



## Application of technology in decision-making processes and adaptation to change with innovation and efficiency

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*Juliana Borges Martins Antunes*

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### SUMMARY

This study aims to analyze decision-making for innovation and changes in an organizational environment and the tools that can assist in this process, such as *Business Intelligence*, known as (BI) and Enterprise Resource Planning (ERP). The methodology used was bibliographical research, with collection of material on the subject in *e-books*, scientific articles and *websites*, according to the marked content. It was found that business intelligence is a combination of data that drives information, making it possible to increase efficiency and thus promote rapid changes in a corporate environment. It was also observed that the *software* ERP makes the organization work smarter and faster. Because it integrates several functions into a single system, enhancing processes and information, thus facilitating the planning of all the organization's resources. The results indicate that The technology It is an important support instrument for companies, helping to achieve growth and profitability, which are respectable tools to assist in decision-making, especially in a competitive market, in which innovation becomes decisive for survival in this situation.

**Key words:** Decision Making, BI, ERP, Technology, Innovation, Efficiency.

### ABSTRACT

This study aims to analyze decision making for innovation and changes in an organizational environment and the tools that can help in this process, such as Business Intelligence, known as (BI) and Enterprise Resource Planning (ERP). The methodology used was bibliographic research, with collection of material on the subject in e-books, scientific articles, and websites, according to the indicated content. It was found that business intelligence is a combination of data that drives information, making it possible to increase efficiency and thus, promotes rapid changes in a corporate environment. It was also observed that ERP software makes the organization work smarter and faster. Because it integrates several functions in a single system, enhancing the processes and information, thus facilitating the planning of all the resources of the organization. The results point out that technology is an important support instrument for companies, contributing to achieving growth and profitability, which are respectable tools to assist in decision making, especially in a competitive market, where innovation becomes decisive for this juncture.

**Keywords:** Decision Making, BI, ERP, Technology, Innovation, Efficiency.

### 1. INTRODUCTION

The terms innovation and change have become a basis in the market environment during discussions in recent years, indicating the real need to respond to competition in a more innovative way. And how are they-

Are the expressions innovations and changes finished? It is known that they are closely related, therefore, it can be defined that the difference between the two is that innovating means, in addition to moving or modifying something, also presenting new features, while the term change only consists of converting or mobilizing something.

It can also be said that change is not always seen as innovation, as it may not lead to improvement for the organization. Innovation, on the other hand, can lead to changes, as it is something new.

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<sup>1</sup> Master in International Business from Must University Florida. Graduated in Science and Economics from UNIFAL – Uni-Federal University of Alfenas. Email: julianaborgesmar@gmail.com



This is what Barroso and Delgado (2007, *apud* SÁNCHEZ, 2018, [np]), “consider that changes that occur in the global business environment are many and very fast, raising the level of uncertainty and the level of competition in the market, requiring a new attitude in organizations”.

Thus, based on the situation we live in, with the constant adaptations in a world in which the innovation is innovation, the following questions can be asked: what is the importance of innovation? *Business Intelligence* in this context? And, how does Enterprise Resource Planning (ERP) generate innovation and efficiency for the organization?

Thus, the answer to these questions is what we seek to find in carrying out this study, given that decision-making in an increasingly dynamic and competitive environment guides companies to find solutions to add value, making them more solidified in the face of to changes and innovations.

To achieve these purposes, this work was written based on bibliographical research, with collection of bibliographical material on the subject in *e-books*, scientific articles and *websites*, according to the proposed theme. According to Pizzani *et al.* (2012, p. 54), “bibliographical research is the literature review on the main theories that guide scientific work. This review is what we call a bibliographic survey or bibliographic review”. Secondary data acquired by other researchers was also used, from safe and proven sources.

This research is structured in three parts: the introduction that addresses decision-making that leads to innovation and changes in an organizational environment. The second addresses development, which highlights the importance of *Business Intelligence* in this decision-making scenario and, how Enterprise Resource Planning (ERP) generates innovation and efficiency for the organization. And, the third part, displays the conclusions of the study, presenting the significant points supported by readings carried out during the investigation.

It is understood that a change process happens efficiently if everyone is committed, as change happens through people. Therefore, it is essential to know the human factor, to know values, beliefs and behaviors, to maintain motivation and confidence, as it must be considered that we are always looking for something that brings us the same security as before. When there is some type of difficulty along the way, people tend to return to the past situation, this is the moment when many organizations fail, even after a short time of changes being implemented.

For Heckscher (1994, *apud* VASCONCELOS *et al.*, 2020, p. 897), “in an information and knowledge society, in which complexity, speed, and change are increasingly present, companies need to stop being bureaucratic and become collaborative”.

When it comes to making decisions, according to Martin *et al.* (2015), it is not only administrators or people who have positions to manage, who have this responsibility.

It is not just the administrator who makes the decisions. All people in the organization, in all areas of activity and hierarchical levels and in all situations, are continually making decisions related or not to their work. The organization is a complex system of decisions (CHIAVENA-TO, 2004, p. 277, *apud* MARTIN *et al.*, 2015, p. 219).

Effective change management allows for variation in strategy, processes, technology and as a whole, of the people who are part of the organization to achieve objectives, maximizing performance and sustaining progress in an environment marked by constant change. As Bullentini and Damásio (2019) state, a set of effective activities generate better results.

For Sánchez (2018, [np]), “creative means and methods are needed to face the processes of change, and thus satisfy the growing needs of society, organizations and individuals”.

Today, decision-making at an organizational level, promoting changes, is the foundation for improvement. continuous laughter of organizations. Thus, it can be said that knowledge is the differentiator to be competitive in the business environment.

Modern companies need to learn to live in an environment subject to constant change. To do this, they need to develop their capacity to generate innovations, not only in technologies, but also in products and processes. As innovations are made by people, the main resource for innovation is knowledge (MATTOS, 2002 p. 8).

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Consequently, innovation will exist in the organizational sphere, as a tool that enables better improve the organization's domain to achieve its strategic objectives.

The main innovations in organizations allow companies to position themselves against market competition, in addition to constantly monitoring the needs that arise during changing contexts. No organization can survive in different business markets if it does not have the competence to manage innovations effectively.

In this way, the measurement that organizations make regarding management in the face of changes is based on survival in response to conditions imposed by the market.

## 2. USING TECHNOLOGY IN THE BUSINESS ENVIRONMENT

The business universe is based on strategic decision-making. And, it can be stated, after reading carried out for the preparation of this work, that the distinction between a successful company and another that has not reached the same level, is in relation to precise and pertinent decision making.

At this juncture, information technologies play a significant role in enabling collection, storage and processing of data generated by the operation of the organization. With this, an ease is installed in the business environment in relation to the handling of information and, consequently, the motivation to reduce errors. It is believed that these were likely to exist due to the recording of data at several different times and places.

With this characteristic, it is necessary for companies to have an overview and to be able to make decisions intelligently. Like this:

The concept of business intelligence or BI emerged as a response to the new reality in which we live, where the globalized economy, capitalized by constant changes and the dissemination of the use of information technologies, has forced company executives and project managers to make business decisions. more agile and precise way, which in turn, affects the definition of the future of their respective enterprises (PATRÍCIO; STÁBILE; TÓFOLI, 2016, p. 8).

For Antonelli (2009), the *Business Intelligence*(BI), is a tool for collecting data, analyzing it and transforming it into information for organizations.

However, for authors Williams andWilliams (2010, *apud*AMOAKO 2013, p. 7)O "*Business Intelligence* is not a product, technology and/or methodology, but a combination of everything, to leverage information assets across key business processes to achieve better business performance."

However, it appears that the use of information technology in the business environment has brought facilities such as: companies can make better decisions, demonstrate recent data and describe the context of their business through reports, which is what the *Business Intelligence* offers. Therefore, the responsible leader will have opportunities to prepare the company for the current scenario it is experiencing.

For Bezerra and Siebra (2015, p. 239), "BI is an important tool for organizations, as it provides intelligent and updated information, with the purpose of improving the monitoring and management of business processes and speeding up decision making".

As per the case study by Michel (2009, *apud*HEIFER; SIEBRA, 2015), carried out in the group *Provider*, company in the industry since 1996 with a focus on developing management and operation solutions *contact center*, where the Data collection was carried out with 23 employees, including analysts, supervisors, coordinators, managers, director and member advisor. In this study, 69.57% completely agreed on the relevance of BI in decision making. It can be stated, through a statement by one of the interviewees for this research, as shown by G1 (terminology used to indicate one of the interviewees) cited by Bezerra and Siebra (2015, p. 239), "the main importance of BI is have information, with the aim of influencing quick, assertive decision-making and with the lowest cost involved".

In times of change, making decisions in a business environment requires intelligent, data-based measures.

data, so the *Business Intelligence* It has an important function and brings advantages to the company, such as increased efficiency, due to the ease and agility of data and agility, leading to quick responses, facilitating timely decision-making. Another advantage is the improvement in customer service, offering a higher quality service, having the potential to analyze customer behavior and products offered by the company, checking the history to compare data with its competitors. With BI, the company can identify and monitor trends to quickly adapt to changes in its environment.

The difference between a company that achieves growth and one that stagnates, between excellent service and poor service, between efficient inventory management and one with resource losses, between the success or failure of a company, is the appropriate use of resources. tools *Business Intelligence*.

Therefore, technology is combined to help companies achieve growth and profitability. Therefore, Enterprise Resource Planning (ERP) combined with the benefits of business intelligence are the sublime complement for the organization.

ERP is an abbreviation for *Enterprise Resource Planning* and its beginning, according to Costa, Francisco, Andrade, Silva, Souza (2016), took place in the 90s in corporate IT circles, as solutions.

According to Oliveira *et al.* (2008, p. 1), “the ERP system is sold with a package of applications that interconnect the entire company, having modules for finance, human resources, accounting, production, sales, planning, costs, among others”.

However, for Davenport (1998, *apud* ASOCIADOS, [nd], p. 5), “ERP is not a package of *software*, it’s a way of doing business.” Think, if a company can reduce the amount of resources employed, without abandoning quality and *performance*, it will be able to expand its business efficiently and appropriately. Thus allowing the acquisition of more accurate information, driving innovation, for example, in customer service, where needs will be met more easily by employees. Next, providing better business forecasts.

In direction, Bacon cited by Associates ([nd], p. 3) maintains, “those who are not willing to apply new remedies must expect new evils, because the greatest innovator is time”.

For this reason, ERP implementations drive overall efficiency and innovation in the business environment. These transform the way the organization works in a smarter and faster way, better allocating resources. Thus, based on this moment, innovation is established in the business world.

## FINAL CONSIDERATIONS

The research exposes a preamble related to the importance of decision-making aimed at innovation and change in an organization. It was found that organizational change is the foundation of continuous improvements in organizations and to be implemented successfully and permanently, humanized work in a corporate environment enriched with knowledge is extremely important.

The world is witnessing increasing competition. In this scenario, organizations that know how to manage effectively will need to find solutions that add value, in order to become more consolidated in the face of changes and innovations, which will consequently make it easier for the organization to achieve its strategic objectives.

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Technology is combined to help businesses achieve expected growth and profitability. Therefore, there are tools that help with decision-making in the business environment and offer an overview, in addition to leading to smarter decision-making, based on data, as mentioned during the research, *Business Intelligence*. It was found that this tool increases efficiency in organizations, as data becomes more accessible, consequently leading to more agile decision-making.

Another system that complements decision-making and benefits organizations is Enterprise Resource Planning (ERP), by offering synchronized reports, enabling more accurate information to be obtained, reducing risks and forecasting more accurately.

Thus, it turns out that with the increase in complexity, combined with a more competitive market for

business, there was a need for more computerized systems in corporate environments, which motivated the ideation of authentic systems.

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