

IDENTIFY THE ROLE AND EFFECTS OF THE
INTERNET IN PRIVATE ORGANIZATION IN
KNIGDOM OF SAUDI ARABIA

By

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ABSTRACT

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Identify the role and effects of the Internet in private organization in kingdom of Saudi Arabia.

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The purpose of this study is to explore and investigate the role and applications of the Internet on both consumers and commercial private organizations in Saudi Arabia. The main application used in this paper is the electronic commerce. Moreover, this paper is an attempt to explore the perspectives of Internet users, information technology (IT) professionals, business owners, and managers of online businesses in Saudi Arabia.

As results of the interview analysis, it is apparent that the Internet applications are growing rapidly in the last three years. Furthermore, more companies should participate in the Internet marketing and electronic commerce. It is essential for the information technology companies to work in improving customers' confidence in the Internet and electronic commerce.

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LIST OF ABBREVIATIONS

Internet: The internet is a worldwide network of computer networks that permits any two computers in the system to exchange data via such means as electronic mail (e-mail), the World Wide Web, newsgroups (electronic bulletin boards), file transfers, and real-time chat rooms.

WWW: World Wide Web that sites describing their organizations and products.

E C: Electronic Commerce.

KSA: Kingdom of Saudi Arabia.

Riyadh: Capital of kingdom of Saudi Arabia.

KACST: It is King Abdulaziz City for Science & Technology that has the Internet Services Unit.

STC: Saudi Telecommunication Company.

ISPs: Internet Service Providers.

ISU: department which responsible for providing Internet services in the Kingdom of Saudi Arabia, in cooperation with Saudi Telecommunication Company, and a number of Internet Service Providers from the private sector.

ISP: A company that provides Internet accounts, connections, and services to individuals and/or businesses.

PAP: Password Authentication Protocol.

Chapter 1

Introduction

Background to Research:

The Kingdom of Saudi Arabia covers an area of approximately 2.2 million square kilometers and occupies 70% of the Arabian Peninsula (Figure 1-1). The Kingdom is bordered by the Red Sea and the Gulf of Aqaba to the west, with Jordan, Iraq and Kuwait lying to the north. To the east lie Qatar, the United Arab Emirates, Bahrain, and the Arabian Gulf whilst Oman and Yemen share the southern borders.

Saudi Arabia is the world's largest producer and exporter of crude oil and has the world's largest proven reserves, estimated at 261.5 billion barrels or just over 25% of the world's reserves. At the current rate of production, these would last for 79.5 years. In addition, Saudi Arabia has approximately 3.7% of the world's gas reserves as well as a wide variety of other mineral resources, including gold, iron ore and copper. Agriculture and livestock raising have historically been the basic economic activities of Saudi Arabia, but since the development of the oil industry, the government has sought to diversify its industrial base and improve its basic economic structure, developing roads, airports, seaports, and the power industry. Through a sharp increase in oil prices beginning in 1973, Saudi Arabia began to amass a tremendous cash reserve.



Figure 1-1 Kingdom of Saudi Arabia map

In 1975 the government of Saudi Arabia announced an ambitious five-year development plan based on continued oil revenues, calling for expenditures of about \$150 billion, with much of this amount devoted to improving the country's infrastructure. Priority in the industrial sector was given to the development of a petrochemical industry, the building of liquefied natural-gas plants and petroleum-based industries, and production of steel and cement to facilitate the large-scale construction (Encarta, 2000).

As progress took over various aspects of our life, Saudi Arabia realized the importance of the computer sector as a mean to keep up with the outer world. The government of Saudi Arabia has given a top priority to have a modern computer based technology. Before 1985 the number of computer users were very few and limited to those people who had an industry based computer, but eventually the government started to launch free training programs to educate the people and upgrade their knowledge about the computer. Also, the government launched an educational program to place a computer center and introduce computer courses in all the schools in the Kingdom.

In 1999, as the Internet started to be involved in all the life aspects, likewise the government encouraged the people to use the Internet as a powerful and useful communication tool. The government started to establish King Abdulaziz city for technology as the main distributor of the Internet in the

Kingdom. Additionally, the government started to hook up all the schools to the Internet and provided access to the Internet for all the students.

According to Brown (2000), general manager of commerce on Middle East, Saudi Arabia is a major global trading zone, and a number of thriving import and export markets exist there. The future looks very bright for Electronic Commerce (EC) in Saudi Arabia.

Al – Yousef (1999). Found that, many companies started the rush to have an Internet service to improve and upgrade their business capabilities. They also started to send the employees abroad to bring up the latest applications and use of the Internet. Now, the Internet is found everywhere in Saudi Arabia and has many applications. One of the main applications is the E-commerce, which has started recently, and many companies are in the process of applying it to its full extent.

Internet applications are considered one of the fastest growing segment in the computer business. Over 6 billion US Dollars are being invested in the current expansion of the communications infrastructure. The market leaders are reporting sales growth ranging between 40 to 50%. The business community's leading current requirements are in the area of adequate and efficient network solutions as well as access to the Internet and electronic commerce.

The Saudi market for Internet hardware, software, E-business, and E-government services remains the largest in the Middle East (Al-Yousef, 1999).

Many business leaders consider the Internet to be the backbone for day-to-day activities for companies and corporations all around the world. Using the Internet, companies have found new ways of marketing their products and services to a global customer. In addition Internet is being used by companies for improved communication, better customer service with ultimate objective of increasing productivity. "To be successful, IT must be coordinated with other organizational context"(Benjamin and Yates, 1991,p.12).

The Internet will become the world's primary mean of communication and will soon carry more mail than the entire postal services worldwide. The Internet now connects more people, resources and services than any other communicating systems except for the telephone system. The businesses that take advantage of the opportunities presented by the Internet are benefiting at the expense of those who do not.

Companies in the Kingdom of Saudi Arabia (KSA) are of no exception. Since the introduction of the Internet service in the Kingdom, companies are looking for ways to implement Internet in their organization. Selecting a reliable and resourceful Internet Service Provider (ISP) is very important factor.

According to KSA Commerce Minister Bin Jaafar (1999), the Kingdom now stands among the top five Arab countries in terms of Internet growth. The Internet has quickly become a major player in the quest for information. People readily employ the Internet as a tool for information retrieval because it can provide fast access to vast amounts of information from a multitude of sources. Companies are rushing to establish an on-line presence by creating corporate World-Wide Web (WWW) sites (see Figure 1-2) describing their organizations and products. (Kosiur, 1997,p13)

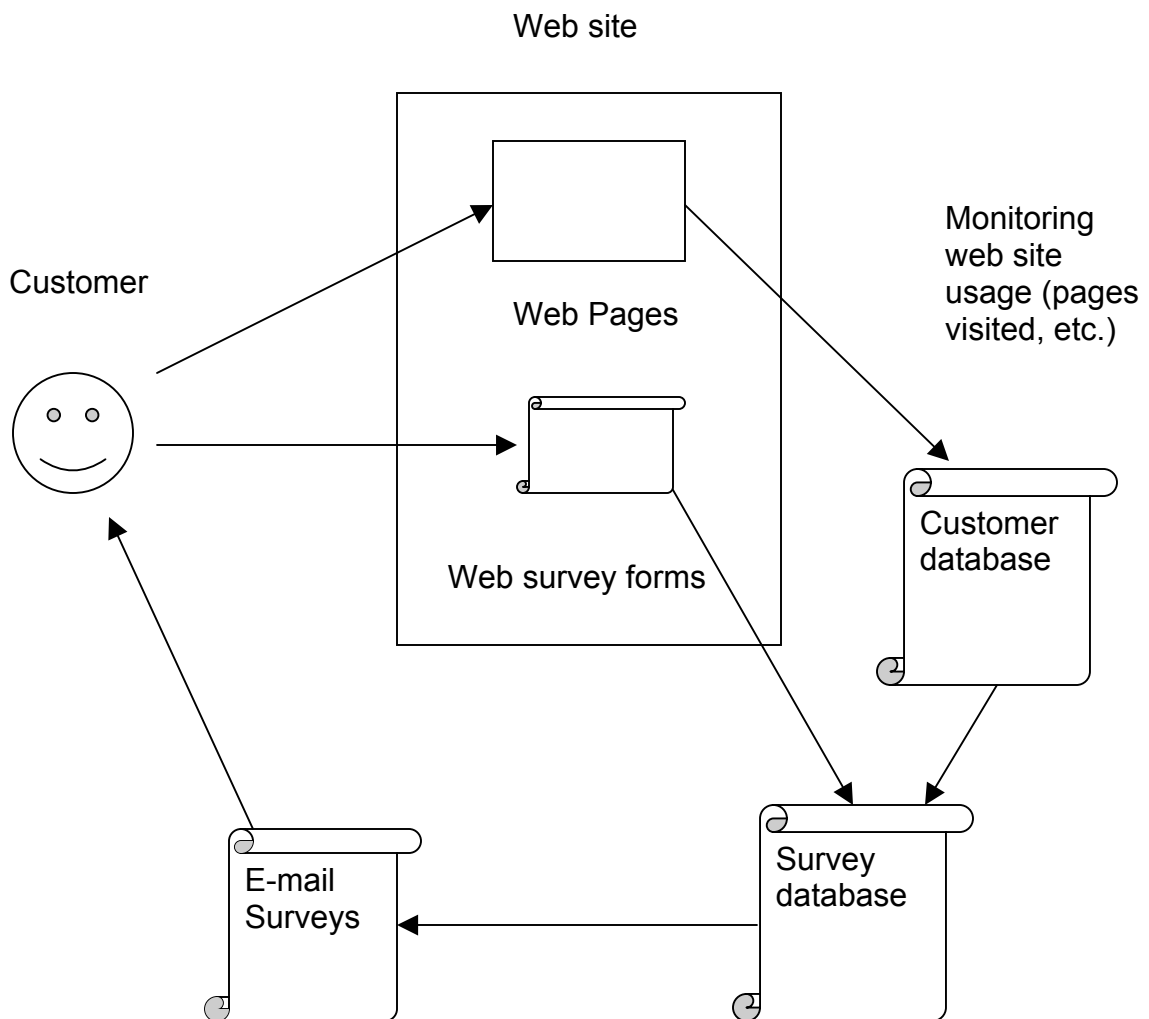


Figure 1-2 Gathering information from our customers

Problem statement:

Identify the role and effects of the Internet in private organization in kingdom of Saudi Arabia.

Research objective:

This research aims to attain the following objectives:

- Determine the need for top management to understand the advantage of the Internet.
- Identify constraints, problems, and resources that would affect the development pragmatically.
- Identify the Internet role that will help to get the customer satisfaction.
- Identify a possible framework or recommendations by which technical assistance could be applied to maximum advantage of the Internet.
- Identify the optional need to develop marketing methods for Internet services.

Need statement:

The Internet holds huge potential for companies of all sizes to transform their operations by reaching out to customers, partners, and even their own employees. There is no question that many companies today whatever their size and industry face several common business imperatives. Therefore, they want to; 1) become more focused on their customers, 2) attract and maintain the best workforce possible and give their employees the tools to succeed, 3) maintain

flexible internal infrastructures that allow their organizations to adapt quickly and effectively to changing market conditions.

The Internet Business has a straightforward aim: Make the Internet a part of everyday business operations with an integrated combination of software, services, and expertise. Companies of all sizes should have the ability to move processes online, connect to suppliers and partners, understand and respond better to their customers, and empower their employees with the quick delivery of critical business information.

Today, Internet is a new technology in Saudi Arabia and businesses are taking advantage of the Internet in many ways. Despite its short lifespan, the Internet has quickly become an important source of information to many of Saudi companies online. These companies need to use the Internet; 1) to demonstrate that the business is modern and professional; 2) to attract new customers; 3) to communicate with existing customers; 4) to reduce Advertising costs; to cheaply distribute marketing materials; to sell their products; 5) to facilitate order taking; 6) to increase staff productivity; 7) to provide customer support; 8) to increase market reach; 9) and allow their employees to upgrade skills using distance learning.

Research Limitations:

1- Time Limitations:

Personal interview with key personal was necessary, for the study. Only one-month period was available for the researcher, due to the fact that being a full time graduate student in United State limited the length of my visit to Saudi Arabia.

2- Language Limitations:

Arabic language is the spoken language in KSA. The use of English language to conduct the interviews required for data gathering for the study, pose an obstacle and limit the type of questions asked.

3- General Awareness Limitations:

Since the Internet is new idea in Saudi Arabia people there do not have deep and comprehensive information about the Internet in that some of my questions were not answered because people have no perception of the applications of the Internet.

Research Assumptions:

1. The Internet is widely spread out in Saudi Arabia, and most of people have an access to the Internet.
2. The Internet in Saudi Arabia is used only for advertisements and exchanging E-mails not for shopping.
3. E-Commerce is limited to few companies were as the over whelming majority of the companies use business to business other than E-commerce since the Internet is not a trust worthy to conduct business.

Chapter 2

Review of literature

In this chapter the review of literature, the searcher will give historical background of the Internet in Saudi Arabia, electronic commerce, and the challenge of Internet wide spread adoption among Saudi Arabia companies.

Historical Background:

Saudi Arabia has had an Internet connection since 1994, but restricted its use to government agencies, academic, medical, and research institutions. Saudi citizens and residents were free, however, to purchase computers and modems, could connect to the Internet through dial-up service to foreign ISPs, and launch web sites on foreign servers. But in January 1999, Saudi Arabia has begun to allow its public to access the Internet through local service providers routed through high-speed government computers that are blocking access to thousands of sites catalogued on a rapidly expanding blacklist (Jehl, 1999).

Internet service in KSA is organized into three main levels.

First level ISPs: These are commercial companies that provide Internet access to the general public, government and private sector through dialup and leased lines. ISPs are connected to the National Backbone and to the International link at ISU. They provide their subscribers access to these networks. In addition ISPs provide subscription accounting, customer support and other value added information services.

Second level the national backbone: Through the Saudi Telecomm Company (STC) that is developed a high-speed network connecting most parts of the Kingdom together. Currently, the main regions of the Kingdom are covered by this backbone with expansion planned for the remaining regions. ISU and all ISPs are connected to the National Backbone that carries Internet traffic inside the KSA and to the International Link.

Third level the international link: That connects the National Backbone to the International Internet. The International link is operated by ISU and all international traffic to the KSA should go through this link. (KACST-Online)

The Saudi Telecom Company (STC) provides the Saudi Internet infrastructure. They make eight E1 lines and five thousand V.90 modem ports that support 56K speeds. Two thousand of these modem ports have already been dedicated to Riyadh. Serving as a middle tier between STC and the forty companies that have acquired the license to operate, as an ISP is the King Abdulaziz City for Science and Technology (KACST). More accurately, a unit within KACST called Internet Service Unit will regulate how the ISPs provide service.

The ISPs will be connected to KACST through asynchronous transfer mode (ATM) connections, each capable of running at 512Kbps. In turn, KACST will be connected to the Internet through the eight E1 lines being provided by STC.

Initially, there is 5,000 such lines available kingdom wide, divided evenly for all licensed ISPs giving each one about 125 dial-in lines (Figure 2-1).

This setup has the advantage of relieving the ISPs from handling the mess of phone lines, modems, but causes some overhead, since at least some traffic has to pass twice to the ISP. In practice, at least so far, this doesn't seem to have affected the service negatively. Every ISP has his own proxy server, which is used by their customers. This one feeds from the main proxy at the Internet Service Unit (ISU). When a user logs on to the Internet, he/she has to enter his/her name in the format username @ ISP Domain so that STC can pass the user name and password to the correct ISP for authentication. User authentication is done by using the standard Password Authentication Protocol. (PAP). (PC Magazine Middle East. February 1999 article, p, 22)

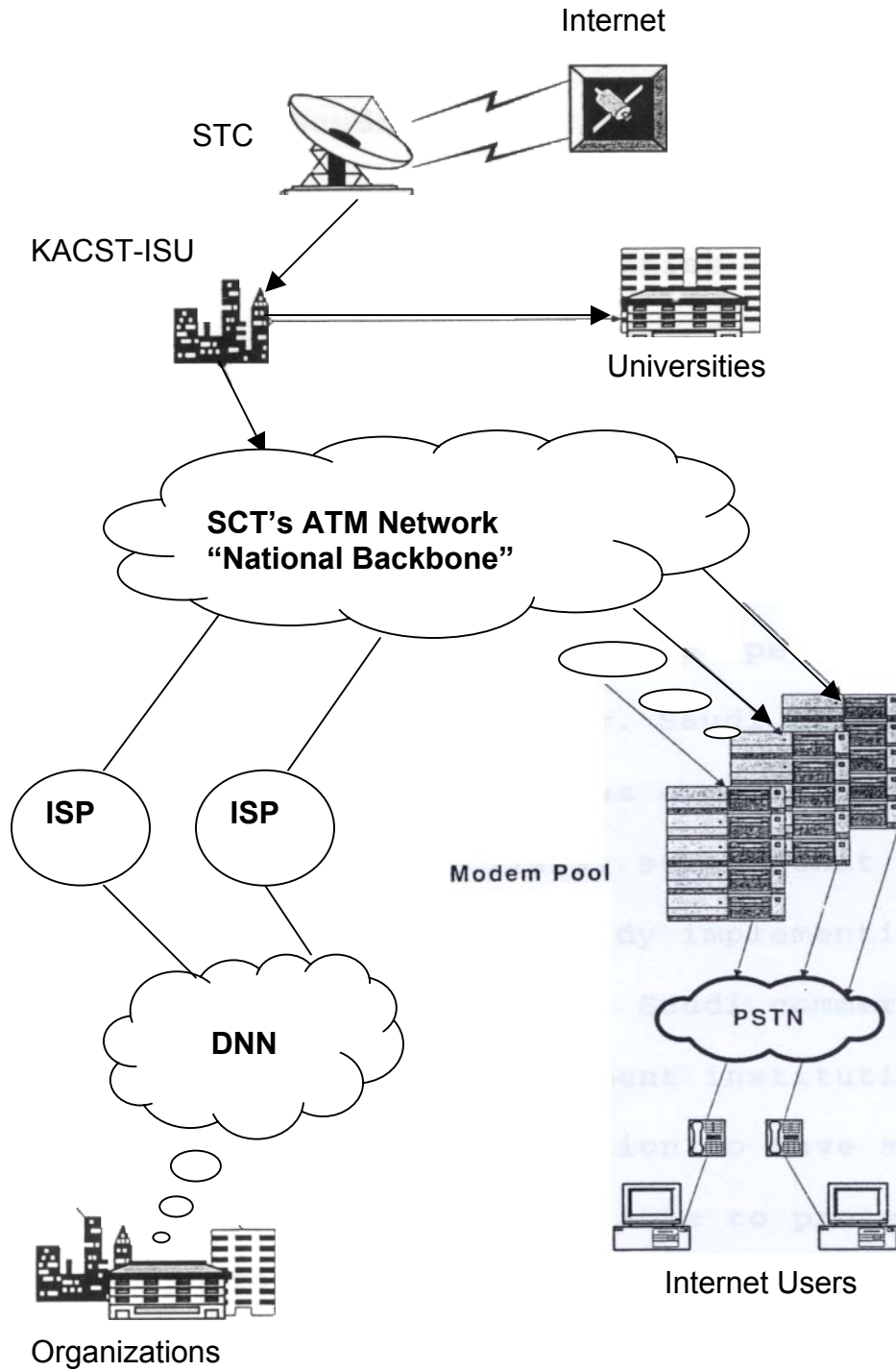


Figure 2-1 Internet Network in Saudi Arabia. KACST (Al-Zoman, 1999)

Electronic Commerce

What is E-commerce?

Electronic commerce or e-commerce covers the range of online business activities for products and services, both business-to-business and business-to-consumer, through the Internet. This section breaks e-commerce into:

- Online Shopping—the scope of information and activities that provides the customer with the information she needs to conduct business with you and make an informed buying decision.
- Online Purchasing—the technology infrastructure for the exchange of data and, the purchase of a product over the Internet.

It's True: Online purchasing is a metaphor used in business-to-business e-commerce for providing customers with an online method of placing an order, submitting a purchase order, or requesting a quote." (Rosen, Anita. 2000, p. 5)

Gateway 2000 one of the biggest computer companies, that took orders only over the phone. In September 1987, Gateway revenues was \$1.5 million but in 1996 Gateway decided to use the Web as another sales channel for their products, which was Gateway revenues \$5.04 billion. (Kosiur, 1997,p117-118)

Kosiur (1997) pointed out that, Electronic commerce is a system that includes not only those transactions that center on buying and selling goods and services to directly generate revenue, but also those transactions that support revenue generation, such as generating demand for those goods and services, offering

sales support and customer service (see Figure 2-2), or facilitating communications between business partners. (p. 4).

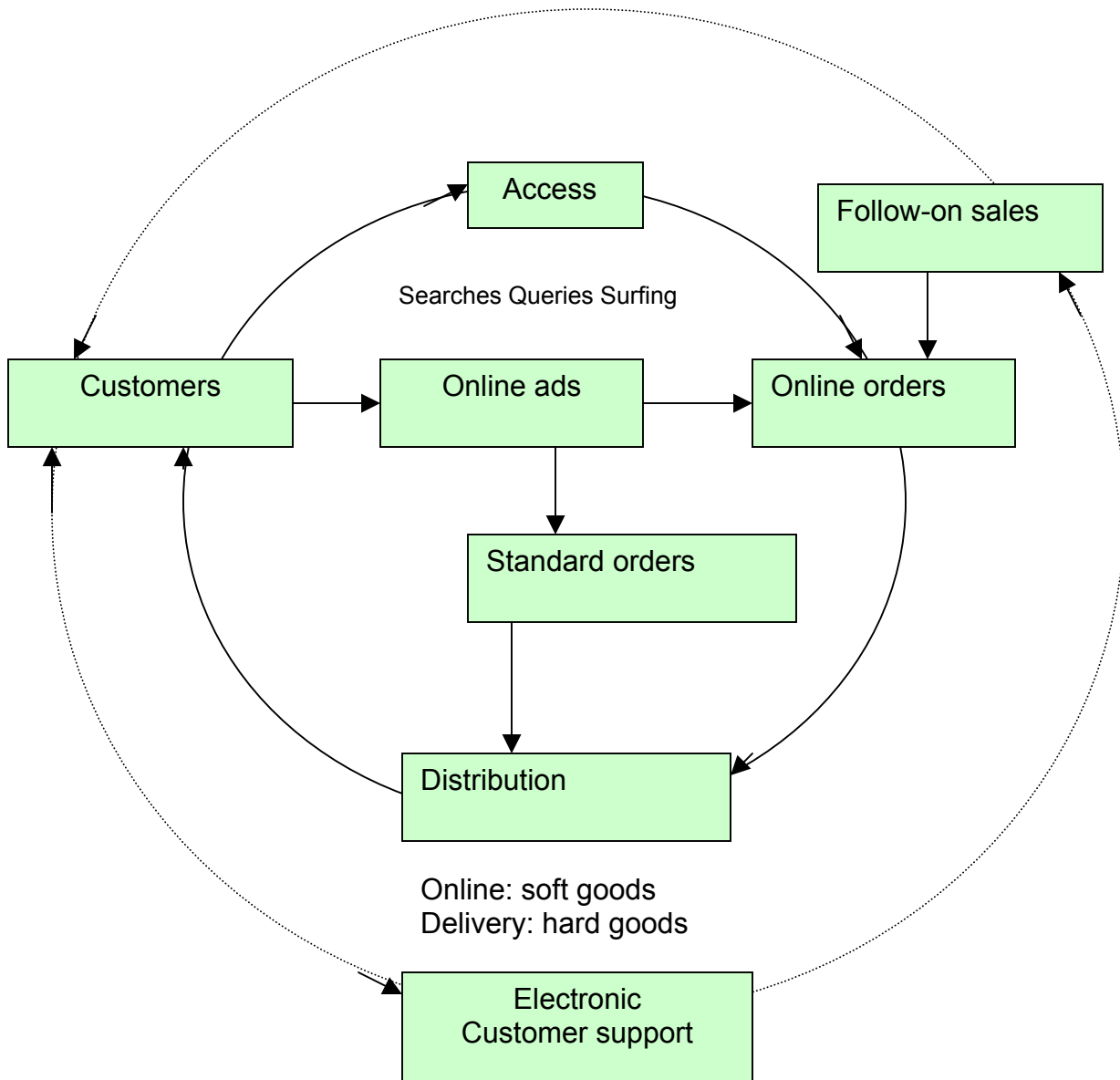


Figure 2-2 The cycle of electronic commerce

People have started to use the name Electronic Commerce to cover the impact that the Internet Economy will make on the way in which every citizen and every enterprise, of whatever size, goes about the business of acquiring and providing goods and services. When these goods and services can be inspected and compared on the Internet in a way which provides the buyer with at least as much information as they can acquire in local or even in specialized shops, we can all see that the implications will be very profound, and likely to have a very significant effect on all American and European economies. According to Kamel (1999), the growth of the Internet shopping in the Arab world and Saudi Arabia particularly is very impressive despite the fact that online market from only a fraction of the value of conventional retail market in the region.

Much of the most interesting work on new Electronic Commerce applications is being carried out in the USA, despite the existence of Saudi Arabia with enough exciting new ideas, and skills to implement them. This is because the critical mass of Internet connectivity, and especially connectivity at adequate bandwidth, is not available in Saudi Arabia.

“Electronic commerce builds on the advantages and structures of traditional commerce by adding the flexibilities offered by electronic networks (see Figure 2-3). For example, by using digital information for commercial activities, electronic commerce makes it easier for different groups to cooperate.” (Kosiur, p, 4)

Components of electronic commerce

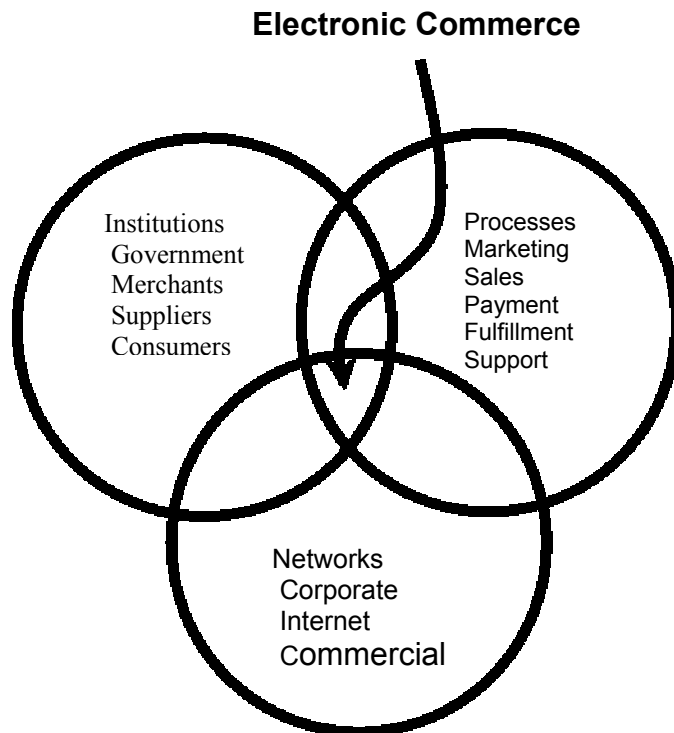


Figure 2-3 Electronic Commerce (Kosiur, 1997,p.6)

Challenges:

Security and Legal Issues

"Since the explosion of the Internet, there have been many stories about the unmet expectations of commerce over the Internet, risks of transacting business over the Internet, and the abilities of hackers to get access to personal information. Since most businesses are concerned with both the real and perceived benefits and deficits of doing business over the Internet, it is wise to understand the realities of the perceived risks." (Rosen, Anita, 2000, p. 19)

"The media have done numerous reports on perceived shortcomings of doing business over the Internet. You will hear about the following shortcomings of doing business on the Internet:

- Hackers can get access to my personal information.
- Commerce doesn't work on the Internet.
- Transactions are not safe." (Rosen, Anita. 2000, p. 19)

Many people are aware that there are some concerns about the security and the legal framework of the Internet. These are important fields, which should be neither over- nor under-estimated in importance.

In the area of the Commodity Internet one major security issue dominates the scene. Although many people have become used to quoting insecurely credit card information over the telephone in order to guarantee reservations or to pay

for goods, the idea of Internet hackers obtaining similar information by stealth has led to the idea that the Internet is not safe for serious commercial use.

A number of different technical approaches, both for the secure use of credit cards and for the provision of Internet cash are close to entering into general use, though largely driven by work being carried out in America. This work, especially its relationship to encryption procedures, is one where the impact on the Saudi Arabia single market will be important, and where the KSA needs to have a clear position.

"Threats to the security of computer systems and commercial transactions can be classified as internal or external. The threat that is most often overlooked, yet is most likely to occur, is the inside threat. Providing internal access to an organization's digital assets can be the Achilles' heel of many security plans through either malicious intention or carelessness. Few modern systems can withstand attacks from users who are logged on to internal machines. A mixture of traditional security practices with the latest in computer security tools can assist security managers in protecting corporate assets. The principles of need-to-know and compartmented information can be useful in determining to whom privileged accounts and passwords should be given. Careful screening of employees trusted not only with company secrets, but also with access to valuable digital assets should be a part of any security plan. Real-time intrusion detection analysis tools that monitor internal networks for unusual activity can be useful for catching a perpetrator in the act of stealing or sabotaging data. Even without these sophisticated tools, regular monitoring of audit logs automatically kept by many computer systems can go a long way to determining if corporate assets are being probed or breached." (Ghosh, Anup K., 1998, pp. 9-10)

The Commodity Internet will obviously raise many issues which can be classified as legal and relate to the way in which the individual citizen interacts with fellow citizens, companies, and government. Saudi Arabia will have to decide how these are to be handled.

For the High-performance Internet, security has traditionally been more about hacking. Either people using the Internet to enter surreptitiously into connected computers, or people attempting to slow down or even shut down areas of the Internet itself. (Rich, 2000) These areas will continue to need attention, and the scant regard that the Internet has for national borders will ensure that good pan-Saudian cooperation will be needed in this field too.

Chapter 3

Research Methodology

This study uses a qualitative methodology. In this chapter, definitions and description of the methodology, as well as procedures of data collection, will be discussed.

Methodology Definitions and Descriptions:

In attempting to understand this qualitative type of research, it is critical to delineate its foci and its goals. First, this qualitative research seeks an in depth information about E-commerce barriers to the Internet widespread adoption in Saudi Arabia companies. I have chosen four of the biggest Internet service provider companies in Riyadh, capital of Saudi Arabia to be the focus of my research.

Second, the aim of this qualitative research is to learn about how Saudi companies and people use the Internet, to learn what are the applications of the Internet in Saudi Arabia, to explore the barriers that prevent using the Internet entirely to do E-commerce, to learn the worries of the people from using the Internet. Third, this study will predict the possible reactions of using the Internet applications. Fourth, this research will examine the consciences that will happen after using the Internet for E-commerce and other applications.

Finally, the analysis of the information gathered from the interviews may reflect new practices and ways of how people and companies are going to apply and take advantage of the Internet

In Dr. Sherri Johnson's System Analysis class (2000) we found that qualitative research usually is designed to observe social interactions and understand the individual perspective provide insight in to what people's experiences are, why they do, what they do not, and what they need in order to change. Applying these ideas in this research will study Saudi companies and people perspective regarding the use of the Internet especially in dealing with E-commerce.

Choosing the Technique:

Answering the core question of the research will be the criteria to choose the most appropriate qualitative approach for this study. The fit between the research question and the research approach is important to establish, because it reflects an understanding of the nature of the problem and helps in selecting an appropriate methods of investigations.

For this research, interviews will be conducted to collect data, as the interview will allow the researcher to obtain and analyze large amounts of contextual and important data: although, as mentioned earlier in chapter one, the data are open to any misinterpretation. The interpretive analyses that will be used in this

research will provide explanations and help create some generalizations of the Saudi companies and people barriers to use the Internet.

The reasons why the researcher has chosen not to utilize other data gathering techniques such as focus groups or surveys, was due to the confidentiality of the information provide by the top executives and mangers interviewed and to explore in depth the description data. Also, the Internet concept is a new term to the ordinary people who are not familiar with it, whereas the mangers of companies are using the Internet in many ways and on daily basis.

The interviews for this study will be in the natural settings of the problem in four Saudi organizations with four different Saudi companies form private sectors. Each interview will be taped and will last for approximately 30 to 60 minutes.

The interviewees will be in Riyadh (the capital of Saudi Arabia) due to the fact that Riyadh is the biggest commercial center in Saudi Arabia and has most of the headquarters of nearly all the organizations in the country, the interviews will be from the high-level positions managers in their organization.

Interview Questions:

The interviewer will start the interview by explaining the purpose of this research and the procedures to safeguard confidentially, the managers will be asked the following questions:

1. Do you have a website?
2. Do you use this website for E-Commerce? If yes, then how?
3. Do you have visitors dealing with you through this Webster?
4. What are the differences between commercial trading in the past and the present after Internet entrance?
5. How do you think the usage of Internet has affected your sales and profits?
6. What are do you think will you save using the Internet in commercial trading?
7. Do you feel that any company should have a website in order to deal with commerce?
8. What problems have you experienced during commercial trading through the Internet?
9. What are the difficulties that you most face during dealing with the international companies?
10. Do you think using the Internet will decline the number of employees?
11. How secure and safe is the commercial trading through the Internet?
12. What are the disadvantages of using commercial trading via the Internet?
13. What are the advantages of using commercial trading via the Internet?

The following is a list of the four interviewed companies:

- Company A is an Internet Service and Technology
- Company B is an Integrated Information System
- Company C is a Saudi Information Technology
- Company D is an Arabian Advanced Systems

Chapter 4

Data Analysis & Discussion

Results Analysis:

To analyze the data the researcher has used the concept map technique learned and adapted in Dr. Sherri Johnson's System Analysis class in 2000. In this technique a map is developed based on each interviewee's concept during the interview. The researcher connects any important ideas in this interview that support the main concept to branches spread from the main concept in the map. This is a technique used to organize data according to themes as discussed in Taylor's and Bogdan's: *Introduction to Qualitative Research Methods*. In addition to this, the researcher numbered the long quotes supporting each main concept with the same numbers that appear on the map next to the concept. The same procedures were used for all of the participants. At the end the researcher explained the map for emerging themes that interviewees discussed. From the analysis of the interviews with the interviewees, different themes have been found that will be discussed thoroughly throughout this chapter.

The use of the Internet is divided into two themes advantages and disadvantages.

Advantages of the Internet:

The first theme the research displayed was that almost everybody has an access to the Internet. The Internet has made the world such a small country that connected to each other. One of the most important impacts of the Internet is the introduction of the Electronic mail, in that one could send and receive an email within just few seconds, whereas in the past it would take whole a lot time to receive the letter using the airmail especially when you send letter over seas. Moreover, people started to use the Internet as a calling method instead of using the regular phone as far as many programs are available on the web to make a phone call such as dial pad.com and netp2hone.com. Another application of the web is that people started to have access to different sites with many options and varieties then different companies and products, in that one could access many products and then place his order on the web rather than going to go through distributors the salesman.

These are some general advantages of the Internet that people in Saudi Arabia are taking advantages of it presently. To find out how people in Saudi Arabia use the internet I conducted several interviews with four of the biggest and well known trading companies to see how these companies are using the internet effectively to make deals and trading through the web.

After analyzing the given information about each company, it is concluded that four of them agree on the point that the use of the internet in Saudi Arabia is still limited and not wide spread national wide. The main use of the Internet in Saudi Arabia is for exchanging emails and for general type use. Regarding the E-commerce, four of the interviewed companies pointed out that they still did not use the Internet for this purpose. Most of the companies conducting their business and trading deals using business-to-business system. The four companies looking forward to expanding their use of the Internet and take a full advantage of the Internet in the near future in various aspects.

The manager of company A spoke out about working on a new agenda to apply a new system in the company to elevate the information levels of his employees, in hope to improve the skills of the employees to do a commendable job as far as the use of the internet goes. He added that they were launching a new parameters and criteria for hiring a professional people in order to have an efficient work team.

The companies agreed upon the concept that using the Internet has many advantages, which at the end would lead to a reduced cost and increased revenues. Company A and B have in common the concept of by using the internet the pace of exchanging the information would be highly ascended, which in turn would lead to better usage of time. Also the Internet enables and allows

the people to have more access to different and thousands of websites regardless of their locations around the world. So that the customers and the companies can browse and look at the others products which would lead to buy any product in a short time and more convenient way.

Company C and D in favor of the concept of using the internet for e-commerce to save time and effort as well as money, they added that instead of sending a working team abroad to discuss and negotiate the trading treaty you could do this by using the internet so that you could save the traveling cost and time. Another benefit of the use of the Internet is to eliminate the load of the employees at the company by better and efficient information exchange through the use of the Internet; therefore the profits would rise up high.

Most of the interviewed companies agree on that using the Internet is a powerful tool for advertising. They pointed out that as the number of Internet users increases, the companies started to divert their attention to post their advertisements on the Internet rather than the television so that, they can get the full advantages of two features the television does not have them. First, the posted advertisement on the web is an example of using the worldwide web advertisement for example "Yahoo.com" therefore, everybody is able to look at and go further in detail when you click on it. Second, local advertise which is called Domain Targeting such that the advertisement is restricted to the people

live in Saudi Arabia. Therefore, they could manipulate and control the date and the time of the advertisement in addition of having a perception or an idea of how successful the company is by keep tracking of the number of visitors and the number of placed orders.

Barriers of using the Internet for Electronic Commerce:

The second theme of the research is directed to explore why , the Internet is not common and widely used by both the public and the business sectors in Saudi Arabia as a powerful tool for E- commerce. For the most part this is traced to the short period of the Internet application in Saudi Arabia. As mentioned earlier the Internet service started in Saudi Arabia in 1999, therefore the general public are not well acquainted with the concept of the Internet as well as its various applications. More over the spoken language there is Arabic so, many people find it difficult to comprehend and to navigate through the Internet.

The four interviewed companies respond in a similar way as for the reasons for their reluctance in using E-commerce in conducting their business. They stated the same reason, " The rules and laws regulating the use of the Internet in conducting business has not been established in KSA yet." Therefore, there are no provisions to protect the rights of both the company and the customer as far as returning the products.

The companies don't trust the Internet as tool for doing E-commerce because of the fear from not being safe and secure to type in the credit card pin number. Furthermore, companies also feared of dealing with some unknown companies because there are so many faked and unreal companies that might just steal money.

In terms of the public the main obstacles is the very limited number of credit card holders, because most the people use cash rather than using credit card. More importantly, people are afraid of the large number of hackers on the Internet that might spy on their credit card number and any other associated information.

The mailing address system used in Saudi Arabia is not tailored to fit the coded Internet system. Therefore the handling of goods is expected to face enormous difficulties. Furthermore, it is expected to be hard to deliver the ordered product through the Internet because of the hardness to locate the address. The physical facilities and the age of the computers used in Saudi Arabia make it difficult to keep up with the abroad companies to make business with.

Chapter 5

Conclusion and Recommendation

Conclusion:

Not long ago the E-Commerce was only an idea to many companies in Saudi Arabia. Now, several companies transfer and exchange information back and forth through electronic channels. However, as companies get more acquainted with using the Internet as a method of conducting business, they should be able to realize the potential of buying and selling over electronic lines without the fear of security violations and with the ability of establishing long-term relationships with vendors and customers.

Consumer. IT professionals, managers, and business owners' awareness, perceptions and attitudes toward shopping via the Internet depend highly on such factors as the level of security against fraud. There seems to be a direct relationship between the level of security and the attitude toward using the Internet for shopping. The Saudi Arabian cultural factors may also have a positive effect on electronic shopping. Among these factors is that females do not drive cars and so many find it easier to shop through the internet, noting that women make up the majority of local shoppers in Saudi Arabia market. In addition, the research uncovered some of the barriers related to E-commerce from consumer's point of view: while on-line transactions are convenient, immediate off-line delivery in Saudi Arabia is costly and inefficient. Improvements

in Internet and EC technologies will increase productivity, allowing commercial organization in Saudi Arabia to adopt new business models to capture the continues technological advances in the internet Industry.

Electronic commerce will lead to a radical change in the way people live their lives and accomplish their day-to-day work in Saudi Arabia. It will also, fundamentally change the way business is conducted, goods and services are promoted. EC invites consumers to surf the web to find the best deals and the best quality products. With increases in security measures, Internet connectivity, and familiarization with the Internet system, business and consumers in Saudi Arabia will certainly take advantage of EC.

In addition, the research also revealed barriers related to electronic commerce from the companies' point of view. Companies need to incorporate EC into their current business strategies and use it for the actual benefits that can be created, not as a mean to showoff.

In short, the research indicated that Internet commerce would flourish after certain problems, such as security issues, have been resolved, and more consumers start using the Internet.

Recommendations:

Based on the findings and conclusions of this study, the following recommendations are offered:

1. Because Internet in Saudi Arabia is less than 3-years old, private sector and universities should take an active role in educating people regarding its potential benefits.
2. Information technology companies should drive very hard to increase customers' confidence in EC. Where governmental involvement is needed, its aim should be to support and enforce a predictable, consistent, and simple legal environment for E-commerce.
3. Where government intervention is necessary, its role should be to ensure competition, protect intellectual property and privacy, prevent fraud, foster transparency, and facilitate dispute resolution.
4. More Arab language Internet shopping sites are needed to overcome language barriers.
5. Upgrading telecommunication infrastructure and the postal system in Saudi Arabia, is a must for a thrived E-commerce.

6. Well-known companies should be the leaders in starting EC marketing Saudi Arabia to give consumers more confidence and trust in EC.
7. It is important that the King Abdulaziz City of Science and Technology should recognize and identify more the key role that the Internet is likely to play in the economic development of Saudi Arabia over the coming decades.

These acts of recognition is hoped to be followed by urgent and effective action, and appropriate budgetary commitments, aimed at ensuring that KSA grasp the opportunity offered through its appropriate and wide use of the internet and its applications.

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