



**THE IMPORTANCE OF INFORMATION TECHNOLOGY AS AN INSTRUMENT  
FOR HOSPITAL MANAGEMENT IN THE PRIVATE SECTOR IN THE CITY OF  
IMPERATRIZ - MA**

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**Abstract:**

Information Technology (IT) invaded the competitive market to change things for the better as they used to be, and these days it has become one of the most crucial pieces in the business environment, being of fundamental importance for the three levels of a company (strategic, tactical and operational). The present study aims to analyze the importance of IT as an instrument for hospital management, in order to achieve improvement in the services provided, and consequently the competitive improvement in the city of Imperatriz. As for the methodology used, it was quantitative in nature through field research. The results confirmed the ITs provide great benefits for management, highlighting improvement, quality and agility of the processes.

**Key words:** Information Technology. Hospital management. Private sector. Services provided.

## 1. INTRODUCTION

Information technology has been gaining more strength in recent years and is already an essential part of many companies, helping to improve administrative management processes, contributing to streamlining processes and facilitating the handling of large amounts of information and as a great competitive tool.

When it comes to (IT) in hospital management, this is not very different. It has undergone great changes over the last few years and significant advances that help in the execution of the most varied issues that involve the hospital environment, because, with the

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growing need to getting fast and accurate information on hospital activities, favors decision making within the organization, so it is necessary to apply information technology and execute it in the most correct way possible, so that it is possible to arrive at fast data and accurate to improve its quality of execution and service.

Aiming to understand the role of Information Technology (IT) management and its use in hospitals in the private sector, its main objective is to analyze the importance of IT as an instrument for hospital management in order to achieve improvement in the services provided and consequently competitive improvement in the city of Imperatriz.

In true line, demonstrating its contribution in order to improve efficiency, quality of management in the activities carried out within the organization, considering that currently, the great technological changes and evolutions have arrived to collaborate with the managers.

The problem arises from the assumption that information technology is of fundamental importance for proper use in hospital management as an instrument for improving the services provided in management.

Because of this, the reason that led to the choice of the theme was due to the conclusion that IT is an instrument of fundamental importance for the success of all types of organizations, managing to provide if used correctly, practicality, speed and greater need in data collection.

## **2. THEORETICAL FRAMEWORK**

In the last decade, the interest in obtaining fast and concrete information has become a more than important tool in the business world. According to Oliveira (2007) "Information technology is considered one of the most important components of the current business environment, and Brazilian organizations have been using this technology mode widely and intensively".

When observing its evolution, it can be said that: Information Technology ended up becoming an instrument of fundamental importance in almost all management processes, adding to its results: quality, financial return, security, agility, analysis of results (with greater precision), and being used as a pillar for decision making in organizations.

Nowadays it is very difficult to imagine a company without the resources and benefits of computing, even more so in large companies, without it this would cause immense damage

to organizations, not to mention that they would lose their space in the market for being behind compared to competitors that use this tool.

For a long time, information technology was considered a mere support item by organizations, a "means of costs without purpose" that at first did not generate any return to the company. But the utilities of IT were gaining space within organizations, if before technology was used only to automate tasks and eliminate human work, it gradually began to enrich the entire organizational process, helping to optimize activities and removing "barriers" of communication inside and outside the company.

In terms of definition, Information Technology (IT) is a set of technological tools and resources that provide information management or storage in a large school (REZENDE; ABREU 2001). It can also be highlighted that these intelligent systems are not necessarily limited to software or hardware, but are also able to involve strategic or planning knowledge within the company.

According to Rezende and Abreu (2001, p.78), "Information technology is technological and computational resources for the generation and use of information". In this understanding, Cruz (2000, p.24) "Information Technology is any and all devices that have the capacity to process data and or information both systemically and sporadically, that are applied to the product that is applied in the process".

## **2.1 Information Technology within the hospital environment**

Hospital management, or as it is better known, hospital administration, aims to manage health systems, their processes, people, materials and equipment (CRUZ, 2000). Tasks may also include the planning and control of purchases and costs, the supervision of contracts and agreements, the diagnosis and solution of technical and administrative problems, the development, innovation and application of new methodologies in the areas it covers.

The hospital space has been going through multiple evolution processes in its way of being and carrying out its activities, an evolutionary procedure where the search for the qualification of its services is sought, due to this it is necessary to implement a technological information management system obtained within the environment, since the information that is often obtained is not used end up inertia, as employees and managers often do not know what to do with the data obtained.

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It is noticed that even nowadays with technology there are barriers regarding the use of Information Technology in companies and hospitals are not left out, the lack of investment in hospital information systems, the lack of adequate equipment, lack of training continues of IT professionals and employees is worrying as high importance in some cases is not given due attention.

In recent years, the diffusion of technology has become somewhat unstoppable for people's daily lives, as well as for organizational life, such that information technology has become an indispensable tool for all types of management, and hospital management is not a bit out of this context, quite the contrary, when we touch on the specific point in which health management is, the importance of IT within this environment has an immense burden of responsibility since it involves work that aims to observe, care for, and solve problems that involve customers' lives.

The implantation of IT within the hospital environment, take place, due to the need to obtain concrete data, quickly and effectively so that a safe and efficient execution of what is requested for each occasion when the managers meet at the moment, if having to worry about “maybe” doesn't work, maybe wrong, IT's role is to remove and bring the solution to this “small” big problem within the hospital environment.

The purpose of IT within the hospital system is a need demanded by all who use its services, so that it is possible to achieve excellence in its services. The information system will have the function of attending to its activities and responding appropriately to the needs created by the organization, in addition to having to present the collected information in a fast, organized and updated way for analysis (REZENDE; ABREU, 2001).

It is also worth mentioning in this context what would become the information system mentioned above. For Laudon & Laudon, (1999) they are information systems that are made up of systems that use or do not use information technology resources, manipulating and generating information.

According to Rezende & Abreu (2001), an information system is a process of transforming data into information, which are used in the company's decision-making process and provide administrative support in order to optimize the expected results.

Observing these concepts, realize that both information technology and information systems are closely interconnected, thus being great facilitators for the generation and transmission of each information obtained, especially those obtained for business use, where

they are located. transformation into a weapon for rival companies and to be used as a tool for continuous improvement within the organization and its employees.

### **3. METHODOLOGY**

As for the type of research, it seeks to demonstrate the importance of information technology in the hospital management segment in the private sector of the city of Imperatriz - MA. The methods used to carry out the proposed work were given through quantitative research. For the theoretical elaboration, bibliographies and documentary files of authors were used that characterize and address the theme of information technology and its use and importance in hospital management, including scientific articles, citations, books and search sites.

Regarding the research universe, there were 4 (four) private sector hospitals in the city of Imperatriz / MA. The questionnaire was prepared with 10 closed questions, with a questionnaire being carried out in each company surveyed for the manager responsible for the sector.

The nature of the research has a quantitative focus where Oliveira (2007), “states that quantitative research means quantifying opinions, data, in the ways of collecting information, as well as the use of resources and techniques from the simplest ones, such as average percentage and fashion. ”.

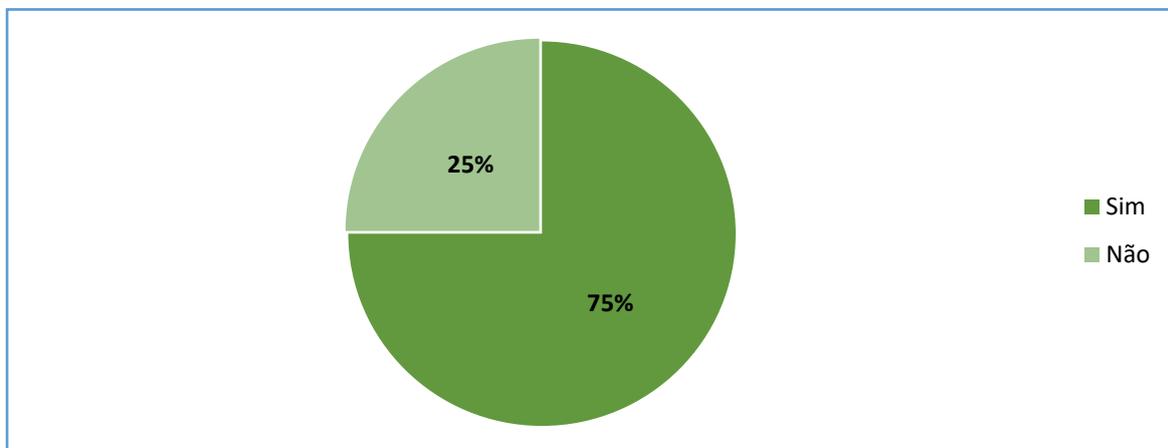
As for data collection, these were carried out through field research using the quantitative and qualitative method (carried out covering a sample of 4 companies in the hospital sector according to the schedule defined in the project, being private located in the city of Imperatriz - MA ) to be answered by the managers, with the collected data being tabulated and presented in graphical form, for later comments on each approached criterion.

Finally, the analysis of the data that, after the concepts about the importance of IT for hospital management, explained during the theoretical framework, is of paramount importance to the analysis of the questionnaires and so that the information obtained can be presented in the best possible way. during the application of the questionnaires, thus confirming whether what was seen really exists and is carried out in practice and not just in theory. The research data were tabulated and presented in the form of graphs for further analysis and interpretation.

#### **4. RESULTS AND DISCUSSIONS**

The survey was carried out through questionnaires, which were applied to general or specific managers in the IT sector, where 50% of respondents are female and the other 50% male. Regarding the level of education, 100% have higher education, where 75% are graduates, and 25% post-graduates. It is understood that managers need to be qualified in the use of information technology, as it is of paramount importance that they are trained to deal with these instruments in the face of a market with major changes and technological requirements.

##### **1. Knowledge about Information Technology (IT)**

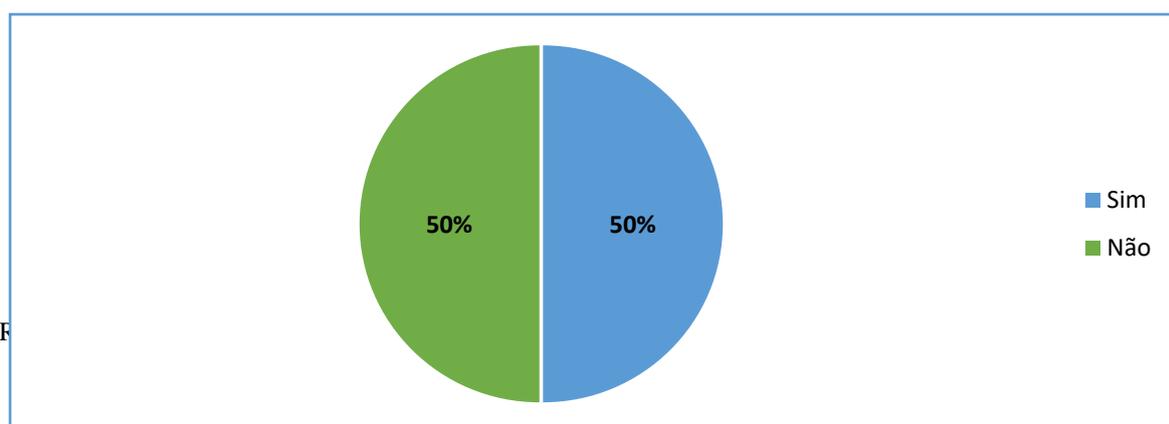


Source: Prepared by the authors (2015)

In the answer obtained about the knowledge about Information Technology (IT) 75% of the interviewees answered that they have knowledge about the subject both in theory and in practice, already 25% answered that they do not have a convinced knowledge about the subject in theory, because to a certain time is not updated on the mentioned theme.

So, as shown in the graph, most of the people interviewed have full or partial knowledge about Information Technology and know how to proceed in a clear way on the subject, on the other hand, the minority interviewed has only one level of knowledge and this is reduced to practical.

##### **2. The company has an IT infrastructure with some information system**



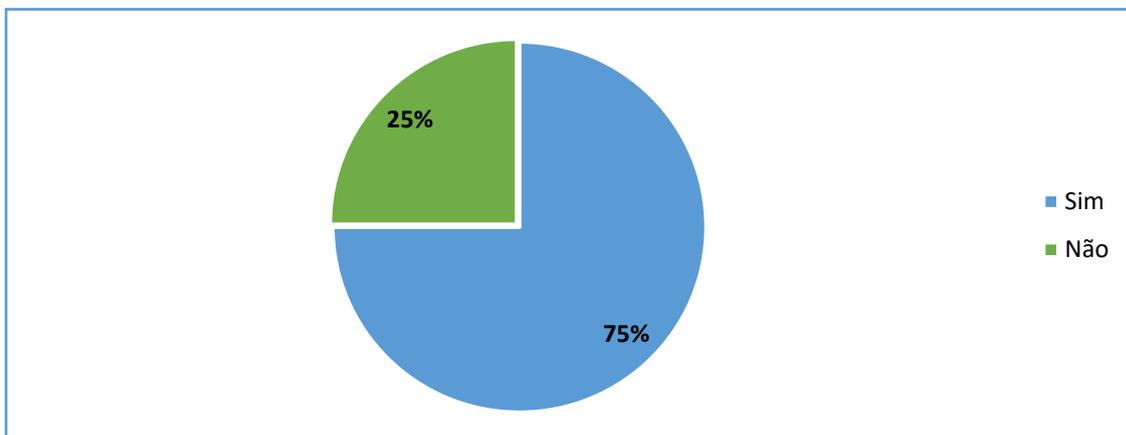
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Source: Prepared by the authors (2015)

Addressing the subject of an integrated system to Information Technology (IT), 50% of the interviewees said that they do have a system that works with or completely IT, while the other 50% answered that they use only IT as a tool to help in the execution some activities.

It was possible to conclude that the researched organizations use other technological instruments to improve the quality and precision of their activities, and those that do not have any complementary tools justified that their technological instruments are limited to an IT system, due to the lack of collaborators. specialized in the area and the lack of interest of those already within the organization.

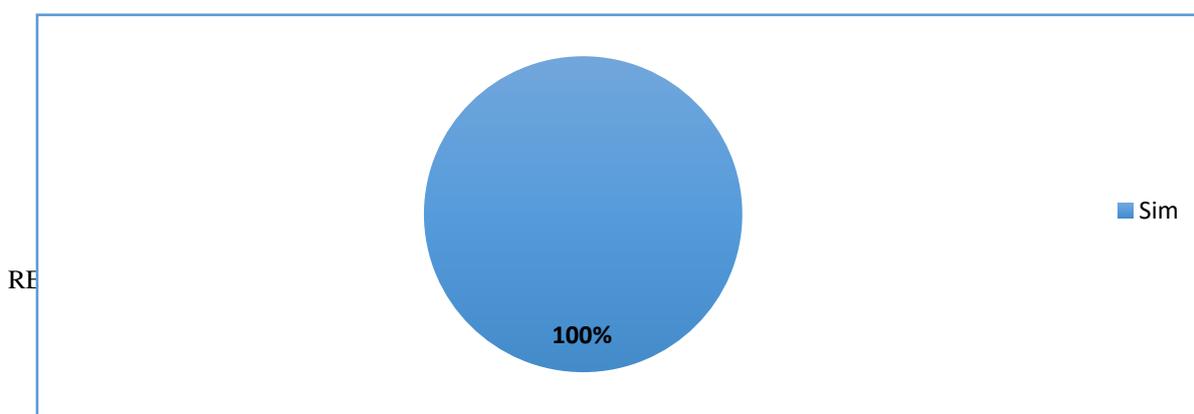
### 3. The importance of IT for the organization?



Source: Prepared by the authors (2015)

When the subject addressed was about the importance of Information Technology within the organization 75% of the interviewees answered that without the use of IT within their segment, which is the hospital, it would be almost impossible to perform and interact with activities in order to improve its execution and accuracy within a hospital system, however the 25% answered that IT is really an excellent way to perform activities safely and in order to get real data, but they think it is possible to live without it, as a tool of fundamental importance for carrying out actions within the organization.

### 4. IT provides some facilitation in management processes.

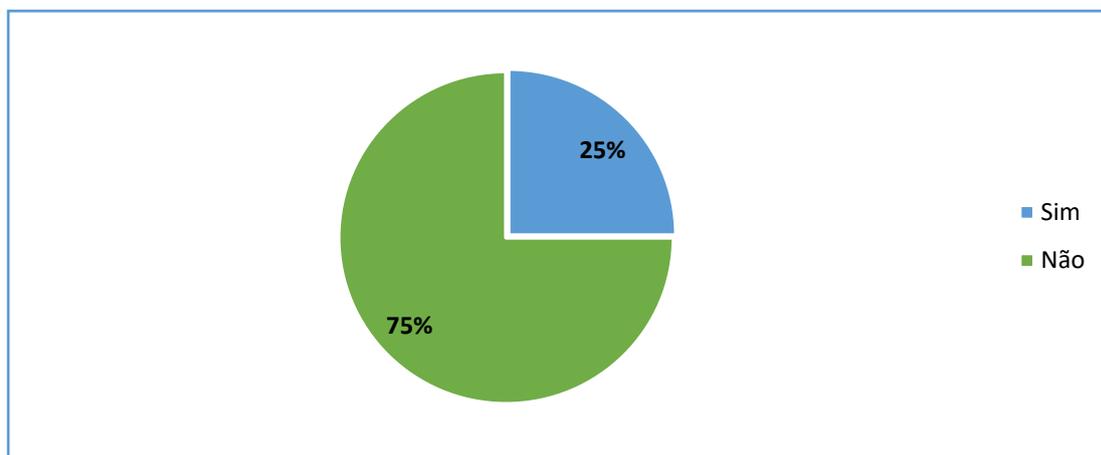


Source: Prepared by the authors (2015)

Regarding work facilitation when implementing Information Technology as an instrument for carrying out activities within the organization, 100% stated that the implementation of IT within the company facilitated the carrying out of activities, communication and internal strategic planning.

In the analysis of this answer, it was possible to perceive the extreme importance of Information Technology within organizations today, not only in the hospital segment, but in the general context, it is necessary to go hand in hand with technological evolution, because, with each day it grows more and if companies do not follow it they will lose their place in the market.

#### 5. Training employees to deal with the technology used.



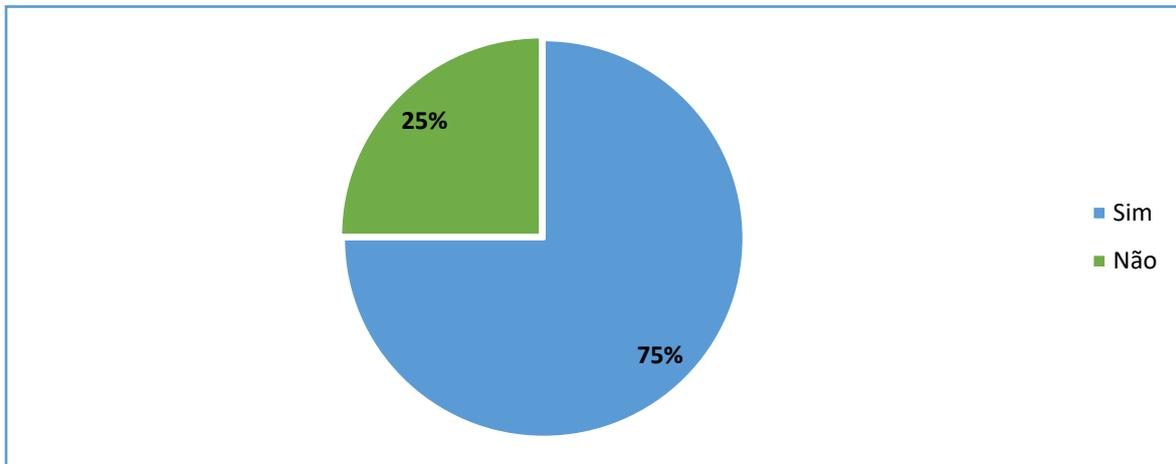
Source: Prepared by the authors (2015)

When the subject addressed was focused on training employees to use IT within the company, 75% of respondents stated that there was no specific training to deal with it, and only 25% of respondents said that they had a certain specialization so that employees could handle the tool.

It can be seen that despite the importance of its use within companies, the training for the use of Information Technology is still scarce on the part of managers, because first they adhere to IT in their portfolio and then, who knows, if possible they provide an adequate adaptation for its collaborators.

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6. The use of information technology has provided greater security and precision in the decision-making processes.

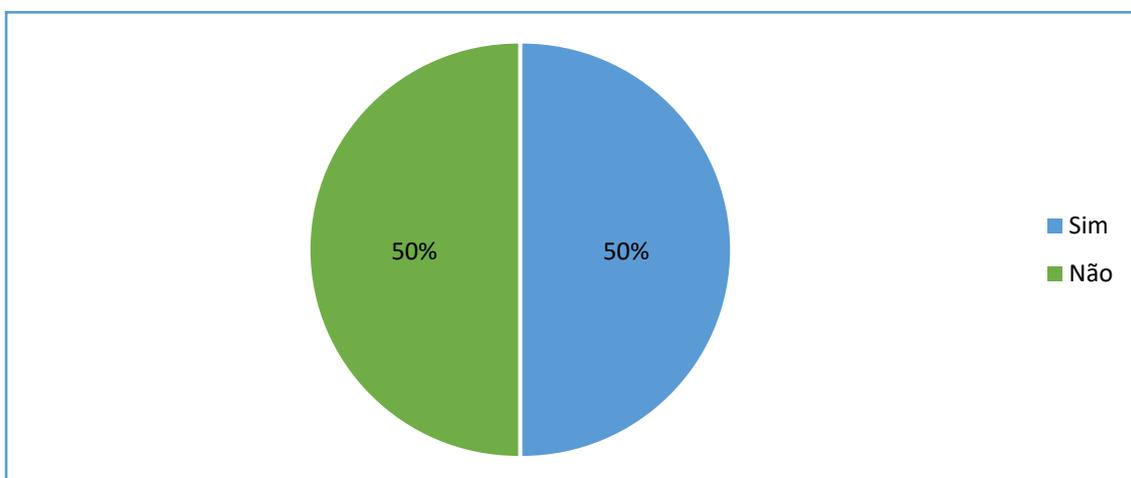


Source: Prepared by the authors (2015)

Regarding security and the use of IT as a tool for decision making, 75% of respondents stated that, with the implementation of IT within the business environment, it provided a level of security and an increase in the percentage of data collection, and this resulted in its use for almost all types of decision making that appear within the company, while the minority with 25% affirms that the level of security in data collection is extremely relevant, but they do not always use it to choose a decision, it is only used when you are not sure what can be done.

He was able to observe that the highest percentage of the interviewees makes maximum use of the capacity that IT can provide within the organization, but the other part leaves something to be desired about its reliability with the tool.

7. The IT system used by management is up to date with new technologies.



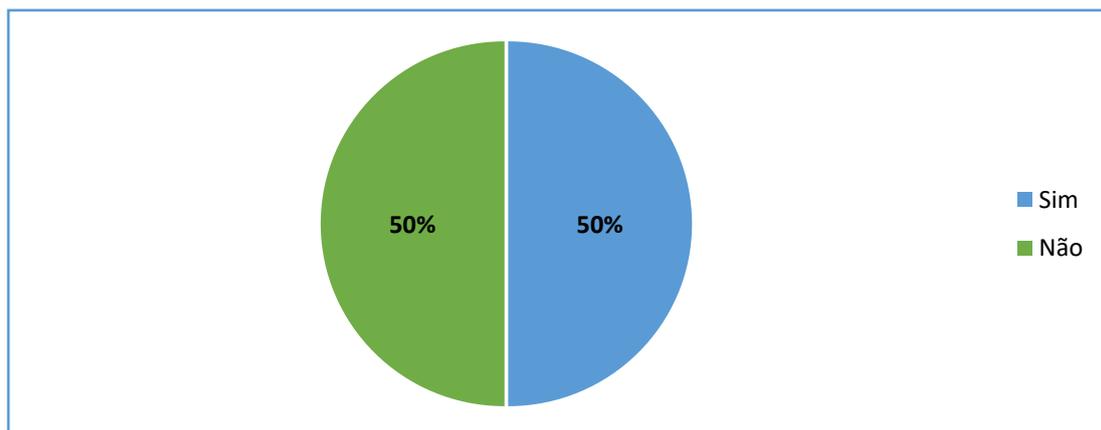
Source: Prepared by the authors (2015)

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When asked about the constant technological evolution and the company's ability to update itself, 50% of respondents said that they always seek to improve their technological skills, both in machinery and in personal knowledge, and the other 50% say that it is not always possible to be at the same level of evolution of IT tools, but that whenever possible is looking for a way to not be left behind.

It was concluded that the ability to keep up-to-date within the market occurs through a certain point of the managers' will, but in other cases it is also due to their lack of adaptation since they themselves still cannot keep up with the constant that is the modification, evolution of technology, mainly in the business sector.

### 8. The use of IT as an instrument is adequate to support management.



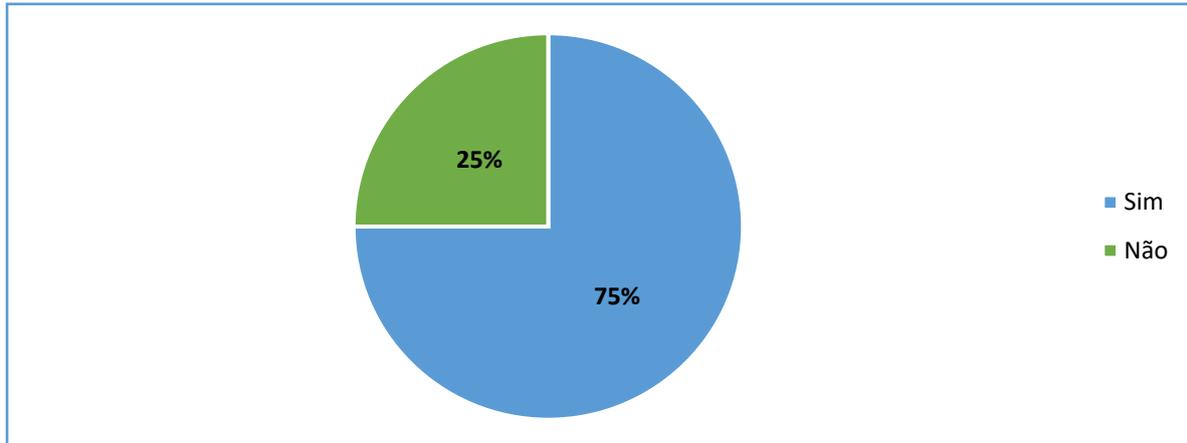
Source: Elaborated by the authors (2015)

Speaking of IT as a support for management 50% of respondents answered that, IT is an instrument of fundamental importance for management, because with it it is possible to have security, and practicality in what facilitates and a lot of work, so without shadow of doubts it fits perfectly well as a support tool for management, for the other 50% they believe that there are other better tools to support management, both in execution and in decision making.

He realized that managers questioned IT as a fundamental support for management, but failed to state this point with conviction. This point is questionable because none of the managers had any convinced arguments to affirm their points, and nothing so that they could not claim that IT is not the best support tool for clean and healthy management.

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9. The implementation of information technology within the company has improved internal control of activities.



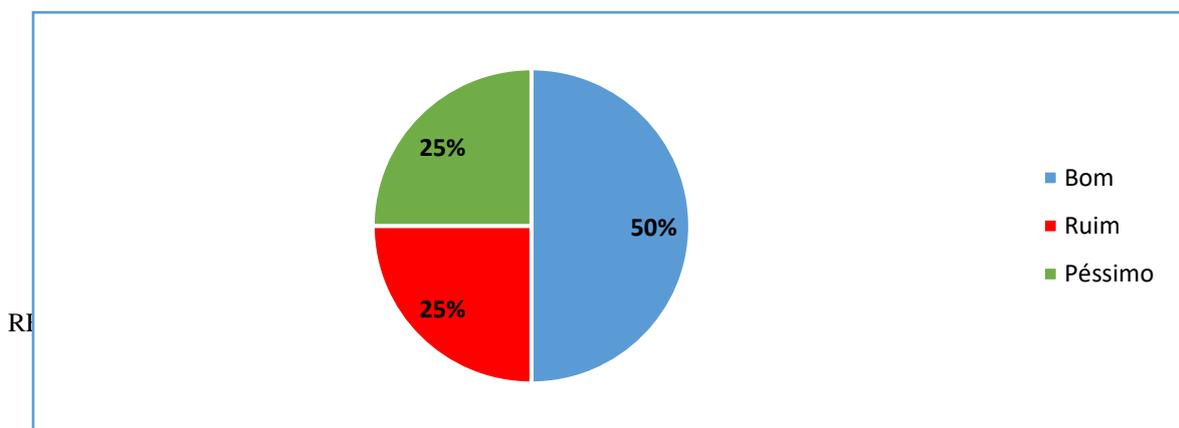
Source: Prepared by the authors, (2015)

When approached about the improvement on IT implementation, 75% affirm that the organization had an improvement in its quality of work, they affirmed that, with the implantation of IT, the division of tasks, such as empowerment in the sectors, streamlined the way of how to manage within the environment, which provided a reduction in time and expenses, making the way of working cleaner, the other 25% said that IT within the company facilitated the execution of some activities, but that did not bring about a change drastic within the context of the company.

It was noticed that the IT capacity is used according to the need in which the environment itself needs it, which can be of extreme or medium impact within the environment in which it is implemented.

It was also noticed a controversy of the majority in this questioning, because in topic 8 (eight), where IT was approached as support, none managed to create a convinced argument to affirm that it is not one of the, but the best support instrument for management , already in this questioning, the majority stated that IT is indeed a tool of fundamental importance, and brings several benefits to business management.

10. Management is classified from the technological point of view.



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Source: Prepared by the authors, (2015)

In order to classify IT from the point of view of technological management, 50% say that about 80% of the procedures are performed safely, with practicality, speed, quality and computerized, 25% say that the procedures in the organization are computerized, but at a less relevant level about 50% of the cases, but says that it is only in this that it leaves something to be desired, the other 25% reveal that less than 35% of the procedures are done in a computerized way, due to the lack of qualified people.

It is possible to conclude that there is still a need for better qualification so that employees can provide a better performance in the use of IT's within organizations.

It concluded with the questionnaires addressing the quality of how information technology is viewed from the point of view of managers, the result was gratifying, since most of them see it as an indispensable means for management, and affirm that in fact IT is more than a viable instrument to be implemented and used for management not only in hospitals, but in a business context.

### **5. FINAL CONSIDERATIONS AND RECOMMENDATIONS**

This article aims to prove through the collected data, the applied research, the authors researched on the topic addressed, the importance of Information Technology not only within the companies of the hospital system, but also in a general business context, it was possible to confirm the its importance for hospital management, in private hospitals in the city of Imperatriz / MA, where the majority of respondents confirmed not only once the importance of implementing IT within organizations.

It was possible to identify that in the organizational scenario, information technology is a support tool for the construction of a computerized quality management, where it provides flexibility, credibility, quality, speed and precision in data collection for decision making.

It was also observed that despite the benefits that IT provides it is still not taken very seriously, managers program it within organizations, but do not provide the appropriate qualification so that employees can demand everything it provides for the business environment , this is a problem that must be solved as soon as possible, as technologies evolve every day, and if companies do not qualify to follow this evolutionary explosion, they have lost time, money and their place within the competitive market.

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It is of utmost importance to adopt tools based on information technology for the survival of any and all organizations that want to remain in the market. To keep the company within the necessary parameters, it is necessary to perform, maintain and update the system, provide more space for IT within the organization, seek specialization not only from employees, but from managers, as it is of fundamental importance to keep updated, invest in new technologies and finally to value and give full attention to the information technology systems inside and outside the organization.

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