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Factors Limiting the Integration of Disruptive Innovation into Organizational Processes

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Abstract

Currently, the topic of disruptive innovation has attracted increasing interest from academia and the business sector, due to its close relationship with the emergence of new services and business models. Although there are studies related to the application of disruptive innovation in organizations, some companies still do not link this innovation to take advantage of emerging opportunities. Therefore, the purpose of this research is to identify the factors that limit companies from integrating disruptive innovation into their organizational processes. To this end, a qualitative research is carried out, with a descriptive scope and through a documentary review design, making it clear that disruptive innovation is a key phenomenon in the world of technology and business, which, although it provides opportunities, also includes risks. Therefore, it is concluded that the linking of disruptive innovation requires articulating the collaboration and design of guidelines and guidelines, to transform the mindset of managers so that they understand and can apply the concept effectively.

Keywords: *disruptive innovation, company, technology, business models, organizations.*

Introduction

The concept of disruptive innovation, which originated in the pioneering work of Professor Clayton Christensen in the 1990s, particularly in his work "Disruptive Technologies Catching the Wave", describes those technologies or models that bring about significant changes, leading to a complete transformation in an industrial or business sector. This phenomenon has a direct impact on the relationship between consumers and businesses, as customers seek quick and easy solutions to their needs. This dynamic behaviour continuously redefines the market, where both consumers and suppliers are constantly looking for the "new" (Bower & Christensen, 1995).

From the perspective of Álvarez (2015), new technologies not only encourage the creation of patterns, but also allow organizations to implement transformations and evaluate their benefits. This translates into a constant measurement of competitiveness and profitability in relation to the investment made in innovation. This trend intensified in 2020 with the COVID-19 pandemic, forcing companies to adopt digital strategies to stay

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in the market. The widespread use of digital platforms and mobile apps during this period has driven disruptive technological innovation, creating new opportunities for agile and adaptive business models (Silva et al., 2022)..

Given the acceleration of these processes and their impact on the increasingly digital society, it is necessary to have an academic-scientific knowledge base that reflects the studies generated around disruptive innovation. In this context, the main objective of this study is to formulate guidelines and guidelines that enable organizations to effectively integrate disruptive innovation into their organizational processes. Through a detailed literature review and analysis, it aims to identify both facilitating and constraining factors that influence this process, thus providing valuable guidance for companies seeking to stand out in a dynamic and changing business environment.

Literature Review

The literature review is presented as an essential component to contextualise the object of study, exploring the theoretical body related to the complexities surrounding the adoption of disruptive innovations in the organizational environment. In the following lines, aspects related to the causes and factors that limit this process are examined. This in-depth analysis will not only reveal the most current trends and perspectives, but also establishes a solid foundation for identifying key elements that influence the ability of organizations to incorporate disruptive innovations.

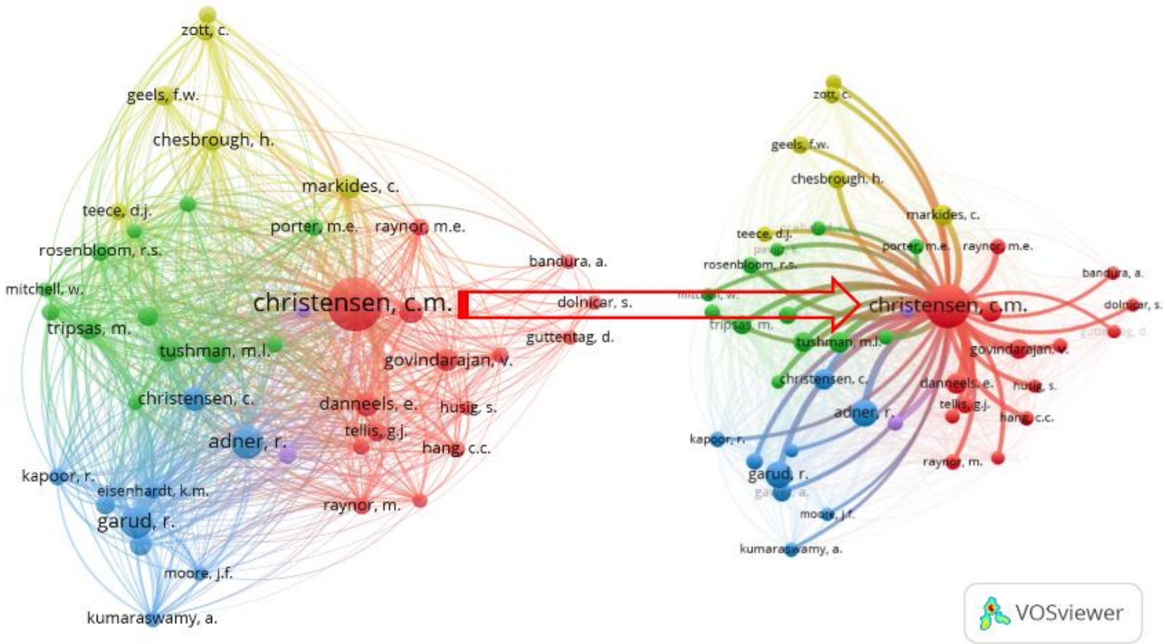
Disruptive innovation

Initially, disruptive innovations are born as changes to products or services already existing in the market as stated by Encinas, (2021). These improvements make these products totally different from the initial ones, an aspect that opens the door to new possibilities, such as alternative services that support the main product. In accordance with the above, an innovation with disruption causes inflection points for practices capable of generating new categories, as also stated by the aforementioned author. This also refers to the fact that this type of innovation initially has to go through an adoption curve where few users will use it and very few will believe in it, given that it is too new and takes time to establish itself; however, it will gradually gain ground until it is positioned in the taste of consumers and captures the attention of those who did not believe in it.

Specifically, disruptive innovation can be classified as a strategic and competitive instrument through which small companies manage to challenge and compete successfully with large organizations , given that it allows them to expand and create new segments by offering new functionalities, which, in turn, alters the links of existing markets, in the same way this process is fundamental to break paradigms since it contributes to the continuous and inclusive improvement of organizations and society in general (Encinas, 2021; Govindarajan & Kopalle, 2006; Rasool et al, 2018; Zambrano et al., 2019).

To address the issue of disruptive innovation it is necessary to mention the contributions made by Professor Clayton Christensen who is credited with being the author of this theory, an assertion that is supported by the development of the network of co-citation of authors (Figure 1). Through his work, Professor Christensen sought to provide an explanation as to why leading firms in a market fail when faced with technological change (Bower & Christensen, 1995).

Figure 1 Author Co-citation Network



Note: The figure was produced using VOSviewer software, using data from Scopus (2023) and shows the co-citation network of authors who have published studies related to the topic of disruptive innovation.

The author co-citation network was created based on a single constraint of a minimum number of 10 citations per author, which resulted in a total of 5,137 authors, of which only 44 were cited more than 10 times, thus identifying that there is a dependence on a small number of scholars. One aspect to highlight in the network is the involvement of Clayton M. Christensen, as it forms the largest red cluster and is connected to other clusters as shown in Figure 1. Christensen is considered one of the most influential thinkers among the founders of technology companies such as Intel and Netflix, and is also considered the creator of the term "disruptive innovation" and develop a theory about it (Diario El País, 2020), in addition there are authors who attribute him to be the owner of this theory (King & Baatartogtokh, 2015).

In 1997 Christensen constructed this theory using as a basis a research carried out in the hard disk industry, in which he followed the technological changes that occurred over 25 years, where he demonstrated the process of disruption three times. These disruptions occurred mainly when the HDD industry changed the size from large to small, but this attribute was not embraced at the time by the mainstream market, one explanation for this is that initially the most valued aspect of the market was capacity. By making them smaller, they had less storage capacity, but were lighter and represented less volume. These secondary attributes were not attractive to existing customers, however, at the time they were very attractive to the emerging niche markets of the time such as minicomputer manufacturers, which allowed them to remain relevant and improve over time until they became accepted by consumers (Cruz, 2017).

Taking into account the above, it could be stated that disruptive innovation goes far beyond what the market or the customer expects, given that it is a vision ahead of the future. Christensen et al. (2015) also explain that there are two reasons to consider an innovation as disruptive:

1. They emerge from lower or new market segments that are underserved by incumbent firms, creating a market where none existed before. In short, they find a way to convert non-consumers into consumers.

2. Mainstream customers do not adopt the disruptive innovation simply because it is less expensive; instead, they wait until its quality increases sufficiently and once that happens, they adopt the new product as was the case with small hard disks.

Following Christensen et al. (2015), identifying a true disruptive innovation is complicated. Even executives with a good understanding of disruption theory tend to forget some of its more subtle aspects when making strategic decisions, and to mitigate this drawback, four important points have been identified that are overlooked or misunderstood:

- Disruption is a process: The term "disruptive innovation" is misleading when it is used to refer to a product or service at a fixed point, rather than the evolution of that product or service over time (Christensen et al., 2015).

- Disruptors often create business models that are very different from those of incumbents (Christensen et al., 2015).

- Some disruptive innovations succeed; others do not (Christensen et al., 2015).

- The "Disrupt or be disrupted" mantra: Incumbents need to respond to disruptions if they occur, but they should not overreact by dismantling a business that remains profitable. Instead, they should continue to strengthen relationships with core customers by investing in sustainable innovations. In addition, they can create a new division focused solely on the growth opportunities arising from disruption (Christensen et al., 2015).

On the other hand, disruptive innovations are closely related to new technologies and could be understood as a series of techniques or knowledge that generate market advances at the macro and micro level, which causes a new environment that leads to the generation of different behaviours in customers, more specifically, Disruptive innovations are radical and distort existing ecosystems, greatly impacting the companies that make use of this theory, potentially transforming their processes, thus being the axis of many transformations, so much so that researchers and professionals are increasingly interested in understanding how companies can create this type of innovation or compete against them (Cubero et al. , 2020; Martínez & Valls, 2020). However, the process of disruptive innovation does not have to be only about technology; it can be about process improvement, product improvement or business model change (Vidal et al., 2019).

Creating a clear definition of disruptive innovation has been difficult to achieve, according to Nagy et al. (2016) this may be because Christensen identified two different types of disruptive innovations: new market innovations and low-end innovations and the effects of these two types of disruptive innovations on markets are different, similarly Cozzolino et al. (2018) state that the lack of conceptual clarity behind the topic has partly hindered the progress of this literature.

For both academic and practical reasons, it is very important to clearly define disruptive innovation, otherwise, according to Nagy et al. (2016), the term is likely to lack a specific conceptualization, possibly leading it to become just another commercial buzzword, and consequently misapplied to any novel product that "disrupts" a market (D. A. Guttentag & Smith, 2017).

Disruptive innovation and organizations

The topic of disruptive innovation is of great interest to academia and the business sector, due to its close relationship with the emergence of new services and business models (D. A. Guttentag & Smith, 2017; Pagani, 2013).

As mentioned above, the origin of the concept of disruptive innovation comes from the contributions made by Professor Clayton Christensen (Bower & Christensen, 1995; Christensen et al., 2015, 2018), which is evident in the co-citation network of authors (Figure 1), where he is positioned as the most cited author in the literature studied. However, the development of this idea according to Pagani (2013) implies the emergence of new services and new business models, where the attractiveness of a disruptive innovation does not come from improved product performance (Dogru et al., 2019; D. A. Guttentag & Smith, 2017), instead it relies heavily on identifying and exploiting gaps in industry positioning, addressing the needs of underserved customers through low-cost offerings that can ultimately outperform established markets (Osiyevskyy & Dewald, 2015).

The literature review identified that existing disruptive innovation theory focuses on market characteristics, new market and low-end innovations (Nagy et al., 2016). Furthermore, some authors argue that these types of innovations initially appeal only to small markets with low profit margins (Bergek et al., 2013; D. Guttentag, 2015; D. Guttentag et al., 2018; D. A. Guttentag & Smith, 2017; Nagy et al., 2016), which is why they are often dismissed by leading firms that focus on more profitable segments (D. A. Guttentag & Smith, 2017).

Additionally, researchers argue that a product classified as disruptive improves over time, as once key performance requirements are satisfied, mainstream customers will adopt the disruptive innovation based on the new attributes it offers, in other words, it must evolve to become "good enough" in performance while remaining superior in price (Bergek et al., 2013; D. A. Guttentag & Smith, 2017; Osiyevskyy & Dewald, 2015; Wan et al., 2015).

In this context Ansari et al. (2016) state that disruptive innovations are "double-edged weapons", in view of the fact that disruption is not a single event or "a carefully planned march forward", but rather a process, in which innovations are developed with the potential to generate new markets, and that it involves disrupting existing ecosystem arrangements and fueling adverse reactions from incumbents, because it threatens their positions and survival, in turn demanding adaptive strategies in response (Ansari et al., 2016; Osiyevskyy & Dewald, 2015).

On the other hand, it was possible to identify that disruptive innovation is strongly linked to technological advances, given that companies have taken advantage of technology to create new business models, providing consumers with a more convenient and affordable alternative, as in the case of Airbnb, which offers accommodation services through a digital platform with an accelerated growth, where according to D. Guttentag (2015) and D. Guttentag et al. (2018) its success is due to the fact that it is considered by users as a novel service in which purchase motivations involve cost and other practical considerations, while experiential motivations are generally secondary.

Similarly, research by Lee & Shin (2018), Anagnostopoulos (2018) and Palmié et al. (2020) analyse, from the perspective of disruptive innovation, how the application of technologies to financial activities (Fintech) radically transforms the traditional industry, since the implementation of Fintech allows new ways of addressing problems and creating solutions that challenge established practices. Similarly, Maull et al. (2017) in their research on distributed accounting technology explain how it can be a potentially disruptive tool, as it creates the opportunity to formulate new business models with the ability to capture and generate value.

Moreover, innovation can strengthen and revitalise old business models (Anagnostopoulos, 2018) but few firms are able to satisfy the need to innovate and adapt their business models; therefore, most established firms struggle to survive (Palmié et al., 2020). Despite the importance of this topic and the emphasis on business models in recent literature, there is currently only limited empirical evidence on how mature organizations manage to adapt their business models in the face of disruptive innovation (Cozzolino et al., 2018), this may be because business models develop through the interaction of individuals in social groups within firms and wider business networks; furthermore, business modelling represents complex systems of interfaces and exchanges (Simmons et al., 2013). However, Cozzolino et al., (2018) argue that the disruptive business model in which technology is implemented could cripple the current leader.

However, disruptive innovation affects decision-making, as shown by Osiyevskyy & Dewald (2015), who explained the changes in established firms' business models in response to disruptive innovation through decision-making theories, these authors with the development of their research came to conclude that the perception of opportunity and the threat that reduces performance (both caused by thinking about the disruptive approach) lead to the intentions to experiment with the new business model, similarly, they envisioned that previous successful experience in risk makes a decision maker more apt to change, while tenure in an industry makes the same person more rigid (Osiyevskyy & Dewald, 2015).

Moreover, (Wan et al., 2015) argue that the traditional decision-making processes that have become embedded in many global corporations understandably reflect the demands of the mature markets for which they were developed, in which fixed customers are often wary of risk aversion and opposed to launching new products or business models until they have been thoroughly researched and tested. However, competitors such as China have developed flexible research, development and decision-making processes that can create new opportunities, especially for disruptive innovation in costs, applications and business models, where pragmatic and rapid decision-making in R&D processes can facilitate potential disruptive innovation (Wan et al., 2015).

Materials and Methods

Based on the nature of the research, a qualitative approach is adopted with the purpose of interpreting the aspects linked to the limitations in the adoption of disruptive innovation by organizations . Dahlberg & Dahlberg (2019) highlight that qualitative research provides a holistic view of the phenomenon under study, contrasting with the theories that support it. In line with Flick (2012), qualitative research focuses on discourse and arguments to interpret social phenomena from a holistic perspective, allowing for an understanding of the inherent qualities of the situation under investigation.

In terms of the scope of the research, the descriptive method is used to detail the aspects relevant to the object of study. From the perspective of Guevara et al. (2020) the descriptive methodology facilitates the detailed presentation of features and characteristics of the phenomenon or situation under study as they are manifested in the context of the research.

In terms of design, the research focuses on the documentary review method, using the research tradition of recent years as a reference, especially research related to the object of study. Following Barraza's (2018) observation, documentary studies are also known as bibliographic research, where the main characteristic is the use of secondary data as a source of information. This approach seeks to direct the research process from two perspectives: first, by establishing the relationship of the existing information with the object of study and, secondly, by relating it in order to obtain a panoramic view of the phenomenon or situation under investigation.

In this context, desk research is used for the purpose of reviewing the research perspective related to the factors that limit the adoption of disruptive innovation in organizations .

Study categories

Referring to the research methods described above, especially the predominance of the qualitative method for the development of the study, and the review of research related to the object of study, a central category and three subcategories are proposed with the aim of glimpsing the factors that limit companies in the integration of disruptive innovation in their organizational processes. Table 1 shows these categories.

Table 1. Study categories

Category	Subcategory	Dimension	Indicators
Factors limiting companies from integrating disruptive innovation into their organizational processes	Financial Factors	Available Financial Resources	- Budget allocated for disruptive innovation projects. - Availability of venture capital for innovation investments. - Historical investments in disruptive technologies.
		Perceived Profitability	- Evaluation of the expected profitability of the innovation. - Estimated return on investment (ROI) for innovative projects. - Perception of the cost-benefit ratio.
	Uncertainty factor and perceived risk	Complexity of the Environment	- Level of complexity of the business environment. - Assessment of the speed of change in the market.
		Perceived Risk	- Assessment of the risk associated with the adoption of disruptive innovations. - Perception of market volatility.
	Resistance to change factor	Organizacional Culture	- Alignment of organizational values with innovation. - Degree of openness to experimentation in the culture.

	- Satisfaction with existing work processes. - Perception of the effectiveness of traditional methods.

Note: This table shows the categories of analysis used to shed light on the factors that hinder the integration of disruptive innovation in the organizational processes of companies.

Through the evaluation of the category and its proposed subcategories, the aim is to examine the research that forms part of the body of research in order to identify potential factors or reasons that restrict the incorporation of disruptive innovation in organizational structures.

Research Techniques and Instruments

As part of the research process, techniques and instruments were used in order to collect information from representative research related to the object of study. In particular, the creation of a bibliographic matrix in Microsoft Excel software was carried out as the main technique to retrieve data from the research tradition, as detailed in figure 2.

Figure 2 Documentary Corpus

MATRIZ BIBLIOGRÁFICA INNOVACIÓN DISRUPTIVA													
Núm.	Título español/ingles	Autor	Citas por año	Journal/revista	Ranking Journal	Año	Palabras clave	Resumen	Metodología	Hallazgos	Conclusiones	Comentario (aportes a mi investigación)	Futuras investigaciones (brechas identificadas, cuestionamientos)
1													
2													
3													
4													
5													
6													
7													

Note: The figure shows the Documentary Corpus model, this tool facilitates the application of selection filters and speeds up the consultation of documents related to the object of study.

Phases of the research process

The research process in this study was developed in three phases, which are directly linked to the formulated objectives.

First Phase - literature selection and review

The literature selection and review process was carried out in five stages: Consolidation of the search equation, registration of the information in the bibliographic matrix, definition of bibliometric indicators, data processing and analysis, and finally, selection of relevant literature; these were based on previous bibliometric studies (Analuisa et al., 2022; Ávila et al., 2023; Campos Trigoso et al., 2021; Gamero & Ostos, 2020; Quindemil et al., 2023; Santos Hernández, 2022).

Second Phase - Analysis of information

In the second stage of the study, an exhaustive literature review and analysis was carried out, focusing on documents, studies and research related to the central category of study and its respective subcategories. This phase was oriented towards the identification and detailed understanding of the most relevant aspects addressed by the academic community in relation to the causes or factors that limit the integration of disruptive innovation in organizations. The bibliometric methodology was used as a key tool to evaluate and synthesise the information gathered, thus providing a comprehensive view of the research landscape in this field.

Third Phase - Strategy design

The third phase of the research process is aimed at the design and formulation of guidelines that allow companies to integrate disruptive innovation into their organizational processes.

Results

Within the framework of this study, the results achieved after a detailed analysis of various studies addressing the key category Factors constraining companies from integrating disruptive innovation into their organizational processes are revealed. In particular, it delves into essential subcategories such as: the "Financial Factors", the "Uncertainty and Perceived Risk Factor" and the "Resistance to Change Factor". These findings, derived from the review of the research literature, provide a comprehensive view of the challenges organizations face when seeking to incorporate innovative practices into their operational structure. In turn, valuable patterns and guidelines are drawn from these subcategories, outlining potential strategies that companies can adopt to facilitate a successful transition to disruptive innovation.

Results first phase - Literature selection and review

In order to fulfil the primary objective of this study, which focuses on exploring the integration of disruptive innovation in organizations, a work plan was designed to collect and analyse literature relevant to the research. In this process, an information search was carried out in two distinct phases. In the first stage, a meticulous search for documents addressing the integration of disruptive innovation in different organizational settings was carried out, using various sources of information such as databases, business archives, university repositories and specialized digital resources. In the second stage, once the bibliographic data had been collected, they were classified using specific categories, outlined in Table 1. To this end, precise criteria were established for the inclusion and exclusion of references, prioritizing those materials that complied with the following aspects:

- Academic research linking disruptive innovation and its impact on organizations.
- Papers that analyse key factors that influence the successful implementation of disruptive innovation in business environments.
- Literature exploring methods and strategies used by leaders and practitioners to integrate disruptive innovation in their organizations.
- Peer-reviewed scientific publications published in journals with recognized prestige in the field.

With regard to the exclusion of bibliographic sources, the following criteria were considered:

- Eliminate references that are not directly related to the focus on disruptive innovation in organizations.
- Discard articles that, although they mention disruptive innovation, do not delve into its application or impact on the organizational environment.
- Omit documents that lack scientific rigour in the presentation of their results.

The documents relevant to the study were organized and subjected to analysis through the construction of a bibliographic matrix (documentary corpus), which facilitated the manipulation and synthesis of data. This procedure was crucial in the review of research related to the object of study as it supported the process of selection and evaluation of documents, as well as the use of the Specialized Analytical Abstract (SAR), an analogous tool that focuses on the examination of specialized studies and documents.

Results second phase - Analysis of the research literature

After the selection of the bibliographic sources, the process of documentary analysis begins, through which aspects relevant to the previously formulated subcategories of study are identified. These elements stand as essential foundations for discerning the factors that restrict the adoption of disruptive innovation in the organizational sphere. The findings extracted from the selected studies, which have served as a fundamental basis for the conception and development of this research, are detailed in greater detail below.

- Subcategory Analysis Financial Factors

From the perspective of the research literature, several studies have analysed financial factors as possible limiting factors in the adoption of disruptive innovation in organizations. These studies emphasize that financial resources play a crucial role in the integration of this type of innovation into organizational processes. It has also been identified that there are three significant indicators related to financial resources that influence decision-making for the adoption of disruptive innovation.

One of the most important aspects is the budget allocation for disruptive innovation projects. Several studies, including those by (Rodríguez & Marcelo, 2016; Gamez et al., 2018; Cuevas & Cortés, 2020), highlight that insufficient budget allocation is a significant obstacle to the implementation of disruptive initiatives. This lack of financial resources limits the ability of organizations to carry out meaningful projects that are, in turn, innovative.

Likewise, the availability of venture capital for innovation investments emerges as an influential factor. Previous research, conducted by (Fracica, 2009; Pastor, 2013; Pargas & Esposito, 2016; Bravo, 2018), indicates that the scarce availability of venture capital acts as a constraint for organizations seeking to venture into disruptive projects that carry an intrinsic level of uncertainty.

The third indicator, concerning historical investments in disruptive technologies, highlights the importance of analysing the organization's past track record in terms of investments in innovation. Researchers such as (Cubero et al., 2020; Martínez & Valls, 2020), argue that companies that have underestimated the importance of investing in disruptive technologies in the past may face significant financial barriers in the present.

In relation to perceived profitability, it is observed that the evaluation of the expected profitability of the innovation is presented as a determining factor. In line with studies by (Bergek et al., 2013; D. Guttentag, 2015; Nagy et al., 2016; D. Guttentag et al., 2018;), organizations are reluctant to invest in disruptive innovation if they do not perceive a clear and substantial financial return. Regarding the estimated return on investment (ROI) for innovative projects, researchers indicate that this is related to financial decision-making.

Authors such as Ansari et al. (2016) have pointed out that the lack of clear projections on the return on investment can generate indecision and discourage investment in innovative projects.

Finally, in terms of the perceived cost-benefit ratio, it highlights how the perception of benefits relative to costs can affect the decision of organizations to take on disruptive initiatives. The literature, including studies by (Osiyevskyy & Dewald, 2015; Wan et al., 2015), emphasize that an unfavorable perception of this ratio can result in the postponement or rejection of innovative projects.

Overall, the Financial Factors subcategory reveals that the availability of financial resources and the perception of profitability are crucial aspects that determine the feasibility and success of integrating disruptive innovation into organizational processes. The review of the research literature underlines the need to address these financial challenges in order to foster the effective adoption of innovative practices in organizations.

- Subcategory Analysis Uncertainty Factor and Perceived Risk

The literature review related to the subcategory in question focuses on the integration of disruptive innovation in organizational settings. Most of the studies carried out focus on the analysis of two fundamental dimensions: Complexity of the Environment and Perceived Risk.

Regarding the Complexity of the Environment, a relevant indicator is the Level of complexity of the business environment. Current studies, such as those conducted by (Silva et al., 2022; Ávila et al., 2023) highlight the direct influence of the complexity of the business environment on the willingness of organizations to adopt disruptive innovations. Complexity, understood as the interconnectedness of external factors affecting the Organization, is identified as a critical determinant in strategic decision-making related to innovation. It is argued that a highly complex business environment can generate reluctance and increase the perception of risk regarding the adoption of disruptive innovations. The assessment of the speed of change in the market, as the second indicator of this dimension, is closely linked to the ability of organizations to adapt to dynamic environments. Previous research, such as that of Bower & Christensen (1995) has pointed out that an acute perception of the speed of change in the market can increase uncertainty and thus affect decisions to adopt disruptive innovations.

In relation to the Perceived Risk dimension, the assessment of risk associated with the adoption of disruptive innovations is addressed. Authors such as (Alvarez, 2015; Osiyevskyy & Dewald, 2015; Wan et al., 2015) have highlighted that risk perception plays a significant role in the willingness of organizations to take on significant change processes. Realistic assessment of potential risks, such as financial investment, potential organizational resilience and uncertainty in outcomes, directly impacts decision-making. Perception of market volatility, as a second indicator of this dimension, relates to the ability to anticipate abrupt changes and adapt proactively. Research, such as that of (Nagy et al., 2016; D. A. Guttentag & Smith, 2017;) has indicated that the perception of a volatile market can increase risk aversion, making it difficult to adopt disruptive innovations.

Overall, the analysis of this subcategory reveals the complex interplay between the perception of uncertainty and risk in the context of the adoption of disruptive innovations. The scientific literature highlights the need to address these aspects in order to understand and overcome psychological and contextual barriers that may hinder the effective integration of disruptive innovations into organizational processes.

- Subcategory analysis Resistance to Change Factor

The current research on the subcategory "Resistance to Change Factor" analyses the complex dynamics that influence the ability of organizations to adopt disruptive innovations. Two essential dimensions are highlighted: Organizational Culture and Current Working Conditions.

As far as Organizational Culture is concerned, a relevant indicator is the Alignment of organizational values with innovation. Several studies, including those by (Flores, 2015; Valdez et al., 2023) underline the importance of an organizational culture that fosters values aligned with innovation to overcome resistance to change. Consistency between the organization’s core values and the adoption of innovative practices is presented as a key enabler. Likewise, the degree of openness to experimentation in the culture emerges as a vital indicator. Authors such as Rueda et al. (2018) explain that a culture that promotes experimentation and risk-taking correlates positively with the willingness to adopt significant change.

In relation to the Current Working Conditions dimension, the Satisfaction with existing work processes indicator is addressed. Recent research such as that carried out by Pacheco (2023) suggests that job satisfaction is closely linked to resistance to change. Employees satisfied with traditional methods may be reluctant to adopt innovative practices. Perception of the effectiveness of traditional methods, as a second indicator, relates to the subjective evaluation of the effectiveness of current work processes. Studies such as those by (Salgado et al., 2018; Sánchez et al., 2019) indicate that a positive perception of the effectiveness of traditional methods can act as a barrier to the introduction of disruptive innovations.

Overall, the analysis of this subcategory underlines the relevance of organizational culture and working conditions on the readiness of organizations to embrace change. The literature highlights that effective management of these factors can facilitate the transition towards more innovative practices and thus enhance the ability of organizations to integrate disruptive innovations into their processes.

Results Stage Three - Formulation of Guidelines and Guidance

The detailed analysis of the subcategories financial factors, uncertainty and perceived risk factor, and resistance to change factor, has identified common challenges in integrating disruptive innovation into organizational processes. In this sense, this study aims to formulate guidelines and directives to guide organizations towards effective solutions. The aim is to offer a comprehensive approach that addresses financial constraints, risk perceptions and resistance to change, providing a solid framework for the successful incorporation of disruptive innovations.

From the analysis of the Financial Factors subcategory, the need for organizations to strategically address budgetary constraints to facilitate the effective adoption of disruptive innovations is highlighted. The importance of financial resources as a determining factor in this process is undeniable, and it is crucial to develop specific strategies to ensure the availability of the necessary resources for innovative projects.

In this sense, the formulation of budget allocation policies is an essential action. These policies must go beyond traditional allocations and reflect the strategic importance of disruptive innovation. Establishing a budget framework aligned with long-term innovation objectives is necessary to ensure that resource allocations are aligned with organizational objectives.

The creation of specific funds for disruptive innovation projects is suggested as an effective strategy. These funds act as a dedicated mechanism to support high-risk, high-return initiatives. It is imperative to establish transparent processes for the application and allocation of funds, ensuring that the most promising projects receive the necessary financial backing.

Proactively seeking investment and venture capital is another recommended action. Identifying financial partners, investors or venture capital funds aligned with the vision and taste for disruptive projects is essential. Collaboration with external entities not only provides funding, but also valuable experience and networks.

Learning from historical investments emerges as a key component in this analysis. Organizations should conduct critical evaluations of past projects, identifying factors that have contributed to or limited financial success. This continuous learning approach ensures an evolution in financial strategy towards disruptive innovation.

Strategically addressing financial aspects is therefore essential for the effective integration of disruptive innovations. Formulating specific policies, creating dedicated funds, proactively seeking investments and learning from past experiences are key actions to ensure the financial viability and long-term success of adopting disruptive innovations in organizational processes.

In the context of the uncertainty factor and perceived risk sub-category, organizations need to adopt proactive and strategic approaches to effectively manage these challenges. Adapting to uncertainty and managing risk are key to facilitating the successful adoption of disruptive innovations.

In the face of assessing and anticipating the complexity of the business environment, adaptive capacity must begin with a detailed assessment of the complexity of the business environment. Organizations should conduct scenario analyses and risk assessments to anticipate potential challenges. This involves not only understanding the current state of the environment, but also projecting possible future changes and challenges. The adoption of risk analysis tools and methodologies will enable organizations to be better prepared to deal with uncertainty.

On the other hand, risk management strategies must be central to organizational decisions. This involves the constant identification, assessment and mitigation of risks associated with the adoption of disruptive innovations. Organizations should develop formal mechanisms for proactive risk management, integrating processes for continuous assessment and adjustment of strategies according to changing conditions in the business environment.

Likewise, it is necessary to build an organizational culture that encourages experimentation and flexibility is essential to deal with uncertainty. Organizations should promote openness to new ideas, acceptance of mistakes as learning opportunities and a willingness to adapt quickly to unexpected changes. Controlled experimentation and tolerance of ambiguity become crucial to overcome resistance to change in an uncertain environment.

In addition, risk perception must be addressed systematically. Implementing data-driven decision-making processes and detailed analysis can help mitigate subjective perceptions of risk. Organizations should incorporate business intelligence and predictive analytics into their decision-making processes to improve accuracy and reduce perceived uncertainty.

Globally, organizations need to adopt a holistic approach that involves both anticipatory assessment of the business environment and proactive risk management. Building an organizational culture that is flexible and open to experimentation, together with the implementation of data-driven decision-making processes, are key elements in addressing the challenges of uncertainty and perceived risk.

In relation to the resistance to change factor, organizations need to undertake a process of deep transformation in their organizational culture and working conditions to enable an innovation-friendly environment. The alignment of organizational values with innovation should not only be a goal, but a guiding principle at all levels of the Organization. This involves not only encouraging experimentation and openness to new ideas, but also instituting practices and policies that celebrate and reward creativity and willingness to change.

Change management must go beyond superficial or obvious aspects, comprehensively addressing satisfaction with existing work processes. This involves a thorough analysis of traditional methods, identifying areas for improvement and developing clear strategies to effectively communicate the tangible, long-term benefits of innovation. Resistance to change often stems from a lack of understanding or appreciation of the benefits involved, making transparent and persuasive communication an essential tool.

In addition, the positive perception of the effectiveness of traditional methods can be addressed through transparent management and effective communication. This involves clearly and persuasively highlighting the benefits of adopting new practices, not only in terms of efficiency and productivity, but also in relation to employees' job satisfaction and career development. Resistance to change can, to a large extent, be mitigated by a holistic approach that not only transforms organizational culture, but also provides clear and tangible support for those venturing into new ways of working.

To recapitulate, resistance to change requires a deep and well-structured intervention that not only touches the surface of organizational culture, but penetrates the very foundations of how organizations conceive and manage innovation.

Given the above, the proposed guidelines and directives seek to provide organizations not only with a solid framework for overcoming these challenges, but also a guide for cultivating a cultural change that is conducive to continuous evolution and improvement. The successful adoption and integration of innovative practices not only strengthens the competitive position of organizations, but also equips them to lead at the forefront in a dynamic and challenging business landscape. Ultimately, disruptive innovation is not just a strategic tool; it is a necessity for survival and prosperity in today's era of constant transformation.

Discussion

The adoption of disruptive innovations represents a multifaceted challenge for organizations, involving financial factors, uncertainty and resistance to change. The research results underline the critical relevance of financial factors, showing that insufficient budget allocation and lack of venture capital are significant constraints. These constraints not only hinder the implementation of innovative projects, but also threaten the ability of organizations to remain competitive in a changing and dynamic business environment.

The complexity of the business environment and the perception of risk emerge as key elements of uncertainty and perceived risk. The need for risk management strategies is highlighted, pointing to the importance of organizations taking calculated risks and fostering a culture of adaptability in a complex and changing environment.

In the analysis of the resistance to change factor, the critical importance of organizational culture and current working conditions is highlighted. Resistance, stemming from a lack of value alignment and satisfaction with traditional methods, underlines the need for a profound cultural transformation. Overcoming this resistance involves not only implementing innovative practices, but also creating an environment that encourages experimentation and openness to new ideas.

It is crucial that organizations recognize their responsibility to embrace disruptive innovations. Beyond following trends, companies must lead transformation and anticipate market changes. The ability to innovate not only strengthens competitive position, but also positions organizations as agents of change in their industries.

Adopting disruptive innovations not only brings tangible benefits, but is essential for long-term survival. Overcoming financial hurdles, managing uncertainty and addressing resistance to change puts organizations in a strong position to lead the next era of innovation. Addressing these challenges proactively and strategically is crucial, recognizing that resistance and financial constraints are inherent in the transformation process.

Ultimately, the successful integration of disruptive innovation represents a profound transformation in organizations. More than a simple refresh, it involves a fundamental reassessment of structures, mindsets and practices embedded in the business context. This process demands a holistic approach that seizes financial challenges as opportunities, manages uncertainty with agility and addresses resistance to change with a strategic vision. The responsibility of business goes beyond embracing innovations; it involves leading the way towards an innovative and sustainable future.

Conclusions

The following conclusions are derived from a detailed review of the research literature on the adoption of disruptive innovations in organizations. A variety of studies addressing financial factors, uncertainty and resistance to change in the context of business innovation have been examined. As a result, it is concluded that:

Disruptive innovation goes beyond the simple adoption of new technologies; it represents a profound transformation in business structure and mindset. The ability to innovate is positioned as a key strategic element for survival and long-term relevance in a dynamic business environment.

Also, based on the review of various studies, the financial challenges identified should not be seen simply as obstacles, but as strategic opportunities. The smart allocation of financial resources, the creation of dedicated funds and the proactive search for investments are key actions that can turn budget constraints into long-term sustainable innovation drivers.

Against the management of uncertainty for business agility, it is concluded that effective management of uncertainty and risk is crucial for business agility. The ability to anticipate and adapt to the complexity of the business environment, as well as risk assessment and mitigation, will determine the responsiveness of organizations in an ever-changing business world.

From the review of the research literature, it is also concluded that resistance to change, rooted in a lack of value alignment and dissatisfaction with traditional methods, highlights the need for a profound cultural transformation. Overcoming this resistance involves not only the implementation of innovative practices, but also the creation of an environment that celebrates experimentation and openness to new ideas.

In this way, it concludes that organizations have a responsibility to lead the adoption of disruptive innovations. Beyond following trends, it is argued that companies must lead the transformation and anticipate market changes. The ability to innovate is presented as a key element to strengthen the competitive position and position themselves as agents of change in their respective industries.

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