ESCUELA SUPERIOR POLITÉCNICA DEL LITORAL

ESCUELA DE DISEÑO Y COMUNICACIÓN VISUAL

INFORME DE MATERIA DE GRADUACIÓN

PREVIO A LA OBTENCIÓN DEL TÍTULO DE:
SECRETARIA BILINGÜE EN SISTEMAS DE INFORMACIÓN

TEMA

"THE INFLUENCE OF THE TECHNOLOGY IN PUBLIC
COMPANIES"

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2011

ACKNOWLEDGMENT

I would like to express my appreciation first of all to God Almighty who blessed me day by day in this long way of my professional life. I would also like to thank my tutor, Hilda Flor Páez, MSc. for her guidance, dedication, faith and her continuous advice. I want to thank my parents and my aunt Ramona Cedeño Zambrano who were willing to help and support me, and for having provided me the best education. I will never forget their advice. They have been my support in all the moments of my life. Finally, I would like to thank my boyfriend, Javier Mendoza Zamora who stood by me and guided me during my career in the most difficult circumstances.

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ABSTRACT

This project describes the use of different technologies, knowledge acquisition and applications that help in the daily life of professionals. Technologies mentioned on this project are designed to improve the communication between companies. The use of those applications and equipments help professionals to develop their abilities and give facilities in the improvement of those activities and tasks. The use of new software and Internet has also helped at the communications of professionals, mainly secretaries because of the different skills that can be developed with those equipments, tools and so on. In the same way, you can see the use of the different ecommerce with their facilities offered to all professionals.

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INTRODUCTION

One of the purposes of this work is to inform about the facilities that technology offers to professionals, especially the secretaries. Some secretaries have a deep desire to improve their tasks at their workplace, but they are afraid of making mistakes and failing at the moment to manage their daily and professional activities.

Some technologies, take a long time of practice to be managed correctly. It is one of the most challenging skills, which secretaries feel afraid of, and this prevents them from improving their tasks. Managers can keep their secretaries, interested and motivated to improve their skills, so their work becomes more efficient.

STATEMENT OF THE PROBLEM

According to the investigations carried out at some companies, it was evident that those companies do not consider technology as an excellent implementation to improve secretaries' tasks. Managers think that it can bring complications to the secretaries at the moment to use the new equipments or software that are new to them.

The equipments and software are not easy to use and some companies feel afraid at the moment to implement them in their activities. But we have to consider that those implementations can motivate the secretaries to do their activities with more dedication. For that reason, talking about their importance, communications and activities can be carried out with more security and efficiency.

BROAD OBJECTIVE

Motivating the companies to use technology correctly can improve the activities of the secretaries. They need to feel motivated when using it correctly. Creating a good environment

between secretaries and bosses at the moment to use the new technology is the principal objective of this project.

SPECIFIC OBJECTIVE

The objective of each unit is to give necessary information to bosses and secretaries to develop the activities in the workplace and have a clear idea about why technology is necessary to develop their tasks and improve their skills at the workplace.

The first two chapters are drawn to the professionals in general because these contain all the necessary information and the reasons which they need to use and implement technology in their professional, independent or workplace activities. It informs its importance nowadays, definitions, and the applications to improve routine activities, among others.

The three last chapters are addressed especially to the secretaries and the bosses because it contains the activities that they can do and improve with the technology and the variety of equipments and software which are necessary to accomplish with the activities, being the final result the following:

- Motivate secretaries to interact with the different equipments and software.

- Give the correct use of those technologies to improve their performance in the workplace.

- Know the importance of using it correctly as well as its use in the future.

STUDY PLACE

My project focus place is the Public Companies of Guayaquil city where some companies do not see technology as a relevant tool to the professional activities of secretaries at the office.

This project will be used like a guide book. It is a big contribution for those who have the desire to explore other alternatives to help secretaries in the diverse ways of technology management, and as guidance to other companies which need to implement or improve the work of their employees, especially the one of their secretaries.

STATEMENT OF HYPOTHESIS

I think that using technology is really necessary and could be satisfactory to the secretaries and to other professions because nowadays the new technologies have brought many changes in their activities. Those technologies are interactive and dynamic so, it has been given many facilities at the moment to be implemented. It is an essential factor in order to motivate the secretaries to use the different kinds of technologies to create a good environment at the office as this will permit those does their tasks without errors.

Some managers consider that the use of technologies at the offices is a waste of time and money because they have to invest much money on training for secretaries to learn how to use the different equipments that are implemented at the office. In addition, some secretaries do not have time to do courses, so it could be considered unrealistic at the moment to apply this kind of activities.

However it is a fact that technology will help secretaries to improve their tasks. The necessity to learn and understand the use of technologies will motivate secretaries to work with efficiency in their workplace.

Those equipments will provide more than just alternatives to do their work with dedication and without errors. Those technologies help them to resolve problems and improve

their skills. Despite the overall success of those equipments and tools, each branch of technology has its own set of rules, some of which have to be commented by the secretaries, managers and all the professionals that are willing to use it.

On this essay we will prove that technology is very important in our lives and our workplace.

THEORICAL AND PRACTICAL IMPLICATION OF THE RESEARCH

As you can see, there are people who agree and others who disagree on the use of the different kind of technologies.

1. a. Theoretical Implication

According to Berk-Levine (1986), companies in almost all sectors of the economy are automating as fast as modern technology allows. Those companies become more successful because modern technologies provide facilities and applications.

In accordance with Berk-Levine (1986), *"The automation is one of the reasons for current growth in the industry of the temporary services"*. However, it is necessary that people who are required to handle the equipment and software are motivated, educated and able to obtain more skills.

b. Practical Implication

It can be clearly seen that technology can capture professionals' attentions to belong to the different sectors. It will allow people to know the facilities that technologies provide. Moreover, they can transform an unsuccessful company into a successful one.

Another reason for the current industry growth is the automation because it permits professionals to learn more, know the handling of the different applications, and avoid errors.

2. a. Theoretical Implication

Many of the professionals who graduate with appropriate skills are not familiar with office electronic equipment. Although often there are more applicants who have minimum knowledge of the technology that exists today, fewer applicants are truly educated, said Berk-Levine. Some professionals do not understand the importance of technologies implemented at companies nowadays.

b. Practical Implication

It is extremely necessary to encourage professionals to think at the importance of the technology, specially the office electronic equipment in the workplaces. There are many people who want to get a job, but some of them do not have the attitude to show their skills in different jobs. We need to give them opportunities; those future workers need to obtain the attitude necessary to be excellent professionals that companies require now.

3. a. Theoretical Implication

Apart from the necessity of graduates acquire appropriate skills to improve their abilities, technology permits to work with efficiency at all places. *"The first rule of any technology used in a business is that automation applied to an efficient operation will magnify the efficiency. The second is that automation applied to an inefficient operation will magnify the inefficiency."* (Bill

Gates, 1999) Using the correct automation at companies will help increase the capacity of professionals at the moment to do their activities and tasks.

b. Practical Implication

At companies, professionals have the opportunity to work with efficiency thanks to the good management of the automation applied to the operations using rules and other tools. Therefore, Using the equipments, software and all the applications created for the professionals not only gives them a chance to use it to improve their activities, but it can also permit them, especially secretaries, to conclude with their activities and automated processes in less time and without mistakes.

4. a. Theoretical Implication

"*Many people see technology as the problem behind the so-called digital divide. Others see it as the solution. Technology is neither. It must operate in conjunction with business, economic, political and social system.*"*(Carly Fiorina, 1999)* People need to know how much necessary is technology at the Business and in their personal life. *"We're changing the world with technology."* (Bill Gates, 1999)

b. Practical Implication

It is true that technologies have changed the life of people. It also true that some technologies has brought complications but the most important is that people know how to use the different equipments, software and applications created nowadays. On the other hand, it has given many solutions at the moment to do activities and automated processes; and it has helped to be practical at the moment to operate it.

LITERATURE REVIEW

Technology has the ability to improve the people activities at home or workplace, and this has permitted technology being indispensable for them. People need technology every day.

Technology keeps businesses running very well without many problems and errors. It helps people, professionals, especially secretaries to improve their job performance. Many types of technologies were explored for helping people and giving them facilities in their life. Telegraphy by instance also developed into a practical technology in the 19th century help to run the railways safely.

Technology is developed every day and constantly in order to help professionals in their activities, allowing them to improve their ability. Communication technology, transportation technology, broad teaching and implementation of scientific method, and increased research contribute to the advancement of modern science and technology.

BACKGROUND

Technology has been developed throughout three main periods: agricultural era, industrial era and information era. The development of robots can be seen as a logical and important part of history. The Agricultural and Industrial era are considered as powerful and influential in the daily life of the societies. The products and the occupation have been dictated by available technology. Information era is the most important development; here is where computers evolve the way to process and communicate information to a Global system around the world.

Technology tools, equipments and software, help professionals gather information and communicate with other people or between companies; hence, productive skills make technology indispensable for us. In our daily life, there are many technologies in which we use more than one

way to improve our tasks and activities. Technologies are creations developed as priority which are used by people that need to resolve problems, and get solutions immediately without making mistakes at the jobs. Also, it includes software licensed by the developer from a third part to be used in the final product.

Those periods that mentioned before, have permitted the improvement of people's skills at the moment to develop their activities. Agricultural era and industrial era have helped professionals to learn new things with inventions, new tools and techniques. Information era developed skills to improve communication between companies and people in order to facilitate their activities and the negotiations. Technological innovations affect, and are affected by, a society' cultural traditions. But nowadays, it has continued to be a process which has enabled people to create new things and conversely, many scientific endeavors has become possible through technologies.

METHODOLOGY

To develop this essay, different methods were implemented. One of them is the exploratory method because I was able to test people who use those technologies that nowadays are created to help people and professionals in their activities. Some professionals described their experiences with the use of equipments, software and applications. Day by day, Technology is being indispensable for people.

Other method implemented is the inductive one because it permits to demonstrate that technology is very important and indispensable for all people, especially for business people because it has facilitated the correct application of tasks. We know how much people use that technology and how it has changed our lives at the moment to do our activities. On this essay was made observations, formulating hypotheses, testing hypotheses, and so reaching conclusions.

Finally, I used the deductive method because we needed to know the principal stages that technology has developed throughout centuries. It is necessary to know its history and its development, which is available on the Internet and books.

On this paper we will prove that technology is very important in our lives and our workplace.

CHAPTER 1

Technology on your hands

Technology on your hands

Concept of the Technology

Some years ago, technology was not so important as nowadays, because people and professionals did not knew the applications, equipments and software that technology offer to help us in the processes, activities and tasks. This work is intended to describe the diverse aspects that technology has and how it helps us in our workplace or in our personal life.

Technology has helped people in different ways. It is a set of tools both hardware (physical) and software that helps us act and think better. Technology includes all the applications, and equipments. Electronic and computer technology help to use and share information and knowledge quickly and efficiently. It has improved the way that we live and we do our daily chores. This can also be used to highlight the importance of technology in the modern world.

Technologies involve the generation of knowledge and processes to develop systems that solve problems and extend human capabilities; it includes the innovation, and the change to satisfy perceived human needs and wants. Technology permits to save time, money and make things run more smoothly, including automating administrative functions.

Technology helps reduce time needed to collect process and distribute information. This gives people the ability to access the internet and see all the information that need.

On the other hand, technology improves communication because it makes people connect and keep a good relationship or make new ones. Technology helps us talk at great distances; communicate online, talk with people from all over the world in a virtual way. Technology includes all the inventions which help us communicate and make our life easier. Some examples

are computers, internet, cell phone telephony, laptops, Gps devices, satellites, and so on. *(Communication type, 2009)*

As we can see, technology has become very useful in all the ways because it helps people and professional to have a simpler life. Nowadays, technology is the best option to develop our activities, improve the communications as well as many other duties. So, if you do not use technology, yet, you have to think in using technology immediately and use it to optimize our activities.

The Importance of the Technology

Technology has given to secretaries the facilities to work with efficiency, and it has permitted to businesses to achieve the success. Every day technology is advancing and new equipments help secretaries to be efficient. Technology has definitely become important in the fast life of today. At this point, we will see the importance of technology, and how has it changed our lives.

Technology is very important for many reasons. It has been developed over several years as its demand has increased, for convenience and to simplify the tasks. This is the result of people who have seen the needs of others, and have implemented applications for the technology we have at this moment; a clear example is when the first typewriter was invented. These have been continuously improved to make them even more efficient and allow people who use them do tasks with quality in less time and less mistakes as possible. Some of these equipments are still used today, but most companies have changed them for modern computers which have many applications today. They were developed by the technology currently available. We can say that the development of technology and the use we make of it are based on trying to satisfy the needs of people.

On the other hand, when humans appeared on the earth, they had the need to communicate without having to traverse large tracts to send or receive a message. The use of technology solves this problem today, allowing large businesses, to send and receive large amounts of information anywhere in the world. Communication systems have evolved from pigeons carrying messages across countries, right up to emails an instant message that travel long distances in seconds. Thanks to the use of internet, telephone, virtual environments, and others, it is easier to optimize business communication, to obtain information, and even have a virtual class from anywhere in the world.

On the same way, thanks to technology, many of the critical and time – consuming processes have been automated. Machines have begun executing laborious and repetitive tasks, and they have brought speed and efficiency to automated processes. Research to reduce production costs and manufacturing defects has prompted the use of technology in the manufacturing of products. Industries are increasingly automating their processes, progressively reducing the intervention of human hands in each process that takes a product to be finished. (*Spencer, 1981*) defined automation as the process of replacing human work with work done by machines or system designed to perform as specific combination of action automatically or repeatedly. For each of those reasons, secretaries work with efficiency and some businesses have gotten the desired success.

It is clear that technology has changed our lives. Technology helps us to have easy access to information. The internet as one of the developments of technology in the area of communications has created a link between all the computers that have internet access; this allows having the information that these computers store on their hard drives as long as their access be permitted. The exchange of information through the internet has been one of the best

contributions of the technology. With technology clients will have full visibility of every part of their interaction with your company. Nowadays, banks allow online transfers where they continually send and receive information from customers to transfer money, review balances or simply allow the use of ATM. This would not be possible without the use of technology to transmit information.

Technology has done life easier; the development of the technology has helped to live with less manual labor because the equipments give us several facilities at the moment to perform tasks on the workplace. Every day, those technologies are upgraded in order to improve the labor. Some years ago, manager's dictated memos and letters and secretaries typed them on hand but nowadays, business have developed word processing centers and relied on personal computers, allowing secretaries to do their tasks with less manual labor. On the same way, technology can lead to a luxurious life. People can do a lot of things easier with this.

Nowadays people can have the best equipment, the best machine and the latest technology, and those things have permitted to have a luxurious life. Sometimes it can be bad because people might think on the fantasy and do not think on the risks that it can cause on their life.

These days, businesses are more reliable on technology than ever before. The use of technology in business has become almost indispensable, the fact of receiving an email from a supplier or a customer involves the use of it, the procedures for the preparation of documents, and file management increasingly has generated a big need to use other type of storage: The use of backup documents through high capacity drives. "*Email is done on phones all through the day from anywhere in the world; not being in your physical office is no longer an excuse to not reply to email.*" (Poller, 2008)

Technology helps improve communications, because without technology communication at this level would not exist. Many years ago, communications was resumed at sending letters, communicating through radio waves and military codes. Communications was poor and people had hard time sending information, from one city to another. Since phones, mobile phones and computers have shown up, we have managed those to create a global communication.

On the same way, technology has maximized efficiency in the workplace. People can do different activities with efficiency and efficacy. For example, secretaries use different equipments to do specific activities at workplace without wasting time but some years ago, those equipments did not exist and working with efficiency and efficacy was more difficult. Technology has simplified the tasks at workplaces.

As it was mentioned before, technology allows you to inform and keep in contact with the outside world; likewise, it allows you to search for the necessary information to have optimal results in order to know places or sources of excellence or further guidance. That information could be positive or negative depending on its purpose. Briefly, technology allows us to carry out activities with less effort and better results or quality, but it should be treated with care and control in their management.

Advantages and Disadvantages of using Technology

Technology has helped companies to develop different ways to do business. Businesses or people can access information with facility. There are some methods and processes on business which are efficient. On the same way, with the advances of technology it has been allowed to keep and carry out important information quickly and efficiently. At this point, we will contrast the **advantages** and **disadvantages** of using technology.

The easy access to information is an advantage that gives us the technology on Business. With this, people can get different kinds of information with only internet access and have a program that allows searches, but one disadvantage is that certain information should not be available to all people, because it could be downloaded and violated, which will produce large losses for the person who owns that information. This happens when the information is not protected by copyright. Nowadays, there are people who can see important and confidential information, such as hackers who can see the database of the companies and manipulate the information. This is a risk that companies may suffer due to technology. Protecting the information used by certain companies is a big expense.

Certainly, **meetings to discuss procedures, conditions and agreements** to close a business, are necessary. The use of technology has made these procedures to be carried out so fast without having the need for meetings to finalize a business; however, there is the inconvenient that the customers may not have a good relationship and it does not permit to interact with the other person who is doing the negotiation. For example, some web portals such as public procurement; if a person needs a service or want to give a service; that person can obtain information, conditions and procedures of the service without the need to make a meeting. It is a way to have more options when people choose what is most appropriate to the company.

By **reducing errors and decreasing time** required in order to make a task, we are increasing the efficiency of this process. The use of computers for the elaboration of documents will allow secretaries to reduce errors and improve grammatical context before the document is printed on paper, which allows better performance. One of the disadvantages is that businesses have to maintain their secretaries updated with frequency for the correct use of those equipments and in the same way, reduce mistakes. Some years ago, there were bosses who dictated memos

and letter and secretaries typed them. Most recently, business have developed word processing centers to avoid mistakes in the grammatical context. It has helped to save materials that secretaries use at the moment of doing their office activities.

Nowadays, many businesses continue to use technology, despite its disadvantages. The results obtained with the use of new technologies are the improvement of their methods and assurances to protect information, to work with efficiency, to spend less time doing their jobs and reduce errors. Technology has made the life easier and has improved the knowledge of the secretaries on business.

The facilities that the technology offers are the uses of the equipments and new software to improve the task of the secretaries in the workplace, to do different things with less time, and protect information. Every day, new technologies are appearing and those give other facilities to the secretaries such as to work with efficiency and efficacy, access to the information, to improve the communications with people.

Kind of Technologies

Every day, technology is moving forward and this has different applications that help professionals. According to this, it has been classified in the following ways:

- Instructional technology

- Assistive technology

- Medical technology

- Productive tools technology

- Information technology

Instructional technology

It refers to a systematic way of designing, carrying out, and evaluating the total process of learning and teaching in terms of specific objectives, based on research in human learning and communication, employing a combination of human and nonhuman resources to bring about more effective instruction. Instructional technology refers to the use of computers, interactive media, teleconferencing, projectors and different software that help with this.

The use of audio and visual instruction was boosted as a military response to the problems of labor shortage during World War II in the United States. There was a definitive need to fill the factories with skilled labor. Instructional technology provided a methodology for training in a systematic and efficient manner. With it came along the use of highly structured manuals, instructional films, and standardized tests. Thomas Edison saw the value of instructional technology in films but did not formalize the science of instruction as the US military did so well. *(Instructional technology, 2008)*

Some educators believe the use of interactive, computer-based technology is crucial to improving classroom learning. These educators contend that advanced technology will fundamentally change the learning process and structure. Other educators believe technology is merely a tool that has minimal impact on the quality of learning. *(Funderstanding, 2008)*

Assistive technology

It employs the use of various types of services and devices designed to help people with disabilities function within the environment. Assistive technologies include mechanical, electronic, and microprocessor-based equipment, non-mechanical and non-electronic aids, specialized instructional materials, services, and strategies that people with disabilities can use

either to (a) assist them in learning, (b) make the environment more accessible, (c) enable them to compete in the workplace, (d) enhance their independence, or (e) otherwise improve their quality of life. (*What are the 3 kinds of technology, 2008*)

On the other hand, assistive technology can also include mobility devices such as walkers and wheelchairs, as well as hardware, software, and peripherals that assist people with disabilities in accessing computers or other information technologies. For example, people with limited hand function may use a keyboard with large keys or a special mouse to operate a computer, people who are blind may use software that reads text on the screen in a computer-generated voice, people with low vision may use software that enlarges screen content, people who are deaf may use a TTY (text telephone), or people with speech impairments may use a device that speaks out loud as they enter text via a keyboard. *(University of Washington, 2002)*

Medical technology

The field of medicine continues to amaze us with the advances constantly being made in medical technology. In addition to seemingly miraculous surgical procedures that are technology-based, many individuals are dependent upon medical technology to stay alive or otherwise enable people to function outside hospitals and other medical settings. It is not uncommon to see people in their home and community settings who use medical technology. For example, artificial limbs and hip and knee implants can help people function in the environment. Cochlear implants can often improve the hearing of people with auditory nerve damage. Some devices provide respiratory assistance through oxygen supplementation and mechanical ventilation.

Others, such as cardio respiratory monitors and pulse dosimeters are used as surveillance devices that alert an attendant to a potential vitality problem. Nutritive assistive devices can assist in tube feeding or elimination through ostomies. Intravenous therapy can be provided through medication infusion and kidney function can be assumed by kidney dialysis machines (*Batshaw & Perret, 1992*). In addition to keeping people alive, technologies such as these can enable people to fully participate in school, community, and work activities. (*What are the 3 kinds of technology, 2008*)

Productive tools Technology

As the name implies, they are computer software, hardware, and related systems that enable us to work more effectively and efficiently on the workplace, especially on the tasks of the secretaries. For example, computer software such as database programs can be used to store and rapidly retrieve information; word processing programs can be used to easily edit text material; FAX machines can facilitate the transmission of written documents over long distances; expert system computer programs can aid in decision making, such as weather forecasting; and video conferencing facilities can reduce the need for travel.

Information technology

Nowadays, information technology (IT) refers to the use of computers and software to manage information. The information technology would be responsible for storing, protecting, processing, transmitting the information as necessary, and later retrieving information as necessary. *(Laura Schneider, 2010).* On the same way, it provides access to knowledge and

resources on a wide range of topics. The Internet, and its World Wide Web component, is the most prominent example of information technology.

All the kinds of technology analyzed above, permit us to do activities in any field in an easier way and practice. The use of different equipments and software helps professionals in their tasks.

Advantages and Disadvantages of Kinds of Technologies

At the previous point we saw the different definitions of the kinds of technology. Those are important in our daily life and the workplace but I would like to focus on two of those kinds which are Information technology and productive tools technology that we use with frequency at the workplace. On this paper, I am going to write about the advantages and disadvantages of information technology and technology for productive tools.

Advantages and Disadvantages of Information Technology

There are different **advantages** and **disadvantages** of each kind of technology. Before we can know about all the advantages and disadvantages of information technology, it is essential that we know what information technology is exactly, and why it has come to play such an important role in our daily lives. Today, information technology involves more than just computer literacy; it also takes into account how computers work and how these computers can further be used not just for information processing but also for communications and problem solving tasks as well.

Our world today has changed a great deal with the aid of information technology. Things that were once done manually or by hand have now become computerized operating systems, which simply require a single click of a mouse to get a task completed. The significance of IT can be seen from the fact that it has penetrated almost every aspect of our daily lives from business to leisure and even society. Today personal PCs, cell phones, fax machines, pagers, email and internet have all not only become an integral part of our very culture but also play an essential role in our day to day activities. (*Small Business Bible, 2008)*

Advantages of information technology:

First, technology helps us to be part of the globalization because not only can we share information quickly and efficiently, but we can also bring down barriers of linguistic and geographic limits. The world has developed into a global village due to the help of information technology, allowing countries who are not only separated by distance but also by language to shares ideas and information with each other.

Second, it enhances communication; with the help of information technology, communication has become cheaper, quicker, and more efficient. We can now communicate with anyone around the globe by simply text messaging or sending an email for an almost instantaneous response. The internet has also opened up face to face direct communication from different parts of the world thanks to the help of video conferencing.

Third, the cost effectiveness; because information technology help to computerize the business process thus streamlining businesses to make them extremely cost effective money

making machines. This in turn increases productivity which ultimately gives profits that revert on better pay and less strenuous working conditions.

Fourth, bridging the cultural gap; because information technology has helped to sort out the cultural gap by helping people from different cultures to communicate, and allow the exchange of views and ideas, thus increasing awareness and reducing prejudice.

Fifth, More time; this means that a business can be open anytime anywhere, making purchases from different countries, easier and more convenient. It also means that people can have your goods delivered right to your doorstep without having to move a single muscle.

Sixth, the creation of new jobs; probably the best advantage of information technology is the creation of new and interesting jobs. Computer programmers, Systems analyzers, Hardware and Software developers and Web designers are just some of the many new employment opportunities created with the help of IT. (*Small Business Bible, 2008*)

Disadvantages of information technology:

First, is **the Privacy**; though information technology has made communication quicker, easier and more convenient, it has also bought along privacy issues. From cell phone signal interceptions to email hacking, people are now worried about their private information because can become public knowledge.

Second, is **the lack of job security**; industry experts believe that the internet has made job security a big issue as since technology keeps on changing with each day. This means that one has to be in a constant learning mode.

Third, is **the dominant culture**; while information technology has made the world a global village, it has contributed to one culture dominating weaker one. For example it is now argued that US influences how most young teenagers all over the world act, dress and behave. Languages too have become overshadowed, with English, becoming the primary mode of communication for business and everything else. (*Small Business Bible, 2008)*

Advantages and Disadvantages of productive tools technology

Now, I am going to write about the productive tools technology. The purpose of this tool is to help people select appropriate technologies by identifying the key advantages and disadvantages of each one. We encourage you to add your own list of pros and cons as you see each technology and, as new technologies are invented.

One potential general disadvantage of many of the new or extended technologies is that they require special wiring. Other disadvantages are that many new users fear technology; the technology breakdowns can be disruptive and usually require experts to repair; the initial hardware, software, and online connection costs can be high and the Equipment rapidly becomes outdated.

On table 1.5.2. You could see summarized some familiar technologies with its **advantages** and **disadvantages**.

Familiar technologies	Advantages	Disadvantages
Audiotapes and audiotape players	Portable, easy to use and relatively inexpensive.	Limited to recorded sound.

Audiotape recorders	Portable, easy to use, relatively inexpensive, promotes interviewing and journaling.	Limited to recorder sound, transcribing is tedious and it can be difficult to hear.
Video editing equipment	Encourages creativity, produces high-quality product.	Expensive and requires training to use.
Chat rooms	Communicate online with anyone in the world	Sometimes unreliable information "Flames" from some users.
Electronic commerce	Convenient way to buy services and products, receive goods/services faster and paperless transaction	Security
Extranet	Easy way to share internal information with external parties.	Security and expensive to manage.
Intranet	Great way to provide internal users access to information. Secured and easy to disseminate information to users.	Expensive to set up and expensive to maintain – staff resources to update information.

Modem	Allow access to remote computers or servers.	Slow access time, not always reliable connection and can be expensive.

Table 1.5.2 Kinds of productive tools technology.

As I mentioned before, we have different kinds of technology and different advantages and disadvantages of those kinds. With this information you can take the right decision to use the best type to do your activities at the office or in your personal life.

CHAPTER 2

Technology applications in different professions

Technology applications in different professions

Nowadays, technology has many applications in the professional field. Technology development has been within our reach in a progressive way, it has allowed us to perform tasks and procedures with a smaller number of errors thanks to the aid of the tools we have today. Every time, professionals are seeking new ways to solve and simplify problems in all professional fields, so that now any professional is obliged to handle technology in order to practice their profession in an effective way.

Technology in the Professional field

Technology has given facilities to many professionals to work with efficiency and efficacy. It has permitted professionals to have success on different fields of their career. Different applications and software has helped to do different activities and tasks. In this essay, I am going to mention, what careers are more beneficiated with new technologies and their importance on the professional field, today.

Technology has become very useful to the professionals for different reasons. One of them is the way technology has simplified the management of data and statistical results based on a large amount of data. For instance, identification of people, filing their data, and having access to it, it is just a click away from us. This is easily handled by professionals with tools such as computer programs and applications. One of those programs is the Database Management System (DBMS), which is a set of computer programs that control the creation, maintenance, and use of a database. It is a system software package that helps the use of integrated collection of data records and files known as databases. It allows different user application programs to easily

access the same database. DBMSs may use any of a variety of database models, such as the relational model.

In large systems, a DBMS allows users and other software to store and retrieve data in a structured way. Instead of having to write computer programs to extract information, users can ask simple questions in a query language. Thus, many DBMS packages provide Fourth-generation programming language (4GLs) and other application development features. It provides facilities for controlling data access, enforcing data integrity, managing concurrency, and restoring the database from backups. A DBMS also provides the ability to logically present database information to users.

DBMSs are categorized according to their data structures or types. The DBMS accepts requests for data from an application program and instructs the operating system to transfer the appropriate data. The queries and responses must be submitted and received according to a format that conforms to one or more applicable protocols. When a DBMS is used, information systems can be changed much more easily as the organization's information requirements change. New categories of data can be added to the database without disruption to the existing system. Hardware database accelerators, connected to one or more servers via a high-speed channel, are also used in large volume transaction processing environments. DBMSs are found at the heart of most database applications. DBMSs may be built around a custom multitasking kernel with built-in networking support, but modern DBMSs typically rely on a standard operating system to provide these functions. *(Database management system, 2009)*

Another of the reasons is the time saved in the process. Some equipment has applications that help to obtain results in less time. To say that technology saves time is to say the obvious.

Sweeping changes through technology have transformed the world of communication, education, business, entertainment, travel, health care, medicine, food service, publishing, and finance.

"In the mid-70s, I worked in the public relations business where to write, get approvals, finalize and distribute a simple news release was a one- to two-week process time. A writer wrote the article by hand or on a typewriter, a secretary retyped it and sent it to customers for approval via the mail. Under the best of circumstances, the release would come back approved within a week. Then the writer would incorporate suggestions and changes, basically rewriting the article after which a secretary would type it again and finalize it for distribution to the news media - once again via the mail. Today, thanks to computer technology and the Internet, the entire processes can be completed in just a few hours.

If there are still doubters out there, just consider what technology has done to speed interpersonal communications. E-mail technology today has compressed the speed of sending printed messages from several days to nanoseconds. Today, with cell-phone technology, people are reached immediately wherever they are, any time of the day or night, anywhere in the world, on the job or on vacation.

While some people may indeed use technology to waste time, technological developments of the past few decades have contributed to saving time and energy more than has anything else since ancient civilizations first invented the wheel." *(Linda Caye Murphy, 2002)*

"Examples of how technology saves time are infinite, but here are a few:

Today, technology transmits our communications within a matter of small, fractional seconds, leveraging Internet protocol, and connection technologies such as radio frequencies and their respective transmission equipment to millions of people if we so choose. Before communicating to the masses, however, word processing and database applications help us construct what it is we want to communicate. We save hours, days, and weeks, by having the tools of technology at our disposal to complete our tasks, saving our time for the next business priority. Electronic commerce saves time for industries and even countries. With the applications supporting electronic transfer between entities, projects can be funded within seconds instead of days.

In some areas of business, business professionals are using technology to monitor other business professionals, measuring and managing the use of their time. Such monitoring of productivity is another means in which technology has helped us save time. Even spending time watching how others spend their time is a time-saving to business.

As first stated, technology enables the business professional to save time. It is clearly incumbent upon the business professional, however, to use the saved time in a productive manner." (J. David Childs, 2002)

On the other hand, Computer use has become so necessary to solve algorithms being used in almost all processes that require complex calculations; the computer can compile operations that for some professionals would be greatly complicated. The diagnosis of climate is the result of processing a large number of variables with the help of a mathematical model, which is almost impossible to resolve in a timely manner to give a daily forecast without the aid of a computer program.

In the older days, professionals used to calculate using objects and items such as sticks, leaves or even beans. However, this will cause misunderstanding and at times, unfairness would happen. So, to solve this problem, was invented the first handmade calculator made from wooden frame. There are wires in between which are filled with beads. This wooden calculator has been used by most of the merchants and offices for quite some time for normal and easy calculations. However, the functions are quite limited and only suitable for basic calculations.

As the economy and technology are becoming more and more advanced, inventors had come out with basic calculator for people to perform exact calculations. Some of the functions such as 'plus', 'minus', 'multiply' and 'divide' were then developed. After that, programmable calculators were invented to perform complicated calculations easily. The latest calculator is called scientific calculator. It has been widely used in universities and companies to ease the calculation processes. Looking at the convenience of scientific calculator, Rolf Howarth came up with the idea to develop the online scientific calculator in 1996. Square Box Systems Ltd. became the host company to support this online site since the launching of the software. The written online scientific calculator has all the functions such as logarithms, logs to base 2, square root, factorials, trigonometry functions, hexagonal, binary functions and so on. Now, let us look into the benefits of this calculator.

1) Convenient

It is now convenient for people to perform complicated calculations using online scientific calculator. Today, Wi-Fi is available everywhere and as long as you are connected to the Internet, the calculator can be used anytime you prefer.

2) Easy

This online calculator is easy to be used. There is a manual or help function to guide you if you are not sure which buttons to click for your calculations.

3) User friendly Interface

It is not complicated and it has a user friendly interface. All the buttons are well arranged exactly like the normal scientific calculator.

4) All Types of Calculations

This calculator is able to perform any type of calculations. For example, you can use it to calculate your house loans, property taxes, and income tax benefits, insurance and so on. It is suitable for business people as well as students.

As I mentioned before, technology has become very important in the professional field because it facilitates the tasks of the professionals. The different equipments, software and applications have facilitated the improvement of the activities without errors.

Technology beneficiates Professionals

Technology has helped different professionals in their daily life and in their workplace because it has allowed them to develop their activities with more facility. Now, I am going to write about the most beneficiated professions with technology, and how it has beneficiated to the professionals.

Nowadays, there are different professions that have been beneficiated with technology and it has helped to professionals with their tasks at workplace. First we have the Technology Engineers that have beneficiated themselves with different equipments and software that help in the tasks of their professional life. Engineering technology is the profession in which knowledge of mathematics and natural sciences gained by higher education, experience, and practice is devoted primarily to the implementation and extension of existing technology for the benefit of humanity. Thus, engineering technology is the application of engineering principles and modern technology to solve or prevent technical problems.

Engineering technology programs include scientific and engineering principles relevant to their chosen field: you will understand why a system is designed in a particular fashion and how it works. Engineering technology professionals acquire hands-on technical skills that enable them to solve production and system implementation problems and help them explain solutions. Engineering technologists work closely with engineers in coordinating people, material, and machinery to achieve the specific goals of a particular project. *(Northeastern University, College of Engineering, n.d.)*

The National Society of Professional Engineers describes the difference between engineering and engineering technology: *"The distinction between engineering and engineering technology emanates primarily from differences in their educational programs. Engineering programs are geared toward development of conceptual skills, and consist of a sequence of engineering fundamentals and design courses, built on a foundation of complex mathematics and science courses. Engineering technology programs are oriented toward application, and provide their students introductory mathematics and science courses, and only a qualitative introduction*

to engineering fundamentals. Thus, engineering programs provide their graduates a breadth and depth of knowledge that allows them to function as designers. Engineering technology programs prepare their graduates to apply others' designs. (The National Society of Professional Engineers, NSPE, n.d.)

The coming paragraph is a personal opinion in Spanish. Ing. Edmundo Javier Mendoza, Electric Engineer, ESPOL said that *"Si bien es cierto, que hoy en día el uso de la tecnología para aplicaciones de ingeniería en lo que llaman "tecnología de ingeniería" ayuda a los ingeniero a resolver grandes problemas en tiempos relativamente pequeños y que cada vez mas ingenieros usan la tecnología en aplicaciones de ingeniería, los métodos tradicionales para resolver los problemas nunca caerán en desuso ya que el ingeniero necesita conocer la base teórica y los métodos matemáticos en los que se basan los programas para realizar los cálculos, ya que un programa de computadora que se usa en una aplicación de ingeniería requiere de datos que el ingeniero debe ingresar y en algunos de los casos no son datos directos sino que se necesita de cierto criterio, y al momento de correr el programa este arrojara un resultado y el ingeniero debe de tener el suficiente criterio para interpretar estos resultados, ya sea aceptarlo como un resultado valido o desecharlo si fuese el caso."*

"No debemos de pensar en los desarrollos tecnológicos como herramientas que "piensan" por nosotros, sino como herramientas tecnológicas que nos ayudan a simplificar las tareas que día a día realizamos en nuestra vida profesional, y en fin ese es el objetivo de los ingenieros buscar métodos simplificados para resolver problemas." (Mendoza, E., 2010)

Second, we have scientific technology. Science and technology studies (STS) is the study of how social, political, and cultural values affect scientific research and technological innovation, and how these in turn affect society, politics, and culture. STS scholars are interested in a variety of problems including the relationships between scientific and technological innovations and society, and the directions and risks of science and technology. *(Science and Technologies studies, 2010)*

So much of contemporary technology is based on the sciences, particularly such disciplines as physics, chemistry, biology, and other sciences that deal with the study, measurement, and understanding of natural phenomena. (*Buzzle.com, 2009*)

Third, based in the scientific technology we have medical technology. Medical technology is a part of the Health technology which encompasses a wide range of health care products and, in one form or another, is used to diagnose, monitor or treat every disease or condition that affects humans. These innovative technologies (application of science and technology) are improving the quality of health care through earlier diagnosis, treatments, and reductions in hospital stays and rehabilitation time. This includes the pharmaceuticals, devices, procedures and organizational systems used in health care.

Medical technology extends and improves life. This is essential; incessant medical technology innovation enhances the quality and effectiveness of care. Billions of patients worldwide depend on medical technology at home, at the doctor, at hospitals and in nursing homes. Equipments such as: Wheelchairs, pacemakers, orthopedic shoes, spectacles and contact lenses, insulin pens, hip prostheses, condoms, oxygen masks, dental floss, MRI scanners,

pregnancy tests, surgical instruments, bandages, syringes, life-support machines are important and necessary in our personal life or at workplace. More than 500,000 products (10,000 generic groups) are available today.

Medical technology also refers to the duties performed by clinical laboratory professionals in various settings within the public and private sectors. The work of these professionals encompasses clinical applications of chemistry, genetics, hematology, immunohematology (blood banking), immunology, microbiology, serology, urinalysis and miscellaneous body fluid analysis. *(Medical Technology, 2010).* Specialties include clinical biochemistry, hematology, coagulation, microbiology, bacteriology, virology, parasitology, mycology, immunology, immunohematology (blood bank), histopathology, histocompatibility, cytopathology, genetics, cytogenetics, electron microscopy, and IVF labs.

On the other hand, nowadays, we have a tool that is the telemedicine. It is a wonderful new tool that is proving to be a resource that has the potential to help millions of people all over the world regardless what their medical conditions are. *(MandaSpring & Brett Juchem., 2008)* Telemedicine improve patients' health status with the use of medical information exchanged from one site to another via electronic communications. Videoconferencing, transmission of still images, e-health including patient portals, remote monitoring of vital signs, continuing medical education and nursing call centers are all considered part of telemedicine. This has different services and programs provided for the patients.

Telemedicine has different services that help the patients in different situations and problems such as Specialist referral services that involve a specialist assisting a general

practitioner in rendering a diagnosis; Patient consultations using telecommunications to provide medical data, which may include audio or images between a patient and a health professional for use in rendering a diagnosis and treatment plan; Remote patient monitoring that uses devices to remotely collect and send data to a monitoring station for interpretation; Medical education that provides continuing medical education credits for health professionals and special medical education seminars for targeted groups in remote locations; Consumer medical and health information that includes the use of the Internet for consumers to obtain specialized health information and on-line discussion groups to provide peer-to-peer support. *(American Telemedicine Association, n.d.)*

Telemedicine has their **advantages** and **disadvantages**. One of their advantages is that it is very rewarding especially when we consider sharing valuable medical information with doctors in other countries around the world and in all areas of the profession. This is a way to learn faster in an effort to save lives and minimize risk or discomfort to the patient any longer than absolutely necessary. Other is that it can be of use for the military personnel. They are often times located in areas of the world that telemedicine is the only way to diagnose and treat them. The fact is that telemedicine can go anywhere. It is both versatile and effective. On the other hand, one of their disadvantages is that it has some risks about the wrong medical information that can be transmitted between patient and the doctor. Due to the risks involved with what is reliable vs. unreliable information and over dependence or over use of telemedicine can easily get out of control until more uniformed strategies and procedures are put into play. *(MandaSpring & Brett Juchem, 2008)*

Finally, we have secretarial profession other of the professions that have been beneficiated with the new technologies because it has permitted to secretaries to do different activities at workplace and give them facilities to work with efficiency. Those technologies permit to secretaries to conclude their tasks without errors.

Technology has brought changes and has allowed secretaries working with different equipments and software that simply their jobs and operations. On the other hand, the advanced applications have also improved their activities at the office. "*Most recently, business have developed word processing centers and relied on personal computers and even electronic mail in an effort to lessen the need for secretarial support and make the employee-secretary very productive.*" (*Ezoem, 1995; Osuala, 2004)*

Technology has given different abilities to the secretaries such as: Communicating effectively, appropriate skills in word processing, keyboarding with speed and accuracy, transcribing documents accurately and efficiently, to apply appropriate business office procedures, apply mathematical concepts and skills and basic accounting principles and the use of office software applications.

As we can see, there are different professions beneficiated with the new technologies, applications and equipments that day by day give more facility to them. It has become very important on the professional field and we have to analyze what is the best option to improve our abilities according to our profession.

Difference between the processes of some professions: some years ago and nowadays

Technology has changed the life of people in different ways. Some professionals have the opportunity to improve day by day their activities and tasks done at workplace. On the same way, the advances of technology have facilitated the processes of some professions. I am going to contrast the differences between some years ago and nowadays.

There are some differences in the process of some professions. Some years ago, the communication between the companies and people was difficult because it did not have good equipment or software that facilitates this and some people cannot communicate without problems. Nowadays, it has changed drastically because with the new advances, the companies and people have a good communication. We are sure that communication is very important at companies and our personal lives.

Some years ago, equipments were not more sophisticated than now and those equipments were difficult to manage. There were applications that in some cases presented complications with their use. But nowadays, it is easier at the moment to use applications, equipments and programs that were invented to improve the life of people, employees and professionals.

Nowadays, some companies are update with the new equipments to improve the realization of the processes, tasks and activities of the professionals. But, in some cases, there are companies that do not use those technologies because it could be a big cost. But, we have to be aware that it can help us with the communication and the improvement of the processes. You

have to choose the best technology for you and your company depending on the profession and

career.
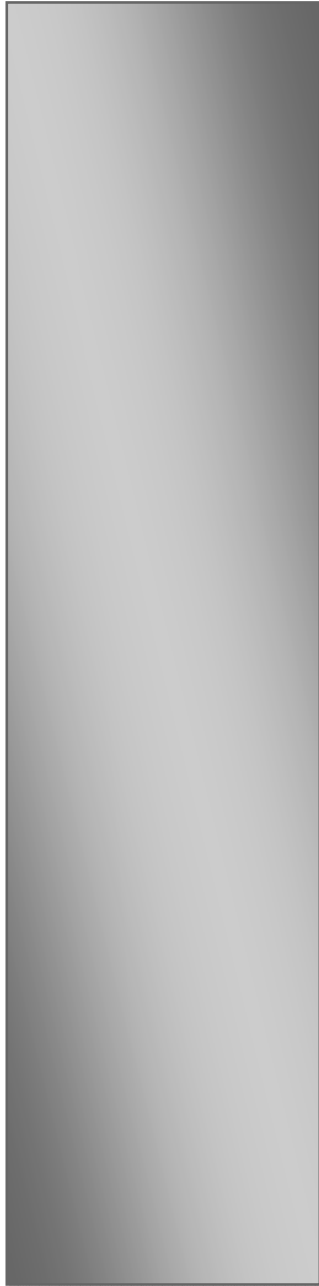
CHAPTER 3

Secretary Activities and technology

Secretary activities and technology

Nowadays, technology has become very important for secretaries. Because of this, the secretary has improved her performance in the daily activities at the office; for example, secretaries can do different things in less time, such as typing letters, organizing appointments, filing documents and so on.

At the office, secretaries have many functions which have been improved thanks to technology because it has facilitated their tasks. Every day, information technology is in advance and this technology has helped secretaries with their administrative, legal and medical activities. Equipments and software have helped secretaries to do their activities and tasks with fewer mistakes. It has become very important at the office and it has allowed secretaries to feel more secure and perform their work efficiently and effectively.

The Secretary and her Functions

For many years, secretaries have been so important at the office, thanks to the different activities and skills that they can develop at the workplace. Secretaries have many abilities and functions that have facilitated the tasks at the office easily. Now, I am going to write about types of secretaries and their functions.

A secretary is very important at the office. They are people who can develop different activities and tasks. A secretary has many opportunities and many fields where they can work and develop their abilities. For example, they can work at a hospital like a medical assistant. Medical secretaries help doctors keep track of patients. They also can work at court

as legal secretaries to work with lawyers; at a university like an educational assistant to help in the academic activities and at a company like an administrative assistant where she can develop their administrative activities, and so on.

Onifade (2004) defined a Secretary as "An assistant to an executive, possessing mastery of office skills and ability, assumes responsibility without direct supervision, which displays initiative, exercises judgment, and makes decisions within the scope of her authority." It means that a qualified secretary should have a wide knowledge of business acumen, versatile knowledge in accounting, personnel, office practice, communication and inside knowledge of the operation of all department within the organization where she works, unlike a secretary without good knowledge who possesses only knowledge of shorthand, typewriting and basic office practices.

A secretary is the person who performs the myriad of daily chores. A secretary, as the principal administrative support position in an office, increases the effectiveness of staff by coordinating the paper flow of the office and, carrying out the day-to-day administrative support activities required to accomplish the work of the organization. A secretary should be able to keep secrets of the organization and of this boss. Their role is principally support, assistance or help.

A secretary carries out activities assigned to them by executive or takes initiative which is within their authority and responsibility. Secretary should be dynamic and versatile because they work in an environment that is not static. They should be ready to accept change and challenges at the office because it changes in accordance with their responsibilities. For example, a legal secretary has some professional responsibilities

different from those of a medical secretary. The computer functions now have changed. You can now talk or use pen to write on the computer and what you say or write is typed by the use of the keyboard.

According to that, there are two major categories of secretaries. We have generalist and the specialist secretaries. Generalist secretaries are those who can work in any organization with some limitations; when we talk about special or technical terminologies and skills. The specialist secretaries are the legal, medical, educational, bilingual, technological, and government secretaries. Now, I am going to write a brief concept of each one:

• A Legal secretary must be an expert time management, juggling many activities and roles at the same time. They must possess psychological skills, dealing with many personalities. They must possess excellent judgment to make dozens of critical decisions, and have talents as a travel agent, personal chopper, living calendar, telephone directory, and mentor. Legal secretaries prepare correspondence and legal papers such as summonses, complaints, motions, responses, and subpoenas under the supervision of an attorney or a paralegal. They may also review legal journals and assist with legal research—for example, by verifying citations in legal briefs. Additionally, legal secretaries often teach newly minted lawyers how to prepare documents for submission to the courts.

• A medical secretary works with doctors or pharmacists in hospital and helps to provide necessary support services. Medical secretaries transcribe dictation, prepare correspondence, and assist physicians or medical scientists with reports, speeches, articles, and conference proceedings. They also record simple medical histories arrange for patients

to be hospitalized, and order supplies. Most medical secretaries need to be familiar with insurance rules, billing practices, and hospital or laboratory procedures.

• Bilingual secretaries work in foreign embassies and help to translate correspondence accordingly. Many typewriters have German, French and English characters and only the trained secretary in foreign languages can use them.

• Educational and Technological secretaries are very familiar with relevant terminologies and provide necessary support services to their chief executives. Educational secretaries are responsible for handling most of the communications between parents, the community, teachers and administrators who work at the school. As such, they are required to know details about registering students, and bus schedules, for example. They schedule appointments, keep track of students' academic records, and make room assignments for classes. Those who work directly for principals screen inquiries from parents and handle those matters not needing a principal's attention. They may also set a principal's calendar to help set their priorities for the day.

• Other technical secretaries who assist engineers or scientists may prepare correspondence, maintain organization's technical library, and gather and edit materials for scientific papers. *(*Secretaries and Administrative Assistant, 2009)

On the same way, secretaries do different activities at the office. Their work consist of typing letters, maintaining files, answering telephone and other activities which are helped with the different technologies created. An executive secretary has many administrative duties. The advent of word processing has significantly reduced the time that such duties require, with the result that many new tasks have come under the purview of the secretary.

These might include managing budgets and doing bookkeeping, maintaining websites, and making travel arrangements.

Secretary functions can include various clerical duties such as answering phones, typing, filling, opening mail and getting coffee. A secretary that serves as an assistant to a manager has similar functions. The functions of the secretary are divided is three parts such as Communication, organization and managerial functions:

- Communication functions refer principally to the communication of the manager and secretary within and outside of the company. A secretary is responsible for answering incoming calls for manager but they also have to screen calls to determine if they can help the caller or if the boss is available to take the call. Assisting the manager includes greeting visitors that come into the manager's office and directing them according the manager's instructions. Secretary functions for the manager may also include connecting with other professionals on behalf via written correspondence, making phone calls and sending emails. *(Smith, 2009)*

- Organization functions refer to having all very organized. A Secretary is responsible for ensuring office files are kept orderly and any confidential documents are placed in a secure area. They are also responsible for keeping track of appointments; scheduling meetings and making travel arrangements when needed. Other functions include setting up conference calls and attending meetings, as well as providing the agenda.

- Managerial functions refer to acting as a manager and assisting him at the different activities that managers do. Sometimes, manager gives secretary the task of

overseeing certain projects like managing a database or creating and updating reports but secretary could also be called upon to train other employees and even instruct her supervisor on such matters as teaching them how to operate office machines or utilize software packages.

Secretaries might manage all the administrative details of running a high-level conference or arranging the catering for a typical lunch meeting. Often executives will ask their assistant to prepare meeting documents for review.

The job of executive assistants requires a variety of skills and adaptability to new situations. A more skilled executive assistant may be required to type at high speeds using technical or foreign languages, organizing diaries, itineraries and meetings and carrying out administrative duties which may include accountancy and may also assist to the manager on all the requirements. Managers relay on secretary to keep thing going well. It makes his job easier as well as keeping the office organized.

Secretaries and administrative assistants should be proficient at typing and good at spelling, punctuation, grammar, and oral communication. Employers also look for good customer service and interpersonal skills because secretaries and administrative assistants must be tactful in their dealings with people. Discretion, good judgment, organizational or management ability, initiative, and the ability to work independently are especially important for higher-level administrative positions. Changes in the office environment have increased the demand for secretaries and administrative assistants who are adaptable and versatile.

On the other hand, it is important to know a secretary is indispensable in an organization because they are very versatile human beings. They are the organization image marker and the most important officer to be seen first and last by visitors to the organization.

Some companies allow them to work at different times of the day. They also might do some of their work at home. Most secretaries work 40 hours a week, but some work part time. It depends on the company, which can be small and big.

Now, we have some comments about the Personal attributes and Business Attributes of a secretary. Laura (1972) *highlighted the personal attributes of a secretary as Adaptability, Level headedness, Good observer, Intuitiveness, Flexibility, Tact, Friendliness, Accuracy, Thoroughness, Initiative, Self-confidence, Good listener, a good telephone personality and a good appearance.* Harrison (1979) *gave the business attributes of a secretary as Secretarial skills, Organizing skills, Efficiency, Reliability, Responsibility, Discretion, Initiative, Tact, Diplomacy, and Punctuality.*

A secretary is an assistant who plays a supportive role for her manager, boss or executive. Because of the new role or responsibilities of the traditional secretary, the modern secretary has such title as office coordinator, executive assistant, office manager and administrative professional.

Training and other qualifications of the secretary

It is important that the secretary knows the different technologies that exist nowadays, and learn to handle them correctly. Word processing, writing, and communication skills are essential for all secretaries and administrative assistants. Employers increasingly

require extensive knowledge of computer software applications, such as desktop publishing, project management, spreadsheets, and database management. In this essay, I am going to mention how secretaries can improve their skills using of technology, and their qualifications.

Education and training is based on the different institutions. First of all, we have high school graduates who have basic office skills which may qualify for entry-level secretarial positions. Secretaries can acquire these skills in various ways. Training ranges from high school vocational education programs that teach office skills and typing to 1-year and 2-year programs in office administration offered by business and vocational-technical schools, and colleges.

Many temporary placement agencies also provide formal training in computer and office skills. Most medical and legal secretaries must go through specialized training programs that teach them the language of the industry. Virtual assistant training programs are available at many community colleges in transcription, bookkeeping, website design, project management, and computer technology. There are also online training and coaching programs.

Employers of executive secretaries are increasingly seeking candidates with a college degree, as these secretaries work closely with top executives. A degree related to the business or industry in which a person is seeking employment may provide the jobseeker with an advantage on the application process.

Most secretaries and administrative assistants, once hired, tend to acquire more advanced skills through on-the-job instruction by other employees or by equipment and software vendors. Others may attend classes or participate in online education to learn how to operate new office technologies, such as information storage systems, scanners, or new

updated software packages. As office automation continues to evolve, retraining and continuing education will remain integral parts of secretarial jobs.

Secretaries and administrative assistants have other qualifications. They should be proficient in typing and good at spelling, punctuation, grammar, and oral communication. Employers also look for good customer service and interpersonal skills because secretaries and administrative assistants must be tactful in their dealings with people. Discretion, good judgment, organizational or management ability, initiative, and the ability to work independently are especially important for higher-level administrative positions. Changes in the office environment have increased the demand for secretaries and administrative assistants who are adaptable and versatile.

Secretaries and administrative assistants have many responsibilities at the office. As we can see, secretaries need to be prepared, have a degree or be training at the different applications or technologies that exist nowadays. There are different ways to obtain a good preparation on those, so what people have to choose the best option to improve their knowledge and skills.

Equipments created for secretary

In the past, Manager dictated memos and letters and secretaries typed them but nowadays, technology has given facilities to the secretaries. In this essay, I am going to write about the equipments created for secretaries and how they have helped them at their activities and tasks.

Secretaries and administrative assistants use a variety of office equipment, such as fax machines, photocopiers, scanners, videoconferencing and telephone systems. In addition,

secretaries and administrative assistants often use computers to do tasks previously handled by managers and professionals; they create spreadsheets, compose correspondence, manage databases, and create presentations, reports, and documents using desktop publishing software and digital graphics.

At the same time, managers and professionals have assumed many tasks traditionally assigned to secretaries and administrative assistants, such as keyboarding and answering the telephone. Because secretaries and administrative assistants do less dictation and word processing, they now have time to support more members of the executive staff. In organizations, secretaries and administrative assistants work in teams to work flexibly and share their expertise. *"Most recently, business have developed word processing centers and relied on personal computers and even electronic mail in an effort to lessen the need for secretarial support and make the employee-secretary very productive"* (Ezoem, 1995)

Some secretaries and administrative assistants, also known as virtual assistants, are freelancers who work at a home office. They use the Internet, e-mail, fax, and the phone to communicate with clients. Other duties include medical or legal transcription, writing and editing reports and business correspondence, answering e-mail, data entry, setting appointments, making travel arrangements, bookkeeping, and desktop publishing.

Word processing, writing, and communication skills are essential for all secretaries and administrative assistants. Employers increasingly require extensive knowledge of computer software applications, such as desktop publishing, project management, spreadsheets, and database management. *(*Secretaries and Administrative Assistant, 2009)

It is now easier to send messages by telex, electronic mails (e-mails), fax and telephones. Other office gadgets available for the secretary are photo-copy machines, duplicating machines, dictating machines, printers, among others. *"Secretary now has many technologically advanced office gadgets to ease their jobs, improve access to goods and services globally"* (Akpomi, 2003).

There are wide range of office machines and equipment which now enable secretaries to improve their performance. For example, new machines take the form of electronic typewriters that have replaced the manual ones. Word processors with multi-purpose facilities, computers and other sophisticated office machines and equipment are now provided by employers.

The innovations and inventions in computer and its facilities have made the office to reduce the number of secretaries. The tasks that secretaries perform at the office have been replaced by the computer. Now, I am going to write some functions of the computer and its facilities. Information which is the most important ingredient of the office can be stored, processed and retrieved by the computer facilities.

- It can be used to produce fast and accurate information.

- It provides very cheap services.

- Messages can be sent to many people simultaneously with the use of computer's internet.

- Security of information is assured.

- Time, effort and money are saved.

- Stress is minimized.

- You can purchase office items online.

- You can book airline tickets and hotels on line.

- Space is saved as little or no paper is used in the office.

The most recently manufactured laptops accept voice whereby you talk, your messages is typed without having any need to use the computer's keyboard, in the same way, this computer accepts handwriting whereby you can write with a particular pen and all that you write is typed on the screen ready for editing and printing. An executive who does not know how to type may use either their voice or pen to produce their documents.

An office that has two or more secretaries can afford to keep working at one of them. Looking at these functions, the secretary is not needed to go to the airport to book flight for their boss; many activities which were hitherto performed by secretary are now performed by the computer.

There is no doubt that the modern technologies have thrown some secretaries out of job and the trend will continue for some time but although the computer does many tasks hitherto done by the secretary, the computer cannot replace the secretary because of the following peculiarities of the secretary.

- It is the secretary that is trained to manipulate the computer and thus making it to function.

- The secretary is trained to receive visitors in a manner that neither the computer nor any other person can do.

- Secretary knows how to keep secrets and confidential documents.

- They are the custodian of office information and correspondence.

- They are in charge of the supplies of the organization

- They possess good communication skills and thus making him good in human and public relations.

- Secretary ensures an efficient and effective office by being current in records management and organizational ability.

- Secretary looks for solving office problems and help with required information.

Nowadays, there are many equipments and applications that help secretary at their activities with efficiency and efficacy without problems or mistakes. It has permitted secretaries to do their tasks but the most important thing is that they have to learn how use those equipments correctly.

Software created for secretaries

Concept of Software Programs

It is important to know that just as, the equipments are necessary; software programs are very necessary too. Thanks to the software programs, professionals can develop different

activities; on the same way, people have to learn how use those Software correctly. At this essay, I am going to write a brief concept and the types of software programs.

Software programs are the collection of computer programs. It is related data that provide instructions to the computer. In contrast to hardware, software is intangible, meaning it *"cannot be touched"*.

Examples of software include:

- **Application software** includes end-user applications of computers such as word processors or Video games, and ERP software for groups of users.

- **Middleware controls** and co-ordinates distributed systems.

- **Programming languages** define the syntax and semantics of computer programs. For example, many mature banking applications were written in the COBOL language, originally invented in 1959. Newer applications are often written in more modern programming languages.

- **System software** includes operating systems, which govern computing resources. Today large applications running on remote machines such as Websites are considered to be system software, because the end-user interface is generally through a Graphical user interface (GUI), such as a web browser.

- **Test ware** is software for testing hardware or a software package.

- **Firmware** is low-level software often stored on electrically programmable memory devices. Firmware is given its name because it is treated like hardware and run ("executed") by other software programs.

- **Shrink ware** is the older name given to consumer bought software, because it was often sold in retail stores in a shrink-wrapped box.

- **Device drivers** control parts of computers such as disk drives, printers, CD drives, or computer monitors.

- **Programming tools** help conduct computing tasks in any category listed above. For programmers, these could be tools for debugging, or reverse engineering older legacy systems in order to check source code compatibility.

Software includes all the various forms and roles that digitally stored data may have and play in a computer (or similar system), regardless of whether the data is used as code for a CPU, or other interpreter, or whether it represents other kinds of information. Software thus encompasses a wide array of products that may be developed using different techniques such as ordinary programming languages, scripting languages, microcode, or an FPGA configuration.

The types of software are developed in languages and frameworks like HTML, PHP, Perl, JSP, ASP.NET, XML, and desktop applications like OpenOffice.org, Microsoft Word developed in languages like C, C, Java, C#, or Smalltalk. Application software usually runs on underlying software operating systems such as Linux or Microsoft Windows. Software (or firmware) is also used in video games and for the configurable parts of the logic systems of automobiles, televisions, and other consumer electronics.

Computer software is so called to distinguish it from computer hardware, which encompasses the physical interconnections and devices required to store and execute (or run)

the software. Practical computer systems divide software systems into three major classes such as system software, programming software and application software.

- System software helps run the computer hardware and computer system. It includes a combination of the following:

  * Device drivers

  * Operating systems

  * Servers

  * Utilities

The purpose of systems software is to unburden the applications programmer from the often complex details of the particular computer being used, including such accessories as communications devices, printers, device readers, displays and keyboards, and also to partition the computer's resources such as memory and processor time in a safe and stable manner. Examples are - Microsoft Windows, Linux, and Mac OS X.

- Programming software usually provides tools to assist a programmer in writing computer programs, and software using different programming languages in a more convenient way. The tools include:

  * Compilers

  * Debuggers

  * Interpreters

  * Linkers

  * Text editors

An Integrated development environment (IDE) is a single application that attempts to manage all these functions.

- Application software allows end users to accomplish one or more specific (not directly computer development related) tasks. Typical applications include:

  * Industrial automation

  * Business software

  * Video games

  * Quantum chemistry and solid state physics software

  * Telecommunications (i.e., the Internet and everything that flows on it)

  * Databases

  * Educational software

  * Medical software

  * Molecular modeling software

  * Image editing

  * Spreadsheet

  * Simulation software

  * Word processing

  * Decision making software

Application software exists for and has impacted a wide variety of topics.

As we can see, there are much software that helps secretary to do and conclude with their activities and tasks in the workplace. Secretary has to learn how use those software and give it a good use.

Types of software for secretary

Just as there are many types of equipment for secretaries, there are many software programs that help secretary at the moment to do and conclude their activities and tasks at

the workplace with errors and mistakes. In this sub topic, I am going to mention what are the most important software programs and how they work.

There are many software programs that help secretary to do their tasks. The software programs permit secretaries to work without making mistakes and principally to work and conclude their job on less time. *Three of the most popular types of computer software programs are word processing, which help the user to write and edit memos, letters and reports, data management programs or databases, which help the user-secretary to use long lists of data and spreadsheet programs, which handle tables and numbers (Dulek and Fielden, 1999)*

Now, I would like to mention some important programs which help secretaries to develop their activities with efficiency and efficacy. Table 3.4.2 summarizes some software programs which are used by secretaries with their respective use and size of each software programs.

Software	Use	Size
Book Form	Software that helps in text time and formats to print books. Printing on both sides of the paper and in sequence. Very useful for making booklets or saving 50% of the required paper.	1.53MB
WTD_Contacts	Contacts WTD is an application for organizing your contacts – alphabetically using names, surnames, telephone numbers, addresses etc. with ease. Print, Search, Edit your records; keep multiple databases in Microsoft Access format (.mdb), backup with ease. Export as text (.txt) format or Excel format (.xls).	1.1MB

Secretary Organizer	Secretary Organizer allows you to easily manage your daily, weekly and monthly tasks in an easy-to-use, user friendly desktop application. Secretary Organizer is the only task management solution you will ever need to use!	734K
Desktop Fay	Email client, Email notified, Mailing lists manager, and Personalized batch mailer, Reminder and Calculator - all in one application with innovative interface. This virtual personal secretary helps you get things done!	2025K
MSD Tasks	MSD Tasks is a visual task manager that allows organizing visually the tasks of several people at the same time. The secretary will be able to organize her boss agenda, a professional will be able to manage his clients' visits, or a staff member will be able to control the activities of his personnel.	3857K
Smart Call Manager	Smart Call Manager is an essential suite to handle incoming and outgoing calls, record and log every and each conversation, set up and use Answering Machine, create and classify your own short text messages (SMS) and audio messages to automate your calling activities and more. Smart Call Manager is designed to improve your call handling productivity and effectiveness.	110K
Advanced Scheduler	With Advanced Scheduler you can schedule every minute of your daily business routine while using Advanced Scheduler. You can schedule your appointments, meetings, tasks, alerts, reminder etc	1000K

All-Business-Letters 2008	All-Business-Letters 2008 is the most comprehensive library of business letter samples available today. Including over 4500 high-quality and professionally written essential business, sales and marketing letters and writing guidelines in more than 1,000 categories which virtually covers all situations in any business.	17285K
Business Letter Professional	Business Letter Professional includes more than 1000 typical business letter templates. With this software, you do not need to hire a business letter expert to write for you, - you can write impressive and effective letters yourself with strengthened skills, less time and no extra money cost. The embedded text editor in this program allows you to edit, copy, paste, search, preview and save your letters. It also enables you to set an external e-mail program to send your finished letters directly.	1 MB

Table 3.4.2 Different software programs used by the secretary

There are different software programs that can be used by the secretary at the workplace or at home to do their activities and improve their skills at the moment to conclude the tasks of the office. Secretaries can choose the best software program that could help them to develop their activities.
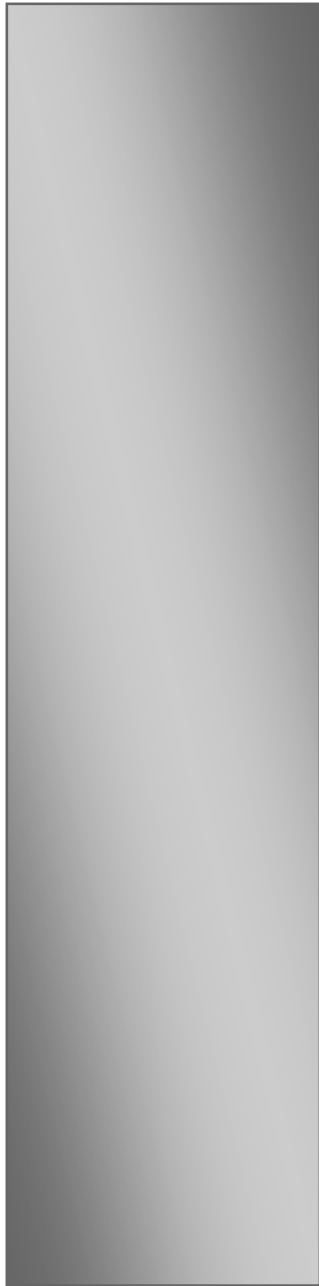
CHAPTER 4

Internet in the professional field

Internet in the professional field

History of Internet

By default, any definitive history of the Internet must be short. Normally, professionals need to know how internet was created and the reasons for it. On this chapter, I am going to mention: how, why, where and when Internet was implemented.

The first implementation of the Internet was launched in 1971 with a public showing in early 1972. This first network, known as ARPANET (Advanced Research Projects Agency Network) was very primitive by today's standards, but a milestone in computer communications. ARPANET was based upon the design concepts of Larry Roberts and was fleshed out at the first ACM symposium, held in Gaithersburg, Tennessee in 1966. The Department of Defense in 1969 commissioned ARPANET, and the first node was created at the University of California in Los Angeles, running on a Honeywell DDP-516 mini-computer. The second node was established at Standford University and launched on October first of the same year. The third node was located at the University of California, Santa Barbara (November 1, 1969) and the fourth was opened at the University of Utah in December.

Ray Tomlinson is the person who established the "@" sign as a domain/host designator from his Model 33 Teletype. The Internet had grown so fast, and to such large proportions by this time that some control was needed to oversee its expansion, so in 1986, the Internet Engineering Task Force (IETF) and Internet Research Task Force (IRTF) came into existence under the Internet Architecture Board (IAB). It was also in this year that the World Wide Web (WWW) edged out File Transfer Protocol (FTP) as the most popular service on the Internet; World-Wide Web was released by Tim Berners-Lee of European Council for Nuclear Research (CERN). *(MegaEssays.com, 2001)*

To conclude the point of the Internet brief history, we can see that internet took some years to be developed. Different people thought of the internet as a way to improve our communication between people or business.

Concept of Internet

Some years ago, internet was not very known as now. Nowadays, people know the internet as something useful for the daily life, or on the workplace. Here I want you to have a brief concept about internet and why it is important to professionals.

Internet can be termed as the interconnection of the variety of networks and computers. The Internet, sometimes called simply "the Net," is a worldwide system of computer networks - Anyone with access to the internet can get information from any computer. With the internet, people can get any type of information which is needed in a less time. The original aim was to create a network that allow users of computer at one place to be able to "talk to" research computers at other places.

When two computers are connected over the Internet, people can send and receive all kind of information such as text, graphics, voice, video, and computer programs. The type, size, or brand of the computers connected, or the type of software used to connect them (called browser) does not matter. *(BusinessDictionary.com, 2010)*

Today, the Internet is a public, cooperative, and self-sustaining facility accessible to hundreds of millions of people worldwide. Physically, the Internet uses a portion of the total resources of the currently existing public telecommunication networks. Technically, what distinguishes the Internet is its use of a set of protocols called Transmission Control Protocol/Internet Protocol (TCP/IP). Using the Web, professionals have access to millions of pages of information. Web browsing is done with a Web browser; the most popular are Microsoft

Internet Explorer and Mozilla Firefox. For example, people can obtain information they need immediately without going to a certain place or business to get that information. Nowadays, there are many ways to access to the internet. With the advancement in technology, people can now access internet services through cell phones, computers, and others.

Emails, video conferencing, live telecast, music, news, e-commerce are some of the services made available due to internet. Entertainment has taken new dimensions with the increase of internet and all we see it's a continuous development and transformation.

The Internet is bound together by addressing, routing, and the Internet Protocol (IP). Addressing provides a uniform way of identifying a destination in the network. Routing allows information to traverse the network from end to end. Finally, IP allows data to be interpreted consistently as they travel across the network. A common definition of the Internet is *"the set of computers that are reachable with IP."*

Perhaps the easiest way to understand these concepts is to look at the three steps involved in making a host *"internet-capable":*

- First, people should be able to address data to you; that is, you need an Internet address. You can request an address from someone who already owns a part of the Internet address space, such as the network manager of your organization, or an Internet Service Provider. If you intend to provide Internet service to others, you can request a chunk of Internet addresses from the Internet Addressing and Numbering Authority.

- Next, data originating from your computer must somehow travel to the destination. If you have only one connection to the Internet, all your data will be carried on the unique link. However, if you decide to get two Internet links (say, for reliability), then you will need to run a routing protocol to decide which link has a better path to each destination. This

routing protocol must communicate with peer protocol running at neighboring computers to discover the nearby topology, so the protocol must be commonly known, at least in your local area. You must have your routing protocol announce your presence to the rest of the network in a well-known way.

- Finally, when you send data, you must have software on your computer that format it using the IP format, so that routes along the path know what they are getting. If you insist on formatting data your own way, your data will meet a sure and untimely death.

Once you have completed these three steps, corresponding to addressing, routing, and IP, you can send data into the network, knowing that it will eventually arrive at its destination. You can also receive data from every other computer in the network.

There are two recent adaptations such as the intranet and the extranet, which also make use of the TCP/IP protocol.

- Intranet: Intranets are websites that can only be accessed within a company through your internal network or LAN. Intranets are a good way of sharing information within the company; enhancing internal communication and enabling better customer care. Intranets commonly hold products and service guides, employee handbooks, company-wide memos, phone numbers and email addresses. Intranets are being used to deliver tools and applications, e.g., collaboration (to facilitate working in groups and teleconferencing) or sophisticated corporate directories, sales and customer relationship management tools, project management etc., to advance productivity. Larger businesses allow users within their intranet to access public internet through firewall servers. They have the ability to screen messages coming and going keeping security intact. Intranet has many benefits such as: Workforce productivity, Time, Communication, Business operations and

management, Cost-effective, Promote common corporate culture, Enhance Collaboration, Cross-platform Capability, Built for One Audience, Knowledge of your Audience, Immediate Updates, and Supports a distributed computing architecture. *(Intranet, 2010)*

- Extranet: An ***extranet*** is a private network that uses Internet protocols, network connectivity. An extranet can be viewed as part of a company's intranet that is extended to users outside the company, usually via the Internet. An extranet can be understood as an intranet mapped onto the public Internet or some other transmission system not accessible to the general public, but managed by more than one company's administrators. For example, military networks of different security levels may map onto a common military radio transmission system that never connects to the Internet. Any private network mapped onto a public one is a virtual private network (VPN), often using special security protocols. An extranet requires network security. Extranet has many benefits such as: Exchange large volumes of data using Electronic Data Interchange (EDI), Share product catalogs exclusively with trade partners, Collaborate with other companies on joint development efforts, Jointly develop and use training programs with other companies, Provide or access services provided by one company to a group of other companies, such as an online banking application managed by one company on behalf of affiliated banks, and share news of common interest exclusively. At the same way, Extranet has its disadvantages because, Extranets can be expensive to implement and maintain within an organization (e.g., hardware, software, employee training costs), if hosted internally rather than by an application service provider, and the security of extranets can be a concern when hosting valuable or proprietary information. *(Extranet, 2010)*

While intranets are generally restricted to employees of the organization, extranets may also be accessed by customers, suppliers, or other approved parties. Extranets extend a private network onto the Internet with special provisions for access, authorization, and authentication.

According with this, just as, internet can help people; it can be bad because of the incorrect use that people can give to information.

Importance of Internet

Nowadays, Internet has become very important for professionals, especially to the secretaries because it has helped them to find any information about any topic or business that can be needed. Now, I am going to explain why internet is very important, and how it has help to the   secretaries.

Internet is very important for many reasons. One of them is the facilities that internet give to the professional, especially to the secretaries. Internet has permitted secretaries to have a good communication with other companies and give facilities to find information of any topic. For example, if the secretary wants to do an investigation about other company or know any information as telephone, address or any kind of information; secretaries only need to use the internet immediately.

On the same way, secretaries can do different things with the Internet. It has facilitated the tasks at the office because it has allowed sending letters, memos or any kind of letters via emails without wasting time. It makes the secretary's duties easier and faster. The internet, for example, has allowed secretaries to keep in touch with each other even across the globe.

Thanks to the Internet, secretaries are able to develop different skills. Internet allows secretaries to be trained in different new software and, applications usage. One of the most important tasks that secretaries can do is to download the different software programs created to

be used at the office and consequently improve the relationship with the manager and the customer.

As we can see, internet can be very important at the moment to use it, but principally secretaries need to be trained to use it correctly, so they could work with efficiency and efficacy because it will allow them to find any kind of needed information and get it immediately.

Advantages and disadvantages of Internet

Some years ago, the term internet was practically anonymous to most of the people. But today internet has become the most ever powerful tool for human beings throughout the world. The internet is a collection of various services and resources. Nowadays, technology has become very important in our daily life or at the workplace. However, it could have advantages and disadvantages. The coming paragraphs will cover the advantages and disadvantages of Internet.

Some of the issues that you can do via the Internet and its advantages are:

- **Communication**

  The principal target of internet has always been the communication, and internet has excelled beyond expectations. Now we can communicate in a fraction of second with a person who is sitting in other parts of the world. Today for better communication, we can use the tools like e-mail; we can chat for hours with our loved ones. There are plenty of messenger services. With the help of all services, it has become very easy to establish a kind of global friendship where you can share your thoughts, can explore other cultures of different ethnicity.

- **Information**

  Information is probably the biggest advantage of internet. The Internet is a virtual treasure of information. Any kind of information is available on the Internet. Search engines like

Google or yahoo are at your service on the Internet. You can find any type of data on any kind of subject that you are looking for. There is a huge amount of information available on the internet, ranging from government law and services, trade fairs and conferences, market information, new ideas and technical support, the list is endless. The 'search engines' on the Internet can help you to find data on any subject that you need.

- **Services**

Many services are now provided on the internet such as online banking, job seeking, purchasing tickets for your favorite movies, and hotel reservations. Often these services are not available off-line and can cost you more.

  o E-Commerce - It is the concept used for any type of commercial maneuvering, or business deals that involves the transfer of information across the globe via Internet. It has become a phenomenon associated with any kind of shopping. Along with getting information on the Internet, people can shop online. There are many online stores and sites that can be used to look for products as well as buy them using your credit card. People do not need to leave their house, and can do all their shopping from the convenience of their home.

  o Business to Consumer (B2C) - It is the model involving businesses and consumers. This is the most common e-commerce segment. In this model, online businesses sell to individual consumers. The basic concept behind this type of service is that the online retailers and marketers can sell their products to the online consumer by using crystal clear data which is made available via various

online marketing tools. E.g. an online pharmacy giving free medical consultation and selling medicines to patients is following B2C model.

- o Business to Business (B2B) - It is the largest form of e-commerce involving business of trillions of dollars. In this form, the buyers and sellers are both business entities and do not involve an individual consumer. It is like the manufacturer supplying goods to the retailer or wholesaler. E.g. Dell sells computers and other related accessories online but it is does not manufacture all those products. So, in order to sell those products, it first purchases them from different businesses i.e. the manufacturers of those products.

- o Consumer to Business (C2B) - Consumer to Business is a growing arena, where the consumer requests a specific service from the business. Example: A manager has to travel by business immediately. He requires a flight in the first week of December and the secretary only needs to see the schedules by internet and chooses the best and calls to buy the ticket. It is the facility that E-commerce gives to business people.

- o Consumer to Consumer (C2C) - It facilitates the online transaction of goods or services between two people. Though there is no visible intermediary involved the parties cannot carry out the transactions without the platform which is provided by an online market maker such as eBay.

- **Downloading Software:** This is one of the most frequent and fun things to do via the Internet. You can download innumerable, games, music, videos, movies, and other entertainment software, most of which are free.

- **Entertainment**

  Entertainment has become popular because many people prefer to surf the Internet. In fact, the internet has become quite successful in trapping multifaceted entertainment factor. Downloading games, visiting chat rooms or just surfing the Web are some of the uses people have discovered. There are numerous games that may be downloaded from the Internet for free. The industry of online gaming has tasted dramatic and phenomenal attention by game lovers. Chat rooms are popular because users can meet new and interesting people. In fact, the Internet has been successfully used by people to find lifelong partners. When people surf the Web, there are numerous things that can be found. Music, hobbies, news and more can be found and shared on the Internet.

  Just as, there are many advantages of using Internet, there are certain cons and dangers relating to the use of Internet that can be summarized as:

- **Theft of Personal information**

  If you use the Internet, you may be facing serious dangers such as exposing your personal information as name, address, credit card number and so on. It can be easily accessed by other people. If you use a credit card to shop online, then your credit card information can also be 'stolen' which could be like to giving someone a blank check.

- **Spamming**:

  Spamming refers to sending unwanted e-mails in bulk, which provide no purpose and needlessly obstruct the entire system. Such illegal activities can be very frustrating for you, and so instead of just ignoring it, you should make an effort to try and stop these activities so that using the Internet can become much safer.

- **Virus threat**

Virus is a program which disrupts the normal functioning of your computer systems. Computers attached to internet are more prone to virus attacks and they can end up into crashing your whole hard disk, causing you a considerable inconvenience.

Though, internet can also create havoc, destruction and its misuse can be very fatal, the advantages are stronger than its disadvantages and it can help people and professionals in their activities to work with efficiency.

CHAPTER 5

Research Report in Public Companies

Research Report in Public Companies

Introduction

Some years ago, technology was not used by professionals to perform their jobs but, nowadays technology has become more important for professionals at the workplace. There are many types of equipment, software and applications which help to business people and professionals do their activities with less time and more efficiency. Those technologies have been created to give facilities to people at the moment to perform their tasks.

Despite of the existence of those technologies, not all people use it with frequency because they are still in the past and think that technology is not indispensable. They do not imagine how much it can help them at the tasks. It could be that they do not trust on those technologies or feel afraid to use it and commit any mistake.

It is necessary that professionals know about the different technologies, benefits and their importance at the moment to do their tasks and activities. But, the most important thing is that they know how they can learn to use those technologies and give them the correct use. Some professionals need to know that they can improve their skills at the workplace without making mistakes using the equipments and software programs. They need to feel motivated at the moment to develop their abilities.

Objective

The objective of this report was principally to establish the importance of technology in Public companies, as well as motivating business people to use the different technologies to improve the activities at the office. Part of the objective is to determine if the companies have implemented new equipments, software and applications for the improvements of the tasks of employees and identify what are the benefits at the moments to use those technologies.

Statement of the Problem

Some companies do not see technology as an excellent implementation to improve their tasks as professionals, so they still live in the past and think that it can bring complications at the moment to use those new equipments or software. It is necessary to consider that those implementations can help professionals at the moment of doing their activities, carrying them out with more security and improving their abilities. For that reason it is necessary to know why technology is important, how useful technology is for professionals, and how much technology is helpful in professionals' daily activities.

Theoretical framework

Defining the word "technology" has become somewhat complex and enclosed to a set of relationships and many viewpoints. This does not have the same meaning now as in the past, and neither the answers given for the technology in a current use. For example, an employer, invokes the machines and tools as the testimonies of what the technology is, i.e., apparatus, mechanisms, which are useful, but if the question is directed to the director of a research and development lab, the answer might be different and yet we would be speaking about the same things; in this case, technology applied in science. Technology can obtain too many meanings depending on the fields it is used. It has helped significantly to all people at any kind of activities. (Osorio, C., 2002)

In the eighteenth and nineteenth centuries, technology has had a limited use, according to the practical arts but not in the variety of tools, instruments, machinery, organizations, methods, techniques, and systems. Nowadays, people commonly identify technology as tools, strategies, instruments, machines, artifacts, weapons, which serve as a wide variety of functions.

"Technology" will also bring together the whole body of technical activities, skills, methods, procedures, routines, used by people to perform tasks. In general terms, technology refers to some of the varieties of social organization, those that are related to technical social devices, which involve the rational area of production (Winner, 2002).

Engineer Xavier Salvador, Director de Informatics of the Municipality of Guayaquil, said technology is indispensable for us because we could not help all the citizens without technology; it would be really impossible. If technology did not exist, today we could not serve society because there would not be infrastructure or staff to do customer service online. We always try to find solutions, for that reason we want to adapt Google mode of operation in which no matter who wrote something or when he wrote it, we just put the key words to find it. It can be tracked within seconds. The most important aspect is not the tool; what matters are the profit and the result of acquire information quickly and easy.

Methods

An exploratory investigation was carried out in a qualitative and quantitative way. The research was given in public institutions such as the Commissary VI of the woman, Municipality of Lomas de Sargentillo, and Municipality of Guayaquil to determine if professionals, especially secretaries are using the different technologies that are created nowadays to improve their skills and can establish the importance of the technology at the workplace. The study was intended to verify if those public companies are motivating people to use it correctly and perform their activities and tasks with efficiency.

Hypothesis

Some companies do not see technology as something indispensable. This is because; they do not want to waste time and money to buy equipments because they have to invest much money at courses, so that professionals learn how to use those equipments or software programs correctly. Professionals need to feel motivated and change their thinking about technology and realize that it is very important at the moment to perform their tasks and activities in the office.

Those technologies are interactive and dynamic so, they have given many facilities to help professionals with their tasks. Those technologies have permitted to create a good environment at the office and it will help individuals to work without errors, sort out problems, improve their skills, and work with efficiency and efficacy.

Design

This research report was a non-experimental design because I used some methods to get important information and demonstrated that it could be better for people. I collected data by questionnaires and interviews. After that I analyzed all the information collected by professionals and obtained results as contribution for people at the future.

Samples

This essay includes investigations from Internet pages to know a little about this topic and have knowledge about opinion of other people who use it. Also, surveys and interviews were given to professionals who have experience in using those equipments and software which are enclosed at the end of this essay.

Data collection

Qualitative findings

I interviewed Xavier Salvador Plaza, Who is a system engineer and actually is the Director of Informatics of the Municipality of Guayaquil. He has worked eight years as Director of Informatics of the Municipality.

He said: "Nowadays, technology is indispensable for all professionals and it is very used by them because it permits to facilitate the tasks at the office. If technology would have not existed, public companies would have not given a good customer service".

He thinks that technology has been created to ease the work of the professionals, so they can follow up the documents at seconds without wasting time on the processes. Mr. Salvador supposed that without technology, the Municipality of Guayaquil would have created collection departments as the banks, so people can pay property taxes, but, he said that it would be a huge expense. Now, thanks to the technology, the Municipality uses the banks to pay the taxes. On the other hand, the bank services allow paying salaries, apartments, equipments and gives security.

The Director of Informatics of the Municipality of Guayaquil, Mr. Salvador supports that there are some employees who do not use equipments and software despite of all employees of the Municipality have been trained to do so. Although he did not tell me the reason of that he assumed it is a matter of custom.

He told me that the hardest issue is to convince the employees they could make a better and faster work with the new applications, equipments and software implemented at the Municipality, Mr. Salvador also remarked that employees have improved the development of their activities thanks to the different software as SharePoint and Exchange.

Mr. Xavier Salvador concluded that they are thinking to implement an internal search engine software to permit employees find any kind of information and help them at any time. They are concentrated at finding what the best tools are to be efficient and reduce costs. Mr. Xavier Salvador said that the most important thing is not the tools; what matters is the benefit, the result obtained and the support given in an easy and fast way.

Finally, he provided me a table where we could see, how technology has been important for the Municipality of Guayaquil throughout the years and, how it has permitted to implement new equipments, software and reduce employees between years 2005 and 2008.

New High – Tech implementation	2005	2008
Personals Computers	1000	1460
Personal Development	26	24
Production and Administration Personal	9	7
Data link	3	24
Document scanning process	No	Yes
Guayaquil Portal	No	Yes
Portal visit Guayaquil	No	Yes
Antivirus	No	Yes
Internet	No	Yes
E-mail	No	Yes
Support Portal	No	Yes
SharePoint	No	Yes

Collection of properties through the banking	No	Yes
Contingency Sites	No	Yes

Table 5.9.1. Equipments and software implemented between years 2005 and 2008 at the

Municipality of Guayaquil.

On the other hand, he showed to me a circular no. AG-2005-36007, dated September 20th, 2005 which was sent to the directors and all departments, (See Appendix A); where it is mentioned that thanks to the new technologies implemented, the Municipality of Guayaquil has saved USD$1'196,552.00 on sheets by one year.

Quantitative findings

For my investigation I chose two public institutions of Guayas Province, the former one was the Commissary 6th of the Woman where I surveyed six people, including secretaries and legal staff that represent the 100% of the sample. They are responsible for doing statements, reports, letters, and giving quality customer service. The second public institution I surveyed was the Municipality of Lomas de Sargentillo. There I surveyed eight people between secretaries and administrative staff that represent 100% of the sample. The objective of these investigations was principally to show the importance and use of equipments and software to improve the activities at the Public companies.

Now, we will see ten different questions with their statistics results, where we can prove if technology is important or not to both companies interviewed.

1. Have technologies helped improve their job performance?
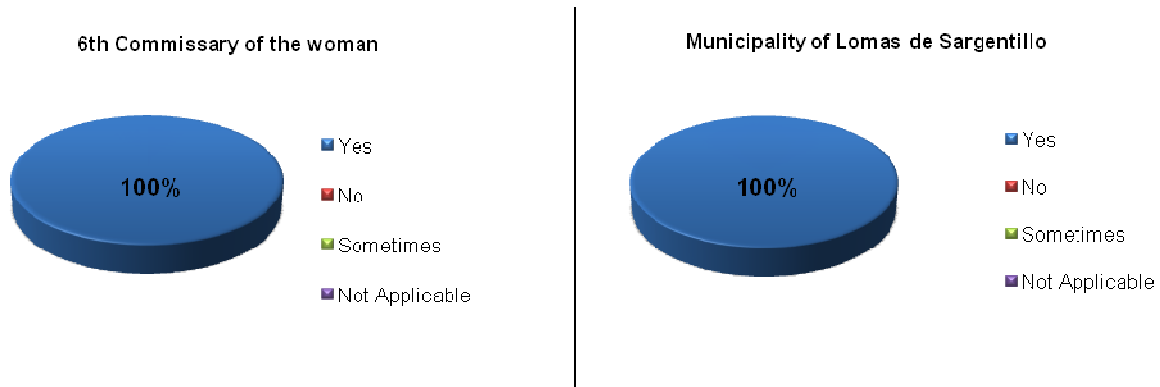
Figure 5.9.1 Have technologies helped improve their job performance?

As we can see on Figure 5.9.1, it shows that both companies agreed that technology has helped to improve the job performance at public institutions because there are programs and equipments which facilitate the tasks.

2. Are there applications which have been difficult at the moment to use them?
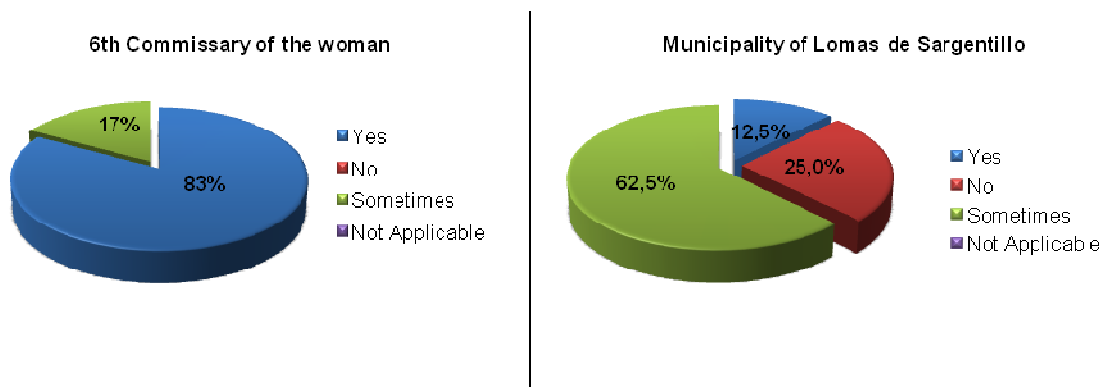
Figure 5.9.2 Are there applications which have been difficult at the moment to use them?

On figure 5.9.2, we appreciate that 83% of the interviewed employees at the Commissary 6th of the woman remark that there are applications which have not been difficult at the moment of applying and 17% answered sometimes; While only, 12.5% of employees interviewed at the Municipality of Lomas de Sargentillo stated that there are few applications which have been difficult to use. The 25% answered no and the other 62.5% said sometimes.

3. Have you been able to adapt easily to new technologies?
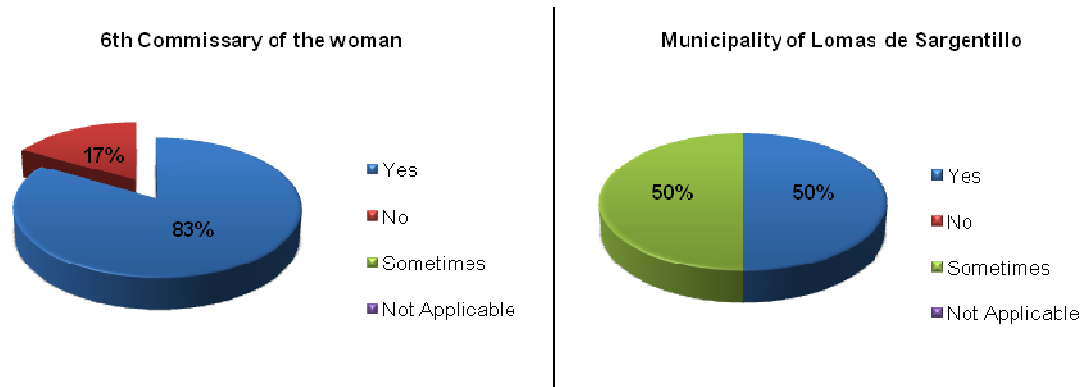
Figure 5.9.3 Have you been able to adapt easily to new technologies?

As we can see in the Figure 5.9.3, 83% of employees interviewed of the Commissary 6th of the woman said that they have been able to adapt easily to new technologies such as equipments, software, and applications but 17% of employees commented that some technologies are difficult to adapt to their daily activities while only the 50% of employees interviewed at the Municipality of Lomas de Sargentillo could adapt easily to the new technology and the other 50% told that in some cases, it has been difficult.

4. Have new technological advances allowed saving more time in their tasks?
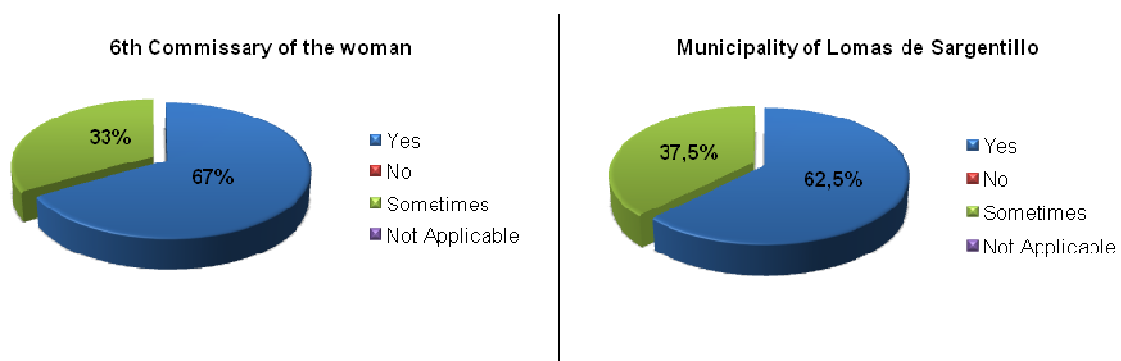
Figure 5.9.4 Have new technological advances allowed saving more time in their tasks?

As we can see on the figure 5.9.4, the statistics of the Commissary 6th of the woman are different from Municipality of Guayaquil. At the commissary the 67% of employees thought that the new technological advances have permitted to save time at the moment to do their tasks but,

in the Municipality of Lomas de Sargentillo only the 62.5% thought that. However, the 33% of the employees of the Commissary 6th of the woman stated that sometimes those technological advances have permitted to save time, while the 37.5% of employees of the Municipality agreed too.

5. Would you be willing to learn to use new technologies?
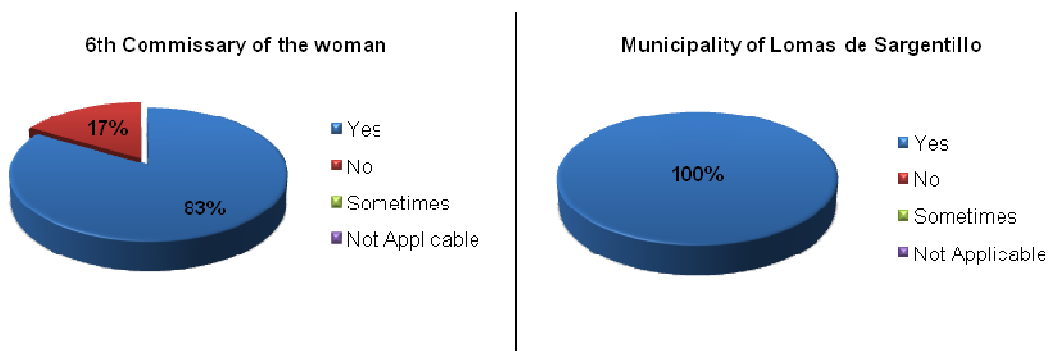
Figure 5.9.5 Would you be willing to learn to use new technologies?

Only the 83% of employees of the Commissary 6th of the woman would be willing to learn to use new technologies and the other 17% disagreed. Unlike the commissary 6th of the woman, 100% of employees of the Municipality agree to learn to use new technologies to improve the development of the activities.

6. Do you think you should have new applications which help you in your work?
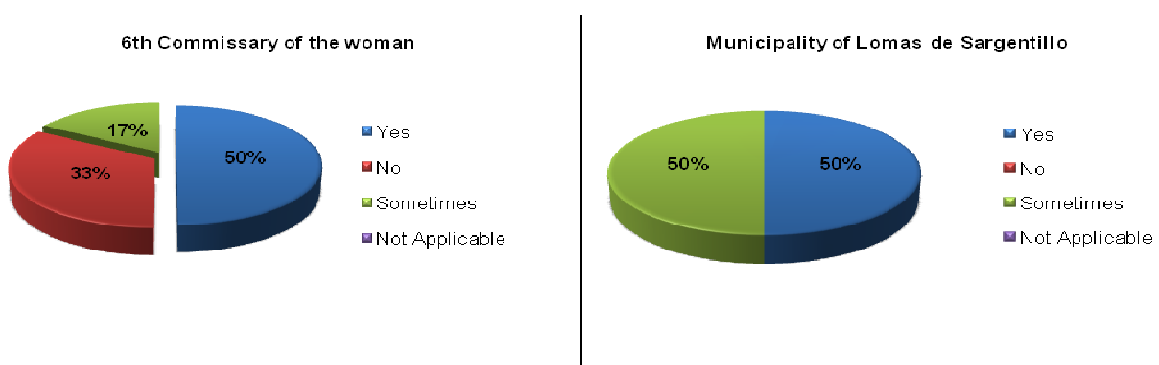
Figure 5.9.6 Do you think you should have new applications which help you in your work?

On the figure 5.9.6, we can see that only the 50% of employees of both companies thought that they should have new applications which help professionals in their work, but the

other percent believed that not is necessary and the rest of employees supposed that sometimes it could be necessary.

7. Intranet as a tool has facilitated the development of your activities and has reliable information?
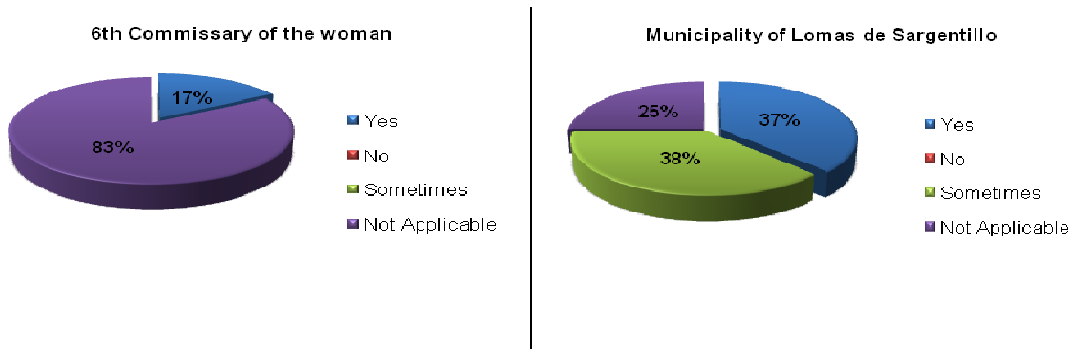
Figure 5.9.7 Intranet as a tool has facilitated the development of your activities and has reliable information?

In spite that 17% of employees of the commissary understood intranet have facilitated to develop their activities and have reliable information, the other 83% of employees did not know what is intranet; nevertheless, in the Municipality 37.5% of employees said that intranet has facilitated the development of their activities because it helps to find out any kind of information, the other 37.5% answered sometimes and the last 25% did not think so.

8. The access, navigation and query of the Intranet are made in a quick and easy way, which allows obtaining appropriate information?
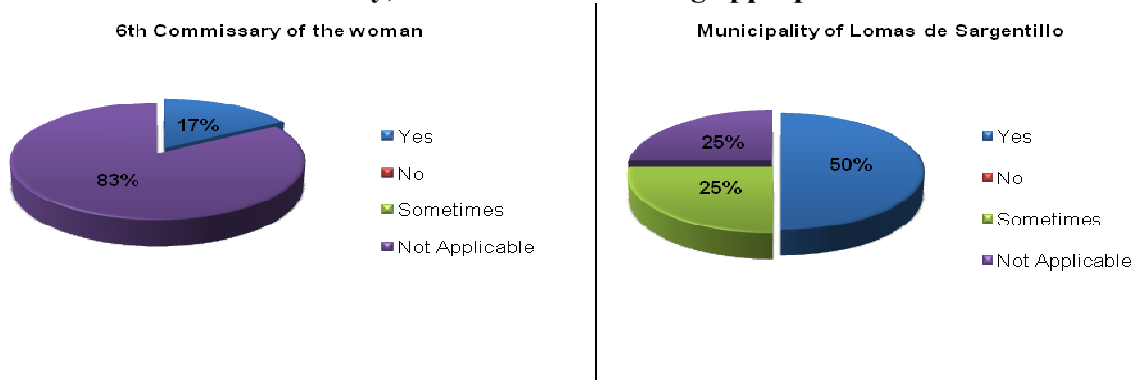
Figure 5.9.8 The access, navigation and query of the Intranet are made in a quick and easy way, which allows obtaining appropriate information?

As we can see on the figure, only the 17% of employees of the commissary 6th of the woman knew that the access, navigation and query of the Intranet is made in a quick and easy way, allowing the retrieval of appropriate information employees can download immediately. However, the other 83% did not know about that. Unlike the commissary, the 50% of employees of the Municipality thought that the access, navigation and query of the Intranet is made in a quick and easy way and allow obtaining appropriate information, whereas the other 50% affirmed that it is only in some cases, and other employees did not know about how long useful is the intranet.

9. Do you know to whom to turn in order to request missing information or technical support in case of failure?
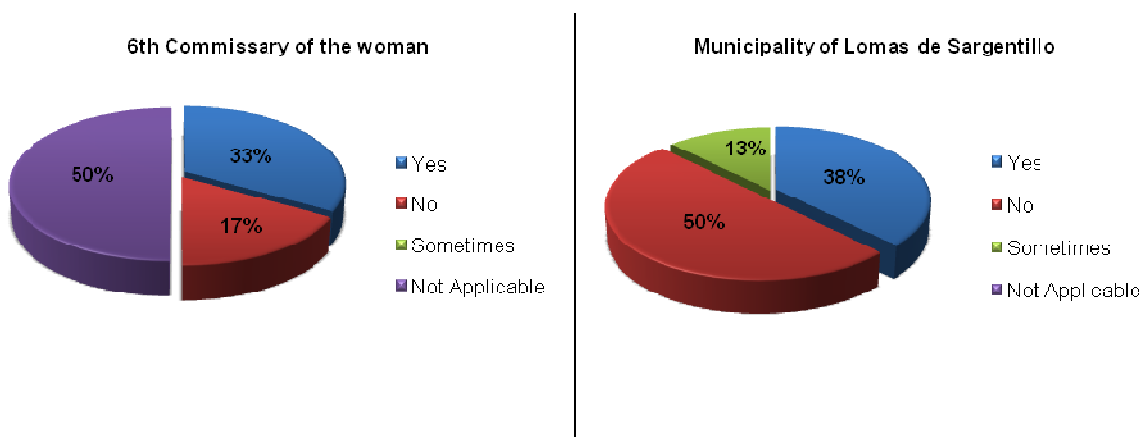
Figure 5.9.9 Do you know who to turn to in order to request missing information or technical support in case of failure?

On the other hand, on the figure 5.9.9, the 33% of employees of the commissary 6th of the woman know to whom to turn to request missing information or technical support in case of failure. The 17% said that they don't know to whom to turn, and the 50% answered sometimes, while only the 37.5% of employees of the Municipality of Lomas de Sargentillo know to whom to turn to request missing information or technical support in case of failure. The 50% told that they do not know to whom to turn, and the 12.5% answered sometimes.

10. Are your requests of information and attention to technical failures addressed effectively?
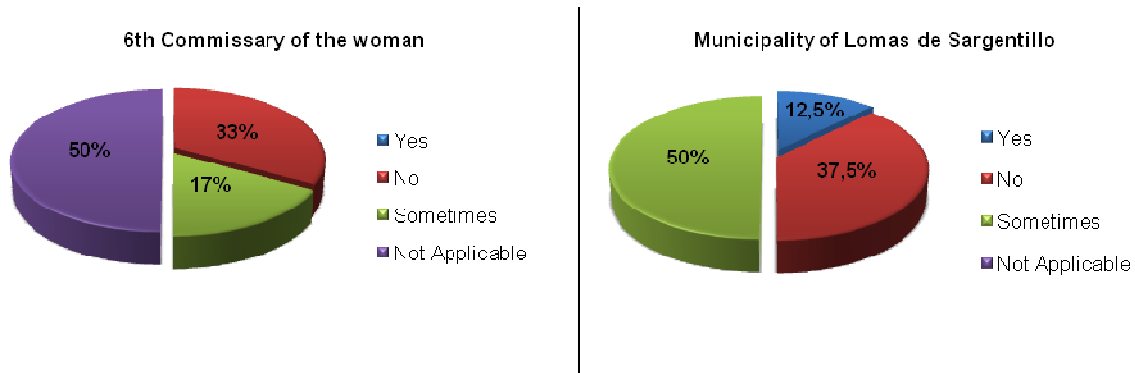
Figure 5.9.10 Are your requests of information and attention to technical failures addressed effectively?

Finally, the 33% of employees of the commissary 6th of the woman commented that their requests of information and attention to technical failures have not been addressed effectively, the 17% answered sometimes, and the 50% said that it was not applicable. Only the 12.5% of employees of the Municipality of Lomas de Sargentillo said that their requests of information and attention to technical failures have been addressed effectively, the 37.5% answered no and the 50% said sometimes.

Conclusion

At the beginning of this Research Project, I established some hypothesis which can prove with the Research Report. First, I said that using technology is really necessary and could be satisfactory to the secretaries and to other professions because nowadays the new technologies have brought many changes in their activities and according with the answers of the investigation, people are agree that it is necessary because it has been given many facilities at the moment to be implemented and it is an essential factor in order to motivate the secretaries to use the different kinds of technologies to create a good environment at the office.

On the other hand, some managers consider that the use of technologies at the offices is a waste of time and money because they have to invest much on training for secretaries to learn how to use the different equipments that are implemented at the office. In addition, some secretaries do not have time to do courses, so it could be considered unrealistic at the moment to apply this kind of activities. On the results of the investigation, you can see that people are agree that, technology improve the development of the daily activities at the office but, effectively, some companies do not see technology as a priority because; they have to waste money to buy equipments and invest much money at courses, so professionals learn how to use those equipments or software programs correctly.

Other of the hypothesis that I mentioned, is that technology will help secretaries to improve their tasks and the necessity to learn and understand the use of technologies will motivate secretaries to work with efficiency in their workplace. As we can see on the statistics, according with this hypothesis, business people need to know the benefits that technology can give them such as saving time and money thanks of the new programs, equipments and applications that help to improve the job performance and, it will help individuals to work without errors, sort out problems, improve their skills, and work with efficiency and efficacy.

Appendix A

Circular No. AG-2005-36007

MUY ILUSTRE MUNICIPALIDAD DE GUAYAQUIL
ALCALDIA

Oficio Circular No. AG-2005-36007
20 de septiembre del 2005

Señores
DIRECTORES Y JEFES DEPARTAMENTALES
Ciudad.-

De mis consideraciones:

En atención al oficio No. DI-2005-1977, recibido el 16 de septiembre del 2005, suscrito por el Ing. Xavier Salvador Plaza, **Director de Informática,** cuya copia anexo, mediante el cual informa los resultados de la disminución del uso de papel membretado y papel en blanco tamaño A4, cuyo ahorro acumulado a la fecha es de USD$ 1'195,522.00, lo que cubre totalmente la compra de las 515 computadoras y el contrato con Microsoft y se debe especialmente a las acciones llevadas a cabo por las distintas Direcciones Municipales, según se detallan en el mencionado oficio, sírvanse **CONTINUAR** usando las herramientas allí indicadas, pues el ahorro es muy significativo, sin tomar en cuenta la mayor eficiencia en los procesos.

Atentamente,
DIOS PATRIA Y LIBERTAD

Jaime Nebot Saadi
ALCALDE DE GUAYAQUIL

JNS/ADI/fa-

y con   Ing. Xavier Salvador P., DIRECTOR DE INFORMÁTICA
         Ing. Augusto Dillon L., ASISTENTE DEL ALCALDE

Muy Ilustre
MUNICIPALIDAD DE GUAYAQUIL

DI-2005-1977

Septiembre 15 del año 2005

Abogado
Jaime Nebot Saadi
ALCALDE DE GUAYAQUIL
En su Despacho.

De mis consideraciones:

A nombre de todas las Direcciones Municipales nos complace comunicarle los resultados de la disminución del uso de papel membretado y papel en blanco tamaño A4:

	2003	2004	2005*
Cantidad de Papel (HOJAS)	93,033,660	41,709,436	32,556,688
Costo de Papel	$441,509	$200,735	$156,043
Costo de impresión*	$1,409,062	$640,639	$453,315
Total:	$1,850,571	$841,374	$654,050
Ahorro respecto al año anterior:		$1,009,197	$187,324
Ahorro acumulado:			$1,196,522

A septiembre 15 del 2005
Datos utilizados para este análisis:

Costo unitario de papel membretado:	0.008
Costo unitario de papel en blanco:	0.0047
Costo total de impresión:	0.02*

De acuerdo a DAI-2005-0066

El ahorro acumulado a la fecha ($1,196,522), cubre totalmente la compra de las 515 computadoras y el contrato con Microsoft y se debe especialmente a las acciones llevadas a cabo por:

- Auditoría Interna para reducir el uso de fotocopias y la exigencia para recibir comunicaciones vía correo electrónico.
- Desarrollo Institucional, Administración, Financiero y Asesoría Jurídica para la digitalización de documentos y el uso del correo electrónico.
- La Administración al contratar los enlaces con el Mercado Artesanal y el Centro Municipal.
- El uso del portal http://ayuda para solicitar soporte técnico.
- La publicación en el portal http://documentos/sites/doc de los contratos, ordenanzas, informes, órdenes de compra, etc.

Muy Ilustre
MUNICIPALIDAD DE GUAYAQUIL

DI-2005-1977
Pág. 2

Conforme a su disposición contenida en el oficio AG-2005-04513 de febrero 10 del 2005, en el sentido de que se inicie en todas las Direcciones una campaña de ahorro en el consumo de papel, le informo que en los próximos días se pondrá en la Intranet de la Municipalidad, los resultados en cifras del ahorro que al mes haya alcanzado cada Dirección.

Por lo expuesto solicito exhorte nuevamente a todas las Direcciones, a continuar usando las herramientas ya señaladas, pues el ahorro es muy significativo, sin tomar en cuenta la mayor eficiencia en los procesos.

Atentamente,

Ing. Xavier Salvador Plaza
DIRECTOR DE INFORMÁTICA

p.c.   AUDITOR GENERAL
         PROCURADOR SÍNDICO
         DIRECTOR FINANCIERO
         DIRECTOR ADMINISTRATIVO
         DIRECTOR DE DESARROLLO INSTITUCIONAL

Appendix B

Interview

Company Name: M.I. Municipality of Guayaquil

Name of Interviewee: Mr. Xavier Salvador Plaza

Job title: Director of Informatics   Age in office: 8 years

Objective: Establish the importance and use of technology at the MI Municipality of Guayaquil.

1. Do you think that technology has improved the performance of your department?

Yes, definitely, otherwise we would have hired more people and perhaps moved to a larger building.

2. What technological advance is the most used in the informatics department and does that gives you more profit?

The most outstanding tool, which has given us the entire internal user's requirements, is SharePoint and Exchange.

3. How do you think technology has improved the performance of all departments at the Municipality?

Several things have been improved here but the most important and effective one still is SharePoint joined with the Exchange.

4. Which applications you think are the widely used at the municipalities?

The most popular is Word, after this e-mail, Exchange and SharePoint. Exchange program helps us because we have a digital certificate which let us not to send too much paper work, we send written documents when they need a hard copy as invoices, which are needed in the accounting department, but here at TIC department everything is handled on-line because of our digital certificate.

5. Do you think all the employees have been adapted to the new implemented technological advances?

I do not think so, there are some people that are not using them, I could not tell you how come but we have trained all people here. I am sure this is a matter of custom. They might think it is manageable if they could touch the documents.

6. What is the biggest complication at the moment to implement new technologies?

The hardest issue is to convince the users they could make a better and faster work and go home earlier to spend time with their family instead of doing paper work at the office.

7. What is your opinion about the Intranet?

The intranet shows how to fill in all the files, passive ones; they just find them using the SharePoint program.

8. Do you think that employees make constant use of the Intranet at the Municipality?

The majority permanently used it. I could exemplify telling you that when the electricity shuts down, the users start complaining about the lack of access to Internet and to the SharePoint program.

9. Do you think that the intranet has facilitated the development of the activities of employees in your department?

Of course yes, as I said before to you. Now they could find the right file just writing a word on the already mentioned program.

10. How are applications dealt with information or technical failures that occur at the Municipality?

Through the support portal, people can find what they need, and find a solution or create a new application. They can find some common problems and tell them what to do until they can access the technician. This is only internal. Also, it allows us making follow up of all cases that

occur. For example we get statistics every month or every two months, and we realize if there are many problems with hard drives that are damaged and buy discs to have in stock or need to be changed. We are always optimizing and fixing problems quickly, so the employee does not stay too long hours without working.

Appendix C

Survey data

Company Name:

Name of Interviewee:

Job title: **Age in office:**

Objective: To establish the importance and use of technology for secretaries and administrative staff.

Instruction: Please underline an answer. In case of answer yes, please answer the next question. Your response will be treated in a confidential and anonymous way.

1. Have technologies helped improve their job performance?

YES   NO   SOMETIMES   NOT APPLICABLE

In case of answer yes, how _____

2. Are there applications which have been difficult at the moment to use them?

YES   NO   SOMETIMES   NOT APPLICABLE

In case of answers yes, what _____

3. Have you been able to adapt easily to new technologies?

YES   NO   SOMETIMES   NOT APPLICABLE

if it is yes, what: _____

4. Have new technological advances allowed saving more time in their tasks?

YES   NO   SOMETIMES   NOT APPLICABLE

if it is yes, which commonly: _____

5. Would you be willing to learn to use new technologies?

YES   NO   SOMETIMES   NOT APPLICABLE

if it is yes, what: _____

6. Do you think should have new applications which help you in your work?

YES   NO   SOMETIMES   NOT APPLICABLE

if it is yes, what: _____

7. Intranet as a tool, have you facilitated at the development of your activities and have reliable information?

YES   NO   SOMETIMES   NOT APPLICABLE

if it is yes, what: _____

8. the access, navigation and query of the Intranet are made in a quick and easy way, which allow obtaining appropriate information?

YES   NO   SOMETIMES   NOT APPLICABLE

if it is yes, what: _____

9. Do you know who to turn to request missing information or technical support in case of failure?

YES   NO   SOMETIMES   NOT APPLICABLE

if it is yes, who: _____

10. Are your requests of information and attention to technical failures addressed effectively?
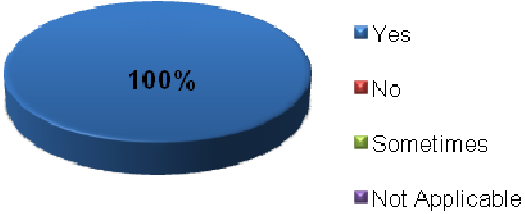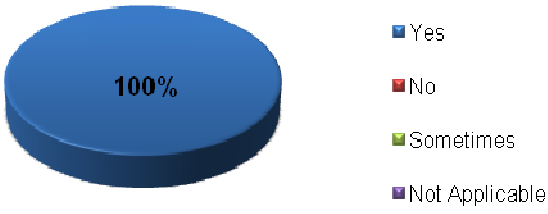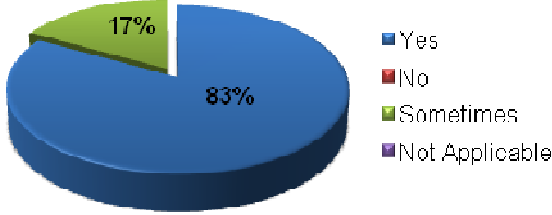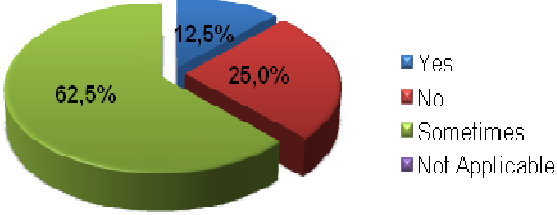
YES   NO   SOMETIMES   NOT APPLICABLE

In case of answers yes, how? _____

Appendix D

Result Quantitative findings

Here you will see the contrastive chart of the two companies mentioned before.

6th Commissary of the woman	Municipality of Lomas de Sargentillo
1. Have technologies helped improve their job performance? 	1. Have technologies helped improve their job performance?
2. Are there applications which have been difficult at the moment to use them? 	2. Are there applications which have been difficult at the moment to use them?

3. Have you been able to adapt easily to new technologies?	3. Have you been able to adapt easily to new technologies?
6th Commissary of the woman 	**Municipality of Lomas de Sargentillo**
4. Have new technological advances allowed saving more time in their tasks?	4. Have new technological advances allowed saving more time in their tasks?
6th Commissary of the woman 	**Municipality of Lomas de Sargentillo**
5. Would you be willing to learn to use new technologies?	5. Would you be willing to learn to use new technologies?
6th Commissary of the woman 	**Municipality of Lomas de Sargentillo**
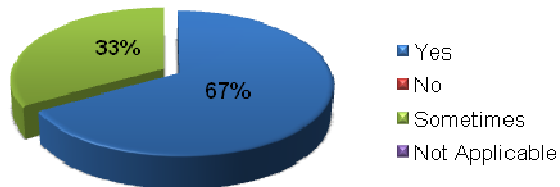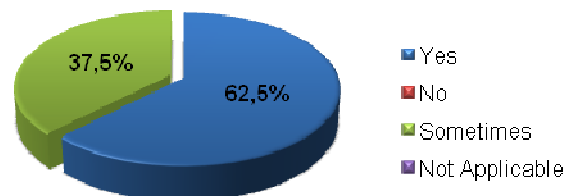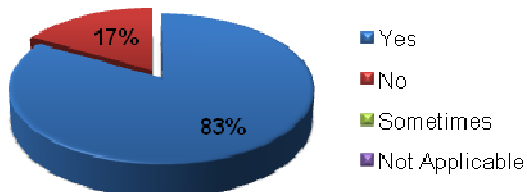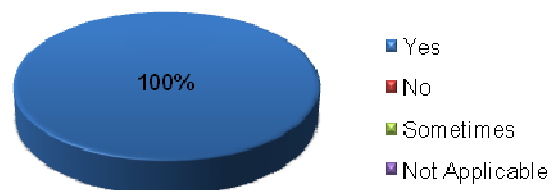
6. Do you think you should have new applications which help you in your work?	6. Do you think you should have new applications which help you in your work?
6th Commissary of the woman 17% 33% 50% ■ Yes ■ No ■ Sometimes ■ Not Applicable	Municipality of Lomas de Sargentillo 50% 50% ■ Yes ■ No ■ Sometimes ■ Not Applicable
7. Intranet as a tool has facilitated the development of your activities and has reliable information?	7. Intranet as a tool has facilitated the development of your activities and has reliable information?
6th Commissary of the woman 17% 83% ■ Yes ■ No ■ Sometimes ■ Not Applicable	Municipality of Lomas de Sargentillo 25% 37% 38% ■ Yes ■ No ■ Sometimes ■ Not Applicable
8. The access, navigation and query of the Intranet are made in a quick and easy way, which allows obtaining appropriate information?	8. The access, navigation and query of the Intranet are made in a quick and easy way, which allows obtaining appropriate information?
6th Commissary of the woman 17% 83% ■ Yes ■ No ■ Sometimes ■ Not Applicable	Municipality of Lomas de Sargentillo 25% 50% 25% ■ Yes ■ No ■ Sometimes ■ Not Applicable
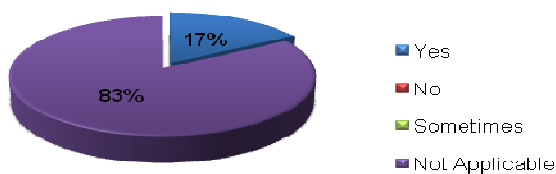
9. Do you know who to turn to in order to request missing information or technical support in case of failure?	9. Do you know who to turn to in order to request missing information or technical support in case of failure?
6th Commissary of the woman 33% Yes 17% No 50% Not Applicable Sometimes	**Municipality of Lomas de Sargentillo** 13% Sometimes 38% Yes 50% No Not Applicable
10. Are your requests of information and attention to technical failures addressed effectively?	10. Are your requests of information and attention to technical failures addressed effectively?
6th Commissary of the woman 33% No 17% Sometimes 50% Not Applicable Yes	**Municipality of Lomas de Sargentillo** 12,5% Yes 37,5% No 50% Sometimes Not Applicable

Table 5.10.1 A contrastive chart of the results quantitative of both companies; 6th Commissary of

the woman and the Municipality of Lomas de Sargentillo.

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