

## Information technology and its impact over sales function: a case study

## Tecnologia de informação e seu impacto sobre a função vendas: um estudo de caso

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### Abstract

Information Technology (IT) has become a crucial factor in the successful administration of the data flow by offering competitive advantages in the identification and cut of activities with no added value, in the integration of suppliers and partners and in the interaction and communication with customers. Thus this study – which focused on the customer – aims at analyzing the contribution of IT to the sales function, by means of a qualitative survey made with the direct customers of a paper industry with an important share in the Brazilian market. The survey indicates that, despite the good impression the customer had of the company's services and products, its IT was underused, especially the remote access facility, although the customer wanted to use it to establish regular contact with the company. People and processes are a hindrance to the use of IT, which means that the company must not only invest in the system itself, but also train and inform the commercial personnel and their customers.

**Key words:** information technology; sales; business marketing.

### Resumo

A Tecnologia de Informação (TI) vem se tornando fator crítico de sucesso para a administração do fluxo de informações, oferecendo vantagens competitivas como na identificação e eliminação de atividades sem valor agregado, na integração com fornecedores e parceiros, como também na interação e comunicação com clientes. Este estudo objetivou verificar, com enfoque no cliente e por meio de uma pesquisa qualitativa aplicada nos clientes diretos de uma indústria de papel com significativa participação no mercado brasileiro, as contribuições da TI para a função vendas, constatando-se as facilidades e as dificuldades percebidas para o negócio e para o relacionamento com os clientes, mediante a adoção da TI pela empresa estudada. Os resultados da pesquisa indicam que, apesar da boa impressão em relação à empresa estudada, seus serviços e produtos, há uma subutilização da TI oferecida pela organização, principalmente do acesso remoto, mesmo sendo da vontade do cliente utilizá-lo como facilitador do seu relacionamento comercial. Essa dificuldade esbarra em processos e pessoas, necessitando, além do investimento em sistemas em si, de um trabalho de treinamento e divulgação junto à equipe comercial e seus clientes.

**Palavras-chave:** tecnologia de informação; vendas; marketing empresarial.

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## Introduction

The world is changing, and a lot faster than before. Traditional markets which were used to the calm and predictability are shrinking or becoming less competitive. Profit margin is being decreased while there is great demand for better-quality products and lower prices. Customers and consumers are demanding more services with added value. This new era has forced companies to restructure themselves, by reviewing businesses and processes, investing in training, and using the modern technology available in order to survive.

In this new context, Kotler (1999, p.397) defines the market-oriented companies as companies seeking to build customer satisfaction through solid and lasting relationships, which should be long-term and profitable for the whole commercial chain, in contrast to simple, fragile transactions. Relationship marketing would help companies compete in a globalized world, i.e., "find ways to integrate the customer with the company; build and sustain a relationship between the company and the customer." (McKENNA, 1997, p.1).

The information era has revolutionized the relationship between companies and their customers. Technology, together with marketing – and particularly relationship marketing – was one of the facilitators of this process. Albertin (2000, p.5) mentions organizations' increasingly interest in the use of IT (Information Technology) since it is a powerful tool that changes the companies' basis of competitiveness, as well as their strategic and operational basis. Bretzke (1999, p.2-3) points out that the company's reorganization takes place in two areas: that of IT and that of marketing. Information is becoming a good worth almost as much as workers, raw material and money. Information-driven companies are likely to be successful in the market not only because of the information they have about their competitors, the economy, and the business world, but especially because they know a great deal about each and every one of their customers, and their needs and expectations that have not yet been fulfilled. Willcocks

and Lester (1997) apud Laurindo (2002, p.22), points out in their studies that investments in IT are increasingly higher and riskier, with hidden costs that depend on several factors such as the training of the staff, the size of the company, and the complexity of the business. On the other hand, several questions arise because there is no clear understanding of how IT contributes to the business, and this happens as a result of the limitations of the assessment process used.

The process of buying and selling is one of the most important elements in this context and is probably the one that has profited the most from the technological advances that took place in the past decades. Providing real and up-to-date knowledge that may contribute to faster and more efficient decisions or simply to innovations that help to strengthen the relationships between companies and their customers, IT is not a helping tool used only by experts anymore, but a fundamental piece for the whole organization. All the IT available – which includes database marketing, market information systems, computerized sales department, integrated systems of relationships, telecommunication tools – integrated with marketing is causing profound changes in the way companies see business and the customer in particular.

To understand all these questions, this study aims at identifying the good and bad points of the use of IT in the sales function, with emphasis on the customer. A qualitative survey was thus carried out with customers of a Brazilian company with important share in the paper sector. The study initially discusses topics related to the subject, such as the development of relationship marketing and of IT itself, and then refers to the integration of technology with the sales function, as well as the gains and barriers resulting from this relationship. This is followed by a presentation of the methodological procedures used in this research, the company studied and the results obtained. Lastly, the general conclusions and the limitations of the research are discussed.

# 1 Literature review

## 1.1 Relationship marketing

Changes take place at such a rapid pace nowadays, and are so unpredictable that the behavioral patterns established by the market are no longer sustainable. According to Mckenna (1997, p.21-22), in this new era of fierce competition, several factors force the company to reevaluate its business, and especially its relationship with the customers.

Some years ago, the good salesperson used to have that unpleasant stereotype associated with “taking orders” and resorting to nothing but a smile or a nice gesture to please the buyer who was already regarded as a great differential at a time of great service supply. Wotruba (1996, p.328) points out that the sales process is turning into a less persuasive activity, and the negotiation that used to be based on prices is now based on differences in value which are noticed by the customer through the service offering added to the product, be it in marketing, delivery logistics, or company-customer relationship. As organizations evolved, the function of the sales and buying departments and their respective agents has become more important, especially in a highly competitive market where complex negotiations take place, even in commodity markets where competing products are similar. In addition, according to Gobe (2000, p.106), the responsibility of sales professionals is no longer limited to the commercialization of products; instead, it is the information they have and their forecasts that constitute the starting point for the several tasks in the organization, such as the purchase of raw materials, development of new products and marketing budget. Organizations that are not totally customer-oriented or do not have professionals and processes that support this philosophy will not succeed in a hypercompetitive market.

Relationship marketing adopts a customer-oriented approach and implements it by making use of it accurately and efficiently. It is not enough to have satisfied customers – they must be loyal to the company. In one-to-one marketing, it is vital to develop and manage relationships with customers in order to change their behavior over time and strengthen their bonds with the company, targeting at an increase in profit, not only in sales. The sales team must understand the relationship of values that take part in decision-making prior to the purchase, particularly in business sales, and use this relationship to help them negotiate with their customer, according to the situation or characteristics involved.

## 1.2 The importance of IT

As competition becomes fiercer, organizations have been trying harder and more often to achieve new competitive positions that may add a differential element to their business and give them advantages. This situation, pushed by the technological advances from the past decades, has given rise to a crucial element for success – the concern over doing things right and the best way possible, that is, making the fewest mistakes and providing the customer with good products and services. One way to win this competitive advantage is to use the technology available, or as Porter (1989, p.153) put it, “of all things that may alter the rules of competition, technological change is one of the most prominent.” It is in this context that IT appears and alters the rules of competition when it is used wisely.

The economy and companies belong to an information society. Information can be used to reduce costs, establish value, encourage innovation, minimize risk or in any other activity that may bring the fundamental competitive advantages to succeed in the business. While discussing the power of information,

Davidow and Malone (1992) apud Antonialli (1996, p.17) mention that:

the extraordinary advances in information processing are dynamo of virtual corporation; besides, in the next years, incremental differences in the company's ability to acquire, distribute, store, analyze and resort to actions based on information will determine who will win and who will lose the battle for customers. [...] The company's ability to operate and create products and services will depend on its ability to collect, process, integrate and control this information.

Porter (1989, p.156) states that "information system technology is adopted in different ways, since each activity of value creates and uses information." Keen (1996, p.XVI) sees the history of information technology as a history of never-ending change, where the electronically interconnected world is not only faster and more efficient, but also characterized by fundamental changes in businesses, companies, and in society itself.

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IT, as quoted by Albertin (2000, p.5), constitutes one of the most powerful tools for companies concerning products, services and markets, and may be able to shorten distances and raise the speed and amount of information available, thus deeply changing the bases of strategic and operational competitiveness of companies and sectors as never seen before. IT, which in the beginning focused solely on the administrative support of the organization (traditional orientation), has an important strategic role in today's society, be it in the maintenance of existing business strategies, or in the new business strategies, both driven by technological

advances (competitive advantage). IT is more than technology, it is information and therefore must be related to the business. The increase of opportunities created by the use of IT is as fast as that of new, simpler and easy-to-use applications, which become available for the organizations and do not require experts in technology; instead, professionals must be able to talk and decide on what investment to make and how fast, once IT is no longer a peripheral subject in organizations.

### 1.3 The value of IT

Despite the strategic importance of IT in the past years, there is still difficulty predicting the value of IT especially in companies where investment return is still based on historic results (post-facto) or the executives' intuition. This difficulty results from the fact that benefits are not always tangible, despite being fundamental for improving the positioning of the company in the market. Graeml (2000, p.77) gives examples of intangible benefits obtained with the use of IT, such as the increase of the capacity of perception of the customers' needs and consequently the improvement in customer service, quality of products, innovations, competitiveness, etc. Henderson and Venkatraman (1993, p.6) point out that one of the reasons why companies are not able to obtain considerable return from the investments in IT is the lack of coordination and alignment between business and IT strategies, which cannot be a simple or isolated event, but a continuous and dynamic process over time.

Graeml (2000, p.33) comments that the presence of strategic decisions involving great amounts of money, which are many times crucial for the future of the organization, makes it necessary to consider the expenditure on IT – except for the continuous costs with maintenance of infrastructure and the replacement of consumer goods – as strategic investments, specially

if it was taken into account the impact on the future of the organization (altering processes, products, the structure of the organization and the business itself).

In order to minimize these doubts, there are some models in the literature available which try to evaluate the investment return in IT. They are divided into two major groups: one according to financial indicators and the other one according to the strategy of the company.

In the evaluations based on financial indicators, the aim is to associate the investments in IT with the indicators of the company's financial performance, which resembles a cost-and-benefit analysis. Graeml (2000, p.80) mentions the payback period, the net present value (NPV), the internal rate of return (IRR), the return on investment (ROI), the analysis of the cost of replacement, the ABC method (activity based costing), economic value added (EVA), the comparative analysis of accountancy statements, among others. Laurindo (2002, p.64), referring to other authors, explains that there is a clear difficulty in establishing relationships between the efficiency of IT and the traditional financial performance indicators and points out to several problems such as the frequent time difference between the investments made in IT and their results; the indirect impact that results from the administrative and managerial use of the IT tools, and not from the technology itself; the fact that occasional earnings from IT applications or solutions found through the use of this resource can be registered as other productivity and rationalization revenue derived from other areas of the company; and the absence of direct relationship between expenditure on IT and better use. Laurindo (2002, p.71) concludes that "it is not possible to draw conclusions about the performance of IT concerning its efficiency by only using financial indicators and those related to investment in IT." Graeml (2000, p.86) corroborates this point of view by pointing out that the financial-accountancy indicators can neither evaluate intangible benefits nor notice whether the investments are

actually aligned with the strategic long-term goals of the organization.

Henderson and Venkatraman (1993, p.4) comment that one of the reasons why there is no value added to the investments in IT is partly due to the lack of alignment between the business and the organizations' IT strategies. According to Laurindo (2002, p.71), there are several models that try to relate the company's business strategy to its IT strategy or its many applications; however, most models refer to the analysis and understanding of the IT reality, and do not provide more immediate indications for the administration or action. On the other hand, there are points in common in the models that relate IT and the company's strategy: the need for a clear strategic view of the business and of IT; the importance of alignment between the IT strategies and those of the business; alignment as a process and not as an isolated event; the view of IT as a business tool aimed at the market and the user; the importance of a fluid, close and constant relationship between IT and business executives; competitive advantage resulting from the management of IT and its strategic alignment with the business, and not from specific IT applications; and the importance of considering both the technical aspects like the evolution of new resources available in the IT market and the organizational factors.

In order to evaluate the contributions of IT to the sales function, the best option is probably the approach that analyzes the alignment with the organization's strategy. Being able to service the customer well, promote strong, lasting and lucrative relationships, keep good customers, improve decision-making and action in the commercial department, satisfy and charm the customer with the services offered (deadlines, delivery, negotiation) – all the concepts dealt by relationship marketing contribute to the company's business and IT, by helping the execution and success of these practices and guiding the company by means of its figures which are targeted at the strategy of the company.

## 1.4 Integration between the sales function and IT

Technology advances. In a short period of time the capacity of computers doubles and their price is cut by half. Softwares offer an incredibly superior performance to the ones it is known, the reach and speed of the Internet increase considerably. There are new means of communication. According to Telles (2003, p.128) the advances of the past decades which arose from IT do not represent another weapon for organizations; instead, they constitute a variety of resources aimed at producing information and making it available and consequently at offering competitive advantages. Sales professionals must be prepared to follow and make use of these benefits. The main purpose of IT for the sales function is not to replace men by machines, but to improve the sales performance by reducing the costs involved in the process, increasing sales and improving their quality, and fidelizing customers.

Besides investing in personal computers and software tools in order to maximize individual productivity, it's important to maximize the productivity of the groups and of the company as a whole, based on actions that allow this return, such as the fidelization and satisfaction of good customers. For Graeml (2000, p.37), the adoption of IT already involves a review of the organization's processes, which frequently need restructuring to avoid creating systems that accelerate the making of errors, known as the automation of chaos. It is also Graeml that mentions some situations that are likely to take place with the use of IT by the organization: a change in the business (there is no use investing in the evolution of IT without promoting the organizational changes); reeducating the staff (the introduction of new technologies demands the training of the staff in order to break old paradigms and encourage people to assume new roles in the organization); overcoming the resistance to change (as

the capital is replaced by information as the main source of power, old positions are threatened and resistance arises in order to put an end to the technology in question); the impact over the level of the job and the safety of the staff (the inevitable process of replacing workers by computers in the companies encourages creative employees, as opposed to the so-called "human-robots"); and the virtual intimacy with the customers (technology allows companies to conduct a dialog in real time with the customers).

More information about the real world helps the company increase its competitiveness. As quoted by Mckenna (1997, p.10), in a world that values the ability of dealing with the customer in a special way, technology is fundamental to ensure a successful strategy. Or according to Graeml (2000, p.50), "technology is better used and adds greater value when customers are treated individually, and no longer as part of a "mass"; this is when they start having "virtual intimacy" with the company.

## 2 Methodology

### 2.1 The kind of survey

Since this study aims at analyzing the contributions of IT to the sales function, an exploratory qualitative survey has been carried out, which, according to Mattar (1994, p.84-85), contributes to the familiarity and increase of knowledge, as well as the understanding of a research problem, by accumulating information and clarifying concepts. Moreover, it's the most suitable method for obtaining information about a survey problem when there are still no deep studies on the subject; however, there are limitations as far as its structure and partial setting of goals is concerned. Besides, it was used a research methodology called case study, which is appropriate when there is little

possibility of controlling the events and when the focus is on current phenomena that can only be analyzed in a specific real-life context. According to Claver, Gonzalez and Llopis (2000, p.181), case studies have been widely used to explore and understand IT as it represents a new knowledge field, often changing. This was a motivated choice, since this company has been making continuous investments in IT in the past years and can be considered one of the most up-to-date companies in this sector because of the low turnover of the customers and the sales staff, which minimizes possible consequences arising from a new profile of salespeople and customers, and the interest and authorization given by the company studied, which made it easier to have access to the information needed for the survey and "the opportunity to observe and analyze a phenomenon that had until then been inaccessible to scientific investigation" (YIN, 2001, p.63).

However, a limitation of the method includes results that are not so thorough due to some influences and problems, as well as the impossibility of making generalizations, although they allow theoretical propositions. Besides these hindrances, there is the limitation of the results of the case study, which makes it impossible to draw general conclusions about the sector in question.

## 2.2 The survey

In this study, a survey was carried out in November 2003 to collect information from all the domestic customers serviced directly by a Brazilian company with important share in the paper sector. The aim was to ask the opinion of the main contact of the sales team in the chosen companies and thus, it was talked to them over the phone, and in case they would prefer otherwise, it was sent them the survey by email. For

the survey, all the 456 active customers were chosen and the data were analyzed by using the statistic software SPSS for Windows 11.0®.

With 21% of the share in the Brazilian production of paper, the industry chosen is one of the biggest companies in the sector. The company's sales team services nationally 456 customers (data from October 2003), of which 3% are pulp customers (12 customers), 76% printing houses (333 customers) and 21% distributors (93 customers). According to a survey by ABIGRAF (2003, p.25), there is a total of 4,860 printing houses in Brazil, and the company studied services directly less than 3% of the customers of this market, who actually correspond to a greater percentage concerning the revenue in the sector according to their respective sizes. As far as the commercial area is concerned, all salespeople have a notebook with remote access to the company's ERP software (SAPR/3), through which they obtain information such as the evolution of sales concerning the customer and the material since 1999 (for instance, amounts sold, returns, prices, earnings), besides other kind of information pertinent to the business and the commercial relationship. Several tools for analysis concerning the customers and the commercialized paper are also available for the company's commercial team, such as ABC curves and those correlated with previous periods, as well as data classifiers (bigger or smaller), condensed or expanded analyses, an exchange rate system and the possibility of exporting the information to a spreadsheet. Moreover, since 1999 the company has also been providing web access for the customers through which they can purchase, check stocks, financial data and historic background, monitor placed orders, obtain in around three months quality surveys of the products purchased by referring to their invoice number, and others researches.

### 3 Results

#### 3.1 Profile of those interviewed

As said, 253 customers were interviewed from a total of 456 selected, which represented a rate of 55% of answers. In order for the sample of customers surveyed to be representative, all the customers selected for the study were classified in an ABC curve, according to their potential for consuming paper or pulp in their segment, regardless the purchases made by the company analyzed, as shown in Table 1. After analyzing the results, it can be concluded that there are no evidences that show that distribution is different ( $p=0.555$ ) concerning the ABC profile – it is worth mentioning again that this is a representative sample of the population of this company’s customers.

TABLE 1 - SAMPLE AND POPULATION DISTRIBUTIONS OF THE ABC PROFILE

ITEM	PROFILE						TOTAL	
	A		B		C		Abs.	%
	Abs.	%	Abs.	%	Abs.	%		
Sample	87	34	77	30	89	35	253	100
Population	162	36	125	27	169	37	456	100

Another aspect analyzed is the average period of time in which the customers surveyed have purchased directly from the company (12.2 years), which reinforces the hypothesis of the study concerning the low turnover of customers in this organization.

#### 3.2 Analysis of responses

##### 3.2.1 Analysis of customer’s satisfaction from services and products

In an attempt to analyze basis of relationship and identify the problems that would affect the analysis of the survey results, the current level of customer’s satisfaction concerning company’s products and services, directly based on the opinion of the customers themselves, has been measured on a Likert scale ranging from 1 (extremely unsatisfied) to 5 (extremely satisfied).

Taking into account a scale in which 4 represents satisfaction and 5 great satisfaction (highest grade), it can be noticed in Table 2 that, in general, the assessment was favorable concerning the products, and customer service offered by the company’s sales team. When results are analyzed, it is possible to notice that the relationship with the salesperson (average of 4.72) and the quality of studied company’s products (average of 4.66) are the items whose assessment is the most favorable in the survey about satisfaction, probably because these aspects are a result of the long relationship between the company and its commercial team. The items which, despite the favorable assessment, received the lowest grades for satisfaction were punctuality of delivery (4.06), solution to administrative complaints (4.15), technical assistance (4.20) and quality of delivery (4.25), all of them activities that involve the sharing of responsibilities between the sales team and other departments of the company (logistics, sales administration, technical assistance).

TABLE 2 - CUSTOMER’S SATISFACTION CONCERNING PRODUCTS AND SERVICES

PRODUCTS/SERVICES	CUSTOMER’S OPINIONS		
	Average	N	Standard deviation
Quality of the paper	4.66	248	0.575
Services			
Punctuality of delivery	4.06	252	1.053
Quality of delivery	4.25	247	0.929
Customer service offered by the sales team	4.40	250	0.782
Follow-up of placed orders	4.37	246	0.776
Technical assistance	4.20	184	1.048
Solution to administrative complaints	4.15	210	0.956
Relationship with the salesperson	4.72	250	0.672
Reliability of the information given	4.58	250	0.719
Subtotal services	4.35	252	0.600
General service by the sales team	4.55	247	0.713

N - number of people surveyed.

Average - average grade of satisfaction given to the feature described.

Despite the evidence of the customer’s satisfaction, it has been analyzed the activities of the sales team that the customer regards as the most deficient (stimulated survey). Of all the eight activities mentioned, four (in bold in Table 3) could be minimized by the use of IT available nowadays.

TABLE 3 - CUSTOMER'S PERCEPTION CONCERNING THE DEFICIENCIES OF THE SALESPERSON

MAIN DEFICIENCIES OF THE STUDIED COMPANY'S SALESPERSON	NUMBER OF CUSTOMER'S THAT MENTIONED THIS DEFICIENCY	%
Is flexible when negotiating prices	69	27
Pays regular visits	21	8
Finds solutions quickly to everyday problems <sup>(1)</sup>	18	7
Provides up-to-date tendencies of the sector <sup>(1)</sup>	15	6
Suggest alternatives to the customer such as other papers and new markets	14	6
Has technical knowledge of graphic design	14	6
Presents reports of the purchases made by the printing house or the distributor	13	5
Is someone you can easily reach <sup>(1)</sup>	11	4

NOTE: 8 mentioned most often.

(1) Activities that are theoretically made easier by the use of IT.

### 3.2.2 Analysis of the use of IT tools

Another aspect of the survey was the frequency of use of the IT tools offered by the company to the customers, and in this way, a stimulated survey was used based on the Likert scale ranging from 1 to 4, in which 4 represented the most frequent use (always) and 1 the least frequent (never).

A quick analysis in the Table 4 shows that the tools less frequently used are those related to Internet access. It is hard to assess the reasons for the low use of this tool without a further and more detailed study, but it may be the result of a series of obstacles, from the system itself (reliability, efficiency, regularity, among others) to the culture of the company and sector, which, because fear or lack of information, have difficulty using this tool. Some of the possible reasons for this low frequency of access can be customer's unfamiliarity with the IT tools, especially those that have web access, the lack of reliability and regularity of the system – direct contact with the sales team is considered to be faster and more reliable, according to the high rates of use concerning cell phones (3.61), the internal sales team (2.90) – and

the lack of appeal of the everyday use of the tool, once making phone calls is considered to be easier than using online features. Another important aspect is that since 2.50 is the average grade concerning the frequency of use (1-4), apparently all the other tools – except telephone calls – are underused, even those which the sales team thought would be higher, like the exchange of emails and facsimile between the customers and the sales department.

TABLE 4 - FREQUENCY OF USE OF IT TOOLS

IT TOOLS	CUSTOMER'S OPINIONS		
	N	Average	Standard deviation
Calls to the salesperson's cell phone	238	3.61	0.787
Calls to the internal sales team	238	2.90	1.196
Email exchange with studied company's sales team	236	2.17	1.307
Information obtained in real time with the use of a notebook during the visits paid by the salesperson	234	1.93	1.215
Sending faxes to studied company's sales team	222	1.88	1.172
Statistic analyses and purchases history given to the customer by the salesperson	232	1.82	1.147
Internet access to follow up the orders	235	1.45	0.948
Internet access to information from the sector	232	1.30	0.780
Internet access to purchase a product	233	1.28	0.775
Internet access to check stocks, financial situation and purchasing background	234	1.28	0.739
Internet access to obtain quality surveys	233	1.20	0.614

N - number of people surveyed.

Average - average grade given to the frequency of use of the tool described.

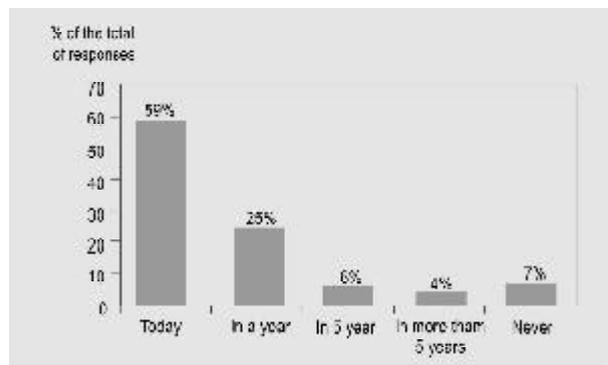
Lastly, besides the tools already described, it is worth pointing out the low use made by the sales team of statistic analyses and purchases history as tools for fidelizing customers (average 1.82), a service that could be offered with low costs by means of structured reports based on quick-access analyses provided by the internal system of the company. Another characteristic refers to the low use of the notebook in visits to customers (average 1.93), which, according to the sales team surveyed, is due to the difficult access to the company's network, be it in the connection (it requires a telephone line available to the customer and some minutes to connect the company's network) or because of the long time it takes to access the company's systems.

To wrap up this topic, it is worth remembering the assessment of the company's services, which is, among other factors, directly proportional to the time devoted by the sales team to the customer service. Thus, once the problem of underused IT tools is solved, and consequently that of the enormous amount of calls that keep the salesperson busy and could be replaced by other means of access, a greater level of satisfaction is expected concerning the services offered. In addition, it is possible to notice in the comments made during the survey that the rate of use of IT is influenced by several factors, like easy access, reliability and regularity of the system, efficiency in providing information, familiarity with the tool, among others.

### 3.2.3 Internet access to the paper manufactures

The Internet has eliminated import barriers, both national and global, such as the costs of marketing, distribution and stock. Honeycutt, Flaherty and Benassi (1998, p.63) points out that the Internet has made it easy to reach new markets, to offer customers the best service, to have a faster product distribution, to solve the customers' problems and establish a more efficient communication between business partners. In this way, despite being underused by the customers, the power of the Internet as an IT tool should not be underestimated, especially concerning the integration with the customer. It is therefore essential to understand the customers' perception and find a way to make the use of this tool easier and recurrent.

It is interesting to notice in Graph 1 that, despite the customer's unfamiliarity or dissatisfaction concerning the access over the Internet to the company studied, 59% believe that this tool is already available for their everyday tasks. This opinion is probably the result of one of the following elements: their perception, stimulated by the survey, their unfamiliarity with the company's systems, or the advanced stage of the use of computers by other paper manufacturers, who have already made the resource available to their customers.



GRAPH 1 - CUSTOMER'S PERCEPTION OF THE TIME NECESSARY TO HAVE FULL QUICK, AND RELIABLE ACCESS OVER THE INTERNET  
NOTE: Customer's perception - 238 answers.

### 3.2.4 Updating the sector's IT

In another analysis of this survey, which complements the previous topic, the stage of update of the company's IT was compared to its main competitors in stimulated survey. In order to do this analysis, a Likert scale from 1 (very outdated) to 5 (very up-to-date) was used for all manufacturers.

TABLE 5 - PERCEPTION OF THE IT UPDATING BY PAPER MANUFACTURERS

PAPER MANUFACTURER	VALID ANSWERS	AVERAGE SATISFACTION
Studied company	220	4.22
A	78	4.15
B	135	4.14
C	150	3.75
D	85	3.41
E	63	2.52
Average	227	4.01

Aiming at verifying whether the company has, according to the customers' opinions, technological updating superior to that of its competitors, a new variable was created consisting of the difference between the assessment of the company and of its competitor in order to do the non-parametric tests Wilcoxon Signed Ranks (CONOVER, 1998, p.352), whose descriptive levels are described in Table 6.

TABLE 6 - COMPARISON BETWEEN THE IT UPDATING OF THE COMPANY STUDIED AND THAT OF ITS COMPETITORS

COMPETITOR	VARIABLE	STANDARD ERROR	DESCRIPTIVE LEVEL
A	0.053	0.109	0.688
B	0.071	0.095	0.449
C	0.455	0.109	0.000
D	0.734	0.133	0.000
E	1.569	0.163	0.000

In the case of competitors with lower descriptive levels than the significance level of 5% (in bold), there is evidence that studied company's IT is the most up-to-date, according to the customers surveyed, whereas in the other cases (A and B) this evidence cannot be found. This aspect indicates a prospective competitive advantage of services that the company may resort to, because despite having several underused IT tools, the company is among the three most up-to-date companies of the sector concerning the customer's perception of the application of IT for the sales function. The use of these tools would help the company stand out even more.

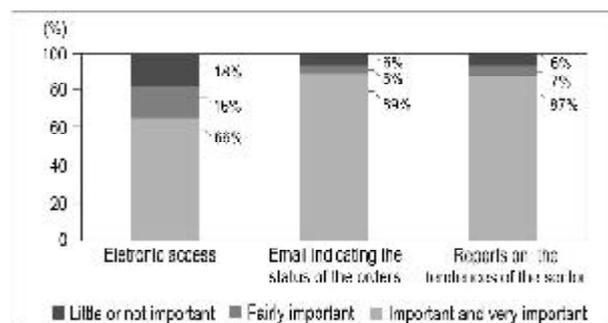
### 3.2.5 Analysis of IT as a means to sell services

IT is being constantly used to help increase profit, satisfy customers and make them loyal to the company. According to Porter (1989, p.157), technology has an effect over competitive advantage when it has an important role in determining the relative cost or a differential, such as services that add value to the relationship, and thus help increase customers' satisfaction and their loyalty to the company.

It is worth pointing out that customers valued all the services mentioned, especially the usefulness of reports on the tendencies of the sector, which had been referred to as one of the main deficiencies of the sales team. This indicates a discrepancy between availability and use, which may be regarded in this case as a problem related mainly to training and to the company's culture.

As to the question about the usefulness of IT tools (the phone, the Internet, reports, systems) as a facilitator of their relationship with the paper factory,

the opinion was almost unanimous, since 90% of the customers agreed to its importance and assessed it from 1 to 5 in 4.60. It can be concluded that IT may help increase business, by offering customers several services at a lower cost, which provide the company with a competitive advantage.



GRAPH 2 - CUSTOMER'S OPINION ABOUT SOME OF THE NEW SERVICES THAT COULD BE OFFERED WITH THE USE OF IT TOOLS

### 3.2.6 Verification of the contributions of IT to the sales function

Using a questionnaire with closed questions (yes or no questions), some of the contributions of IT for the commercial process were assessed.

TABLE 7 - DESCRIPTIVE STATISTICS OF THE CONTRIBUTIONS OF IT FOR THE SALES FUNCTION WITH THE RESPECTIVE DESCRIPTIVE LEVELS

ATTRIBUTES	AGREE (%)	TOTAL
Is the contact with the salesperson indispensable?	91	239
Is access to the external salesperson by phone easy?	88	238
Is access to the internal salespeople by phone easy?	82	232
Does studied company give somehow all the information necessary?	75	235
Would the information provided by the Internet be used more often if it was reliable?	66	225
Is there enough information to the customers of studied company about IT tools?	58	229
Is the information provided by studied company totally reliable?	55	235
Is the information collected in customer surveys up-to-date?	50	218
Does the technology provided nowadays by studied company enable to obtain information faster and more efficiently?	47	219
Do the internal systems at studied company work well and quickly?	44	232
Does the information provided by the Internet at studied company help the customer perform everyday tasks?	32	198
With the IT available nowadays, does the customer have access to the information she is looking for, regardless the time?	31	211
Does the customer know all the electronic accesses provided nowadays by studied company?	13	223

## Relationship with the sales team

In the analysis of the contributions, the item with the highest percentage of agreement, and which is therefore indispensable for the commercial relationships, at least nowadays, is the contact with the salesperson, be it by phone or in person. One of the explanations for this high rate of approval would be the fact that this is the main - and for many people the only - access to the company, which means that having and keeping a good relationship with this contact is extremely important, especially in oligopolies such as the paper sector. Moreover, as mentioned before in the analysis of the profile of the populations surveyed, one of the reasons for the good relationship between the sales team and the customers may be their long and solid relationship, which takes the form of personal friendship in some cases, and is related to the low turnover of the sector.

The fact that 90% and 81% of the customers agree, respectively, that it is easy to access by phone both the internal and external salespeople of the company, was already expected, according to the analysis of the frequency of use of IT, and also because the other forms of access offered were underused. One of the reasons for this behavior is the fact that, in contrast to electronic access, phone calls give the customer the possibility of delegating responsibilities and thus considering himself responsible for the information supplied of for the service provided; it also permits negotiation for the flexibility of rules and service concerning special cases. The attempt to achieve balance and make use of other IT tools shows that it is not enough to make them available, but to somehow encourage their use, especially for simpler activities, which would make it

possible for the sales team to devote more time to services that add value to the relationship, besides reducing costs with customer service.

## Quality of the information provided by IT

After analyzing the quality of the information provided by the company, particularly concerning the updating aspects, reliability, efficiency and scope, it can be noticed that, although the customers consider this information thorough and reliable (respectively 75 and 55%), they perceive the system as being slow and outdated (respectively 54 and 50%). Besides, 58% of the customers disagree that these systems offer regularity and speed in processing and collecting information. These remarks refer to a serious problem of misalignment between planning and implantation, concerning the great investments made, and the unfavorable view of the basic aspects of the tools.

## The Internet as an IT tool

As said, the Internet is one of the main IT tools, especially because of the possibility it offers of integration with the customer, however, it is still used little by the company's customers, since only 30% said they used it for everyday tasks. As to the opinion of the majority that the information supplied by the Internet does not help in the business (68%), the real reason

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***As far as the electronic access of the company is concerned, only 12.8% of the customers affirm to know about it, and more than half (55%) say that there is little information about this tool, which gives them the impression of knowing very little about it***

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for this comment must be analyzed, once it is not about being aware of its importance (67% would use it if the information was reliable), but, among other possible factors, its availability, regularity and reliability.

One of the points to be taken into account are the obstacles for using this technology in this sector, once even if it was considered the hypothesis of a

reliable web access, one third of the people surveyed would not use it anyway, probably because they do not see advantages in their use when compared to the conventional tools. Thus, besides training, information about it and practice to build up customers' confidence and increase their satisfaction when using this access, the importance of adopting the habit of accessing the Internet must be stressed, for instance offering advantages (natural or specific for the moment) that may help the customer overcome this resistance and start using this tool without worries.

### **What the sales function knows about IT**

As far as the electronic access of the company is concerned, only 12.8% of the customers affirm to know about it, and more than half (55%) say that there is little information about this tool, which gives them the impression of knowing very little about it. This reinforces a problem that had been previously identified, which is the lack of information of the sales team about these tools and electronic access available in the company, probably due to the fact that the responsibility of the investment and the functioning of the system were not made clear, just as it happened to training and information about the tools for the users. It is clear that it is not enough to invest in IT or buy and install hardware and software without the correct follow-up and preparation of the sales department of the company, in order to inform their customers about its use.

## **Conclusions, limitations and recommendations**

In this study, it was used a case study, which is appropriate when there is little possibility of controlling the events and when the focus is on current phenomena that can only be analyzed in a

specific real-life context. Thus, given the limitations of this method that were clearly stated in previous section, especially with regard to the use of a single case study, all the conclusions must be treated with caution until they have replicated in other studies in the future in a more in-depth analysis including other sectors or even, paper's companies. With regard to potential limitations of this research, the findings in this study point to the problems of sustaining high performance over IT with the introduction of several complex characteristics of a commercial area, analysis must be done all the time.

There are many factors that are not thoroughly known about the contribution of IT to the sales function. Despite all the difficulties, its contribution to the business world is undeniable, especially to the sales function. The sales team, known for complaining about the use of computerized systems and even resisting to use them sometimes, causing the technological capacity to be underused, realizes the inevitability of this new reality, and the need to use it to ensure the success of the business. However, despite the investments in IT made by the company, the study showed in some aspects a negative panorama concerning the relationship between the investment made and the benefits obtained, which deserves a more careful analysis of the company studied about possible reasons and actions that could be taken in order to potentialize the use of IT as a tool for improving the performance and the quality of sales.

As the results were analyzed, several hypotheses were raised. One of them is a closed characteristic of this market, with a lasting relationship between customers and salespeople, which gives rise to a culture that makes change difficult, such as the replacement of conventional tasks for more modern tools. Thus, one of the frailties of the company studied is the lack of training for the sales team and for the customers, by showing the advantages of IT and breaking old paradigms, as well as encouraging them to use IT for everyday tasks, and in case there are still obstacles,

resorting to organizational changes. As discussed in the bibliographical review of this study, there is no use investing in systems without investing in people, and this was probably one of the biggest mistakes of the company studied.

The results of the survey also showed, despite the good perception the customer has concerning the company in question, that the IT tools offered by the company were underused, especially web access, although the customer wanted to use it. As to the processes themselves, it is the company's job to check why there is a negative perception concerning the functioning of IT, since the reliability, updating, and speed of the information supply were questioned in different moments, which may suggest that the people responsible for the use of I.T were unprepared, or that it is an incomplete and confusing system, causing the users to feel insecure. Lastly, it is not enough for the tool to work, it must be friendly and easy to access; however, this is not always the case, as could be noticed in the use of notebooks.

Aspects like the rate of use and level of satisfaction with IT tools, the use of the web as a channel of access

to the information, the possibility of new IT tools of low cost and that may add value to the relationship, among others, are the contribution of this study to companies' specific actions of improvement. It can be also concluded that there is a great deal of improvements to be made concerning the contributions of IT to the sales function, by potentializing even more those considered important and used by the customers, and restoring those underused that require an intensive work to remove the obstacles so that they can contribute again the way they used to. Interviews about customers' expectations help the company understand the competence and alignment of their IT with the market.

Finally, the biggest challenges of the organizations are to align IT, people and processes, which can offer different competitive advantages to companies that have access to the same information and resort to the same technology. Perhaps that is the mission of the company studied and the main contribution of this paper to the coming experiences.

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