

## ***BUSINESS INTELLIGENCE AND ERP (ENTERPRISE RESOURCE PLANNING) AND ITS ADVANTAGES IN ORGANIZATIONS.***

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### **SUMMARY**

Organizational change has been constantly discussed in organizational analyses, regarding the way and reasons why companies change or fail to change. It is important to understand that organizational change does not happen instantly; it is a gradual process that is gradually implemented. There are currently several support tools for organizations to ensure that these changes occur in a planned and safer manner. Business Intelligence (BI) is a very important aid for project management in organizations, as it collects and assembles company data, as well as parameters and indicators of its performance, transforming them into qualitative information. With Business Intelligence (BI) correctly implemented, the data that is and/or travels through the organization is available as consistent information to support decision-making. ERP (Enterprise Resource Planning) systems are capable of contributing to the automation of activities and process optimization. Thus, organizations gain much more in productivity, cost reduction and optimized tasks, in addition to more efficient management, directly influencing decision-making. With its premise of integrating data within the company, ERP systems generate faster access to higher quality information and emerge as a tool of great competitive advantage for organizations in the market. Both tools mentioned above bring advantages to organizations. **Keywords:** Organizational Change. Business Intelligence. *ERP (Enterprise Resource Planning)*

### **ABSTRACT**

Organizational change has been constantly discussed in organizational analyses, with regard to the form and reasons why companies change or fail to change. It is necessary to understand that organizational change does not happen instantly, it is a gradual process, which takes place gradually. Currently, there are several support tools for organizations, so that these changes occur in a planned and more secure way. Business Intelligence (BI) is a very important aid for project management in the organization, as it collects and gathers company data, as well as parameters and performance indicators, transforming them into qualitative information. With Business Intelligence (BI) implemented correctly, the data that is and/or travels through the organization is available as consistent information to support decision making. ERP Systems (Enterprise Resource Planning), are able to contribute to the automation of activities and optimization of processes. Thus, organizations gain much more in productivity, cost reduction and optimized tasks, in addition to more efficient management, directly influencing decision making. With its premise of integrating data within the company, ERP Systems, generate faster access to higher quality information, emerges as a tool of great competitive advantage for Organizations in the market. Both of the tools mentioned above bring benefits to organizations. **Keywords:** Organizational change. Business Intelligence. ERP (ENTERPRISE RESOURCE PLANNING)

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## 1 INTRODUCTION

The economic aspect of the globalized world has fostered a broad environment of competition between companies. The transition from the industrial era to the information era has once again brought information and knowledge to the forefront. Organizations are feeling increasing market pressures, forcing them to respond quickly to conditions that are constantly changing, forcing them to be innovative in the way they conduct their operations. Companies that do not adapt to the information society will find it difficult to resist the market, given that technological and marketing innovations emerge every day, in any area of the organization, and adapting is part of the organizational strategy to survive and succeed.

Organizational change has been constantly discussed in organizational analyses, regarding the way and reasons why companies change or fail to change. Some authors report that change is necessary for the survival of the company. Many times the change process has been adopted without the necessary study for the success of the company.

Organizational change as stated by Hall (as cited in Oliveira *et. al.* 2008) is an alteration and transformation of form in order to survive better in the environment, even in aspects of greater amplitude. This can occur as changes in factors of human behavior, strategies, structure, culture and technology.

Any change takes time and a lot of planning. Nowadays, using new strategies to help with this process is of utmost importance, especially because every change is met with resistance from team members, which can lead to many difficulties in the organization's transformation process. Using strategies using tools such as Business Intelligence (BI) will make all the difference in the company's decision-making.

The importance of decision-making in organizations means that our companies can move forward and remain in constant movement in the market. The ability to make decisions is key to successful planning at all levels of management, whether strategic, tactical or operational. Decision-making requires knowledge, based on information, which is obtained through data collected through the systems that the organization has in place. These systems must be innovative and of high quality to generate quality information, thus helping the organization to make the best decisions, so that it can be competitive in the market. To prepare this article, a bibliographical research was carried out, using a qualitative approach, with the aim of showing the importance of change.

organizational structure for decision making and identify within an organization the competitive advantages of using the Business Intelligence (BI) tool and Enterprise Resource Planning (ERP). This work will address concepts of Business Intelligence and its advantages, followed by concepts about Enterprise Resource Planning (ERP) and its efficiency for the organization in decision making. Ending with the final considerations.

## 2 DEVELOPMENT

### 2.1 ORGANIZATIONAL CHANGE

According to Araújo (apud Oliveira *et. al.* 2008), organizational change is a significant modification articulated, planned and operationalized by personnel internal or external to the organization, which has the support and supervision of management at high hierarchical levels, and which reaches in an integrated manner the behavioral, structural, technological and strategic components of the organization.

There are some factors that contribute to this change occurring, as Robbins comments (as cited in Oliveira *et. al.*, 2008) they act as triggers of change: the nature of the workforce, technology, economic shocks, competition, social trends and world politics. All of them are in the organization and appear at certain times, exerting some kind of pressure on the company.

We cannot fail to mention the resistance that exists within organizations to change, which can present some difficulties in the transformation process. There is a challenge to be overcome here:

In a company, resistance to change is as common as its necessity. After managers decide to make some change in the company, they often encounter resistance from employees to prevent this change from happening. Behind this resistance from employees is the fear of some personal loss, such as the reduction of individual prestige and the disruption of social and work relations, and the fear of personal failure, which may result from the inability to assume new responsibilities at work. (RIGHT, AS QUOTED IN OLIVEIRA *ET. AL.* 2008 P. 04).

This means that change generates “fear” in the people who make up the work team within the organization, hence the importance of having all sectors integrated, working in a clear and transparent way, as well as maintaining a good organizational climate.

within human resources, so that when there is a need to “change” the team is prepared. It is necessary that the organizational change process is well structured so that challenges can be overcome more easily.

It is necessary to understand that organizational change does not happen instantly, It is a gradual process that is gradually implemented. It can occur in several stages and of different types, as we will see below, as cited by Secaf, 2019: “There are different types of organizational changes. Each of them serves different objectives and can occur in different situations as well”. As we will see in the figure below, the 06 types of organizational change:



Source:SETTING, 2019

It is observed that each of them happens at a different stage of the company, depending on the moment it is going through and can occur of its own free will or even involuntarily. The important thing is that the company has the attitude to act at the right time and manages to remain “firm” in the market.

## 2.2 BUSINESS INTELLIGENCE (BI)

Business is dynamic inside and outside organizations, so dealing with these changes that occur constantly involves knowing what happened and predicting what might happen next. Thus, new tools are constantly emerging to help manage these changes.

organizations and among them we can mention Business Intelligence (*BI-Business Intelligence*), according to Loh (as cited in Patrício *et. al.*, ND): Business Intelligence (BI) consists of a process that involves several techniques, information, technologies, methods, metrics and tools with the purpose of analyzing and finding explanations for certain events or results, which in turn can be good or bad, that is, BI solutions seek the “why” of a problem or something that is susceptible to risk, in order to act on the causes and considerably reduce losses.

Therefore, Business Intelligence (BI) is a very important aid for project management in the organization, as it collects and gathers company data, as well as parameters and indicators of its performance, transforming them into qualitative information.

With BI implemented correctly, the data that is and/or travels through the organization is available as consistent information to support decision-making, and all areas and departments benefit from reduced costs, as well as a substantial increase in revenue, rapid alignment of project objectives with the interests of the company, as well as providing rapid solutions and responses to risks inherent to the organization's projects. (PATRÍCIO *et. al.*, ND). Artificial Intelligence (BI) allows companies to investigate and understand specific phenomena, create new products, services or processes, relate external factors to internal events, enable the visualization of financial data from different perspectives and predict future scenarios based on historical trends (KUMAR; apud FERNANDES, *et. al.*, 2017).



Source: DOYLE, 2018.

Artificial Intelligence (BI) tools help identify consumer trends and changes in the behavior of your target audience. Based on this, they help detect business opportunities, develop and launch new products, increase revenue and win new customers and markets.

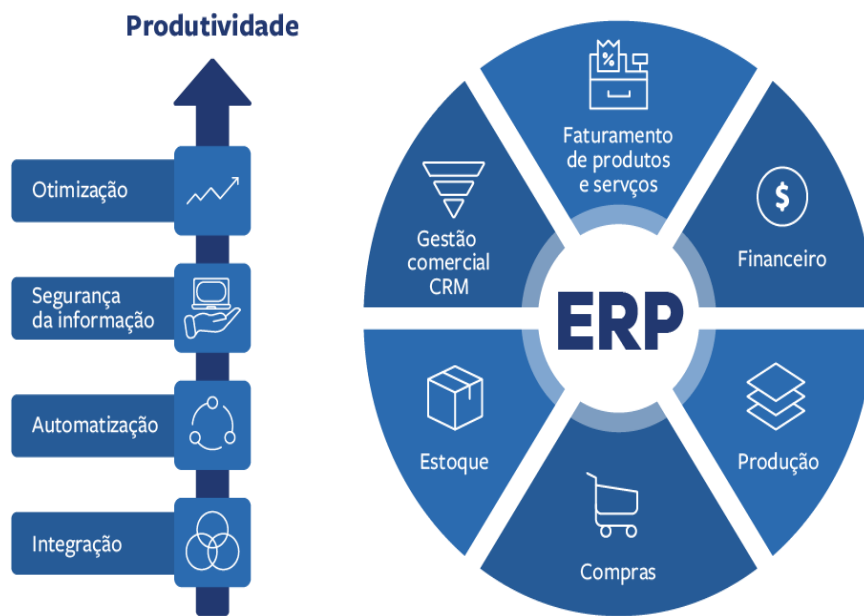
According to Siteware (2018), below is a list of 10 of the most important benefits of Business Intelligence (BI): Helps you understand your business; Improves the decision-making process, basing it on evidence; Facilitates access and sharing of information that will support management; Allows real-time analysis with quick navigation; Helps identify losses in the system; Reduces the risk of problems and obstacles; Delivers the right results, at the right time, to the right person; Identifies cross-selling and direct-selling opportunities; Enables quick responses to any business query; Obtains valuable information about your customers' behavior.

Among the countless benefits and advantages of Artificial Intelligence (BI), there has been unfounded pressure to adopt this tool or not, due to the repercussion of its benefits, which can lead to bad decisions being made and key assessment points being neglected. As it is a strategic IT, *payback* of the invested capital tends to be long-term, which can be seen as a negative point by some managers.

### 2.3 INTEGRATED MANAGEMENT SYSTEM (*ERP*)

Enterprise Resource Planning or Integrated Management System (*ERP*) has the same meaning, as we know that to manage an organization, it is necessary to have a good management system to contribute significantly when making decisions.

For Gordon and Gordon (as cited in Costa *et. al.*, 2016), the *ERP* is a set of applications purchased from a single supplier and which aims to cover a large part of the operational and administrative functions that the company needs and, sometimes, between corporate partners. Also called, System *ERP* (*Enterprise Resource Planning*) is a management information system that emerged in the 90s as corporate IT solutions, with the aim of helping managers make the best decisions within the organization.



Source:OMIE, 2021.

As can be seen in the figure above, the Systems (*ERP*), are capable of contributing to the automation of activities and the optimization of processes. Thus, organizations gain much more in terms of productivity, cost reduction and optimized tasks, in addition to more efficient management, directly influencing decision-making.

With its premise of integrating data within the company, ERP systems generate faster access to higher quality information, emerging as a tool of great competitive advantage for organizations in the market. It is assumed that the adoption of an ERP system entails major changes in all areas of the organization, such as technological, structural and behavioral changes. Considering that these changes generate impacts on its employees, and since employees are the most valuable asset of the organization, the possible impacts of this implementation must be managed in the best possible way. (COSTA et. al., 2016).

Among its benefits and competitive advantages, there are 03 classes of reasons that lead an organization to invest in Systems (*ERP*), according to Colângelo Filho (as cited in SILVA, 2011), which are: Business: associated with improving profitability or strengthening the organization's competitive position. Legislation: linked to the legal requirements that the company must comply with and that are not met by legacy systems (those in use in the company). Technology: related to the necessary changes resulting from the economic obsolescence of technologies in use or the demands of business partners. In order to be successful in implementing an ERP System, the information system is not enough.

provide good quality information to support decision-making activities and improve the company as a whole. It is also necessary for the decision-maker to know what to do to transform the good information provided into a good decision, as well as manage technology and monitor changes that occur, at an organizational and global level.

## **FINAL CONSIDERATIONS**

In this work, the concepts and advantages of Business Intelligence (BI) and the Management System (ERP) were highlighted. It was shown that BI solutions have enormous potential in helping managers in decision-making, and provide the necessary intelligence for the company to take advantage of business opportunities. However, this tool becomes a strong technological foundation if the organization has a good database throughout its existence, and needs to somehow recover this data in the form of information with the objective of helping company managers in making quick and safe decisions.

It also became clear that, despite the many benefits that the ERP system offers, its implementation is quite complex and subject to failure due to the major changes that this system generates in organizations. To avoid this, it is necessary to properly select the system supplier, the consultancy responsible for the implementation and good management of the impacts that the changes cause in the organizations and the people involved.

It is well known that organizational change alters and transforms, in order to survive better in the work environment, even broader aspects. This can happen as changes in several factors, from human behavior, strategies, structure, culture and technology. For the organization to be successful, the entire system must be integrated, using the necessary tools, such as those mentioned above, to obtain the greatest and best possible amount of information and for this to be transformed and used for good process performance and managed for better decision-making.

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