



An approach to the concepts of radical, incremental and disruptive innovation in organizations

Una aproximación a los conceptos de innovación radical, incremental y disruptiva en las organizaciones

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ABSTRACT

Innovation is fundamental to organizations' growth, consolidation and success, boosting competitiveness and productivity and facilitating adaptation to changes and market volatility. Based on an in-depth literature review, this article outlines the importance of innovation and presents three fundamental types: radical, incremental, and disruptive. Radical innovation involves significant changes in products, services, or processes, resulting in a drastic transformation in the industry. On the other hand, incremental innovation focuses on continuous and progressive improvements, optimizing operations and performance. Finally, disruptive innovation introduces solutions that disrupt and displace existing ones, creating new markets and transforming industries. The conclusions highlight the relevance of each type of innovation based on the specific needs of organizations and the importance of adopting appropriate strategies to promote sustainable growth and competitive advantage. The study findings found that innovation is essential for the progress and survival of companies, and understanding and correctly applying the different types of the invention is vital to achieving success in a business environment where the only constant changes.

Keywords: organizational change, company, innovation, market, organization

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RESUMEN

La innovación desempeña un papel fundamental en el crecimiento, consolidación y éxito de las organizaciones, impulsando la competitividad y productividad, así como facilitando la adaptación a los cambios y volatilidades del mercado. Este artículo, basado en una revisión documental profunda, describe la importancia de la innovación y presenta tres tipos clave: radical, incremental y disruptiva. La innovación radical implica cambios significativos en productos, servicios o procesos, lo que resulta en una transformación drástica en la industria. Por otro lado, la innovación incremental se centra en mejoras continuas y progresivas, optimizando las operaciones y el rendimiento. Finalmente, la innovación disruptiva introduce soluciones innovadoras que alteran y desplazan a las existentes, creando nuevos mercados y transformando industrias. Las conclusiones destacan la relevancia de cada tipo de innovación en función de las necesidades específicas de las organizaciones y la importancia de adoptar estrategias adecuadas para impulsar el crecimiento sostenible y la ventaja competitiva. Dentro de los hallazgos de estudio, se encontró que la innovación es esencial para el progreso y la supervivencia de las empresas, y comprender y aplicar adecuadamente los diferentes tipos de innovación es clave para alcanzar el éxito en un entorno empresarial donde la única constante es el cambio.

Palabras Clave: cambio organizacional, empresa, innovación, mercado, organización.

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INTRODUCTION

Innovation is widely studied and discussed in the academic, business, and social fields (Robayo, 2016; Toniut, 2020; Vernaza et al., 2020). Authors such as Cilleruelo (2007), Hernández et al. (2016), and Suárez (2018) agree that innovation refers to the process by which new ideas, products, services, processes, or business models are generated and applied in



order to improve or transform the way things are done. Innovation has been recognized as a key driver for economic growth, competitiveness, and problem-solving in various fields, from the environment to society (Ríos & Marroquín, 2013; Neri & Watson, 2013).

The concept of innovation dates back to classical economic theory, where early economists already emphasized the importance of innovation and change in economic development (Heijs, 2018). However, it was the Austrian economist Joseph Schumpeter who, in his work "Capitalism, Socialism and Democracy," published in 1942, introduced the concept of "creative destruction," which has become one of the fundamental pillars of innovation theory (Angel, 2009). Schumpeter argued that innovation and entrepreneurship drive economic development and that creative destruction, in which innovations replace old ones, is essential for economic and social progress (Yoguel et al., 2013).

Having said this, the concept of innovation has been consolidated throughout history, as it is attributed to a catalytic effect of significant changes in society and the economy (Zhu et al., 2022). From the Industrial Revolution, which transformed production and trade in the 18th century, to the current digital era, in which information and communication technologies are rapidly changing the ways of working, communicating, and relating (Canizales, 2020). In short, innovation has been a key element in the progress of humanity and especially of organizations since the constant and imperious changes in the market severely punish the absence of transformations.

Innovation and organizations: an indispensable relationship for success.

Innovation is critical for the success and survival of companies in an increasingly competitive and globalized business environment (Barrios et al., 2019). A firm's innovation ability can differentiate between growth and stagnation or survival and failure (Landazury & Ferrer, 2016). First, innovation is crucial for firm growth. By introducing new products, services, processes, or business models, firms can increase revenues, expand into new markets, and attract new customers (Ordoñez et al, 2020). Innovation can also improve efficiency and productivity by reducing costs and optimizing resource utilization. In addition, innovative companies can generate greater customer loyalty and satisfaction by offering unique and customized solutions that meet consumers' changing needs and expectations (Marín et al., 2021).

Second, innovation is essential for maintaining and improving the competitiveness of firms in the marketplace (Cruz & May, 2021). Companies that can anticipate and adapt quickly to changes in the business environment, such as evolving technologies, regulations, and customer preferences, have a competitive advantage over those that do not (Romero et al., 2020). Innovation can also be an effective way to differentiate a company from its competitors and create a sustainable competitive advantage, as companies that constantly develop and improve their products, services, and processes can stay ahead of the competition and capture a larger market share (Contreras et al., 2021).

Innovation can also help companies face the challenges posed by globalization and digitization, such as the increasing competition from companies worldwide and the need to adapt quickly to new technologies and digital platforms (González and Maruri, 2022). Likewise, according to Duque (2021), it can be considered a strategy to attract and retain the best talent in companies. Highly skilled and creative employees are often attracted to companies that foster a culture of innovation and provide them with opportunities to develop and apply their skills and knowledge. Companies that support and encourage innovation can also benefit from increased employee motivation and engagement, improving productivity and talent retention (Del Rio et al., 2022).

Consistent with the above, innovation is a critical factor for the success and survival of companies in today's business environment. Those organizations that adopt and foster innovation in all its forms will be better positioned to face the challenges and take advantage of the opportunities that arise in a constantly changing and evolving world (Avila, 2021). By investing in innovation, companies can not only improve their performance and competitiveness in the short term but also ensure their long-term success and sustainability in the global marketplace.

METHODS

The documentary review, following the guidelines of Estrada et al. (2018), was carried out following a research design that allowed the analysis, synthesized, and critical evaluation of previous studies on the concepts of radical, incremental, and disruptive innovation in organizations published in journals indexed in Scopus, books, and theses. A systematic search was carried out in different scientific information search engines, using keywords and related terms, restricting the search to articles published in a maximum window of five years. The studies were selected in two stages: evaluating titles, abstracts, and full texts and applying inclusion and exclusion criteria to guarantee the

quality and relevance of the selected studies.

Once the studies were selected, applying the protocols of Gómez et al. (2022), data were extracted using a standardized extraction form, and a qualitative synthesis was carried out to identify patterns, trends, and gaps in the literature. In addition, the quality of the included studies was assessed using a discipline-specific quality assessment tool. In this way, the manuscript aims to consolidate an approach to the types of innovation within organizations, delving into their advantages and limitations.

RESULTS

Radical innovation in organizations

According to Pardo (2022), radical innovation refers to fundamental and revolutionary changes in products, services, processes, or business models that can alter the status quo of a market or industry. These innovations can deliver significant customer value, creating new market opportunities and often displacing established competitors (Matovelle et al., 2021). Radical innovation is a phenomenon of great interest in business and academia because of its ability to transform industries and generate significant changes in how organizations operate and compete (Santiago, 2023).

The impact of radical innovation on organizations can be profound and diverse. Among the most obvious effects is the ability to generate sustainable competitive advantages (Nievas, 2019). By introducing novel solutions and approaches, organizations can differentiate themselves from their competitors and capture greater market share. In addition, companies that succeed in introducing radical innovations in their industries are often seen as leaders and pioneers, which can enhance their reputation and attract more customers, partners, and talent (Barba-Aragon & Jimenez, 2020).

Radical innovation can also impact an organization's structure and culture. Adopting revolutionary approaches and technologies may require changes in how work is organized and managed, decisions are made, and resources are allocated (Lim & Fujimoto, 2019). In this sense, radical innovation can drive companies to adopt more agile and flexible organizational structures and to foster a culture that values creativity, experimentation, and adaptability (Wang et al., 2021).

However, radical innovation can also present significant challenges and risks for organizations. Investment in research and development of revolutionary technologies or approaches can be costly and time-consuming, with no guarantee of success (Gonzalez, 2014). In addition, adopting radical innovations may require re-evaluation and possible displacement of existing technologies and practices, which can generate internal resistance and conflict.

Despite these challenges, radical innovation can offer significant opportunities for organizations willing to take risks and embrace change (Hedman et al., 2021). To maximize the potential of radical innovation, companies must take a proactive and strategic approach to identifying and developing innovation opportunities. This may include investing in research and development, collaborating with other companies and organizations, and creating an internal culture that encourages creativity and experimentation (Shaikh & Colarelli, 2020).

Given the above, radical innovation is a powerful phenomenon that can profoundly impact organizations and the industries in which they operate. Although it presents challenges and risks, it also offers opportunities to generate sustainable competitive advantages and transform business operations. Companies seeking to lead in their industries and stay ahead of the competition must recognize the importance of radical innovation and be willing to invest in its development and adoption.

Incremental innovation in organizations

Incremental innovation is a continuous improvement approach that focuses on making adjustments and improvements to existing products, services, processes, or business models rather than seeking radical or revolutionary changes (Elche-Hortelano et al., 2015); this innovation approach is of great interest to organizations seeking to maintain and improve their market position, as well as optimize their internal operations (Hurtado & Arboleda, 2012).

Incremental innovation can also help companies maintain their relevance and competitiveness in the market. By continuously improving their products and services, organizations can meet changing customer expectations

and keep pace with competitors regarding quality and value (Proenca & Jimenez, 2020). This can be especially important in highly competitive and rapidly evolving industries, where companies that do not constantly adapt and improve can quickly fall behind (Núñez et al., 2020).

The impact of incremental innovation on organizations can be significant, although less dramatic than that of more revolutionary innovations. One of the main benefits of incremental innovation is its ability to improve efficiency and productivity in internal operations (Lennert et al., 2020). Organizations can optimize their resources, reduce costs, and increase product and service delivery efficiency by addressing problems, inefficiencies, or areas for improvement in existing processes (Gerardo, 2020).

In addition, incremental innovation can positively impact employee morale and satisfaction. By fostering a culture of continuous improvement and empowering employees to identify and address areas of improvement, organizations can improve the motivation and commitment of their staff (Galvez & Garcia, 2012). This, in turn, can lead to higher employee retention and better overall performance.

Despite its benefits, incremental innovation can also present challenges for organizations. One of the main risks is the possibility of getting trapped in a "constant improvement" approach that does not allow the company to explore and adopt more radical changes that might be necessary to remain competitive in the long term (Kobarg et al., 2019). In addition, incremental innovation may not address larger or systemic problems that require a more transformative approach.

Ultimately, incremental innovation is a powerful approach that can help organizations stay competitive and relevant in an ever-changing business environment. By embracing a culture of continuous improvement, investing in employee development, and collaborating with external partners, companies can fully leverage the potential of incremental innovation to drive sustained growth and long-term success (Seclen & Barrutia, 2019).

Disruptive innovation in organizations

The concept of disruptive innovation refers to introducing products, services, or business models that challenge the status quo of an industry and ultimately lead to the displacement of existing companies and solutions. These innovations typically start in underserved market niches or customer segments, offering simpler, more convenient, or more accessible solutions than those previously available (Si & Chen, 2020). Over time, disruptive innovations can gain traction and expand into broader market segments, challenging and displacing established companies and solutions.

The impact of disruptive innovation on organizations can be profound and far-reaching. The potential for growth and profitability can be significant for companies leading the disruption. By introducing solutions that meet unmet customer needs or address market inefficiencies, disruptive firms can capture substantial market share and enjoy a sustainable competitive advantage (Nieto et al., 2021). In addition, disruptive companies are often seen as leaders and pioneers in their respective industries, which can enhance their reputation and attract talent, investment, and partnerships.

On the other hand, as indicated by Williamson et al. (2020), organizations facing disruption can experience significant challenges in their operations and market position. Disruptive innovation can quickly erode established companies' market share and profitability, especially if they cannot adapt and respond effectively to the new solutions and approaches being introduced. In some cases, disruption can lead to obsolescence and decline for companies that fail to meet changing market demands and customer expectations (Vecchiato, 2017).

To navigate and adapt to the impact of disruptive innovation, organizations must take a proactive and strategic approach to identify and respond to emerging opportunities and threats (Kivimaa et al., 2021). This may include investing in research and development, exploring new business models, and adopting emerging technologies. In addition, organizations must be willing to rethink and possibly abandon their existing approaches and solutions in favor of more innovative and competitive alternatives.

Consistent with the above, Encinas (2021) states that one of the keys to dealing with disruptive innovation is to stay informed about emerging trends and technologies that could affect the industry. This can include monitoring the activities of startups, researching patents, and participating in industry networks and events. By staying informed and connected, organizations can identify and address disruptive opportunities and threats before they become critical issues.

In addition, organizations must be willing to collaborate and form strategic alliances to address disruption. This may include working with startups and other players in the innovation ecosystem to explore new solutions and approaches (Ben-Slimane et al., 2020). By establishing strong, collaborative relationships, companies can leverage the expertise and resources of their partners to adapt and thrive in an ever-changing business environment.

Coupled with the above, Reinhardt and Gurtner (2018) add that it is also critical for organizations to invest in the development and training of their employees to ensure that they have the skills and knowledge necessary to deal with disruptive innovation. This can include promoting leadership skills, critical thinking, adaptability, and training in emerging technologies and innovative methodologies.

Finally, organizations should develop mechanisms to evaluate and learn from their experiences with disruptive innovation. As indicated by Ortiz (2013), this can include conducting post-mortem analysis of projects and implementing feedback systems to identify opportunities for improvement and learning. By adopting a continuous learning approach, companies can improve their ability to cope with disruption and remain competitive.

Ultimately, following Gonzalez (2021), it is possible to assert that disruptive innovation represents both opportunities and challenges for organizations. By taking a proactive and strategic approach to innovation, fostering a culture of adaptability and collaboration, and investing in the development of their employees, companies can position themselves to thrive in an ever-changing business environment and take full advantage of the opportunities that disruptive innovation brings.

CONCLUSIONS

In conclusion, innovation is a key factor for the success and competitiveness of organizations in an increasingly dynamic and globalized business world. Adopting different types of innovation, such as radical, incremental, and disruptive innovation, enables companies to keep abreast of emerging trends, respond to changing market needs, and take advantage of opportunities for growth and development.

Organizations looking to drive innovation must adopt a balanced and strategic approach that combines radical, incremental, and disruptive innovation. This involves fostering a culture of innovation and adaptability, investing in research and development, and being willing to collaborate and form strategic alliances with other players in the innovation ecosystem. In addition, companies must be open to rethinking and abandoning existing approaches and solutions in favor of more innovative and competitive alternatives.

It is also crucial that organizations invest in the development and training of their employees, providing them with the skills and knowledge necessary to drive innovation in all its forms. This includes promoting leadership skills, critical thinking, adaptability, and training in emerging technologies and innovative methodologies. In addition, organizations should establish mechanisms to evaluate and learn from their experiences with innovation, including conducting post-mortem analysis of projects and implementing feedback systems to identify opportunities for improvement and learning. By adopting a continuous learning approach, companies can improve their ability to cope with disruption and remain competitive.

The successful adoption of these different types of innovation requires a constant commitment on the part of organizations and the ability to adapt and evolve according to changing market conditions and customer expectations. This involves fostering an open and collaborative business approach internally and with other players in the innovation ecosystem. It is also essential that organizations not only focus on a single type of innovation but find the right balance between radical, incremental, and disruptive innovation, depending on the specific needs of their industry and market position. In doing so, companies can take full advantage of each innovation approach's benefits and develop relevant and valuable solutions to their customers and stakeholders.

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