

Influence of Electronic Banking and the Internet on Lebanese Banking System

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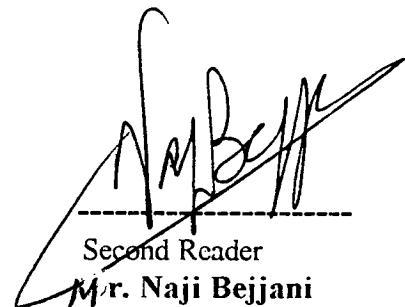
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Submitted in Partial Fulfillment of the
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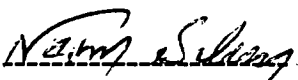
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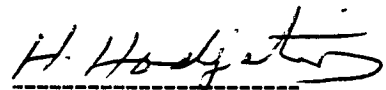
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Influence of Electronic Banking and The Internet on Lebanese Banking System by

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The purpose of this research project is to show the inflow of technological means that affect businesses especially Lebanese banks. The Lebanese private sector seeks always to implement technologies that are aimed to provide increase in its profits. Electronic Banking is now adapted by foreign banks outside Lebanon (and soon it can be adapted) by the Lebanese banks. There exists in the market an array of advanced machines to serve customers in a faster pace, and as offer them new services to facilitate their daily transactions, thus easing economic business cycle. Internet is the most advanced communication mean in the present time. This network is causing a revolution in data availability. Data availability (liable data that decisions could be based upon) is very important and the more this data is available the more efficient users of this data will be. Most banks are connected to commercial networks that is used to send and receive information locally and on the international level. One major problem facing adaptation of this new technology is the Bank of Lebanon's regulations and the security (world wide problem) of those networks (I will not go into details concerning laws and regulations.) Another important aspect will be acquisition and implementation of new tools and skills resulting from this new technology. This technology is acquired from foreign countries and adapted according to Lebanese characteristics. Sooner or later banks will have to adapt since they are an active sector in the Lebanese economy and time for this shift will not be far.

Chapter I

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- B. The Banking Sector**
- C. The Beirut Exchange Market**

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- A. Traditional Lebanese banking system**
- B. Services offered by Lebanese commercial banks**
 - a. Traditional mechanical banking devices**

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1. Technological advances in Lebanon
2. Electronic Banking
3. Automated Teller Machine (ATM)

B. Internet

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3. Internet and commercial institutions

C. Automated services

1. The transaction process
2. Advanced techniques related to services
 - a. Teller System
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CHAPTER III

Objectives of the Research

III. Objectives of the research

A. Impact of the use of new Banking technology and Internet on the Economic Activities of the Banks

- New opportunities for banks
- Efficiency
- Profitability

B. Future effect of Internet on communicating systems(minimizing communication cost)

C. Estimated time savings due to shift from mechanical to electronic

CHAPTER IV

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For Goal A

- 1)- Studying BDL analysis over a period of time

For goal B

- 1)-Description of statistical analysis (suggested time and motion analysis)
- 2)- Interview with an Internet dealer (Follow PC sales as well as Internet members in Lebanon).
- 3)- Estimated increase in Internet members to estimate tentative Bank customers able to manipulate their accounts through Internet.

For Goal C

- 1)- Interview with a banking expert (Mr. Adnan Aridi) .
- 2)- Acquiring advanced techniques abroad as leading indicators.
- 3)- Checking local banks by means of a survey.

Chapter V

Beneficiaries of the work:

- Bankers or managers involved in banking system.
- Researchers working in the banking sector.
- Financial representatives who shape financial policies and banking behavior.

Introduction

Nowadays we are living a new international economic system with a new point of view concerning sales and marketing. The first reason for this change is the existence of new advanced techniques in both electronic and communication systems, which gave birth to what is called data society. Data society is a new life style that is completely different from the old system. The development in hardware and software, advanced communication systems, introduction of Internet and its availability helped to make way for a new technological era.

Electronic banking, home banking, on-line banking, and the Internet are whole new financial world with new tools, competitors, threats, partners and opportunities. Many banks are looking to the future of banking and wondering whether they will be able to compete and follow up the new era. Some banks are eagerly embracing the high-tech wave and are asking: which are the new techniques to reach our customers? Who do we need to collaborate with?

It is hard to believe that an old-fashioned peasant is now able to “surf the Internet,” searching for information worldwide on his PC. That some small business clients are conducting business from their PCs, is now remarkable. But each of these scenarios is becoming more common each day in Lebanon.

In the USA the potential merger of Microsoft and Intuit-- two giants in the software industry -- posed a threat to the banks' control of payment system. Some experts mention that banks worldwide have been on the cutting edge of technology all along and were

poised to move into electronic banking. Be that as it may, the number of banks joining the new technological highway is growing daily.

Being the main component of the Lebanese capital market, banks, until recently, assumed exclusively and permanently the dual role of supplying the economy with liquidity and reconciling the capital accounts of the different economic agents of the country. The banks were involved deeply in financing Lebanon's post war economy as well as competing face-to-face the International banks through increasing their capital and adapting new technologies. At this level, Banks are expected to fulfill several important missions in the current period.

In addition to the traditional financing role of the economy, expected to witness an annual GDP growth rate of 8% over the next decade, banks should contribute to the financing of private investment estimated at US\$ 3 billion per year.

Banking sector should reinforce and consolidate its contribution to the generation of national income and employment, in order to maintain Lebanon's comparative advantages in the realms of Banking and Finance.

Shift from Mechanical to Electrical equipment as well as adaptation of new technology launched into the banking sector worldwide.

Such objectives represent challenges for the Banking profession, upon which depends to a large extent, the success of the whole economic recovery process in Lebanon.

Competition is developing on-line services as fast as it can. Banker colleagues and experts alike are urging banks not to fall behind in this rapidly developing environment.

This is a critical opportunity to lead the industry as it continues to grow. (Bank Marketing July 1995 pp. 7)

Lebanese banks have been promptly able to absorb and alleviate the shock waves caused by the war. Such a resurgence is mainly tied to the fact that they were the only intermediaries extending credits and collecting deposits in the market according to Lebanese regulations. The corollary stability in their businesses allowed them to register, over the 1988-1995 period, an average annual asset growth of 17% in dollar terms, coupled with a 23% increase in their net financial income (which is: interest margin + commissions + other income). The banks' net financial income to assets' ratio rose from 2.98% in 1988 to 3.61% in 1995.

The atmosphere of new challenges will definitely raise the realms of competition, innovation, goodwill, risk and return. Considering this, we will observe:

- A new interbank competition based on a struggle for new business.
- An external competition due to the globalization and the cross border expansion of the Lebanese market.
- A stock exchange competition through the subsequent arbitrage between monetary and financial assets.
- A race for offering new services to the customers as well as for acquiring new equipment and technology in order to strengthen their competitive position.

Chapter I

Lebanese Banking System (Historical Overview)

After the allied forces entered our country in 1920, they stopped the use of Turkish banknote as a legal currency, and replaced them by the Egyptian currency. In 25/4/1920 and after San Remo conference, France took over and replaced the Egyptian currency with a new banknote for Lebanon and Syria and tied its value to the French Franc with a rate of 1 Lebanese Pound = 20 FF. This equation stood with several minor adjustments until after World War II. Negotiations took place between Lebanese and Syrian governments on one side and French government on the other side. On 24/5/1949 a Financial Law was initiated giving birth to a Lebanese currency with Gold as legal coverage. At that time each 1 LBP = 405.512 milligram of pure gold. Besides the gold, the government kept a certain percentage of its reserve in foreign currency to cover its domestic banknote. This situation was organized by the Lebanese Governments (after independence) through issuing several Laws that developed financial standards and measures for this monetary sector (1959, 1963, 1967, 1973). (Aridi PP 9-15)

Nowadays there exist about 83 banks acting on Lebanese territory. Those banks follow the Lebanese law and act according to Bank of Lebanon's regulations.

Bank of Lebanon/ Historical Overview

The Banque de Syrie et du Liban (BSL) was first established as the Banque de Syrie, a French company affiliated to the Ottoman Bank which took over its functions and privileges to issue the Syrian currency after the First World War. In 1924, a convention was signed between the Banque de Syrie on the one hand, Lebanon and Syria on the

other. This convention granted the Banque de Syrie et du Liban the sole privilege to issue Lebanese-Syrian currency in Lebanon and Syria for 15 years. Two years before the expiry of the 1924 convention, the privilege to issue Lebanese currency in Lebanon was extended for another 25 years by the 1937 convention, ending in March 1964. Meanwhile, Lebanon had achieved its independence in 1943 and undertook the establishment of Lebanon's central bank.

The BDL was created by the Code of Money and Credit promulgated by decree no. 13513 dated 1st August 1963. However, it started its effective operations on 1st April 1964. It is a legal entity of public law enjoying financial and administrative autonomy but is not subject to administrative regulations and supervisions applicable to the public sector. The BDL is the sole custodian of public funds, supervises and regulates the banking system, and is vested by law with the exclusive privilege of issuing the national currency. (Safar Ahmad, PP 98-107)

The BDL includes an administrative body and a managerial body, Government Commissariat. and other specialized entities.

It is managed by a central board composed of:

Governor, president

Vice governors

General Manager of "Ministry of Treasury"

General Manager of "Ministry of Economy"

Its major functions are:

- Establishing a financial and credit policy.
- Issuing laws concerning currency and credit.
- Setting the interest rate according to economic situations.
- Issuing banknote.
- Supervising the Clearing House.
- Studying loans requested by the public sector.
- Setting regulations concerning all banking operations.
- Stabilizing the value of Lebanese currency.
- Control the money supply.
- Determine the RRR (Required Rate of Return).

As well as many other functions concerning activities related to banks, economical situations, financial markets. (Middleman in managing banks, PP 82-91)

Banks in Lebanon

A bank must be an S.A.L* company, it purchases money for a certain price: “interest”, and sells it for a higher interest rate. Profit is the main objective for those companies.

In Lebanon there exist 4 kinds of banks: Commercial, business, specialized and international banks. Example of those banks is BBAC, Byblos, Credit Lebanaise.

1. Commercial Banks: Banks characterized, mainly by short-term loans. It has to balance between its depositors and debtors as far as maturity is concerned. It offers services

*Societe anonyme Libanaise: Authority is within general assembly which elects Board of directors and GM to manage the company.

that encourage foreign transactions such as Letter of Credit. Its surplus of deposits can be used in the money market.*

2. Business Banks: It was established according to the law # 22/67 dated 21/5/1967. Its capital has to be at least 15 millions LL. loans has to be for medium and long-term. It is differentiated from other banks since it has the authority to participate in construction projects, issue long term guarantees, as long as those guarantees are secured. According to law its deposits must be at least of 2 years maturity. Example of those banks is the Allied Business Bank>

3. Specialized Banks: Banks which specializes in specific economical activity such as industrial banks, real estate banks, agricultural banks, housing banks. Example of those banks is Enfi Bank.

. International Banks: Non Lebanese banks functioning on the Lebanese territory. It has a foreign capital and it acts according to special rules and regulations. Example City Bank, British Bank, ABN Amro.

Major services offered by this sector is: current account, saving account, Joint account, loans, letter of credit, direct discount, payment orders....Ect.

The Beirut Exchange Market (short history)

It was established by a government decree on the 2nd of July 1920. Dealings concentrated mostly on gold and foreign exchange. This market, which was the first in the Middle East, attracted investments from France and Syria in addition to Lebanon. Dealers included the mixed French-Syrian-Lebanese concessionaires of public utility companies, namely : Beirut Electricity, Aleppo Electricity, Latakia Asphalt and

* It can invest to purchase bonds securities or stocks owned by Lebanese companies.

Petroleum, Beirut Port Company, Damascus and Hama Rail Road Company, Beirut Water Company, Radio Orient, Regie Company and Lebanese French Real Estate Company.

All these companies were listed in both Beirut and Paris stock exchanges. The Paris exchange set the stock prices. The Beirut stock exchange worked for 34 years without any regulations to govern its operations, until the Lebanese parliament in 1945 enacted such a law. It was amended in 1959, 1961, 1969, 1982 and 1985. Stock exchange closed down in 1983 like so many other Lebanese institutions as a result of the war. (Al Mal Wal-Amal, July 1995) Now the exchange stands poised to resume its interrupted life to contribute its share the reconstruction process in the country. The Lebanese government has approved the internal regulations of the Beirut Stock Exchange, paving the way for a quick resumption of trading on the official bourse after a 13-year closure.

Paris, London and Tokyo stock exchanges offered to give technical help, contacts are also being made with the world Bank and I.F.C with a view to developing existing exchange laws to conform with progress, and to computerize and join the linkage systems between exchanges. One of the advanced technologies understudy, a "Reuter" project which is based on linking the exchange to the Central Bank, banks, Lebanon's Finance Company, for facilitating work and decreasing costs.

Automated teller Machine(ATM)

The automated teller machine is a machine containing money which can be withdrawn by cards* issued by the institutions owning this machine, or other financial institutions. It is

VISA cards, LINK, Master Card, as well as some cards for specific banks such as Arab Bank, British Bank.*

connected directly to the main computer of the institution. It is of different kinds, some ATM has the ability to receive and give cash as well as screening accounts, requesting check books and so forth. The only institutions allowed to install an ATM in Lebanon are banks.

After a survey made by statistical companies about the Lebanese market and after the stability in our country, the first new banking service introduced to the market was the credit cards. After this a known service in the world market was introduced first by the Arab bank (mid 1993). Automated teller machine was introduced to our market with a delay because of the bad communication system in Lebanon.

This system is on the list of many banks in Lebanon and by the end of the year 1997 about 80 machines will be available all around Lebanon. This service will much facilitate the life of the customers since it is a 24 hours' service. In this case timing will not create a problem any more. Moreover there will be a chance to deposit money in those machines (for both companies and individuals) so that customers will not be annoyed by carrying extra money. ATM will be available in all Lebanese areas, but with the problem of the BDL regulation that do not allow banks to open an ATM away from its branches, otherwise it is considered a separate branch. It will help decreasing the number of customers inside branches during rush hours, as well as helping employees to be more efficient in serving their customers. It will also increase banks revenues from cards sales and from commissions on using those cards (specially VISA cards).

Scanner

A scanner is a new machine able to copy any shape or written document from a paper or a flat form directly to a special program on the PC.

The scanner machine is nowadays being used heavily in banks for several reasons. There appears less and less use of papers as long as it can be replaced with computers. One example of how they can use scanner is the signature specimens each customer has. Whenever a customer comes to the bank and sign's a transaction, the employee checks out his signature from specimens.

With the scanner all that he has to do is to call the customer's number on his computer and all the specimens appear on the screen. Services offered by banks are different and there happen to be a lot of internal forms¹ needed for banking transactions and services. This used to be time consuming and it is applied nowadays on a wide scale Banks are automating their forms in order to facilitate the work of the employee, so it becomes easy to fill up a form on the screen and print it out. On the other hand, customers become more satisfied with the services, since most of them measure the quality of services by the time spent in a bank waiting for their transaction requests to be processed.

The trend nowadays is for time saving and less effort done by the consumer and, of course, his satisfaction. Specialized magazines recently introduced were talking about banking and banks in Lebanon, and each day we have many figures and measures included in those magazines reflecting efficiency and effectiveness of the new technologies used by local banks.

¹ Each bank has its own internal forms .

Chapter II

Banking process (outgoing payment orders)

Traditionally, Outgoing Payment Orders transferred through Lebanese banks, used to take up to 15 days time to reach the beneficiaries, not because the funds are not available to the receiving banks but also because the beneficiary was hard to reach and, in case he is reached, he is late to present himself to the bank. Nowadays a new system were developed to save time and minimize time duration of this process.

The system is computer driven and transfers are automatically processed and sent within 24 hours to the home of the beneficiary or otherwise to the bank specified by him or where he has an account. The beneficiary, according to the banks using this system e.g. (Universal Bank) bears no charges. Moreover messages could be received from the sender and returned by the beneficiary within 24 hours as a proof of the receipt of the funds. There must be a specific team of messengers equipped to send the checks or transfers to their destination. This is what constitutes door to door banking. This process may eliminate lots of wasted money given on value dates.

According to the users of this system, if the beneficiary is a client of a bank using this system (example of Universal bank client) transfers is immediately credited into account. Or if he is a client of another bank and the transfer specifies his account number, the amount is credited to his bank account within 24 hours with no charges whatsoever. The

receiving bank in this case would be responsible for advising its client about the credit.

Such a system is of benefit for both the bank and its clients due to all its cost savings.

Using PC devices

It is known that the use of data access nowadays requires that the client have a PC. That way, he can access his accounts and make all the transactions he needs but after he has to manipulate his phone following the directions of the banks' voice machine. Moreover, printing the receipts or any paper that confirms his transaction will only be possible if the user has a fax number. This system has the advantage of working 24 hours per day even during off-days, and even when the client is abroad and needs to inquire about his accounts. This kind of production is one of the signs of the evolution of banking services along with the development of technology in Lebanon. This is a good start for readaptation of all the techniques introduced by advanced banks outside Lebanon.

Electronic Banking

The definition of Electronic Banking (EB) is the use of computers to retrieve and process banking data (statements, transaction details, etc.) and to initiate transactions (payments, transfers, requests for services, etc.) directly with a bank or other financial services providers remotely via a telecommunication network.

In most cases this involves PC with dial-up or leased-line connections to a Bank's mainframe computers or dedicated EDB servers. Now the Internet is being used to make

this connection and the most critical issue concerning this connection is the security on Internet for financial transactions and confidential information.

There is a lot more to EB than just home banking. Bank's corporate clients are (internationally) large users of EB technology which require some complex applications with lots of functions including, among others:

- Account Statement
- Payment Initiation
- Treasury Management
- Confirmation Matching
- Letters of Credit
- Securities Trading and portfolio management

Some companies are creating security means to make it acceptable and applicable by the big companies as well as by individuals.

Chapters III, IV

Evolution of the Internet

It can be said that fear has helped in the evolution of what is called the Internet. The US Department of Defense (DOD) planned how it would deliver military orders in the event of nuclear attack. So it decided to use a computer network which would be attack proof in case that kind of attack occurs. In 1964 a network was designed, with no central hub, switching station or central authority. The network seemed almost unworkable at the time. In 1969, the US DOD Advanced Research Project Agency (ARPA) ARPAnet was created, the world's first packet switched network. This network design called for the ability to route data packets around failure points. As ARPAnet became overloaded, it

was divided into MILnet for the military, and ARPAnet for academic users. In the 1980's, supercomputers came to the scene and US national Science foundation determined that universities could share the expensive resources of these supercomputers if they were connected to the ARPAnet. As more organizations were being connected to the Internet, it grew larger every day. That continuous growth of Internet was attracting a wide variety of people with diverse interests and activities especially the people who rely more on data like commercial institutions. Some Internet users are highly skilled academicians who use the network to collaborate on research or access large databases.

More popularly known as the information superhighway, or as free-for-all computer networking, it attracts approximately 1 million subscribers every month². Its strength nowadays is its availability to everyone with nothing more than a computer and a modem and a telephone line. The Internet is a global network of networks enabling computers of all kinds to directly and transparently communicate and share services throughout most of the world. Because the Internet is an enormously valuable, enabling capability for so many people and organizations, it also constitutes a shared global resource of information, knowledge and means of collaboration. For Businesses one attraction of the Internet is the explosive growth in subscribers, new targets for advertising, selling or marketing.

Companies and customers trading in the electronic bazaar are clearly taking a calculated risk by using the Internet in their transactions, since security issue is raised under the fact that everyone is able to go into the data flow throughout Internet. Security is one of the main concerns to Internet users. According to Reuter³, Barclays Bank has introduced a new marketing service through Internet called Barclay Square, but it was faced with some security problems. There exists a great concern from Internet users and from computer experts who manipulate money through the Internet. The remarkable no-borders' openness of the Internet which makes it a powerful resource also makes it intrinsically insecure. When the corporate networks are connected to the Internet, outsiders potentially have access to company information. There is also a further issue,

Subscribers are increasing at an increasing rate, by the end of the year 2000, 200 million people will be using the Internet.

³International; financial network.

company's staff can be seduced by the Internet's charm as easily as any computer enthusiastic. They can spend hours surfing the net causing huge telephone bills.

It is viewed by many companies as a potential low cost vehicle for private managed networks. But with more than 2000 security breaches in the US alone last year -- most organizations will want to know that the security issue is resolved before those companies entrust sensitive data through the Internet. Some are using common means of security (PIN, ID, Password). Those means are currently used in Lebanon by banks who installed computer software's for their customers such as British Bank.

The Internet, also known as "The Net", is not a single network, but a global, interconnecting network of networks. Private corporations sponsor some of these networks for commercial traffic and government subsidize other for research and educational ends. It is known that no one owns the Internet, although Internet was originally created for the US government, it is not owned by a single entity. It is rather a cooperative global effort. Each of the sub-networks connected to the Internet has a governing body which sets the rules of users subscribing to that sub-network. However no entity/ organization can claim control over the entire Internet.(Net Futures, PP 166-173)

In the fast\passed arena of Internet offering, it is often the first to market that gets the lion's share. Microsoft company has announced two programs to encourage the use of its development tools for Internet applications. The Internet Business development Kit is aimed at helping (e.g., let's users use Microsoft Word as a text editor for the web) all

businesses and bank employees where all data are within their hands. This is currently taking place in the UAS and on a very narrow scale here in Lebanon, but it has proved its good results mainly for big companies.

With electronic commerce becoming ever more viable through advancement in security, access to corporate data will be an ever-increasing need.

Internet is now connected to 2,000,000 data banks all around the world, containing the history of human race as well as all the knowledge developed by people through history. About 60 million customers are connected to Internet in all fields scientific, educational, political, financial and economical. Internet users are increasing at a rate of 12 % each month which means that the future will be shaped by its effect. As for Lebanon the Internet users are mainly educated people and university students with an increasing usage of computer at different levels. Sales of PC's in Lebanon is one among many indicators of this.

Banks would have to develop technical and human skills through theoretical and practical training in order to teach their staff to know and be able to work on new programs and machines, depending on the bank objectives or future overlook. This (as I have seen) will bring banks to develop a staff able to manage, adapt, and evaluate sources to new external givens..

Also banks would have to coordinate their margins of profit in order to make credits more accessible to a larger population, the process which will encourage credit facilities. They will also have to strengthen their capitalization (several banks are doing it currently), widen their limit of action and modernize technology to face the entrance of

bigger foreign banks (British Bank, City Bank) with substantial resources and with an excellent know how and technology, on the local scenery.

Chart 1: Data access

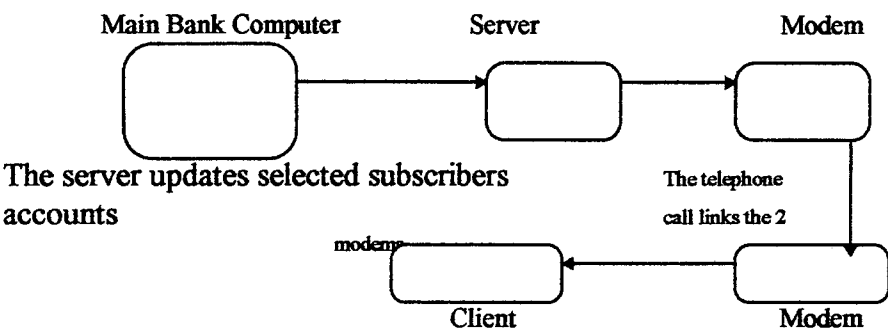
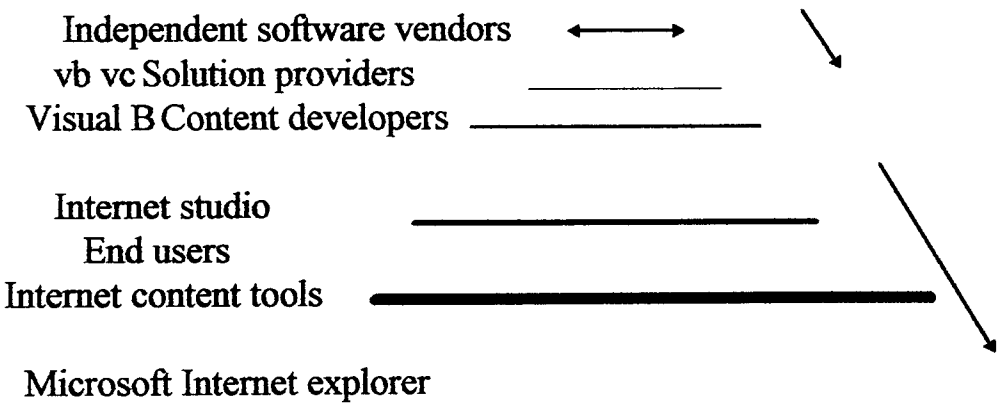


Figure 2: This figure shows how a bank and its client can be connected through Internet.



Microsoft: Microsoft is incorporating Internet capabilities into many products, as well as developing new Internet tools. These span from end-user tools to ones for hard-core developers.

The above figure gives an idea about a user surfing the Internet and what is the main steps he should follow to be on the net.

Security on the Internet: Overview

The Internet works by sending information from computer to computer until the information reaches its destination. So, when data is sent from point A to point B, every computer in between has an opportunity to look at what is being sent. This can pose a security problem.

For example, suppose you are looking at a clothing catalog on the World Wide Web, and you decide to buy a shirt. This requires that you type certain facts into an order form, including your credit card number. You know the clothing company in question is reputable, so you type your credit card and other information, and then send the completed form. Your information passes from computer to computer on its way to the clothing company. Unfortunately, one of the computers in between has been infiltrated by criminals who watch the data passing through that computer until they see something interesting—such as your credit card number.

How often does something like this happen? It's hard to say, but the important thing is, that it is technically possible. And, as the Internet grows, it's bound to happen more and more.

How does Internet Explorer help to protect our data?

Many Internet sites are equipped to prevent unauthorized individuals from seeing the data sent to or from those sites. These are called "secure" sites. Because Internet Explorer supports the security protocols used by secure sites, you can send information to a secure

site with safety and confidence. (When we are viewing a page from a secure site, Internet Explorer displays a "lock" icon in the status bar.)

Internet Explorer can also notify us when we are about to do something that might pose a security risk. For example, if you are about to send your credit card number to a non-secure site, Internet Explorer can warn you that the site is not secure. If the site claims to be secure, but its security credentials are suspect, Internet Explorer can warn that the site may have been tampered with or may be misrepresenting itself. To specify when Internet Explorer should warn you, click Options on the View menu, and then click the Security tab.

Banking security in USA

There existed a security agreement in USA only for banks using Internet as a communication system. They are investing in this most advanced security architecture, which is a requirement for Internet banking. According to William M. Randle, Huntigton's director of marketing and strategic planning, as quoted in *American Banker*, he mentioned that electronic banking may be the age of competitive equality for large and small banks. Both can gain access to the Internet for approximately the same cost, and both can compete in the same environment for customers around the world.

As for the cash payments through Internet, there has been several services that benefited customers all around the world especially Internet users. Example of such services was the introduction of CyberCoin, it allows customers to spend pocket change over the Internet while enabling merchants to charge in real-time. CyberCoin's unique and secure cash transactions create a lucrative niche for selling small ticket items like software,

games and information electronically. It facilitates secure on-line shopping for Internet shoppers. This system opened a global market for an unlimited potential.

Marketing on the Internet

The term Marketing as we have studied through our academic courses does not mean selling and promotion only, rather it is a social and managerial process by which individuals and groups obtain what they need and want through different ways and techniques. In Lebanon we can feel nowadays how companies are reengineering their managerial work, management, and changing the old traditional techniques in order to be able to adapt new systems. Systems that has proved its usefulness in the present challenging era. As far as banks are concerned they have started to use electronic systems like Internet for marketing purposes. In the exhibition BIFIS 97 in Beirut, 4 banks were promoting their webs on the Internet and illustrating how customers can access those webs so that they will be able to have a clear idea about new services offered by those banks. In the USA financial institutions have much more advanced ways in using electronic means for marketing purposes.

As an example of what is going on in the USA. Huntington Bancshares and Wachovia Corp., announced in late May/1995 their intention to invest \$607 million-asset in new technology, a Kentucky-based thrift "Cardinal Banchares" that has created Security First Network Bank. Cardinal planes to spin off the new bank as a completely Internet based bank by the end of 1995, and it did. (Bank Marketing, July 1995 pp. 7)

American consumers will soon be able enjoy the most complete and convenient suite of home banking services ever offered. With the turnkey (a new service offered by a

company called *Resource & Communications Corporation USA-Atlanta* not used in Lebanon yet) Internet home banking and bill pay service announced today by On-line Resources & Communications Corporation at the Bank Administration Institute's Retail

Delivery '95 Conference, any financial institution can offer customers unprecedented options and accessibility for electronic banking.

This new electronic communication system provides its customers with the opportunity to expand the value of existing accounts and to strengthen all their merchant and customer relationships by offering a safe Internet payment solution.

On-line Banking

On-line Resources is a privately held company founded in 1989. The company provides interactive services to financial institutions, including banks, brokerages, credit card issuers and other financial service providers. Current services include home banking, cash management, bill paying, and securities trading and information. On-line allows banks to reach their customers via low cost Screen Phones, conventional telephones, PCs and the Internet's World Wide Web. Access through other devices such as ATMs, TVs, and PDAs will follow as demand requires. On-line also maintains a directory of financial institutions and service companies on the Web and develops Home Pages for financial institutions marketing their products and services on the Internet. Its own Home page found at "<http://www.orcc.com>". The company is based in McLean, Virginia.

On-line will provide the communications and transaction links that allow a financial institution's customers to access accounts, pay bills, and get information via the Internet.

Internet access to home banking is particularly advantageous to customers already on the

Internet conducting business because they can bank without exiting the Internet and dialing up their bank through another network.

On-line can also develop an institution's World Wide Web Home Page, a service the company announced earlier this year when it launched its own Web site. That site features a comprehensive directory of all financial institutions and providers of interactive services with a Web site. Since its debut two months ago, the On-line

Resources Web site has become the authoritative resource (major) for home banking information, with thousands of hits per day from interested Internet users.

On-line Provides Multi-Access, Integrated Service

Online's Internet Banking complements the company's other services, enabling institutions to offer interactive financial services, including securities trading, through more devices and in more ways than ever before available nationwide. Customers can have the option of banking through PCs, Screen Phones, touch-tone phones or any combination of them, and be connected to their bank via either the Internet or Online's conventional packet network. Moreover, the total integration of all Online's systems means customers will always have up-to-the-minute information on their finances, no matter which network they use, when they use it, or which device they use to access their accounts. Thus, every one who owns a banking account, whether a heavy Internet user or comfortable only with touch-tone telephones, is a potential customer for any bank using On-line services.

On-line also will provide institutions a full range of support services, including marketing, bill paying, and merchant services, as well as Online's exclusive customer service software that enables institutions to maintain direct customer contact. They need only to sign up customers. (Vitalizing Banks, PP 42-49)

On-line Chairman and CEO Matthew P. Lawlor says no other service provider can give institutions the chance to offer such services anytime, anywhere, any way access. "Now, banks can only get part of the solution from other vendors, whether they sign-up with a big software developer or a bill payment processor," Lawlor said. "They can pick an IVR system from one provider, PC banking from another, and screen-based telephones from a third, and wind up with disconnected systems that cannot communicate with one another. But we offer a complete, integrated solution -- truly Multi-access and Multi-service, including cash management, bill paying and securities trading. Connecting the bank to its customers in every way necessary -- that has been our strategy all along". Lawlor noted that few banks can afford to develop all the necessary technology systems and services to compete effectively. Fewer still can do so cost effectively. "So we make it easy for them to outsource the systems and services yet control the customer relationship -- with minimal technology risk and/or investment," he said. "We're not interested in offering every bank the same, plain vanilla system. We want to help them enhance and improve their offerings so they can compete with all the players, whether it's a software company or the bank around the corner. With our Internet service, we will have the most complete offering in the industry." Lawlor said On-line plans to provide interactive financial services through ATM machines, PDAs and TVs in the future.

We can introduce customers to home banking through computers or screen phones, TVs or the telephone. But eventually they are going to demand a variety of access devices, depending on their needs hour to hour and day to day. Companies will want their clients talking to the same database, so they can complete a transaction on one device and, whenever they access their accounts later, that transaction is reflected on any other device used by them or a joint account holder. Thus, all account holders can conduct transactions via the Screen Phone, telephones and/or computers, and when it's time for

end-of-month analysis, they can download all the transactions into their financial management package.(Vitalizing Banks, PP 54-63)

Last month in the USA, On-line introduced its home banking PC software that allows users to download their transactions into popular financial management software, such as Intuits Quicken, Microsoft's Money, or Managing Your Money, now owned by a consortium of large banks.

"With others' services, you can choose different providers for PC, screen-based telephone or touch-tone access, but they all use different account information.

Reconciling accounts is nearly impossible."

With the Internet Banking service, banks can offer home banking to users of both PC and Macintosh systems because users will already have made the connection between their systems and the Internet compatible.

Another advantage to banks is that, by using the Internet, the customer is absorbing the communications costs. That enables the bank to provide interactive financial services at

a lower cost. Those techniques is not efficiently used in Lebanon because they lack the know how, but it is entering our market through international banks such as City Bank.

Security's First at On-line Resources

-Online's systems have been renowned for their high level of security. In a soon-to-be published report for the Department of the Treasury by the banking consulting firm Furash & Co. On-line Resources is cited as a "best-in-class role model" with regard to data security. Online's technical staff, with their expertise in the banking industry's infrastructure, understand the technologies and procedures upon which the industry developed its electronics funds transfer system. On-line leverages that experience in developing its Internet service.

Online's elaborate series of firewalls which will protect a bank's internal systems. Transactions over the Internet will not include personal identification numbers (PINs) but will have passwords and the secure "envelope" offered by Netscape Communications Inc. On-line also will limit the transmissions of account numbers and will offer customers the opportunity to avoid such transmissions completely. The transaction itself will not contain sensitive account information.

Online's Screen Phone-based service will continue with its highly secure system that -includes PINs protected by hardware in the Screen Phone and using the banking industry standard DES encryption. The transactions are conducted over ATM networks. On-line is the one of the few companies that can offer this secure and efficient method of bill payment. On-line expects to begin testing its Internet service by the end of the year with availability mid-1996. general (Modem Romance, PP 65-69)

What is offered in Lebanon on the Internet?

The trend of using the Internet is growing a lot in the Lebanese market and Banks are exploiting ways to benefit from the coming era. I visited an exhibition that took place in Forum De Beirut and asked some questions about the new technology used by those banks. Allied Business Bank is now using the Internet to advertise and promote its old and new services for the time being but after a while, new communication systems will be used so that its services will be offered not only for Lebanese inside Lebanon, but also for people living abroad. As an example of what is offered the following page is a home page on the Internet owned by the above mentioned bank: (The add is as follows)

Allied Business Bank SAL places the world of banking in your hands. We provide wide range of products and services to fulfill your needs. a our customers with a Checking and Current Accounts It is the most flexible type of bank accounts. All types of deposits and withdrawals are executed with no restrictions.

Saving and Deposit Accounts

The main features of such accounts are:

1. A passbook is issued to account holders
2. A minimum balance is required for savings at term and deposits at notice (LL. 3,000,000_ or c/v in US \$ 2,000_)

-P.S: There are two types of saving accounts:

- Savings at term are for individuals whether single or joint
- Deposits at notice are for corporate entities

Children or Minor Accounts

These accounts are opened by parents to provide for the future needs of their children such as schooling and university fees. The same features of saving accounts apply to these types of accounts.

Secret Accounts

Our customers can open "Coded" numbered accounts known only to the Branch Manager. The identity of the holder of such accounts cannot be revealed except with a written authorization from the account holder.

This account can only be disclosed in case of bankruptcy or to the heirs after death.

Overdraft Accounts

Overdrafts are facilities extended to customers. Their acceptance and the determination of their interest rate are based upon :

the business they are engaged in

-security granted

Facilities extended include local and all major foreign currencies

and are restricted to the following sectors:

-commercial sector

-tourism

-agricultural (short term)

-industrial (short term)

Allied Business Bank SAL, has no appetite to grant real-estate loans.

Private Banking

This is a tailor-made service designed to answer the specific needs of existing and potential clients. This service is characterized by personalized attention, utmost confidentiality and trust.

Personal Loans

These loans are only available to specific individuals. Interest on borrowing is lower than interest charged by car dealers, furniture shops, etc.,...

Reasons why customers may wish to use this service include:

1- to buy a car, furniture or home appliances

2- to pay for an education

comply

Documentary Collections

Is another method of securing payment in the international foreign trade; yet it does not provide the same security as Documentary Credits.

Allied Business Bank SAL acts as an intermediary between the exporter and importer, collecting payments and delivering documents to the buyer.

Guarantees

Through this tool, our bank can issue in favor of a third party, all kinds of guarantees needed and requested by our local or international customers.

Standing Instructions

The customer instructs our bank to make payments on a specified date from his/her account to another account, be it his account or any other individual's account.

Internet users World wide and in Lebanon

Data banks are growing all around the world and this is why everybody is anxious about this new communication mean. The table below reflects to what extent those data banks are increasing, not to mention users of those banks.

Year	1993	1994	1995	1996
# of data banks /Jan 1.	1213000	2217000	4852000	9472000
Amounts of data transfers/ billions	38	226	1828	3798

Table 1: Al-Nahar 12/1/1997. Internet users globally

In the following part I will illustrate some statistics given after a survey about Internet users in Lebanon.

Commercial Bills Discounted

The bank agrees to purchase promissory notes from customers granting them, as a facility, the amount of the unmarred bills less interest, commissions, and fees which are collected in advance.

Bills in Security

Are bills deposited by customers in bank's custody to cover for credit facilities granted?

These bills are collected by the bank and deposited in the customer's account.

Bills on Collection

These bills remitted by customers are in bank's custody, and are processed for collection on maturity dates and deposited in their accounts.

Direct Bills Discounted

These bills are similar to loan facilities, drawn by customers and directly paid to the bank's order on maturity dates.

Treasury and Foreign Exchange

Through our sophisticated telecommunication dealing system and our Reuters wide scrolling screen placed at our head office, we are able to provide our customers with competitive foreign exchange prices and placement interest rates.

Transfers

Through our large network of international correspondents, we are able to effect transfer requests, made by our customers on a worldwide basis.

Documentary Credits

Allied Business Bank SAL, acts at the request and upon the instructions of its customers to:

- 1- Make payments to the order of a third party (the beneficiary) against negotiation of documents and/or to accept and pay drafts drawn by the beneficiary.
- 2- Authorize another bank to effect such payments or to accept and pay such drafts.
- 3- Authorize another bank to negotiate, provided that terms and conditions of the credit

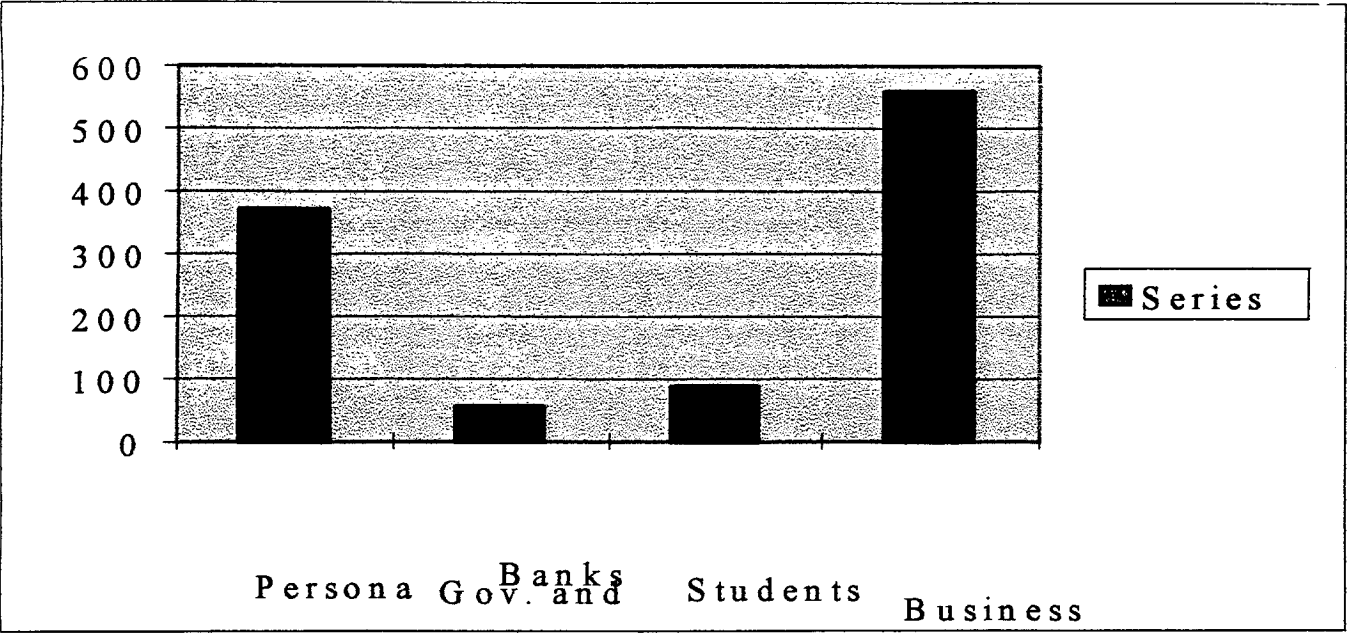


Chart 3: Internet users in Lebanon

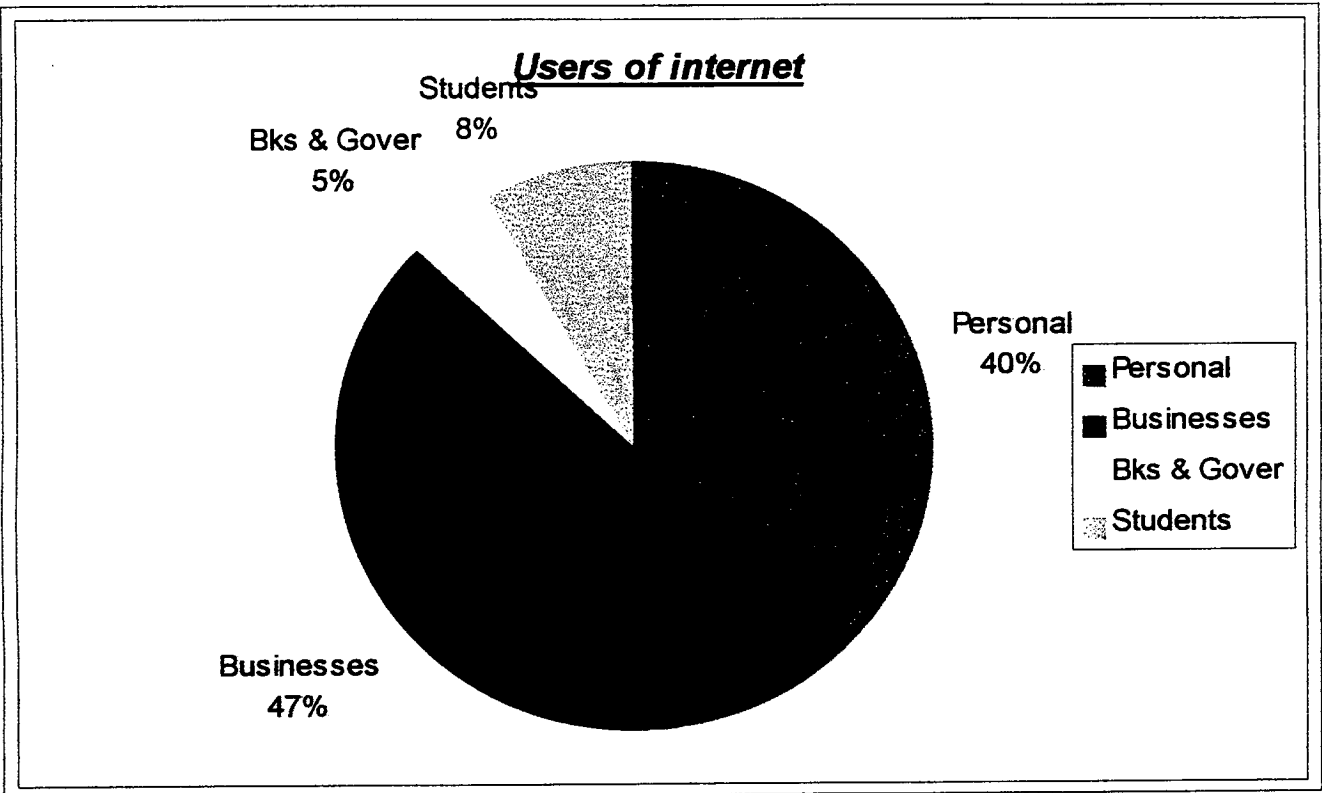


Chart 4: Data Management / Who is using Internet in Lebanon

The users of Internet in Lebanon are mainly business and individuals.

<i>Company</i>	<i>Date Started</i>	<i>Service</i>	<i># of Customers</i>	<i>Point of Location</i>
<i>Using The Service</i>				
Cyberia	Aug 1996	Internet user	1500	Hamra, Junieh
Data Net	-----	=	~ 500	Beirut
Data Management	Aug 1995	=	~ 200	=
Inconet	Dec 1995	=	1500	All Lebanon

Table 2:Magazine # 2034, Nov 1996

The above numbers is considered an old data, after the interview with the Internet dealer I was not able to get official data about how many Internet users we have in Lebanon. The above table reflects official figures this is why I coated it. Mr. saleh (Internet dealer) did stress on the idea that the increase in Internet users is huge specially among businesses, since they are becoming more aware of the tremendous opportunities Internet can offer. Moreover Businesses will have to exploit this world sooner rather than later since competition will not give them time to think about it.

Conclusion

Regardless of difficulties that need to be overcome expansion of services onto the Internet is happening, and these services need to be constantly available. Our modern life is different and has new requirements. Customers will not, under any circumstances

accept the idea of not having access to their money at night. Businessmen can not understand the idea of visiting the branch just to ask for checkbooks. Institutions demands full access to their accounts for their decision making at any time and on international scale. Those reasons gave pace for new technology to play its role as the server behind the transaction provider - effectively supplying Web servers. "These service providers need to offer 24 hour availability, and the major institutions need to have a point to connect into the Internet.

As a result, electronic banking innovation was introduced in the advanced countries to save time for the customers and facilitate their work and actually some banks in Lebanon have started using this modern mean of transfers. As an example of how Lebanese banks are starting to use Internet is Byblos Bank (<http://www.byblosbank..Com.lb>; [e-mail:byblosbk@byblosbank.com.lb](mailto:byblosbk@byblosbank.com.lb)). It installed a Main Page on the Internet so that customers can see what are the new services offered and at the present time, they are thinking of new systems for special customers to be able to manipulate their accounts through their PC's. In Lebanon we have 2 major companies offering access through the Internet Cyberia and Inconet as well as several minor companies such as Sodotel, Data Management and Data Net.

Advantages of Electronic Banking worldwide is clear and as far as Lebanon is concerned, the new technology will soon be adapted by local institutions.

We can result in the conclusion that both Internet and Electronic Banking as well as on-line banking, all those new technologies affected the Lebanese banks in different ways. They have increased efficiency through decreasing operations during the rush

hours(example of ATM). This helped employees take care of other operations and try to manage their working hours in a better way.

In an interview with CNME, Geoff Johnson, European Finance Industry Marketing Manager for Tandem, he describes how the company's ability to meet the demand for constant availability is contributing to its growth in the Middle East.

Retail consumer banking requires constant availability in situations where the customer interacts with the bank, such as with ATM machines, where the computer systems become the public face of the bank and, if the system doesn't work, then the bank is perceived as not working.

The wholesale systems include payments systems where there are high volumes of transactions. A company for technological services called Tandem is used in five of the top six stock exchanges internationally. They are also working on a more complete exchange system which will cover all aspects and be more suitable to the smaller exchanges typical in the Middle East (Gulf Area). This system combines a number of pieces of software, being developed with a Canadian company ITS.

As for Lebanon which has an active banking sector, a system has just been sold in Beirut for the exchange transactions, installed by MedClear. This clearing and settlement system will also later be tied into the payment system. Lebanon is waking up again and a lot of development is expected there. (Geoff Johnson).

In the Gulf, the major area of interest is development of the retail market, particularly new delivery systems which address the demand for seven day, 24 hour operation - accessed from home, the office or traveling. "Smart phones have really taken off. The

combination of PC and telephone, combined with a screen allows the PC to conduct home banking using video technology. In the Middle East the Arab National Bank has taken the plunge to be one of the first banks anywhere to introduce a smart phone-based banking service, providing smart phones for its customers." Tandem's Multimedia group in Cupertino, California, is currently responding to the move to client server, and looking at ways to package services and make them more attractive.

"As more people have multimedia PCs at home, so more customer services, including banking, can be provided direct to the home." Some of Tandem's customers are using multimedia to provide automated or semi-automated branches, including sophisticated interactive touch-screen self-service branches and kiosks.

As mentioned in the first pages of this project there exist a 23% increase in the net financial income of the Lebanese banks. This income is derived from interest, commission, and other income. It has been proved that new technology resulted in big part of this increase. Credit Cards prices for ATM usage, Loading new software's commission, charges on voice service.....ect.

British bank, is working on some projects to connect itself to the international monetary experts (visual phone) in the international scale. This Project is done with the collaboration of the Cambridge Company, which is specialized in telecommunication systems. Their aim is to send their visual figures through the telephone lines to their correspondents.

If this was applied a manager can negotiate with any customer, and/or with his family members or with the presence of his partners, and on the corner of the screen financial figures can appear so that all data can be accessed to.

They estimated that this technology cost the customer only 150 dollars a month, which is not expensive. Security on this system will be based a secret number given to the user.

It is to note here that practical screen communication is taking place internationally on the Business scale. It provides sound and image and direct communication. What helped in its nourishment is the relatively low cost of this service. Sales in this year were estimated at 162.7 million dollars and they estimated that this number will be four times larger by the end of this decade (Al-Mal Wal Aamal).

In short adaptation of those techniques is inevitable, banks have started to adapt and recruit skillful staff to be able to acquire new techniques easier. Question of whether or not to acquire those technologies do not exist. The question now is how fast can we follow up the international markets. The examples that have been given on international banks will include local banks, since international companies are offering those services nowadays in Lebanon. What I have concluded that there existed an increase in efficiency in banking productivity, an increase in efficiency reflected on quality of service, and an increase in profitability of banks whom 1st adapted those techniques.

The points that were obviously concluded as far as electronic banking, Internet, On-line banking is concerned:

- Provides opportunities for the improvement of both productivity and profitability.
- Supports the implementation and processing of new products and services.

- Provides accurate and timely information critical to the support of both operational and strategic decisions making.
- Reduces operational costs.
- *Optimizes productivity.
- Improves product delivery methods.

All of the above is some factors of what is the effect on our banking sector in relation to new technological effects. Its effects can be mentioned in several brief points.

The Minimum average cost will be decreased concerning big banks that is capable of purchasing new technology and has a good number of daily transactions. Small banks will not benefit from those technologies on the contrary they may lose customers on the short run either merge or get out of business on the long run.

The results of my project do not reflect exactly how big the effect on Lebanese banks is but still this subject will be the main field of study for businesses, educational institutions, government and every person who needs to interact with the new language of this era.

References

- Aridi Adnan. 1996. The Middleman In Managing Banks, p.23-93, p.193-232. Banking activities, Second edition, Beirut.
- Anonymous. Banking Activities In Lebanon in 1993-1994,
- Association Des Banque Du Liban, Almanach Des Banques Du Liban, 1993-1994. Beyrouth.
- Anonymous. 1996. "Modem Romance," PC Pro, February 2. PP 82-90.
- Anonymous. 1996. "Net Futures," PC Pro, January 2. PP 166- 173.
- Al Mal wal alam "new techniques for banks" ,July 1995 pp.86-96.
- Bilanbanques. 1994.1995.1996
- Donaldson. 1988 'Lending In International Commercial Banks '. Second edition. Manhattan press, Manhattan.
- Howard Crosse/ George H. Hempel. 1985. "Management Policies For Commercial Banks" Third Edition. New Jersy. Pp. 148-160.
- Interview with Mr. Adnan Aridi (Head of human resources department in BBAC, Lecturer, Lebanese University). 25,05,1996.
- Interview with Mr. Mounir Saleh (Internet dealer- Data Management), 26/4/1997.
- Jamal Rashid. 1996. "Information and The Lebanese Economical improvement" AlNahar, March 25th.p12.
- Makram Sader.1996. Financial policy and using the lost time. Banking internal Publication. February. Beirut.
- Murry-Jones Allen. 1991. "Managing Capital Adequacy" a handbook of international regulation. N. Y, Woodhead -- Faulkner.
- Lyle.a. Whitledge.1964. "Vitalizing Banks." Bankers Publishing Company. Boston.
- Seifried J. Edmond. 1990. Economics For Bankers, p.489-503.Money creation and Commercial banks, Second edition, American Bankers

Association, Washington, DC

-Safar Ahmad.1992. "Specialized Banks In Lebanon And Some Arab And European countries". "Union of The Arab Banks. Beirut.