure 1) enables us to verify that the focus on relevant stimuli for the organization, highlighted by Helfat and Peteraf (2015), involves attention to objective market data, such as technological movements (interviewee E12). The focus on stimuli also involves data on the subjectivity of people in this market (interviewees E11 and E1).

Figure 2 describes the individual apprehension capacities identified among the social subjects of this study. We observed that individual apprehension capacities are supported by more elaborate forms of reasoning, such as those associated with problem solving (Helfat & Peteraf, 2015), creating images, expressing emotions, and identifying new business opportunities (Hodgkinson & Healey, 2011; Alvarenga & Costa, 2019; Wójcik & Ciszewska-Mlinarič, 2020).

Individual Apprehension Capabilities		
Capacity	**Quote**	**Description**
Positive Perspective	In every situation, good or bad, you learn. So, from there you will go up a level and experience another challenge. It's this content that moves you forward. E11	Capacity that enables the individual to be more willing to assess scenarios and identify opportunities.
Abstraction	When someone tells me about an idea, I try to imagine it being executed, not in the planning stage. E12	Capacity that favors the creation of images and the processing of information.
Critical Analysis	I have to analyze it qualitatively because this will bring more support to improve the project and think about future projects. E7	Capacity associated with the development of more elaborate reasoning.
Emotional Control	Often the manager must be the iceman. Sometimes he has to get involved. Sometimes he has to stay out of it. Sometimes he must let the argument boil over with his group there. E1	Capacity to "manage" one's own emotions, favoring the expression of their own and others' emotions, in order to include emotional and cognitive elements in information processing.
Creativity	Thinking differently, thinking outside the box. Learning and thinking differently will make you more open-minded; it will help you to think differently, and solve different problems. E15	Capacity that enables the individual to assess new possibilities and opportunities from different perspectives.
Satisfaction with Learning	Sometimes I went to meetings more to listen than to take part; to understand what the client was talking about. [...] So I thought the experience was a very interesting learning experience. E15	Capacity involving a greater availability to understand and process information.
Strategic Vision	The project manager is no longer someone who works only in hard project management activities. He/She has to be linked to the strategic issue of the process. E1	Capacity that enables the identification of strategic alternatives to enable ideas and projects arising from information processing.

Figure 2. Individual apprehension capabilities.
Source: research data

Figure 2 shows the individual apprehension capacities, which demonstrate the presence of cognitive and emotional elements in information processing. According to Hodgkinson and Healey (2011), these elements are important for generating individual commitments to new organizational proposals.

The individual reconfiguration capacities described and evidenced by the social subjects, presented in Figure 3, were discussed based on the understanding that these capacities are based on communication processes and provide adherence to new proposals for innovation, alignment between forms of thinking, establishing trusting relationships, transferring information, and accepting change (Helfat & Peteraf, 2015; Salvato & Vassolo, 2018; Mudalige, Ismail, & Malek, 2019).

Individual Reconfiguration Capabilities		
Capability	**Quote**	**Description**
Argumentation	You must convince people to do it, even when they don't really want to. E11	Capacity to debate, enabling ways of thinking to be aligned.
Self-confidence	I'm not actually an engineer, but I've specialized so much in my field that you can bring any engineer and we'll talk to each other on an equal footing. E1	Capacity to establish relationships of trust, based on self-confidence.
Communication	I had to be the opinion promoter, transformer, a kind of tireless guy in the sense of influencing, discussing, and showing results. E8	Capacity to express oneself, enabling others to adhere to new proposals for innovation, and ways of thinking to be aligned.
Discipline	The scenario is very fickle and requires discipline to be the most effective during the execution of the entire project. The level of concentration rises to reach a goal in an innovative project. E8	Capacity to stick to what was established.
Empathy	Listen to your team, know how to differentiate the profiles of each one, know how to talk a lot with your directors, with your business area. Understand the user's need. E2	Capacity to understand the other, enabling ways of thinking to be aligned.
Active listening	The manager has to know how to be the communicator, who observes; who listens and only then speaks. E10	Capacity to be attentive to the other, enabling ways of thinking to be aligned.
Flexibility	Well, if you're too strict in your methodology, in your discipline, you won't be able to keep up with the demands of your dynamic, changing customers. E4	Capacity to accept and adapt to changes.
Dealing with pressure	This is a characteristic that I think is special for innovative projects: knowing how to deal with pressure, keeping calm and understanding that there are different ways to achieve the same result. E10	Capacity to remain calm under pressure, promoting the search for alternatives.
Resistance to frustration	It is necessary to accept frustrations because many projects, even if it is that dream project, may be projects that will be taken out of their hands or may be canceled by "n" factors. E9	Capacity to deal with disappointments, favoring the acceptance of changes.
Systemic Vision	The project manager is the only person who knows the entire project. The cross-functional team knows a part of the project but the project manager is the one who knows the whole. E4	Capacity to see the whole, favoring the search for alternatives.

Figure 3. Individual reconfiguration capabilities.
Source: research data

The analysis of individual reconfiguration capacities (Figure 3) shows that understanding of the other members of the organization (interviewees E2 and E10) is a mobilizing element for the reconfiguration of resources. According to Helfat and Peteraf (2015, this is essential for the organizational communication processes. This analysis also highlights the need for managers to be the subjects of pro-innovation transformations (interviewee E1) and of the others involved (interviewee E8) when faced with processes of change in organizations (Hodgkinson & Healey, 2011; Bendig et al, 2018).

Having identified the individual capacities of perception, apprehension, and reconfiguration explored by managers of innovation projects (Figures 1, 2, and 3), it was seen that that the managers displayed strong intrapreneurial attitudes capable of mobilizing individuals and groups from a pro-innovation perspective. These individual cognitive capacities potentially constitute organizational cognitive capacity, as the basis for the generation of new knowledge, the development of organizational systems, and dynamic capacities (Nobre et al., 2011, Salvato & Vassolo, 2018; Mudalige, Ismail, & Malek, 2019). These cognitive abilities are also associated with emotional and intuitive elements, enabling managers to act more effectively in the management of these innovation projects (Williamson, Lounsbury, & Han, 2013).

4.2 Collective Behaviors

The integrated data analysis revealed the presence of collective behaviors associated with the organizational capacities of perception, apprehension, and reconfiguration, described in Figures 5, 6, and 7. According to the interview, these behaviors recursively consolidated over time. The analysis also highlighted elements such as competitive aggressiveness, autonomy, proactivity, risk assessment, and innovativeness, revealing the presence of innovation strategies that differ from the routine aspects of organizations (Alvarenga & Costa, 2019; Wójcik & Ciszewska-Mlinarič, 2020). These elements enable intrapreneurial action with a collective dimension in organizations, as postulated by Antoncic and Hisrich (2003).

Specifically, the collective behaviors associated with the organizational capacity of perception (Figure 4) demanded strategic decisions from companies, since such behaviors were associated with the development of partnerships with other companies (interviewee E6), the hiring of specialized companies (interviewee E9b), the creation of areas specialized in innovation (interviewee E13), and new assignments for existing areas, to follow the market (interviewee E17b).

Collective Behaviors associated with Perception Capability		
Description of Behavior	**Quote**	**Perception Point**
Conducting visits to monitor customer needs.	We basically have daily schedules and visits with all our customers. It's how we manage to keep up-to-date with market demands, with what's happening. (E2)	Current customers
Participating in events linked to the market in which it operates.	They participate in these events to understand what the market is talking about and what insights they can gain. (E3)	Current and potential customers
Holding conferences for the specific market in which it operates.	At every congress we hold, we carry out a survey. That way, we are able to understand what this market expects and needs. (E7a)	Current and potential customers
Carrying out telephone calls with virtual agents.	A process, a telephone call using a virtual agent. It's this robot that makes an intelligent call. (E9a)	Current and potential customers.
Establishing partnerships with innovative companies.	The way it found it is to identify the premium companies in the market that can help along this path. So we're going to find a player. (E6)	Partner companies.
Searching and following companies that operate in different markets.	I had an insight: "look what company 'x' is doing" and the company was doing that a thing in logistics and marketing. (E17a)	Companies from different sectors
Identifying notices referring to public tenders.	This is the second process. We were invited or we discovered a public competition. (E1)	Institutions or public bodies
Monitoring announcements by professional bodies.	It starts with the professional bodies. Trade associations publicize the sectors, for example, auto parts (Sindipeças) and Anfavea automotive vehicles. (E5a)	Class associations
Monitoring data released by specialized consultants and universities.	A technology division needs to stay tuned. Gartner pointed out a need for this or such and such university indicated a need for it in a study. (E8)	Specialized Consulting
Hiring a company specializing in press relations.	The press office itself, outsourced, together with our marketing communication area. So we monitor competitors and events. (E9b)	
Monitoring the institutional environment in its regulatory dimension.	This structured legal department, despite being outsourced, monitors the legalization of this profession. (E7b)	Universities
Measuring market data.	It all starts with the marketing personnel, from the commercial area, measuring that slice of the action. (E5b)	Specialized Consulting
Assigning different people, within the same area, the responsibility for following the market.	Within the area, there are people responsible for looking at the market. We had an area committee made up of four structures. And so these four structures always brought new things. (E10)	Institutional environment
Investing in research and development.	The company invests a lot in research. It currently has twelve divisions; it invests half a percent of the company's macro revenue in each division. (E12)	Market in general

(To be continued)

(Conclusion)

Collective Behaviors associated with Perception Capability		
Description of Behavior	**Quote**	**Perception Point**
Creating a department responsible for dedicating itself to innovations and new solutions.	Yes, it looks at these new trends. It has this mission. My department is innovation and digital solutions. (E13)	Market in general
Assigning responsibility for following the market to different areas.	I had departments. So, the departments were told to look outside. (E17b)	Market in general

Figure 4. Collective behaviors associated with the ability to perceive.
Source: research data

The analysis of the behaviors in Figure 4 proved the existence of relevant sources of information for the companies' businesses, which, in this study, were named points of perception. These points of perception ranged from the market in general (respondents E5b, E10, E12, E13, and E17b) and the institutional environment (respondent E7b), to current and potential customers (respondents E2, E3, E7a, and E9a), partner companies (interviewee E6), companies from different sectors (interviewee E17a), specialized consultants (interviewee E8 and E9b), universities (interviewee E8), institutions or public bodies (interviewee E1), and trade associations (interviewee E5a).

The collective behaviors of perception, and the resulting establishment of relationships with other organizations, supported the suggestion of Herrman et al. (2017) that to face scenarios permeated by uncertainties, companies must use the establishment of relationship networks (Mahringer & Renzl, 2018; Alvarenga & Costa, 2019).

These behaviors were in line with the characterization of organizational perception capacity presented by Teece (2007), as they contributed to the provision of guidelines for actions related to research and development (evidenced by E7b). The behaviors identified contributed to the monitoring of technological evolutions (as evidenced by E8, E12, and E13), innovations developed by other companies (evidenced by E6 and E17a), the evolution of customers in the market (as evidenced by E1, E2, E3, E5a, E7a, E10, and E17b), and the actions of competitors (evidenced by E9b)

Complementing the above, the collective behaviors associated with the organizational capacity of apprehension (Figure 5) were linked to the company's strategic planning (shown by E4), the creation of departments (evidenced by E2b and E13) and technology centers (interviewees E5a and E15), the establishment of partnerships with companies that invest in innovation (interviewee E9a), and the acquisition of new companies (E5b).

Collective Behaviors associated with Apprehension Capacity		
Description of Behavior	**Quote**	**Level of Apprehension**
Holding meetings to align information.	Basically, every time you come back from a meeting like this, there is already a whole preparation of understanding, a conversation with the team and the entire company, about where we want to go, where we will have to adapt, change, evolve the product. (E2a)	Organizational
Developing systems that enable storage of and access to information.	It's like Wikipedia, it's a knowledge base. This is where we are managing to put everything that is information. (E3a)	Organizational
Holding informal conversations about identified information.	The partners talk about what they find interesting, it's all very informal, everyone is in the same environment, everyone at their table. (E3b)	Organizational
Developing strategic plans based on market information.	Over the last four or five years we have been monitoring the market more and making decisions based on structured planning. (E4)	Organizational
Conducting feasibility analyses for acquisitions of new companies that contribute with innovative actions.	So, a whole feasibility analysis has begun, to see how much this project will cost, I acquire company A, B, or C in Argentina, Paraguay, or Venezuela. The logistics have to be viable too. (E5b)	Organizational
Promoting training to disseminate information or create documents.	Here is where it's disseminated to the world. This happens through training or the documentation of a type of work. (E8)	Organizational
Participating in tests by other partner companies that invest in innovation.	The proximity to these companies also brings us a lot of innovation. A lot is being released, tested, and pre-tested. We often come in as a tester and approver of these solutions. (E9a)	Organizational

(To be continued)

(Conclusion)

Collective Behaviors associated with Apprehension Capacity		
Description of Behavior	**Quote**	**Level of Apprehension**
Creating technological centers that enable the development of prototypes to be tested.	The company created the concept of a garage, a laboratory where you have some people to help with things you might not have experience with, but it has software, hardware, 3D printer... (E15)	Organizational
Creating a department responsible for dedicating itself to innovations and new solutions.	She is looking at these new trends. She has this mission. My department is innovation and digital solutions. (E13)	Departmental
Creating a department responsible for processing information and integrating them into the company's business.	We have a specific area called Integration/Operations, where the product owners are responsible for identifying the entire value chain and opportunities. (E2b)	Departmental
Creating technological centers that enable the development of prototypes to be tested.	A project to release a new component takes 2-3 years. These are prototypes that are developed and put to test. It's a fully structured project, involving a technology center. (E5a)	Departmental
Creating subprojects for the teams involved.	All planning happens with a multidisciplinary group: engineers, finance, sales, etc. and these teams create subprojects to analyze the best decision to make that project viable. (E5c)	Team
Creating a team responsible for processing information and integrating them into the company's business.	Company 'x' notifies us in advance, and we are the first to know about it. So, we created a governance team, and this governance team discusses what is to come. (E6)	Team
Carrying out proof of concept in association with the internal tools.	From this capture, we plant a proof of concept (PoC), and, from there, we generate benchmarking with the development of our internal tools. (E9b)	Team

Figure 5. Collective behaviors associated with apprehension capacity.
Source: research data

Figure 5 shows the analysis of collective behaviors that enabled the identification of behaviors linked to the organizational capacity of perception and possibilities of adjustments to the companies' business models (interviewees E4 and E5b), as stated by Teece (2007). These behaviors were also associated with the generation of commitment (Hodgkinson & Healey, 2011), innovations (respondents E2a, E3b, E5c, and E8), identification of solutions (Helfat & Peteraf, 2015, Salvato & Vassolo, 2018; Mudalige, Ismail, & Malek, 2019), for clients (respondents E2b, E5a, E6, E9b, E13, and E15), and for developing decision-making protocols (interviewee E3a).

Finally, the collective behaviors associated with the organizational capacity for reconfiguration, presented in Figure 6, range from planning the resources needed to meet market demands to managing situations in which these resources are or are not available in the company.

Collective Behaviors associated with Reconfiguration Capability		
Description of Behavior	**Quote**	**Reconfiguration Type**
Acquiring material resources.	The project manager would meet with the purchasing manager to determine the materials needed along this timeline. (E1)	Acquisition
Creating systems for attracting human resources.	We said: let's make a curriculum registration system that the commercial staff can view. (E3a)	Acquisition
Acquiring a company that has the necessary resources.	Suddenly you have to do an acquisition of a competitor, who has all the know-how. (E5)	Acquisition
Raising financial resources.	You're dealing with raising and managing financial resources with the institution's own social image. (E7)	Acquisition
Hiring third parties to develop software.	We also have contracts with software factories. I deliver a project to a software factory; they develop it and I implement it. (E9)	Acquisition

(To be continued)

(Conclusion)

Collective Behaviors associated with Reconfiguration Capability		
Description of Behavior	**Quote**	**Reconfiguration Type**
Aligning the resources that will be allocated to the projects.	If I need to notify the other fronts of any changes that will affect them, I call everyone. We talk about the impacts of each of the changes on each front. (E2a)	Realignment
Appointing a professional to control all resources.	There's already a, let's say, semi-structured process. There is one person who controls these resources for the entire consultancy. (E3b)	Realignment
Designating an area to control all resources.	When that innovation cell reaches process maturity, we do the top down. This area is mandatory in the company today. (E12)	Realignment
Reviewing resource allocations already made from other priority projects.	Projects are strategic for the organization, so I need to deliver. Just tell me: who am I going to penalize? If delay everyone else, there will be some losses, deadline, cost, no problem, but you have to put the strategic. (E18)	Realignment
Sharing resources with other partner companies.	In a project where there is HR management, with an electronic employee attendance system, but there is outsourcing of the payroll. If it wants, I implement the payroll system, but I don't outsource it, I compose it with someone. (E16)	Sharing
Reviewing the scope (objective) of the company.	So, it was created with a reduced scope, which was the registration of discounting trade bills, and today we have opened up this scope to include the registration of financial assets. (E2b)	Acquisition Realignment Discard Sharing
Planning the reconfiguration process.	We already have this roadmap about how adaptable I will be and how soon I will serve them. (E2c)	Acquisition Realignment Discard Sharing
Conducting technical feasibility analyses.	A whole technical specification was done to determine the technical feasibility, what technological resources were needed to develop that. (E10)	Acquisition Realignment Discard Sharing

Figure 6. Collective behaviors associated with reconfiguration capability.
Source: research data

The analysis of collective behaviors associated with the organizational capacity for reconfiguration, presented in Figure 6, and linked specifically to resource planning, allowed the understanding that these behaviors involved the review of resources already allocated (interviewee E18), the feasibility analysis for acquisition of new resources (interviewee E10), and the redefinition of business models (interviewee E2b). This last item is in line with the need for the organization to transform itself to meet the dynamism of the market (Hodgkinson & Healey, 2011; Alvarenga & Costa, 2019; Wójcik & Ciszewska-Mlinarič, 2020).

In situations where these resources were available, the behaviors were associated with the control of resources, through a specific area (interviewee E12) and computerized processes (interviewee E3a). In scenarios of scarcity of resources, our research identified behaviors linked to the acquisition of human resources (interviewee E3a), materials (interviewee E1), financial resources (interviewee E7), and even companies (respondent E5), in addition to the contraction of service providers (interviewee E9) and the sharing of resources with partner companies (interviewee E16).

5 CONCLUSIONS

The analysis of the results of interviews with managers of innovative projects revealed that certain individual capacities and collective behaviors can act as attitudinal antecedents of the organizational capacities of perception, apprehension, and reconfiguration of pro-innovation resources. More specifically, based on the substantive theory that emerged from the research field, we conclude that individual capabilities were the basis for the intrapreneurial attitude of innovation project managers. These individual capacities were associated with organizational capacities of perception (self-knowledge, autonomy, emotional assessment, detail, and initiative), apprehension (positive perspective, abstraction, critical analysis, emotional control, creativity, satisfaction with learning, and strategic vision), and reconfiguration (argumentation, self-confidence, communication, discipline, empathy, active listening, flexibility, dealing with pressure, resistance to frustration, and systemic vision). This aggregated analysis revealed emerging cognitive and emotional

elements that were outside the regular, routine aspects of project management, embodying the intrapreneurial attitude of the managers participating in this study.

This substantive theory allowed for the identification of collective behaviors that revealed elements of competitive aggressiveness, risk-taking, autonomy, proactivity, and innovation. Combined, these elements demonstrate the presence of innovation strategies that broke with the routine aspects of project management, thus embodying intrapreneurial-type actions.

Like individual capacities, these collective behaviors were associated with organizational perception capacities as points of perception located in the environment outside to the organization. These included having current and potential customers, partner companies and from different sectors, institutions or public bodies, professional bodies, and specialized consultants, as well as the institutional environment and the market in general. These behaviors were also linked to apprehension capacities at the organizational, departmental, and team levels, as well as to reconfiguration capacities involving acquisitions, realignments, disposals, and sharing of resources.

As managerial contributions, these individual capacities and collective behaviors emerged as possible guides for conducting the organizational processes of recruitment, selection, training, and development of managers of innovation projects. Similarly, the identification of these capabilities and behaviors, potentially, constitutes the foundation for the restructuring of administration/management courses, to develop professional capabilities and behaviors aligned with the needs for innovation in scenarios permeated by frequent changes.

As limitations inherent to studies of a qualitative nature, and based on an interpretive paradigm, this study adopted the researcher's perception and the meanings he attributed to the field data. Likewise, this study was restricted to the perception and meanings attributed by the 18 participating social subjects in their respective organizational contexts.

We propose to develop future quantitative and inferential studies in national and international contexts to identify capacities and behaviors aligned with the specificities of the sectors of activity, the sizes of companies, and the economic and cultural contexts in which these companies are inserted.

Finally, a second strand of future studies would deepen the analysis of dynamic flows that trigger individual cognitive abilities - such as those investigated in this work, based on the original conceptions of perception, apprehension, and reconfiguration, which lead to the mobilizing of collective behaviors of the same nature, resulting in the consolidation of pro-innovation organizational capacities. This movement that articulates the individual, collective, and organizational dimensions of a "pro-innovation" dynamic capacity constitutes a representation of the operationalization of the dynamic capacity construct and its multilevel relationships and, therefore, deserves a specific study.

REFERENCE

Adner, R., & Helfat, C. E. (2003). Corporate effects and dynamic managerial capabilities. *Strategic Management Journal*, 24(10), 1011-1025.

Alvarenga, M. A., & da Costa, P. R. (2019). Gestores de projetos de inovação e trajetória de carreira sob a perspectiva proteana. *Revista de Empreendedorismo, Negócios e Inovação*, 4(1), 27-41.

Alvarenga, M. A., & da Costa, P. R. (2020). Intraempreendedorismo: Uma Proposta para Reorganização da Literatura. *Revista de Empreendedorismo, Negócios e Inovação*, 5(1), 57-80.

Antoncic, B., & Hisrich, R. D. (2003). Clarifying the intrapreneurship concept. *Journal of Small Business and Enterprise Development*, 10(1),7-24.

Aragón, C. J. A., & Sharma, S. (2003). A contingent resource-based view of proactive corporate environmental strategy. *Academy Of Management Review*, 28(1), 71-88.

Bandeira-de-Mello, R. (2002). *Uma teoria substantiva da adaptação estratégica a ambientes turbulentos e com forte influência governamental: o caso das pequenas construtoras de edificações*. Tese de doutorado, Universidade Federal de Santa Catarina, Florianópolis, SC, Brasil.

Bandeira-de-Mello, R., & Cunha, C. J. C. A. (2006). Grounded theory. In Godoi, C. K., Bandeira-de-Mello, R., & Silva, A. B. (Orgs.). *Pesquisa qualitativa em estudos organizacionais: paradigmas, estratégias e métodos*. São Paulo: Saraiva.

Bendig, D., Strese, S., Flatten, T. C., da Costa, M. E. S., & Brettel, M. (2018). On micro-foundations of dynamic capabilities: a multi-level perspective based on CEO personality and knowledge-based capital. *Long Range Planning*, 51(6), 797-814.

Bock, A. J., Opsahl, T., George, G., & Gann, D. M. (2012). The effects of culture and structure on strategic flexibility during business model innovation. *Journal of Management Studies*, 49(2), 279-305.

Bock, A. M. B., Furtado, O., & Teixeira, M. L. T. (2002). *Psicologias: uma introdução ao estudo da psicologia*. São Paulo: Saraiva.

Böhm, A. (2004). Theoretical coding: text analysis in grounded theory. In Flick, U., von Kardoff, E., & Steinke, I. (Eds.). *A companion to qualitative research*. London: Sage.

Carvalho, M. M., & Rabechini, R., Jr. (2011). *Fundamentos em gestão de projetos: construindo competências para gerenciar projetos*. São Paulo: Atlas.

Corbin, J., & Strauss, A. (1990). Grounded theory research: procedures, canons and evaluative criteria. *Zeitschrift für Soziologie*, 19(6), 418-427.

Dobelin, S. (2015). *Os efeitos da adoção de práticas de inovação gerencial sobre a flexibilidade organizacional*. Tese de doutorado, Universidade de São Paulo, Ribeirão Preto, SP, Brasil.

Gavetti, G. (2012). Perspective: Toward a behavioral theory of strategy. *Organization Science*, 23(1), 267-285.

Helfat, C. E., & Peteraf, M. A. (2015). Managerial cognitive capabilities and the microfoundations of dynamic capabilities. *Strategic Management Journal*, 36(6), 831-850.

Herrmann, J. D., Sangalli, L. C., & Teece, D. J. (2017). Dynamic capabilities: fostering an innovation-friendly environment in Brazil. *Revista de Administração de Empresas*, 57(3), 283-287.

Hitt, M. A., Ireland, R. D., & Hoskisson, R. E. (2007). *Strategic management: competitiveness and globalization: concepts.* Mason: Thomson South-Western.

Hodgkinson, G. P., & Healey, M. P. (2011). Psychological foundations of dynamic capabilities: reflexion and reflection in strategic management. *Strategic Management Journal*, 32(13), 1500-1516.

Instituto Brasileiro de Geografia e Estatística (2012). *Demografia das Empresas: 2010*, Rio de Janeiro, RJ, Gerência do Cadastro Central de Empresas. Recuperado em 20 de agosto de 2017, de http://biblioteca.ibge.gov.br/visualizacao/livros/liv61536.pdf.

Kerzner, H. (2011). *Gerenciamento de projetos: uma abordagem sistêmica para planejamento, programação e controle*. São Paulo: Blücher.

Mahringer, C. A., & Renzl, B. (2018). Entrepreneurial initiatives as a microfoundation of dynamic capabilities. *Journal of Accounting & Organizational Change*, 14(1), 61-79.

Mattos, P. L. C. L. (2006). Análise de entrevistas não estruturadas: da formalização à pragmática da linguagem. In Godoi, C. K., Bandeira-de-Mello, R., & Silva, A. B. (Orgs.). *Pesquisa qualitativa em estudos organizacionais: paradigmas, estratégias e métodos*. São Paulo: Saraiva.

Meihy, J. C. S. B., & Ribeiro, S. L. S. (2011). *Guia prático de história oral: para empresas, universidades, comunidades, famílias*. São Paulo: Contexto.

Meirelles, D. S., & Camargo, A. A. B. (2014). Capacidades dinâmicas: o que são e como identificá-las?. *Revista de Administração Contemporânea*, 18, 41-64.

Mendonça, A. T. B. B., Remonato, R. L. C., Maciel, C. O., & Balbinot, Z. (2013). Grounded theory. In Takahashi, A. R. W. (Org.). *Pesquisa qualitativa em administração: fundamentos, métodos e usos no Brasil*. São Paulo: Atlas.

Mudalige, D., Ismail, N. A., & Malek, M. A. (2019). Exploring the role of individual level and firm level dynamic capabilities in SMEs' internationalization. *Journal of international Entrepreneurship*, 17(1), 41-74.

Nobre, F. S., Tobias, A. M., & Walker, D. S. (2011). Uma visão da empresa baseada em habilidades: contextos estratégicos e contingenciais. *Revista de Administração Contemporânea*, *15*(3), 413-432.

Pavlou, P. A., & El Sawy, O. A. (2011). Understanding the elusive black box of dynamic capabilities. *Decision Sciences*, 42(1), 239-273.

Robbins, S. P. (2005). *Comportamento Organizacional* (11a ed.). São Paulo: Pearson.

Sabbag, P. Y. (2013). *Gerenciamento de projetos e empreendedorismo*. São Paulo: Saraiva.

Salvato, C., & Vassolo, R. (2018). The sources of dynamism in dynamic capabilities. *Strategic Management Journal*, 39(6), 1728-1752.

Teece, D. J. (2007). Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13), 1319-1350.

Teece, D. J., & Pisano, G. (1994). The dynamic capabilities of firms: an introduction. *Industrial and Corporate Change*, 3(3), 537-556.

Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-533.

Vergara, S. C. (1990). Tipo de pesquisa em administração. *Cadernos EBAP*, 50, 1-9.

Wilden, R., Devinney, T. M., & Dowling, G. R. (2016). The architecture of dynamic capability research identifying the building blocks of a configurational approach. *Academy of Management Annals*, 10(1), 997-1076.

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.

Williamson, J. M., Lounsbury, J. W., & Han, L. D. (2013). Key personality traits of engineers for innovation and technology development. *Journal of Engineering and Technology Management*, 30(2), 157-168.

Wójcik, P., & Ciszewska-Mlinarič, M. (2020). The impact of cognitive and behavioral factors on the export performance: a dynamic capabilities perspective. *European Business Review*, 33(3), 427-449.