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A FRAMEWORK FOR ASSESSING THE LEVEL OF INNOVATION IN ORGANIZATIONS

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ABSTRACT

The study analyzed recent scientific articles published between 2018 and 2023 and relevant involving innovation in organizational management, used in this study as primary data, which highlight innovative organizations in some content from those that are not. In view of the number of themes arising from the analysis of these scientific works, a synthesis and a proposal for a framework that collaborates in the evaluation of factors related to innovative organizations is presented. At the same time, this study indicates the paths of new studies found in the area that deepen the knowledge about the factors that contribute to the promotion of innovative organizations and their relationships.

Keywords: Innovation Evaluation. Organizational Framework. Innovation Management.

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INTRODUCTION

Innovation works as a strategic lever for progress in the dynamic and highly competitive business environment, whether through disruptive technologies or innovative business models. Organizations that do not invest in innovation run the risk of stagnation and irrelevance, as they can affect their competitiveness, growth capacity and resilience in the long term. The ability to innovate is a characteristic that is increasingly becoming a crucial requirement for survival in the ever-evolving scenario of global trade, thus becoming a prerequisite for managing your innovation.

Innovation is essential to the success of any organization in a highly competitive and constantly evolving environment. In search of competitive advantages, companies can explore different types of innovation, each with its own characteristics, advantages, and challenges. Damanpour & Wischnevsky (2006) argue that existing theories of organizational innovation based on differences between types of innovation lack empirical support; That is, regardless of any type of innovation, the *framework* for classifying innovative and non-innovative organizations does not vary. The authors emphasize the need for more rigorous and comprehensive research designs to advance the understanding of organizational innovation and its antecedents and consequences.

When analyzing an Innovation-generating organization (IGO), Damanpour (2020) evaluates that, in order to produce and commercialize innovations, it is more dependent on the management of technological knowledge than the non-innovative or adoptive organization (WAI); whose dependence is on the management of the organization to assimilate and adopt innovations.

Also for Damanpour (2020), the differences between innovative and non-innovative organizations are related to several characteristic factors, such as organizational context (size and age), innovation characteristics (radicality and source), and innovation measurement (speed and magnitude).

Some innovations of non-innovative companies in emerging economies, according to Anand *et al*. (2021), are known as imitations, because they are based on replicas and non-traditional imitation.

Carvalho et al. (2016) when comparing innovative and non-innovative companies, do not consider the types of innovation in their study relevant and assume that innovative companies have a higher level of resilience due to their ability to generate and support financial performance in a post-crisis international economic period.

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The analysis of Brazilian publicly traded companies divided into innovative and non-innovative groups, while maintaining the similarity between the economic sectors, confirms the assumption that innovation improves the performance of companies and makes them more resilient to unexpected changes in the business environment.

Organizational and environmental characteristics are considered important according to Walker (2008) for the type of innovation, and these relationships should be analyzed together with the ongoing innovative activity. Its conclusions complement the existing literature on organizational innovation, demonstrating that different models to classify innovative and non-innovative companies are important to understand the complex interrelationships that exist because the complementary relationships between types of innovation may not be as extensive as previously argued.

Lê & Schmid (2020) argue that the current approach to innovation provides a limited view of the actual process of innovating. The authors suggest that a deeper understanding is needed to explain and encourage innovation in the field of research methods. For this reason, despite the universal recognition of the importance of innovation, it remains a complex challenge to understand what distinguishes innovative organizations from non-innovative ones. The quest to classify organizations based on their innovative capacity requires more than a superficial analysis of products or services; It requires an assessment of organizational culture, leadership dynamics, resource allocation, and the broader contextual factors that shape innovation ecosystems.

In this work, in order to understand where scientific studies related to innovation are going, the problem question of the study arises: "What does the scientific literature bring about innovative organizations?", recognizing that innovation is not a rigid concept, but a multidimensional process that manifests itself in various forms and contexts, whether in a *startup* Silicon Valley giant revolutionizing interaction with technology or in a local company increasing customer satisfaction through incremental improvements. It can be seen that both have in common the presence of innovation; driven by creativity, collaboration, and the continuous search for improvements and advancements.

In this article, a framework that allows organizations to be evaluated along the spectrum of innovation dynamics *is presented as a contribution to innovation management* . Therefore, the objectives of this study were to present the directions that the studies found in the scientific literature are going in the production of knowledge about innovation, published works between 2018 and 2023, and to present a conceptual framework, a

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framework, that allows evaluating organizations along a spectrum of factors that lead them to transform.

Dodgson et al. (2014), Anthony et al. (2017) and Cooper & Sommer (2020), analyzed various aspects of innovation management and identified an insufficiency of better tools and *framework* to evaluate and improve innovation performance. This research seeks to contribute to filling this gap by integrating company characteristics, information sources, barriers to innovation, and innovation efforts into a more comprehensive analysis.

It is considered that the suggestion of this *framework* also contributes to future studies related to the theme, as it changes the market dynamics with superior and more sustainable business models; either through new products and services; in addition to contributing to the reduction of production costs or provision of services.

METHODOLOGY

The research has a qualitative approach with a rational analysis that allowed to establish the theoretical approaches on operational models of innovative organizations. After an initial bibliographic review of a narrative nature (Cavalcante & Oliveira, 2020), a literature review was carried out following the guidelines of Codina (2020) and Kraus et al. (2020), which establishes that it is an investigation in which the selected documents are used as primary data.

The aggregation and interpretation of these data represent the method of analysis used; it can be applied as a methodology in any area of the Humanities and Social Sciences, with the purpose of allowing the researcher to identify trends, evidence, and gaps in the field of research on innovation and innovative companies, through rigorous research in previous works.

The research process of the article comprises four main phases: planning, conduction, extraction and execution (Kraus et al. (2020). The following sections describe the literature search, the selection process, and the construction of a conceptual matrix based on the analysis of the selected studies shown in Figure 1.

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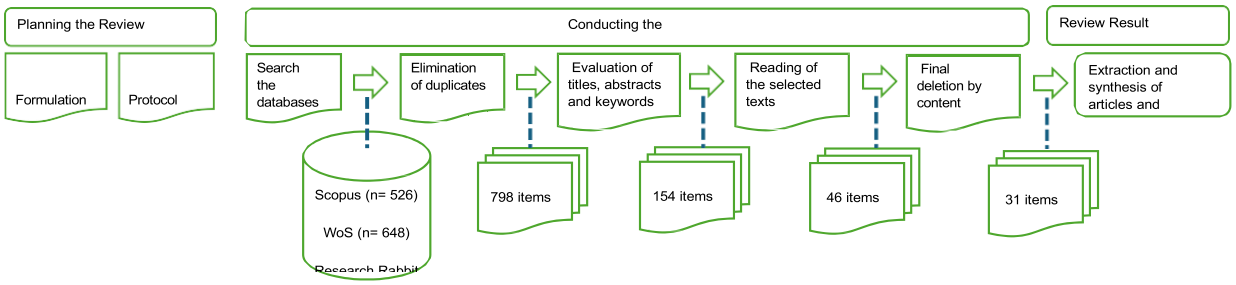
Figure 1. Overview of the database search process.



***Source*:** Authors and Adapted from Kraus et al. (2020)

Following the guidance of Kraus et al. (2020), we sought to answer the question of where studies on Innovation in the field of Management are going, and to develop a conceptual *framework* that can guide evaluations of companies in their moves to improve their innovative performance. The protocol adopted to identify and analyze the pertinent studies is detailed below.

In the selection phase, first searches were carried out in the academic libraries - Scopus, WoS and Research Rabbit AI, using different combinations of keywords, with the following search *strings* (in Portuguese and English): Table 1

Table 1. Search strings

DATABASES	RESEARCH	STRINGS	RESULT
		"Innovative Organization" AND ("experimentation" OR	Scopus - 209
	First research	"risk management" OR "engagement"); framework	WoS - 236
		AND ("resource allocation" OR "adaptability of the	Rabbit- 81
		processes" OR "stimulus to collaboration"); "Innovation	
		of processes" AND ("continuous improvement" OR	**526 items**
		"disruptive innovation" or "project agility");	
		"outcome measurement" AND ("market impact"	Scopus - 178
WoS, Scopus and Research Rabbit	Second research	OR "customer satisfaction" OR "sustainability"); "leadership and vision" AND ("visionary leadership" OR "innovation metrics" or "learning"); " external environment" AND ("regulatory scenario" OR	WoS - 225 Rabbit - 80
		"Benchmarking competitive" OR "Disruption	
		technological");	**648 items**
		"Framework in innovation" AND ("Model from	Scopus - 139
	Third survey	evaluation" OR "innovation management" OR "innovation models"	WoS - 187
		businesses") and "innovative and non-innovative companies"	Rabbit - 51
		AND ("criteria of differentiation" OR "capacities of	
		innovation" OR "areas for improvement")	**212 articles**
Total.....			**1386 items**

Source: Authors

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As shown in Figure 1, the criteria for including or excluding studies during the review were defined. Once duplicates were eliminated, the articles between 2018 and 2023 were separated.

In the specified libraries, a search for title, abstract, and keywords was performed using the aforementioned strings, which resulted in an initial set of 1386 studies (articles). An inductive focus was used to evaluate the main constructs defined by the science of innovation management in the supply chain to collect the evidence with the objective of categorizing organizations as innovative or non-innovative and unraveling the factors that drive innovation, outlining the paths of innovation management for organizational transformation.

In the selection of documents, the inclusion criteria were articles that addressed the *strings* mentioned in Table 1 and were in English and Portuguese, were "*enriched cited references*" and "*open access*". The following exclusion criteria were rejected: year of publication prior to 2018, with the result of 154 articles. In the case of authors with studies with the same approach, the most comprehensive study was chosen, i.e., the one with the most up-to-date and detailed information. Therefore, based on the complete review of the text, 31 articles were selected that were considered relevant and aligned with the proposed review and that met the inclusion/exclusion criteria.

Next, the process of developing the concept matrix is described, then the dimensions found in the selected articles are detailed, based on Bashir et al. (2020); Chutivongse et al. (2019) and Kovshova (2022) whose articles support that innovation evaluation models are composed of several dimensions whose characteristics influence an organization to become innovative.

1. Analysis of scientific articles

This section contains the analysis of the literature review according to Kraus et al. (2020), which later allowed the purposeful elaboration of a *framework* aligned with the objectives, ensuring relevance, usefulness, and alignment with innovative organizations.

a. Evaluation of the Literature Review:

Chart 9 summarizes the authors and the themes with which they were studied.

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Chart 9 - Authors associated with the topics studied

Autores	Cultura Organizacional			Estrutura Organizacional			Processos De Inovação			Medição Do Desempenho			Liderança E Visão			Ambiente Externo		
	Experimentação	Gestão de riscos	Engajamento colaboradores	Alocação recursos	Adaptabilidade dos provessos	Estímulo à colaboração	Melhoria contínua	Inovação disruptiva	Agilidade na implantação	Impacto no mercado	Nível de satisfação	Longevidade empresa	Liderança com propósito	Métricas inovação	Orientação para aprendizado	Foco impacto regulatório	Benchmarking competitivo	Disruptura tecnológica
Davies & Buisine (2018)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Hooi (2019)	X	X	X	X	X	X												
Vepo et al. (2020)	X	X	X	X	X	X												
Uyug Şegun e Tugrul (2023)	X	X	X	X	X	X												
Kanake e Kemboi (2020)	X	X	X	X														
Radhika (2022)	X	X	X	X														
Zhang et al. (2022)	X	X	X	X														
Gao et al. (2021)	X	X	X	X														
Sun et al. (2022)	X	X	X	X														
Wivoho et al. (2020)	X	X	X		X													
Kalogiannidis et al. (2022)	X	X	X		X													
Galaso e Kovářík (2018)	X	X	X	X	X	X												
Lizareli et al. (2019)	X	X	X				X			X	X	X						
Reyes Acevedo et al. (2022)	X	X	X	X	X	X	X	X										
Zanfelicce et al. (2022)	X	X	X	X	X	X	X	X	X									
Ayinaddis (2023)	X	X	X	X	X	X	X	X	X									
Garcia et al. (2022)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Farida e Setiawan (2022)	X	X	X	X	X	X	X	X	X	X								
Liu (2019)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Keiningham et al. (2018)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Distanont e Khongmalai (2018)	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X
Wijayanti et al. (2022)	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X
Mascareño et al. (2019)	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X
Suwignjo (2022)	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X
Banu (2018)	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X
Rhaiem e Amara (2019)	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X
Werlang e Rosseto (2019)	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X
Elmawazani et al (2022)	X	X	X	X	X	X	X	X	X			X	X	X		X	X	X
Timotius (2023)	X	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X
Audretsch e Belitski (2023)	X	X	X	X	X	X	X	X	X					X	X		X	X
Melo et al. (2020)	X	X	X	X	X	X	X	X	X									X
Totais	31	31	31	28	25	23	20	19	18	13	10	11	10	11	12	12	13	14
				90%	81%	74%	65%	61%	58%	42%	32%	35%	32%	35%	39%	39%	42%	45%

Source: Authors.

The theoretical contributions analyzed in the various works of researchers, unanimity is identified when addressing the dimensions related to organizational culture, reflecting on experimentation, risk management and employee engagement; Ratifying that investments in these dimensions is one of the differentials of innovative companies.

Regarding the dimensions related to an innovative structure; a large majority of authors mentioned resource allocation in their articles as important in innovative companies, only Wiwoho et al. (2020), Kalogiannidis et al. (2022) and Lizarelli et al. (2019) did not. Regarding process adaptability (82%) and encouraging collaboration (72%), Kanake & Kemboi (2020), Radhika (2022), Zhang et al. (2022) Gao et al. (2021), Sun et al. (2022), Wiwoho et al. (2020), Kalogiannidis et al. (2022), and Lizarelli et al. (2019) did not mention this dimension.

From the point of view of the methods employed, researchers conducted literature reviews (Radhika, 2022; Wiwoho et al., 2020; Garcia et al. 2022), interviews with experts (Hooi, 2019; Audretsch & Belitski, 2023; Farida & Setiawan, 2022) or a combination of both (Lizareli et al., 2019; Kalogiannidis et al., 2022), application of statistical and mathematical models (Elmawazini et al., 2022; Kanake & Kemboi, 2020; Zhang et al., 2022) and a combination with literature reviews (Gao et al., 2021; Sun et al., 2022; Ayinaddis, 2023) others, contributed with case studies (Vepo et al., 2020; Uyug Şegun & Tugrul, 2023; Mascareño et al., 2019). Four studies that design a framework were identified (e.g., Zhang et al., 2022; Lizareli et al., 2019; Zanfelicce et al., 2022, Galaso & Kovářík, 2018). A study was developed based on Business Process Modeling (BPM) (Banu (2018).

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In the dimension, performance measurement, (Rhaiem & Amara, 2021 and Mascareño et al., 2019) contributed with a focus on market impact; in the leadership and vision and external environment dimensions, the authors who contributed with their articles, (e.g., Elmawazini et al, 2022; Audretsch & Belitski, 2023; Werlang and Rosseto (2019); Timotius (2023) and Melo et al., (2021) indicated that this dimension is a central element and promotes a remarkably positive effect on organizational innovation performance. Leadership and fair distribution of resources can foster a positive, shared, and innovative climate, leading to improved organizational innovation performance. The *innovation frameworks* suggested in the literature are often structured based on a set of specific elements, such as dimensions of innovation processes consisting of continuous improvement, disruptive innovation and agility in the implementation of innovations, Reyes Acevedo et al. (2022), Zanfelicce et al. (2022), Ayinaddis (2023), Garcia et al. (2022), Farida & Setiawan (2022) and Liu (2019), are part of the 59% of authors who highlight the importance of this dimension, along with Keiningham et al. (2020), Timotius (2023) and Distanont & Khongmalai. (2018).

To arrive at the set of dimensions of the *framework*, researchers conducted literature reviews (Radhika, 2022; Wiwoho et al., 2020; Garcia et al. 2022), interviews with experts (Hooi, 2019; Audretsch & Belitski, 2023; Farida & Setiawan, 2022) or a combination of both (Lizareli et al., 2019; Kalogiannidis et al., 2022), application of statistical and mathematical models (Elmawazini et al., 2022; Kanake & Kemboi, 2020; Zhang et al., 2022) and a combination with literature reviews (Gao et al., 2021; Sun et al., 2022; Ayinaddis, 2023) others, contributed with case studies (Vepo et al., 2020; Uyug Şegun & Tugrul, 2023; Mascareño et al., 2019). We identified four studies that design a framework (e.g., Zhang et al., 2022; Lizareli et al., 2019; Zanfelicce et al., 2022, Galaso & Kovářík, 2018). A study was developed based on Business Process Modeling (BPM) (Banu (2018).

The analysis of the scientific literature between 2018 and 2023 highlighted the importance of several key factors in building a *framework* to evaluate organizations along the innovation spectrum. By adopting it, organizations can foster a culture of innovation, allocate resources strategically, adopt integrative organizational approaches, develop collaborative innovation mechanisms, improve their internal processes through agile practices, and effectively measure the results of their innovation initiatives. This can help organizations improve their competitiveness and sustainability in today's rapidly changing business environment.

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FRAMEWORK PROPOSAL

After examining the selected articles, it was possible to fit them into six macro dimensions, presented in Chart 3, namely: organizational culture, organizational structure, innovation processes, performance measurement, leadership and vision, and external environment.

Table 3. Macro dimensions of Innovation

Dimensions	Description
I. Organizational culture	A strategy of openness to experimentation, risk management in innovating and a personnel policy focused on employee engagement through its projects.
II. Organizational structure	Strategy that directs its resources to innovative projects, through flexible, decentralized and adaptive management in the allocation of resources, open communication, collaboration between multidisciplinary teams to adaptability of processes and constant experimentation and rapid adaptation to changes in the external environment as a stimulus to collaboration.
III. Innovation processes	Strategies to improve the efficiency, agility and flexibility of internal processes, through automation, process management, the adoption of digital technologies and continuous improvement.
IV. Performance measurement	Strategies that assess and track the impact of innovation initiatives on the market, including defining, monitoring, and analyzing specific performance indicators, such as new product adoption rates or services, increased customer satisfaction, improved operational efficiency, and increased market share.
V. Leadership and vision	Strategies that promote a culture of innovation and inspire employees through indicators and metrics in innovation, from visionary leadership to contribute with new ideas and solutions, oriented towards knowledge and learning.
SAW. External environment.	Strategies that aim to understand, adapt and take advantage of the opportunities and challenges of the external environment, such as analysis of trends and changes, technological disruptions, external collaboration, openness to open innovation and networking.

Source: Authors

Next, for each of the dimensions, the main contributions of the identified studies are highlighted.

I. Dimension – Organizational Culture

The Organization's willingness to experiment with new ideas, technologies, and processes, according to Hooi (2019), Vepo et al. (2020), and Uyug Şegun & Tugrul (2023), depends on cultivating a culture of freedom and openness among employees, driven by leadership, as well as collaboration between different departments and teams, diversity and inclusion, and the ability to learn from mistakes and failures. Together, these practices

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create an environment conducive to innovation, empowering employees to engage to explore new solutions and approaches.

The following is an elaboration on the structural aspects used to classify innovative organizations (Chart 4).

Table 4. Components of the Dimension - Organizational culture.

Main components	Description	Authors
Openness to experimentation	Autonomy for employees in the execution of tasks, flexible work schedules, facilitates access to the internet for research and encourages employees to contribute with their ideas.	Hooi (2019) Uyug Şegun & Tugrul (2023) Vepo et al. (2020)
Risk Adoption	Individuals are inclined to take greater risks when living in environments marked by favourable conditions, whether demonstrated through flexible managers, minimal bureaucratic obstacles or policies that promote sustained investment	Davies & Buisine (2018) Hutchison-krupat & Chao (2014) Schwartz (2004 and 2016).
Employee engagement	Behavioral, psychological, social and structural training efforts have a positive impact on the perception of the degree of innovation, and employees are encouraged and empowered to contribute with innovative solutions	Radhika (2022) Kanake & Kemboi (2020) Abdullahi et al. (2021)

Source: Authors

II. Dimension – Organizational structure

The elements of the organizational structure play an important role in the classification of innovative organizations because, according to Thomond & Lettice (2008), Zhang et al. (2022), Gao et al. (2021), Klingebiel & Rammer (2012) and Sun et al. (2022), they provide an organizational structure that supports innovation, through a team dedicated to innovation, with clear roles and responsibilities defined, and the existence of efficient communication channels that are the foundation and framework within which innovation thrives.

The following is an elaboration on the structural aspects used to classify innovative organizations (Chart 5).

Table 5. Dimension Components - Organizational structure.

Main components	Description	Authors
Resource Allocation	List of managers regarding the encouragement and rewards of innovation initiatives; disregarding the benefits of disruptive innovations, emphasizing past perceptions of success. Selective resource allocation produces better innovation performance compared to	Thomond & Lettice (2008) Zhang et al. (2022) Gao et al. (2021)

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Main components	Description	Authors
	resource-intensive allocation, with better outcomes in innovative firms.	Klingebiel & Rammer (2012) Sun et al. (2022)
Process adaptability	The flexibility of the organization's processes allows it to adjust and incorporate new ideas, technologies or innovative approaches. This flexibility is demonstrated by the company's ability through leadership effectiveness and quick and decisive communication, as well as through the cultivation of an innovation-oriented culture with constant learning.	Wiwoho et al. (2020) Kalogiannidis et al. (2022)
Stimulating Collaboration	The ability to establish partnerships and collaborations between the organization and external stakeholders to promote innovation, develops collaborative innovation mechanisms through the strategic selection of collaborating partners in innovation; in regional, national and global networks, with significant results in innovative companies.	Galaso & Kovářík (2018)

Source: Authors

III. Dimension – Innovation Processes

Innovative organizations demonstrate, according to Ni & Sun (2009), Lizarelli et al. (2019) and Reyes Acevedo et al. (2022), a systematic approach to innovation that emphasizes creativity, collaboration, experimentation, disruptions and agility to face risks throughout the innovation process, as well as the existence of a structured idea management process, the definition of clear criteria for the selection of ideas, and the existence of a process of evaluation and continuous feedback. The following is an elaboration on the structural aspects used to classify innovative organizations (Chart 6).

Table 6. Components of the dimension – Innovation processes

Main components	Description	Authors
Continuous Improvement	Building an organization that learns through continuous improvement is possible and beneficial, especially for non-innovative companies that are lagging behind in quality management. Continuous improvement programs play a fundamental role in increasing the competitiveness of innovative organizations, presenting positive and significant relationships, regardless of the specific continuous improvement program implemented. Adopting continuous improvement practices has more of an impact on innovation performance than choosing a specific improvement program such as Lean, Six Sigma, or Lean Six Sigma.	Ni & Sun (2009) Lizarelli et al. (2019)
Disruptive Innovation	Disruptive innovations arise to provide affordable solutions to needs neglected for years due to financial constraints. Organizational change is a sudden or gradual process that requires the participation and contribution of everyone involved.	Reyes Acevedo et al. (2022)

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Main components	Description	Authors
Agility in Implementation	Speed and efficiency with which innovative ideas are translated into tangible results. The hurdles and complications in agile execution of best practices is a hurdle for non-innovative companies. Product innovation has the most substantial positive impact on the performance of innovative companies, followed by process and organizational innovation.	Zanfelicce et al. (2022) Ayinaddis (2023)

Source: Authors

IV. Dimension – Performance measurement

Innovative organizations must ensure, through the evaluation of the performance of the return on investment, the time to market, and the number of patents and copyrights registered (Garcia et al. (2022), Farida & Setiawan (2022), Liu (2019), Keiningham et al. (2020)), the impact on the market of their innovative activities, as well as ensure lasting competitive advantage through service excellence. The following is an elaboration on the structural aspects used to classify innovative organizations (Chart 7).

Table 7. Dimension Components – Performance Measurement

Main components	Description	Authors
Market impact	Ability of the organization to capture market share, generate revenue, and outperform competitors through innovation. Business performance in innovation is a mediator between business strategies and competitive advantages.	Garcia et al. (2022) Farida & Setiawan (2022)
Customer satisfaction	Customer satisfaction in innovative companies has a dynamic interaction over time; This process produces a co-evolution of customer satisfaction and their innovation efforts, creating an increasing innovation cycle.	Liu (2019) Keiningham et al. (2020)
Long-Term Sustainability	The organization sustains its competitive advantage and relevance through continuous innovation in the long term. Strategic leadership improves efficiency and effectiveness, as well as exploits opportunities or neutralizes external threats.	Brem et al. (2016) Timotius (2023)

Source: Authors

V. Dimension – Leadership and Vision

According to Werlang & Rosseto (2019), there is a direct and positive relationship between a learning-oriented organization and organizational innovation. Ren and Shen (2023), Mascareño et al. (2019) and Wijayanti et al. (2022), Uhl-Bien and Arena (2018), suggest that non-innovative organizations can improve the internal aspects of their business and promote an orientation towards learning and innovation. According to the authors, this can occur through 1. the ability to communicate the vision and innovation

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strategy to the entire organization; 2. the definition of clear and measurable objectives; 3. The ability to inspire and motivate employees.

The following is an elaboration on the structural aspects used to classify innovative organizations (Chart 8).

Table 8. Components of the Dimension – Leadership and vision.

Main components	Description	Authors
Visionary Leadership:	It is the one that goes beyond traditional management and inspires a culture of creativity, experimentation and excellence in the organization; identifies emerging trends and anticipates market needs, with a compelling vision of the future and articulates a clear path to achieve it.	Mascareño et al. (2019) and Wijayanti et al., (2022) Ren and Shen (2023)
Innovation metrics:	Identifying key performance indicators (KPIs) that reflect the organization's commitment to innovation and tracking progress over time. A set of KPIs was proposed to measure innovation performance based on strategy. ~ Measuring results allows you to learn from experience and continuously improve the innovation process.	Suwignjo (2022) Banu (2018)
Learning orientation:	The organization's propensity to learn from successes and failures and adapt its innovation strategies accordingly. Learning from the innovation mistakes and setbacks of the past, known as *Learning from Innovation Failures* (LFIF), is highlighted as one of the most promising features of improving the innovation processes of innovative organizations	Rhaiem & Amara (2021) Uhl-bien and Arena (2018)

Source: Authors

VI. Dimension – Outdoor Environment

The study by Elmawazini et al. (2022) shows that human capital, government efficiency, competition policy, intellectual and industrial property protection, labor market flexibility, GDP per capita, significantly impact research and development in non-innovative industries, as well as, the analysis of market trends and opportunities, collaboration with external partners, and the ability to adapt to changes in the external environment. In developing countries, intellectual property and market rights and antitrust policy are vital for innovative activity. These policies complement each other and their effectiveness requires coordination between the different administrative services. The following is an elaboration on the structural aspects used to classify innovative organizations (Chart 9).

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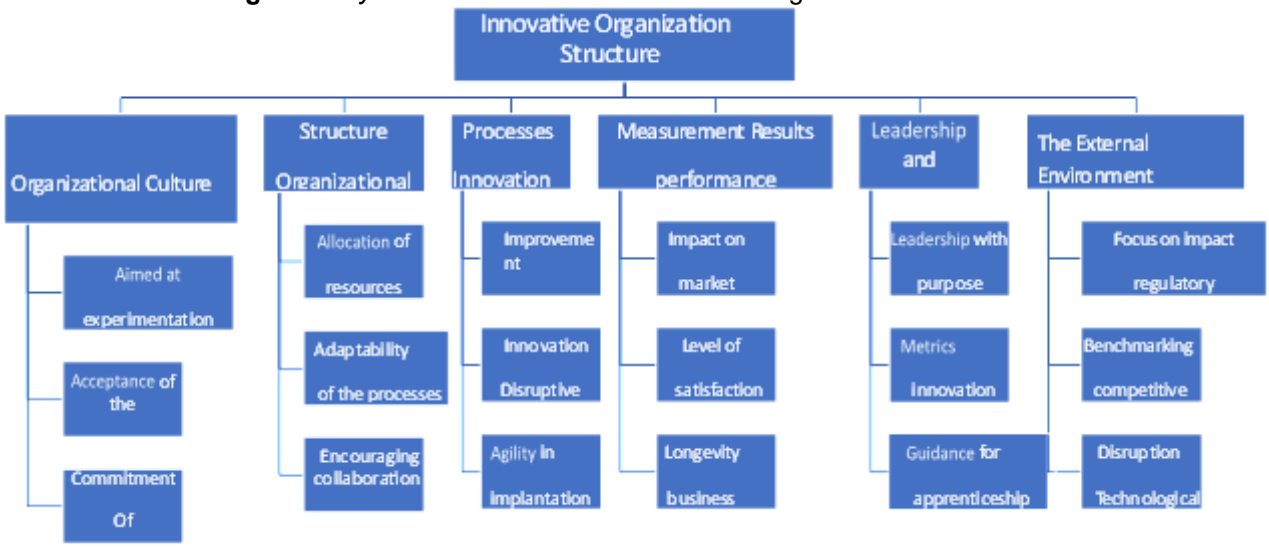
Table 9. Dimension Components – External Environment

Main components	Description	Authors
Regulatory Landscape:	Regulatory constraints and their standards can affect an organization's ability to innovate. These regulatory frameworks are significant factors that influence the activities and conditions established for companies, industries, and entire economies	Blind (2012); Elmawazini et al (2022)
Competitive benchmarking	Innovative companies can benefit from innovation practices with other industries and collaboration with geographically close partners. Collaboration with customers at a distance may limit innovative companies to the development of products adapted to the demands of the local market, restricting their applicability and demand in other markets and not characterizing a "new innovation".	Audretsch & Belitski (2023),
Technological disruption:	Innovative companies that intend to expand the capacity to generate more radical innovations should adopt strategies such as allocating dedicated employees, seeking external resources, and starting to build an innovation portfolio by engaging in projects that align with the business to gain visibility from top management.	Melo et al. (2021),

Source: Authors

In light of the analyses carried out, the proposed framework is presented that allows stakeholders, including investors, customers and policymakers, to make informed decisions about how to support and engage with innovative organizations.

Figure 2. *Dynamic Framework* for Innovative Organizations - CEDPLA



Source: Authors

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In order to classify organizations based on their innovative activities, it was intended to build a *comprehensive framework* that would take into account the different dimensions of innovation and organizational behavior; therefore, this study adopts the model **Organizational Culture – Organizational Structure – Processes – Performance – Leadership and vision – External environment (which was named CEPDLA), see figure 2, to evaluate the influence of these** factors in the decision of innovative companies, differentiate them from non-innovative ones and propose a framework with these characteristics. The message of the acronym is that innovation is a complex process that requires a systematic and integrated approach, involving different dimensions of the organization. As organizations are able to align these aspects effectively, they will have a greater chance of success in creating innovative products, services, and processes. Its components were widely discussed in the literature review and the authors were highlighted with their contributions.

CONCLUSION AND RECOMMENDATIONS

This work began with the objective of understanding the paths that recent scientific articles, published between 2018 and 2023, are taking, and then a framework was proposed that would allow evaluating organizations along the innovation spectrum and collaborating to unveil or delve into the underlying mechanisms that drive innovation and outline paths for organizational transformation.

The classification of organizations as innovative or non-innovative is not merely a binary distinction, but rather a complex evaluation that needs to consider multiple factors. By adopting a *framework* that encompasses cultural, structural, process-oriented, results-oriented, leadership, and environmental elements – organizations can foster a culture of innovation that fuels long-term growth, as well as resilience and relevance in an ever-evolving marketplace.

As a direct implication, the study provides a framework that can be used by organizations for self-assessment and identification of areas for improvement in innovation management. By identifying the factors that drive innovation, organizations can develop more effective strategies and practices to foster innovation and achieve organizational transformation. For example, if organizational culture is identified as a limiting factor, the organization can develop strategies to promote a culture more focused on experimentation, risk acceptance, and employee engagement.

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Regarding the theoretical contributions, the study proposes a theoretical framework that integrates the main elements and factors that affect innovation in organizations. This framework can be used as a basis for future studies on innovation and organizational transformation. In addition, the study provides a careful analysis of the elements of the framework, based on the authors of the theoretical framework, which increases the validity and reliability of the proposed model.

Regarding practical contributions, the study provides a practical model for organizations to assess their level of innovation and identify the factors that drive or limit innovation. This model can be used as a diagnostic tool for innovation management, helping organizations to develop more effective strategies and practices for organizational transformation.

However, the study has some limitations, such as the need for empirical validation of the proposed framework and the need for longitudinal studies to evaluate the effectiveness of the model in practice.

Therefore, future research may focus on empirical validation of the framework and evaluation of the effectiveness of innovation strategies and practices developed based on the proposed model. In addition, future research may also investigate the influence of other factors on innovation, such as cultural diversity, interdepartmental collaboration, and knowledge management.

Understanding the relationship between innovation and productivity at the company level can allow managers to design better interventions where research and development play a crucial role in the innovation process at the company level.*It should be noted that frameworks* are structured approaches or can be seen as valuable tools for simplifying complex concepts and processes, aiding in understanding and communication.

As limitations of the study, simplification is pointed out, which, if excessive, can lead to the inability to capture the complexity of the real world; or even, they may limit their applicability in different contexts and situations, and may lack adequate validation, without empirical tests, which impairs their reliability. The research adopted a qualitative approach with a rational analysis, which may have some limitations, such as the researcher's subjectivity in interpreting the data and the difficulty in generalizing the results to other contexts. In addition, the initial literature review of a narrative nature may have introduced a bias in the selection of studies, since the research may have been limited to studies published in certain languages or in certain periods, which may have affected the

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representativeness of the results. Despite following the guidelines of Codina (2020) and Kraus et al. (2020) in the literature review, the research may still have some limitations related to the selection of documents.

Regarding the bias of the authors of the study, it is important to consider that the selection of documents, the interpretation of the data and the synthesis of information may have been influenced by the theoretical and methodological perspectives of the researchers.

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