

Knowledge Management in brazilians small organizations

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## **1. Abstract**

Facing the great amount of information that is available inside organizations, it is sometimes hard to select what is relevant and what can contribute to improve global performance. In this context, Knowledge Management tools can aid in knowledge capture, register and sharing processes, since those are spread through the organizations.

This research intend to propose a method to apply Knowledge Management in small and medium organizations, having as model a wood artifact enterprise, placed in the interior of São Paulo state, in Brazil. The goal is to study which are the contributions and importance of using Knowledge Management techniques in smaller organizations. To verify this hypothesis, the focus was Marketing and Production departments, improving their strategic role to the organization.

## **2. Introduction**

The development of computer networks, telecommunication systems and Internet have favoured the increase of business world speed and made the access to information and knowledge more democratic.

With industrial revolution, knowledge of total process and worker's individual contribution to final results has become retained with managers. In industrial era, workers have few knowledge about the global business models as they are treated as replaceable pieces.

So, in organizations, knowledge and information are disseminated, embodied in process, documents, attitudes and mainly, inside workers mind. This know-how is not always available and accessible, because few people have global vision of the organization. This might lead workers to reinvent the wheel, wasting time and resources.

Davenport and Prusak (2000) say that organizations must turn their attentions to their knowledge embodied in routines and practices due the new perception of global competition. It involves quick changes, increasing competition and sophisticated customers, leading organizations to seek for sustainable competitive advantages. According to the authors, managers have realized that what workers know is the kernel of how things work and how they can improve.

Bergeron (2003) says that volatile economy, high turnover, political changes over the world, global competition and quick changes characterize modern economical environment. The result is that it is not possible to compete in the market without competent workers and methods to manage people's knowledge, and also all the process and technologies involved in the business.

The only effective competitive advantage is through knowledge embodied in products and business process, because knowledge is the only resource that is hard to duplicate. It could bring sustainable advantage. Price and quality are not the only factors to assure survival in a highly competitive market.

### **3. Knowledge Management**

In this environment, manufacture must hit a relevant performance level so that the customers consider judging its standards face concurrency.

A healthy manufacture helps the organizations to support attacks from concurrency and improves organizational competitive performance. So, manufacture must have a strategic guidance, and not waste time in solving problems (SLACK et al, 1996).

To do so, manufacture must understand what is its contribution to the organizational performance as a whole and how this will be evaluated.

To understand which performance objectives come first, the organization must understand the specific need of customers, watch concurrency activities and analyze what is the stage in product's life cycle. Translate the customers needs involves to decide what is more important and what influences the given priority to each manufacture objective.

Still according to Slack (1996), concurrency supplies the parameters against which the organization must judge its performance, leading manufacture to surpass their levels. So, competitors determine the level to reach.

According to Kotler e Armstrong (1995), many factors contribute to a business success, but successful companies have a common attitude: they are focused in their customers and committed to marketing. This means that these companies seek to understand and satisfy customer's needs and motivate their employees to produce a superior value to these customers. To create value and satisfaction to the customer is modern marketing's main role: "Marketing is to give satisfaction to the customer in a profitable way". (KOTLER & ARMSTRONG, 1995).

Still according to the authors, value and costs are not judged with accuracy by the customer, but by his perception. Satisfaction also depends on the product performance, perceived in relations to the buyer's expectation.

To make all these information, which are many times inside people's mind, produce some Marketing intelligence; it is necessary that workers and stakeholders feel the importance of sharing them. Many times, people are totally focused in their daily jobs and they cannot realize the benefits of this information exchange, that might lead them to see new facts, find more efficient ways to work and improve their performance and the organization performance as a whole.

To get competitive advantage means to offer to the customers more value than concurrency, through low prices or other benefits. (KOTLER & ARMSTRONG, 1995). However, nowadays, any benefit can be copied by concurrency. There are few entry barriers that can be put by the organization. Davenport & Prusak (2000) stand that it is virtually impossible to prevent competitors to copy and improve new products, manufacture methods, due a large mobility of ideas, techniques as reverse engineer and technology highly available. Technology, low prices and quality don't supply protection anymore.

In this context, Knowledge Management (KM) has arrived. According to Awad e Ghaziri (2003), Knowledge Management is a new way to conduct business, having knowledge as focus. KM is the process of capturing and using collective experience in any business area. Besides, to leverage KM implantation, Information Technology is required to capture, distribute and share this knowledge, jointing human experts with documented knowledge in a unique and integrated Knowledge Management System.

Bukowitz e Willians (1999) define that Knowledge Management is the process by which the organizations generates incomes, from its knowledge or intellectual

capital. To Bergeron (2003), knowledge management is the ability to capture, archive and access the best practices of knowledge and decision making in the organization, from employees and managers.

Finally, Serrano and Fialho (2003), stand that KM is the set of processes and means to create, use and spread knowledge inside a organization, recognizing knowledge as the most important asset in the company.

#### **4. Small and Medium Brazilian Organizations**

Brazil has peculiar characteristics in organizations' managing. An interesting fact is that, according to SEBRAE, 98% of Brazilian companies are small, reaching a total of 4 millions companies. These data consider only formal economy, leaving in the outside thousands of informal small business, which are very numerous in the country.

Brazilian managers have to conduct their companies facing very different situations from large business reality (CASAS, 2006). Generally, the owner makes all the decisions and takes care of several administrative functions. Although the overload and concentrations of information, this allows a more large vision of the business.

According to Lim and Klobas (2000), small organizations tend to be "regionally or locally focused, have a narrowed scope of business, and have less financial and administrative 'slack'." The authors also say that the management, executes by the owners, is more focused in the core business, do not pay much attention to other issues and cannot afford expensive consultancy services.

Small organizations tend to be more flexible and less formal. Employees are not so specialized and many times they are dislocated to other jobs. There is high level of face to face contact, what may help in information exchange.

According to Casas (2006), Brazilian manager is flexible and understands about many business subjects, acquiring a particular way to solve problems. The main difficulty is the lack of financial resources, because it is more difficult to them to get resources and financing. This lack of resources prevents them of hiring good professionals, leading them to improvise with a much reduced staff.

In major cases, success depends on the owners attitudes face the challenges situations. A small and wrong decision may seriously compromise the company. According to (2006), managers must analyze market opportunities and use these conditions in a profitable way and developing the company.

Lim and Klobas (2000) point out that, how small organizations generally do not have dedicated information professionals, they rely on knowledge brought by new employees and consultants. So, they tend to suffer more with the loss of those people.

## **5. The studied organization**

This research developed a set of recommendations to apply KM in small and medium organizations, using as case study a company from furniture and school articles. Due the research proposal, this study will use a set of information technology tools to support its implementation. We are aware that other factors, such as manager style, organizational culture, motivation and reward system must be considered to implement KM. However, this research will focus on IT.

Another question that was considered is how to evaluate KM's contribution and importance to small organizations, because most of the studies in this area are focused in large companies.

## **6. Problem description**

To verify this question – that KM is important to small organizations – the study area was delimited: the share of information between marketing and manufacture, with intention to help manufacture to perform a more strategic role inside the organization. This delimitation is necessary, because large projects tend to failure, according to Awad & Ghaziri (2003). KM is relatively new to small Brazilian organizations, and so it was necessary to use pilot-projects, with a smaller reach, what may help the success. Serrano & Fialho (2003) say that it is natural and very common that organizations, even the large ones, start with pilot-projects, with more narrow reach and limited resources, experiencing in a more controlled way the application of KM's concepts.

To develop this research, it was used a medium company, with familiar managing, placed in a city from São Paulo state, that performs in school articles market. We noticed that, to this sector, there were not any specific researches or studies. In specialized magazines opinion researches, such as “Lojas” (from stationery market), the company has been placed between the most remembered board manufactures. The company also appears as a main manufacture in the painting market.

It performs in four main segments (stationery, toys, school furniture and domestic utilities). It has initiated its activities in 1991 and has an expressive participation in the market, with products in main distribution channels in Brazil. The company does not have many peculiar characteristics, with a batch manufacture and a large product mix (about 800). The company has commercial reps all over Brazil, and also distributes its products in Mexico, Bolivia, Uruguay and Panama.

In this moment, the company is starting to change the main manager role from the owner to his descendents, with large amount of investments in many areas. With a change in the market that happened recently, the company had to restructure itself to

supply new market demands. Sales have increased 30% in the last year. In figure 1 we can observe a chart of sales volume in last years, in percentage:

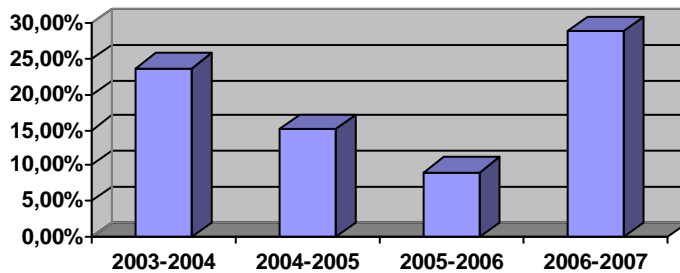


FIGURE 1 – CHART % SALES INCREASE. Source: studied company

Investment level in new machines and building increased between 2002 and 2003 (43%) and after that has been around 10% of increase from one year to another. In 2007, the company made large investments in machines, buildings, and information systems

Given the exposed facts, KM application in this moment of the company's life is strategic. The limited area (Marketing/ Manufacture) may use KM to leverage even more the its development and consolidate its leadership in the marketing.

## 7. Used methodology

The research was developed through an applied, qualitative, explicative research, using a company as model to apply proposed KM techniques. It was used as main method direct observation. It was made several interviews and questionings to get information such as: communication structure, sharing knowledge methods, motivation, and others.

From this initial diagnosis, they were extracted from existent bibliography KM methods that were already applied. After that, we evaluated which ones would be possible to use, given the company's characteristics, such as existent structure, culture, among others.

The information sources were: employees, managers, reps and customers. The goal was, through a set of techniques and tools, to make manufacture workers to have a better view of the company's market, helping manufacture to play its strategic role.

In this way, the shared information by people that have direct contact to the market (customers, reps, sales employees) would make the translation of customers needs to manufacture employees, helping and motivating them in the process of continuous improvement to support those needs.

To evaluate how the share of information and knowledge between Marketing and Manufacture can improve global performance, it was created several indicators, which were determined after initial diagnosis.

The determined metrics have as goal to measure the improvement of the company's performance. They were divided in four categories: market/ customers, financial, human and product/process.

Market/ customers category intend to transmit market vision about the company, measuring customer satisfaction, level of supplied needs. Some examples:

- Amount of returned products (in R\$);
- Number of sales with any problems.
- Number of sales delivered on schedule;
- Increase of sales;
- Amount of sales by thousand inhabitants;
- Customer satisfaction level;
- Average sale value.

Financial aspect measures how KM is translated in profit. Between these metrics, there are:

- Profit from new business;

- Profit form clients recovered;
- Technology investments;
- Avoided expenses by communication failures.

Human category measures workers, reps, suppliers and stakeholders involvement:

- Workers motivation level;
- Number of people with effective participation on KM project;
- Turn over;
- Number of contribution on the company's website;
- Investment in workers education.

Finally, products/ process measures how good the products supply customer's needs. :

- Proportion of new/ renew products;
- Number of refused products;
- Number of new business or increase of customers;
- Sales amount by product or by group of products.

## **8. Preliminar results**

Like all KM initiative, this research involved human, organizational, financial and technological issues. Because it is a small company, access to people is faster, due physical proximity and a more informal relationship. These factors make involvement and motivation easier. However, there also is information concentration in some areas, resistances and communication failures. In major cases, these problems have a simple solution, with a reorganization of procedures and rules, with a follow up by managers.

One of the main problems in human factor is that smaller organizations develop in a non-organized way. Employees are many times very involved in the daily job and

do not follow the changes, ignoring the need to establish new procedures and new ways to communicate. During its development, old procedures become obsolete, and some of them must be renewed and executed in a more formalized way. This new “bureaucracy” is not well-seen, but it brings many benefits. With an increasing volume of work, papers and decisions, it is not possible to manage the same way it was in the past.

There is also the matter of lack of free time, a great drawback in KM implementation in small organizations. Small organizations work with a much reduced staff, for financial reasons. Workers have their time consumed by daily job. The overload brought by KM can become a big problem, if there was not an effective planning of how and when Km activities will be developed. If this planning fails, KM will be seen as a non-important activity, and will be put in second plan, leading the project to failure. It is also important that the KM system be integrated to the existing culture and information systems, to absorb part of this overload.

In organizational aspects, there is the need to redefine some procedures and work philosophy. Due the company’s size, the owner is more accessible and to conquer support can be less difficult. To convince this kind of business man, it is necessary to define very clear objectives and to present potential benefits. It is also important to define a schedule to evaluate results. Failures in this area may quickly affect the trust in the project and make it come to an end.

Smaller companies have few financial resources to invest. Unlike large companies, an investment that does not bring expected results may seriously affect the company’s financial health. So, projects costs must be carefully studied and benefits must appear in short and medium terms.

Related to this, smaller companies cannot afford to buy the more advanced technologies to KM projects. Solutions must have a very practical focus, making

communication and exchange of information easier. Technology in KM projects are tools and do not have the main role. To small organizations, some interesting solutions may be based on the use of groupware, build corporate portals, smart use of e-mail, and others, using the existing IT structures or making small acquisitions.

This research was not entirely finished and new aspects will be studied in future works.

## **9. Conclusion**

Globalization has affected all companies, including small and medium ones, which will have to compete with large organizations all over the world. To survive in this market, where technology, price and products may be duplicated at any moment, one of the only viable ways is to seek competitive advantages through Knowledge Management. This means to manage, to capture, to store and to reuse embodied know-how in a strategic way to be noticed in a global market.

To smaller business, a KM project must be more focused in concrete results and financial profits in short and medium terms, due financial and human limitations. Unlike large organizations, where it is possible to dislocate people and resources to a project that take years to be concluded, small companies can not hire new people and neither allocate great amounts of resources to a KM project. In these cases, the methods must be simpler and more effective.

However, the use of KM is very important to all companies, because it preserves the most important asset: the intellectual asset – because it can not be duplicated easily by competitors. It was noticed a great deficiency in research in KM to small business. So, this research is relevant, mainly in a country like Brazil that has almost all of its

companies in this category. To observe the results, a new research intends to effectively apply the proposed KM project.

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