

THE IMPORTANCE OF BUSINESS INTELLIGENCE IN THE DECISION-MAKING PROCESS OF COMPANY X PINHALZINHO-SC

Karima Kurtz Colvero Kins

Hugo Silva Ferreira

SUMMARY

Over the years, companies have been going through several processes of organizational change, many transformations are taking place, and one of them is the insertion of technologies in the most diverse business segments. Information technology and business intelligence, *Business Intelligence* (BI), is becoming a reliable and great ally when we talk about strategy and decision-making. Organizations are using such technologies as a support tool in the way they manage and administer their processes and businesses. These tools help in the analysis of data and results that companies have, providing safer and more assertive decision-making, in addition to offering greater security to the owners. This study seeks to analyze the importance of this topic in the organizational environment of company X, located in the city of Pinhalzinho-SC. The data for this article were collected through an interview with the owners of the organization. In addition to analyzing the subject, one of the objectives of this work is to present a proposal for improvement for the company. **Keywords:** Change; Business Intelligence; Strategy; Decision Making.

ABSTRACT:

Over the years, companies are going through various organizational change processes, many transformations are taking place, and one of them is the insertion of technologies in the most diverse business segments. Information technology and business intelligence, Business Intelligence (BI), is becoming loyal and a great ally when it comes to strategy and decision making. Organizations are using such technologies as a support tool in the way they administer and manage their processes and businesses. These tools assist in the analysis of data and results that companies have, providing safer and more assertive decision making, in addition to offering greater security to owners. This study seeks to analyze the importance of this theme in the organizational environment of company X, located in the municipality of Pinhalzinho-SC. The data for this article was collected through an interview with the owners of the organization. In addition to doing an analysis on the subject, one of the objectives of this work is to present an improvement proposal for the company.

Keywords: Change; Business Intelligence (BI); Strategy; Decision Making.

1 INTRODUCTION

The last decades have been characterized by great and rapid changes, both in the social, political and economic spheres, in which companies face challenges

3Master's degree in Business Administration, Postgraduate degree in Production Engineering, Postgraduate degree in Marketing and Human Resources, Graduate degree in Psychology.

constant to maintain and remain in the market in an active and competitive way in relation to other organizations.

As a result of all these changes, companies are increasingly required to be prepared so that their administrators or managers can face such challenges, thus ensuring good administration for the organization.

Along with these changes, we are witnessing the growing development of technologies and artificial intelligence systems in companies on a daily basis. New possibilities are emerging to support managers in planning their actions and making business decisions. Increasingly, we are seeing a search for continuous improvement of processes and ensuring greater efficiency in the development and exercise of activities involving the organizational environment.

Companies and their managers are increasingly aware of the importance of having good planning for their actions and situations. Well-prepared planning can predict and avoid countless future problems. For this planning to be more assertive, it is essential that managers have information about the company, its numbers and results.

An organization that has a good level of planning regarding its actions and decisions is ahead of its competitors, as it works with real and truthful numbers and can act immediately or not, but directly to improve its processes.

In this context, this study seeks to analyze the introduction and insertion of business intelligence systems in companies and their importance and influence in the decision-making process, providing support for managers and offering the possibility of greater assertiveness in the choices made, in the face of daily situations faced by companies.

This study seeks to understand how strategic decision-making processes work and how they occur in the company participating in this study, in addition to presenting proposals for improvements to be implemented in the organization, regarding the tools that can be used by organizations to provide support in decision-making. Company X, participating in this study, is a family organization, an industry in the food sector, which has approximately 16 employees, distributed in the administrative, production, maintenance and quality control sectors. This organization is located in the city of Pinhalzinho-SC. The owners and directors of the company are two brothers, who manage the company and are responsible for planning and decision-making.

The methodology used to obtain data for this study and collect information was an interview with the owners about the tools and intelligence systems they use to plan and implement their actions related to the company. And to have a better understanding of the subjects described in this article, I will use bibliographies on the subject in question.

2 THEORETICAL FRAMEWORK

2.1 COMPETITIVE ADVANTAGES OF ORGANIZATIONS

Companies need to constantly renew and innovate their organizational, planning and action strategies in the face of the improvement and development processes necessary for business performance and to ensure their position in a competitive market. Strategies need to be constantly reviewed and evaluated, and for this to happen, the company needs to use some business support tools, which aim to provide reliable data regarding the company's results, sales, customer information, among others.

Management decisions, or decision-making, are directly related to the organization's competitive advantages. Each decision made must be carefully evaluated and analyzed in order to achieve better results. Each company has its own peculiarities, whether in products or services, each one has its own differential to win over its audience, its customers, and this is what will make consumers buy its products instead of buying from the competition.

Management support tools help monitor the company's overall performance, whether related to people management, sales, costs, etc. In addition to guiding the manager as to the best path to follow to lead the organization, that is, to create a business strategy.

Strategic management can be defined as a continuous process that aims to maintain an organization as a properly integrated set, forming part of its environment. In carrying out strategic management, several basic steps are required: carrying out an assessment of the environment; establishing an organizational guideline; formulating an organizational strategy; implementing the organizational strategy; and strategic control (COELHO, 2009). In addition, strategic management is also defined as a set of intentional and planned, strategic activities,

operational and organizational, which seeks to adapt and integrate the company's internal capacity to the external environment (TAVARES, 2010).

Each company has its own peculiarities, both in products and services, and what makes it competitive and gives it advantages over its competitors are the actions that it will define, develop and apply as its strategy to stand out from the rest. For Oliveira (2007, p.222), "competitive advantage is that something extra that identifies the products and services and the markets for which the company is effectively able to act in a differentiated way". Each company has its own peculiarities, both in products and services. The company under study has a person responsible for monitoring and making the most of innovations in the digital universe, with the aim of offering better products at lower costs and staying informed about its results.

They are currently using social media to promote their products and sending marketing emails. They believe that results come from small actions that they can develop and implement.

With regard to suppliers, the company negotiates lower prices in an attempt to reduce the production costs of its products. It realizes that in some situations, it is not worth choosing a supplier that has better prices, since it is necessary to evaluate the quality of the product supplied. Competitive strategy means becoming different from your competitors. This means that a set of specific activities must be developed to support the strategic position (MINTZBERG *ET AL*, 2007). To better understand competitive advantage in companies, we need to be clear that strategy alone does not ensure or guarantee business success. It is essential that the strategic option is flexible. Every strategy is based on assumptions that can be changed unexpectedly. Therefore, strategy often constitutes the difference between a company's success and failure (OLIVEIRA, 2014).

2.2 BUSINESS INTELLIGENCE (BI)

Today's technology is highly developed and can offer companies several methodologies and tools that are increasingly advanced and modern. This technological advancement is evolving rapidly. There are many opportunities for improvement that organizations can apply to obtain accurate information regarding their results, whether daily, monthly or annual.

Business Intelligence (BI) is a set of theories and methodologies used by companies to assist and provide support in various situations involving strategic and organizational problems, through the analysis of results and data in a reduced time, avoiding possible waste of resources. BI systems combined with the data available in the organization provide relevant information that supports the construction of knowledge about the organization itself, its business and entities outside the organization, such as its partners. This knowledge obtained is essential to support the decision-making process. (SANTOS; RAMOS, 2009)

The main objective of BI systems is to provide interactive access to data, allowing the company to manipulate it and providing managers with the conditions to perform the necessary analyses for each piece of information. By analyzing historical and current data, BI maximizes the chances of making decisions more accurately in relation to the current state of the business. The BI process can be understood as the process of transforming data into information, information into decisions and then into actions. (TURBAN *et. al.*, 2010)

The BI tool enables the creation of strategies that would not be possible without a more in-depth analysis in an environment close to reality. BI can be explored in greater depth and answer questions that enable the formulation of analysis and control of corporate strategy (PENNA, 2003). Many companies still do not invest in data analysis technologies and methodologies. This lack of analysis can lead to several negative impacts for the organization, since it is precisely through data analysis that the company will be able to organize itself and plan its future business strategies, resulting in the continuous improvement of business processes.

The lack of data analysis can result in several situations that generate losses for companies, disorganization being one of them, in which several data or information are mixed up and can generate erroneous interpretations, consequently leading to poorly implemented strategic decisions. Also, much data that should be treated as a priority ends up being forgotten and not interpreted or analyzed.

The lack of information analysis compromises decision-making by managers, as there is no control over tasks that may or may not add value. There are three important pillars for good administrative management of an organization: time, cost and quality. One of the challenges that companies face is being able to identify expenses that are not being made efficiently. This type of situation can limit the company's production capacity and in this type of situation, the analysis of the company's data becomes essential.

Another problem that the lack of data analysis can cause is reworking some of the company's activities and tasks. Reworking generates unnecessary expenses, in addition to increasing costs that we cannot see, and employees' working hours are overcharged. However, Business Intelligence (BI) methodologies can be used by any type or size of company and the benefits of BI are guaranteed, as you can now look at and analyze information about the company that was previously not analyzed. Smaller companies also need to read their data and results in order to develop their strategies and remain competitive in the market.

The desire for continuous improvement and the constant pursuit of growth are the biggest motivators for business managers to adopt BI methodologies. However, some leaders still show some resistance to these changes.

Organizations are not created solely for the purpose of survival, but are designed to grow and develop continuously. An essential factor for this to actually happen is the creation of competitive advantage, which can be understood as offensive or defensive actions to obtain a defensible position in an organization, to successfully face its competitors and, thus, achieve a greater return on investment for the company (PORTER, 2004).

In today's world, the space for companies that do not want or do not believe in business intelligence is increasingly restricted. Not believing in these methodologies is like standing still in time, like stagnation. Technologies are present in the day-to-day life of organizations and this presence will only increase over the years. We are going through several processes of constant transformation and change at a very fast pace. BI provides us with ready-made information, all we need to do is interpret and analyze it. This information was not available a few years ago or the controls were performed manually.

2.3 E-BUSINESS

The current context has required companies to develop new tools and forms of negotiation. The possibilities are endless, and decision-making by companies is likely to be better and more assertive if they obtain information in a timely manner.

Organizations must be prepared to embrace the changes and innovations that arise all the time. The automation of business processes must be managed for the necessary storage, mapping and retrieval of information. The relentless pursuit of excellence in the business sector at lower and more competitive costs, for the

achieving an advantage over its competitors means that organizations are increasingly opting to adopt new forms of relationships, represented by E-Business.

According to Zilber (2002), e-business activity (electronic business) is understood as those activities that use specific application tools to conduct business, regardless of the type of participants involved: between companies, between companies and end consumers, for example, using electronic means. It is an activity that can offer some benefits to companies that consider it in their business strategies.

Zilber (2002) states that the management system of New Economy companies is a constant interaction between plans, implementations and adjustments – in other words, a continuous process of renewal through feedback. In the New Economy, this interaction and dynamism are intense and the process is full of surprises, requiring great flexibility and speed on the part of organizations. Companies produce and need to sell, but everything starts with the purchase, and for this, systems are needed to generate information and controls, both information related to supplier registrations, prices, goods, and data and information that satisfy internal control, and especially the customer.

According to Padoveze (2003), it is essential that the controller monitors the business as the manager of the Information System. Therefore, it is important to develop a tool to assist in automation, analysis and reporting, seeking to provide accountability and information, with the controller's executives as managers of this process.

The demand for Internet use has increased significantly in recent years, which has generated a different business perception in relation to Internet use, that is, a better offer to the consumer.

Brazil is the country where users stay online the longest, around 43 hours and 57 minutes, followed by the French with 39 hours and 23 minutes and the Germans with 37 hours and 23 minutes¹. However, in relation to the number of active users, Brazil occupies the third position with 53.5 million users according to the Net Insight study - a study by IBOPE Media². According to Turchi (2012), in Latin America online searches represent 85.5%, followed by access to social networks with 81.9%, e-mails, entertainment and instant messaging come in third. Thus, a large investment began to improve and develop the Internet, consequently the increase in demand for Internet use implied fierce competition between communication vehicles and

hardware and software suppliers. The result of this makes the Internet a fundamental role in the economic development of industries. (DEITEL; DEITEL, 2004).

For Martins (2006), SWOT analysis is one of the most common practices in organizations, as its action is focused and directed towards strategic thinking and marketing. It is relatively laborious to produce, however, constant practice can give the professional a better business vision, after all, the scenarios in which the company operates are always changing.

According to Chiavenato and Sapiro (2003), the objective of carrying out a SWOT analysis is to relate and link the possibilities of opportunities and external and internal threats to the organization with its strengths and also the points for improvement.

Therefore, it is very valid and important that organizations are concerned with creating strategies for using the possibilities and tools of e-Business, to have better conditions for creating their strategies.

2.4 WORLDWIDE TRENDS AND THE IMPACT ON SALES VOLUME

The Internet is increasingly present in the daily lives of organizations and individuals. Information and technologies related to the virtual environment are evolving very quickly. Transformation and innovation are words that we hear more and more. These words predominate in the business world.

These technologies are here to stay, so we need to be flexible and open-minded to understand, accept and embrace new business management methods and tools.

Organizations that know how to use these tools correctly will always be one step ahead of their competitors. Online sales have increased and people are becoming less afraid of shopping online. Companies can and should use the Internet to promote their products, make sales and maintain relationships with customers and suppliers.

Websites and WhatsApp are possibilities for quickly advertising products and a way to reach many people at the same time, for example WhatsApp groups. The chance of increasing the organization's sales using these two possibilities is great depending on the audience reached with the advertising.

3 DATA ANALYSIS

The company managers who participated in this study are aware that there are numerous actions that can be applied in their company, but they still manage using older methods. They have a perspective that the company will experience growth and increased production, and they know that they will need to develop and apply other tools for competitive advantages, as they need to constantly evolve.

The organization under study also tries to be competitive when it comes to the price of its products, trying to set lower prices than its direct competitors. The company under study does not have the BI methodology and when questioned, the company's managers argue that they do not yet use BI due to costs, that is, with the objective of saving money. They believe that because the company is small, it is not viable and the cost-benefit would not compensate.

Company owners report that they know that some process lines have high costs, in addition to generating rework in many activities. Managers report that a lot of data and information ends up getting lost in the middle of the process and that they would like to and know that they need to do things differently.

When asked if they are aware of the benefits that business intelligence can offer, they respond that they are aware, but I do not feel confident in their response. I believe that they do not know in detail, but only superficially.

They believe that the costs of having BI in their organization are very high and they don't know if it's worth having the tools, as they are a very small company.

The company participating in this study does not have an after-sales service to ensure customer loyalty and also to listen to them in order to understand their needs and interests. I sensed a certain insecurity on the part of the owners regarding the use of IT-related technologies. One of the owners said: "It has always been like this, and it has worked, at least until now. (LAUGHS)".

The organization advertises some of its products on Facebook, but it has no strategy for this and is not organized to do so. It does not have a frequency or products chosen for advertising. They do this advertising randomly. Sometimes the daughter of one of the owners posts something.

The company only has to gain if they start using BI tools, even if there is a cost for their implementation, they will have more and greater information about their business.

and it would certainly be the best way to analyze the data and, from there, make decisions and develop strategies to face possible problems.

4 PROPOSALS FOR IMPLEMENTING AND IMPROVING PROCESSES FOR COMPANY X

Proposal A: Develop and apply the SWOT analysis method to perform a strategic analysis of the business, identifying its strengths, weaknesses, opportunities for improvement and potential threats. This analysis can be used to provide the directors with an assessment of the company in various aspects.

Proposal B: Conduct a survey with customers to assess their level of satisfaction with the products offered and with the company. In addition, you can learn a little more about each customer's profile.

Proposal C: Bring together the team of employees responsible for managing the company's social networks to create and organize a strategy to better use social networks to promote products. Define the product and frequency, for example.

FINAL CONSIDERATIONS

Based on the bibliographic study carried out and the interview conducted with the owners of the company x participant in this work, it is possible to identify that the company has several possibilities and opportunities for improvement related to its management strategies.

It is clear that company x does not adequately use some tools that could improve the organization's administrative management and, consequently, its results. The search for continuous improvement of processes is increasingly present in the day-to-day of companies and it is this that makes organizations be in a constant process of transformation and innovation of their processes and also of the technology used. It is important that organizations know their customers, their profile and what they are looking for, so that they can put together a strategic plan with greater possibility of assertiveness in their actions and achieve the objectives intended by the company.

It is clear that the company needs to adapt quickly to the changes that the market demands, so that it can keep up with its competitors more competitively. However, the owners of the organization under study are very concerned about the possible expenses they will have when implementing some of the situations proposed in this work. When presenting the

proposals for improvements that the organization may be adopting, the importance of using technological assets to obtain information and thus be able to make a decision based on the institution's real and daily situations will also be highlighted.

The decision-making process is extremely important in the management of an organization, as it is where the paths that the company will follow are defined and, as such, it must be supported by various strategic forms and tools to ensure that decisions are the most correct possible, in addition to avoiding or reducing possible losses.

Based on this research, the importance of Business Intelligence was observed, which, combined with methodologies from the administration field, becomes a very valuable and successful tool for increasing profits, in addition to understanding the impacts and repercussions that a wrong decision can cause for the company.

Based on the results obtained, it can be concluded that using the SWOT matrix as a strategic tool will help the organization remain competitive in the market. It is important to emphasize that SWOT analysis is not the only tool that a company should use to achieve results and competitive advantage; the company should use and apply other strategies to enhance its performance. If the company looks to the future, it will be able to see the benefits that the SWOT matrix can offer as a continuous improvement of its processes. Technologies help organizations by providing support regarding the information and data to be observed and analyzed, seeking to achieve the organization's objectives. It is extremely important for the company to have knowledge about its reality, results and its customers.

Therefore, the company under study could monitor its data and results more effectively, developing performance indicators, for example. Creating goals for sectors and results that it does not currently have. In this way, using strategic tools to facilitate decision-making.

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