

2004

Internet banking history and strategies : a case study of U.S. and Greek banks

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**CALIFORNIA STATE UNIVERSITY
MONTEREY BAY**

CAPSTONE PROJECT

**Internet Banking History and Strategies:
A Case Study of U.S. and Greek Banks**

Submitted in partial satisfaction of requirements of the degree of

**MASTER OF SCIENCE
Management and Information Technology**

Despoina Anesti

May 20, 2004

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EXECUTIVE SUMMARY

In times of economic uncertainty, when many banks failed to live up to their expectations, e-commerce provided them with many capabilities. Everywhere in the press and in literature one comes across terms such as, Electronic Banking, Online Banking, PC Banking, Home Banking, Phone Banking, Internet Banking, Mobile Banking as well as Electronic Financial Services. The extensive use of these terms is indicative of the fundamental changes that information technology has brought into the banking environment and the financial services industry in general. The Internet has become a necessity for banks that want to move forward and follow the developments in information and communications technology. Moreover, the Internet has changed the way that consumers and businesses conduct their banking transactions. Banking over the Internet is continuously gaining ground and the banking industry is paying vast attention to it. According to analysts, Internet banking has revolutionized the whole banking industry; it is said to have provided banks with new and cost-effective means of retaining and increasing their customer base.

It is believed that the U.S. is three to five years ahead of Europe as far as Internet banking is concerned. When it comes to Greece, as soon as Greek banks realized the upcoming developments, they started transforming their services in order to become more up-to-date and more competitive. What's more, Greek banks have developed websites, which demonstrate many similarities when compared to the American banks websites, and they offer a wide range of services including mobile banking. Also both the U.S. and the Greek banks follow the global trends of the online financial services towards consolidation and integration.

However, the adoption rate from the Greek consumers is slow for a number of reasons, some of the most important being their mistrust towards the use of Internet and

the unfamiliarity with the new technologies. As opposed to the American consumer, the Greek consumer does not encompass, at least not yet, the eculture necessary for the adoption of such a technology. Moreover, they are very suspicious about the safety of their money when performing transactions via the Internet. At the same time, many Greek banks have not adopted intense marketing strategies to promote their Internet banking services.

This paper describes the history, the current status as well as the projections and trends of Internet banking for both the United States and Greece. The case of successful U.S. and Greek banks are described and their websites are analyzed in an attempt to identify tactics they employ and see which, if any, Internet banking strategies Greek banks have not yet implemented. Ultimately, what strategies they can adopt and which they can circumvent in order to become more competitive in the new era of the global economy.

I. INTRODUCTION

A lot have been said and written about the prospects and developments of Internet banking as a part of online financial services, while the attention it receives from the banking industry is enormous and many analysts suggest that it has revolutionized the whole banking industry.

E-commerce and other Internet technology have enabled personalized and customized services. However, banks are confronted with very demanding as well as sophisticated customers who require trust, service, security and convenience. Indisputably, Internet banking has added innovation to the banking industry and has expanded its capabilities; it has presented the industry with new means of attaining competitive advantage and has enhanced its value proposition.

The percentage of electronic transactions has more than doubled since 1995 in the United States; it is expected to double again by 2005 and is showing a growing trend worldwide, which intrigues me to investigate and analyze on the subject of Internet banking.

The sections II, III, IV, and V include the following (excluding the Bibliography and the Appendix sections):

- II. Background:** Internet banking is defined; its history and previous research findings are presented, the advantages, the risks and opportunities of Internet banking are summarized.
- III. Industry Trends and Analysis:** Internet banking in the United States and in Greece is introduced and the financial highlights of the U.S. and Greek economy

and banking sector are presented. Also the profile of both the U.S. and Greek Internet banking user is reviewed.

IV. Description and Analysis of U.S. and Greek Banks: For the U.S. the Internet banking of Citibank, Wells Fargo and Bank of America is presented. For Greece, the Internet banking of winbank of Piraeus Bank, Alpha Bank, Eurobank and Egnatia Bank is presented. The banks that were chosen had to satisfy a criterion: to offer a wide range of Internet banking services, so as to be comparable.

V. Conclusions and Recommendations: Conclusions regarding Internet banking strategies, which successful banks have implemented; recommendations regarding strategies that Greek banks have not implemented yet and features that make a bank's website functional and consequently successful.

II. BACKGROUND

2.1. Definition of Internet Banking

“Internet banking represents an electronic and remote distribution channel for delivering financial services on a virtual level” (Bradley L., Stewart K., 2002). It has been defined as “the use of the Internet as a remote delivery channel for banking services” (Furst K., Lang W., Nolle D., 2002), as well as “the use of Internet to underpin key processes and integrate different channels, and transform the main brand into an e-brand” (Tuerk V., Kuhndt M., Alakeson V., Aldrich T., 2003). Internet banking is anchored in new technologies and apart from traditional services, for instance opening a deposit account or transferring funds among different accounts, it also incorporates new banking services, such as electronic bill presentment and payment, allowing customers to receive and pay bills over a bank’s website.

Internet banking is offered from both brick-and-mortar and Internet-only or virtual banks. The brick-and-mortar model refers to banks which have both physical and virtual presence. The traditional delivery channel, the branch, is accompanied by the web and a bank has actually two distribution channels. On the one hand, there are banks which choose to offer their Internet banking services as an integrated part of the main bank, without altering the already established name. On the other hand, some develop their web presence under a different brand name and their Internet banking represents an independent part of the already established bank.

The Internet-only model refers to banks that operate only through the Internet and they do not have physical branches or tellers whatsoever. However, they might offer their customers the ability to make deposits and also withdraw funds at automated teller machines (ATM) or even more on other remote delivery channels that are owned by their

institutions (Furst .K, Lang W., Nolle D., 2002). The services that they offer are the same or almost the same with those offered by the brick-and-mortar banks.

The interest of this paper is concentrated on the brick-and-mortar banks. As it will be mentioned later on, this model is the predominant of Internet banking and is considered to be the most profitable too.

2.2. E-Commerce Era I and II: History of Internet Banking & Previous Research Findings

Information technology has brought fundamental changes into the financial services industry and it is said that online financial services are an immaculate example of the e-commerce success.

In relation to other technological developments, the average consumer has accepted the Internet and ecommerce in a more intense speed. Previous research has found that when electricity was invented in 1873 it took 46 years until it was adopted worldwide. For telephones it took 35 years, 22 years for radio and 16 years for Personal Computers (PCs). The amazing thing with the World Wide Web is that it has taken only 6 years (Pyun C. S., Scruggs L., Nam K., 2002).

Some numbers are rather indicative of the growth of Internet banking over the past few years. As of May of 1995 there was only one financial institution worldwide with web banking, while in May of 2002 there were 6,000 financial institutions with web banking. In May 1995 only 50 financial institutions worldwide had web sites; in May of 2002 there were 14,000 financial institutions worldwide with web sites. Finally, in May 1995, 5 million households worldwide were banking online, whereas as of May 2002 there were 100 million households banking online (Appendix 1: Table 1).

E-commerce era I, beginning in 1995 with the first extensive use of the Web to advertise products and ending in 2000 with the dot.com bust, was a period of explosive innovation and growth (Laudon C.K, Traver G.C., 2003, pg.28). Computer and information technologists, economists and entrepreneurs all saw great potential in e-commerce and expressed their vision for it.

According to Laudon C.K, Traver G.C., (2003) on the one side, the computer and information technologists believed that there would be a universal communications and computing environment affordable for everyone to access. This was confirmed afterwards as e-commerce era I was a technological success; the digital infrastructure that was created during that period was the cornerstone for the developments in the following decade. On the other side, economists believed that the friction-free market and the perfect Bertrand market where price, cost and quality information are equally disseminated would become true; however their expectations were not rewarded. At the same time, entrepreneurs and venture capitalists thought that it was a great chance to get a high return on investment (ROI) and for many firms an extraordinary opportunity to get the first-mover advantage. Ultimately, according to Laudon C.K. and Traver G.C. 2003 (pg. 29-35), e-commerce era I was a mixed business success as it brought a significant revenue growth and customer usage, but simultaneously low profit margins. In addition to that, it did not live up to the expectations of entrepreneurs and venture capitalists as far as the first-mover advantage, the lower customer acquisition and retention costs along with the lower costs of doing business were concerned.

Generally speaking, e-commerce era I was characterized by experimentation, capitalization and hypercompetition (Laudon C.K., Traver G.C, 2003, pg.31). This is not surprising at all since with everything new, there will be an experimental period and gradually or intensively, the competition will be increasing. This was also the case with the ATMs (Automatic Teller Machines), at least until they became popular. At the beginning, only some bold consumers made use of them; now they are commonly used and they are an essential component of every bank. This will also be the case with mobile banking; its use is more prevalent in Europe than in the United States. Europeans,

experimented with it, they liked they wedged with it. The extended use of mobile phones in Europe supported that to a significant degree.

During the e-commerce era I, Internet banking was just establishing. In the third quarter of 1999, only 20 percent of national banks in the U.S. were offering Internet banking. However, projections at that time indicated that 45 percent of all national banks in the United States will be offering Internet banking at the beginning of 2001 (Furst K., Lang W., Nolle D., 2002). For that period of time, banks were offering just a few services such as opening a deposit account, accessing account history, or transferring funds among different accounts.

The period after the crash of the dot.com companies in the year of 2000, is where the e-commerce era II begins and it ranges from 2001 to 2007 (Laudon C.K., Traver G.C, 2003, pg.28). During that phase banks have the strategic follower strength and have also gained knowledge from first-movers of the e-commerce era I. The Internet-based transactions are enhanced even more and it appears that banks will be continually updating their online services in the years to come. Nowadays, there are numerous capabilities which can satisfy a broad customer base. Among others, the new services include electronic bill payment and presentment, receive trust and stock statements online, trade stocks and mutual funds, real chat with the customer service representatives, immediate mail response and news alerts. In addition, banks update their websites in order to become more pleasing to the consumer's eye and in particular more user-friendly.

The first online bank in the U.S. was NetBank, which was formed in 1996 under the name Atlanta Internet Bank. Second was WingSpan in 1997. Other online financial services such as Juniper.com, E*Trade.com entered the Internet banking in 2001 and well established now brick-and-mortar banks such as Citibank and Wells Fargo moved into the Internet banking field by offering such services to their existing customers in 2001 (Furst .K, Lang W., Nolle D., 2002). Previous research has found the brick-and-mortar model to be more successful than the pure online banks for a number of reasons, the most

important of which is probably the fact that brick-and-mortar banks split their business volume between the branch channel and the Internet channel. Consequently, they can attain customers from both channels (Young, R. D 2002). The Internet-only banks found it very difficult and unprofitable too to attain customers because the marketing costs were higher than initially anticipated; what's more, customers were unwilling to abandon the traditional branch (Sarel D., Marmorstein H., 2003). Multi-channel banks (with ATM, Phone and Web presence) have lower customer acquisition, conversion and retention costs. It has been realized that banks which have both physical branches and solid online offerings are growing faster than the pure online banks; what's more they are assuming market leadership (Laudon C.K., Traver G.C., 2003, pg.639).

Besides, research has found that online consumers prefer multi-channel firms with physical presence. It is rather interesting that multi-channel institutions draw almost four times as many visitors as pure online institutions; still, more than 86 percent of those visitors open a secure channel, which indicates an interest in transacting, compared to only 50 percent of visitors to the pure online institutions. Nevertheless, users of Internet-only institutions utilize the websites in a more intense manner and for a greater variety of transactions, but at the same time, they are more price-driven and less loyal than the customers of the multi-channel institutions (Laudon C.K, Traver G.C., 2003, pg.641).

According to the IBM Global Services research on Internet strategies for retail banks (1999), "the multi-channel strategy means that banks may have to balance functionality across channels and find the most suitable combination between price and value", in order to create the incentives and attract customers. This was actually proved during the early steps of Internet banking, when many traditional banks made the mistake of charging their customers with excess fees for their internet banking services. That resulted into the dissatisfaction of households, which expected the Internet-based transactions to be superior to those offered from the traditional channel and cost them less. Since the customer is a multi-channel user, banking institutions should create a consistent customer cross-channel experience to create value and establish their brand (ABA, 2002).

In addition, it has been proved that large banks¹ offer a wider range of online banking services than smaller banks do and also that Internet banks are more profitable than non-Internet banks. But the performance of smaller banks might need further investigation. It is believed that since large and well established banks already provide Internet banking services, the growth on the number of banks which will offer Internet banking can be anticipated to come from the smaller banks (Capco Journal of Financial Transformation, 2001). However, the question is how affordable can this be for the small and accordingly less efficient banks. An answer to that question might be through strategic alliances. This strategy has been repeatedly proved to help small organizations to achieve explosive growth.

Analysts have also observed that globalization is reshaping the structure of financial markets and is the driving force of most of the recent trends. Simultaneously, “technology is revamping the ways that financial services are produced and delivered in our days” (Claessens S., Glaessner T., Klingebiel D., 2002). Having said that, we must mention the two most important global trends in the online financial services: the industry consolidation and the movement towards integrated financial services (C.K., Traver G.C., 2003 pg. 636-638).

Regarding the factors that affect the adoption of Internet banking, research suggests that consumer acceptance and use of Internet banking technologies are related to the characteristics of both the individual consumer and the specific technology. More specifically, these factors can be briefly outlined below:

- **Socioeconomic and demographic characteristics:** Characteristics such as income, age, educational background and years of involvement with the Internet. Especially the educational background is highly associated with the Internet banking adoption.
- **Perception of Internet technologies:** Perceived ease of use, the availability of the specific technology and the time required to use it, access to high-speed

¹The size of banks (large or small) is judged by their assets.

Internet connection (i.e. DSL). Consumers tend to associate fast Internet connection with the safety of their transactions.

- **Personal preferences and involvement:** Such as, customization of the bank accounts homepage and desire for control over bill payments.

Moreover, consumers want to have privacy, incentives and to feel confident about the banking institution they are dealing with (Anguelov C. E., Hilgert M.A., and Hogarth J. M.). Finally, the status of a bank seems to matter a lot when making the choice among many banks which offer Internet banking services. Consumers show a preference towards well-established institutions, because they feel more protected and that their transactions are more secure.

2.3. Advantages of Internet Banking

On the consumers' side, the advantages of Internet banking can be summarized as follows:

- **Around the clock convenience:** Always, access 24x7. Conducting transactions over the Internet offers bank customers the opportunity to handle their personal financials from their home without having to wait in long lines to get the next available bank teller or customer service representative to help them.
- **Ubiquity:** Available everywhere where there is an Internet connection.
- **Transaction speed:** Significantly faster than going to a physical branch or at ATM speed.
- **Cheaper services and market transparency:** Banks might offer better loan and deposit rates than they do in their branches. In general, in order to attract customers, banks offer good deals and several promotions available only online. Also, there is a price transparency; the customer can search and compare prices and other bank's offerings.

- **Efficiency:** The Internet channel also allows consumers to combine financial services from different providers more easily, by comparing shopping companies and through portals as well. At the same time they can conduct comparisons among different providers in a short time.
- **Effectiveness:** Data can be also downloaded to a PC for further processing or to be reviewed later. The sophisticated tools that are offered to consumers can help them manage their accounts and their assets more effectively and they can also work with programs such as Quicken or Microsoft Money.

2.4. Opportunities and Risks of Internet Banking

Opportunities

The opportunities that Internet banking is capable of presenting banks with can be summarized as follows:

- **Customer acquisition, conversion and retention become less expensive and more effective:** Established multi-channel banks can convert already existing branch customers to online customers at low cost and also cross-sell new services to the existing customers. This is something that Internet-only banks as well as brokerages lack, as they cannot have physical access to customers and need to spend a lot more on advertising and promoting their products and services.
- **Improved customer service and satisfaction:** When compared to non-users of Internet banking, Internet banking users are more satisfied with their bank, have higher intentions of repurchasing products and services, are sources of more positive viral marketing and are less likely to switch to another bank, which means are more loyal customers. 24x7 customer service and e-mail alerts also contribute to better customer service.
- **Banks offer more customized products:** Banks can handle great amount of information regarding for example their customer's requests for products and

services. The personalized services allow their customers to create their own online profile and sometimes edit the content of their homepage. In that way, they can create products that can be tailored according to the customer's preferences without much human input and at a low cost.

- **Opening of new markets:** New marketing methods and approaches can be used in order to access and allure new customers in global markets.
- **Reduced entrance barriers:** Internet banking has significantly reduced the entry barriers in the banking industry. Entry costs are lower and this encourages banks to enter the market. Also banks can diversify and reach new business directions domestically and internationally as well.
- **Lower operational costs:** The costs related to establishing a traditional brick-and-mortar bank are much greater than providing banking services over the Internet. In addition to that, there are lower costs for providing financial services; the money banks save from operating many branches can be invested elsewhere (Claessens S., Glaessner T., Klingebiel D. 2002). The cost of processing full banking services in the U.S. is estimated to be \$1.07 per transaction when done through a physical branch, 54 cents for telephone banking, 27 cents for ATM banking, and one to one and a half cents when done through the Internet. At the same time human-based support calls cost banks \$10 to \$33, while a web-based self-service session typically costs about \$1 (Laudon C.K., Traver G.C. 2003, pg. 626). In Greece, the transaction through the physical branch costs \$1.40, while through the Internet the cost comes down to \$0.01 (see Appendix 3: Egnatia Bank Interview).
 - **Banks can benefit more from online brokerage and investment services:**

There are many online brokerage firms which compete directly against the traditional and Internet banks. Due to this increased threat, research suggests that there might be more opportunities in the online brokerage and investment services than in the brick-and-mortar branch (Pyun C. S., Scruggs L., Nam K., 2002).

Risks

The risks of Internet banking can be summarized as follows:

- **Increasing competition:** Lower costs of entering the banking industry entails greater competition among banks; moreover, competition exists among banks and other financial institutions, such as security brokers (Pyun C. S., Scruggs L., Nam K., 2002). It has often been verified that the domino effect of this fierce competition is the consolidation of the less efficient banks with more established banks and the outcome is the creation of the so called “mega-banks”.
- **The risk of technology becoming obsolete:** Technology is shifting; the fact that there is a continuous development on the technologies which banks utilize and new technologies come to the forefront, adds new costs for banks. However, those banks which do not utilize the new technologies may be found following others which do so.
- **Internet financial portals:** Internet portals such as Yahoo, Quicken, MSNMoney and America Online Personal Finance, offer financial services through joint ventures. These pose a threat for Internet banking since apart from online brokerage the services they offer also include bill payment, certificate of deposit investment, mortgage, as well as insurance and consumer loans (Pyun C. S., Scruggs L., Nam K., 2002).
- **Trust and Security issues:** Consumers wonder if their transactions went through, if they entered the right amount for the online bill pay or even more if they logged out from their personal account and whether it is safe not to. They speculate that their personal information is secure; however, they will always question this as they do with every online transaction where they have to submit their account number or use a password and a username. Considering the numerous incidents of identity theft, the bogus e-mails, etc., banks need to verify and convince consumers that they have nothing to fear of and that they will do their best to preserve their privacy, trust and security. The legal status of remote banking, the validity, the proof of transactions and the respect of the customers’ privacy are crucial issues.

- **Learning and or using the new technologies:** This learning curve might require time that consumers might not be willing to allocate. In addition to that, the registration process might not be favorable for everyone; consumers might abort the process before the registration steps are completed. It depends highly on how much user-friendly the site of the specific bank is and how fast the transactions go through.
- **Web site updates:** From time to time, banks update their websites and this can confuse the consumer. By not maintaining a consistency through its website or making many changes in the structure, a bank takes the risk of disappointing, frustrating or even losing a customer.

III. INDUSTRY TRENDS AND ANALYSIS

3.1. Industry Trends Overview

The two most important global trends in the online financial services industry, are the industry consolidation and the movement towards integrated financial services (Laudon C.K., Traver G.C., 2003, pg.636-638). More specifically:

- **Industry Consolidation:**

Since 1980 the number of U.S. banks has dropped 40 percent. In the European Union the number of banks has fallen by 25 percent since 1985. The barriers between markets have been lowered and universal or integrated banking is becoming a norm. This has also encouraged banks to expand their operations and offer their services internationally (Claessens S., Glaessner T., Klingebiel D 2002). In the United States, the Financial Reform Act of 1998 amended Glass - Steagall Act and allowed banks, brokerages and insurance firms to merge. Under the new law, numerous consolidations occurred. For example, Citibank, purchased Travelers insurance in 1999; J.P Morgan acquired Chase Manhattan Bank in 2001 and is named J.P Morgan Chase ever since, while in 2004 it acquired Bank One. In 2001 First Union bought the regional bank Wachovia and created the fourth-largest bank in the U.S. Furthermore, on April 1st of 2004 Bank of America completed its merger with FleetBoston Financial Corporation (Yahoo! - Money Center Banks Industry Profile). Another example is the join of Merrill Lynch with HSBC (Hellenic Banks Association 2000); two big players merged in order to serve customers worldwide, excluding the U.S., where Merrill Lynch is one of the most established banks. The purpose of this join was also to offer Internet banking services covering all the extent of banking and investments products worldwide.

▪ **Movement toward Integrated Financial Services:**

Integrated financial services lead to the so-called “financial supermarkets”. Since banks, brokerages, and insurance companies are permitted to own one another, customers can enjoy a wide range of financial services at a physical center or branch bank and under just one account: Banking (Checking, Savings, Lines of Credit, Loans, ATM Service, Mortgages, Safety Deposit Boxes, Lock Box), Brokerage (Financial Planning, Brokerage and Trading, Account Integration, Information and Advice, Loans and Margin, Funds Management), Insurance (Auto, Home, Life, Commercial Real Estate, Retirement Planning, Pension Management), Payment (Digital Wallets, Electronic Bill Payment, Credit Card Services, Account Aggregation).

It is true that within the last years mergers, acquisitions and strategic alliances were the major occurrences in the banking industry arena. I believe that the aforementioned trends will continue to shape the online financial services industry. In the U.S. the number of banks has considerably decreased as a result of the industry’s consolidation. Richard M. Kavacevich, Wells Fargo’s chairman and CEO (Wells Fargo Annual Report, 2003), believes that the “trend towards consolidation is driven by the deregulation in the industry, by technology as well as by the increasing awareness by consumers that they can save both money and time by consolidating their business with fewer or even better with one financial provider”. This point of view is fully acceptable and very realistic as well.

In addition to that, the integration of financial services and the formation of “financial supermarkets”, the increased competition among banks, the necessity of having the latest technology that will provide their website with great functionality and will enable them to offer their services fast and in the most secure way possible, will enforce the partnership of banks with other financial and non-financial institutions. For example, banking institutions seek to partner with technology and communications providers in order to achieve their goal of employing the most up-to-date technology.

Following these global trends, Greek banks have also created a number of acquisitions and strategic alliances with telecommunication, information technology as well as with media companies. Through these strategic movements, they are looking forward to adding new capabilities in their organizations. Some of the outcomes are: more up-to-date technology, more concrete research, more sophisticated, customized and value added products and services, personalized marketing, and of course cost savings and profit generation.

Other trends that were also mentioned in the interviews with the Greek banks (see Appendix 3) include: serving large corporations, such as telephone and mobile phone companies and Internet Services Providers; providing full Internet banking services for individual customers, so that they will not need to visit a branch and for corporations (salary payments, mass payments, corporate obligations transactions), as well as micropayments and finally employing websites that are tailored for different customer segments (i.e. teenagers, adults).

3.2. The Situation in the United States

3.2.1. U.S. Economy and Banking Sector Overview

U.S Economy Overview

The U.S. economy is the largest and most technologically powerful economy in the world; it is characterized by high GDP, moderate by steady GDP growth, low inflation and unemployment rates. More specifically:

Key financial indicators (CIA - The World Factbook: United States)

- GDP (purchasing power parity): \$10.45 trillion (2002 estimation)
- GDP/Capita (purchasing power parity): \$36,300 (2002 estimation)
- GDP real growth rate: 2.4 percent (2002 estimation)
- Inflation rate: 1.6 percent (2002 estimation)
- Unemployment rate: 5.8 percent (2002 estimation)

U.S. banking industry performance highlights for 2003

2003 was a record year for earnings for the U.S. banking sector. For the first time, insured commercial banks earned \$100 billion dollars - 14 percent higher than in 2002. The industry's return on assets was almost 1.40 percent, and its return on equity was 15.3 percent (FRB, 2004).

According to Anguelov C. E., Hilgert M.A., and Hogarth J. M., (2004) the factors that contributed to this favorable setting were “the low interest rates, the boom in mortgage banking and deposit-gathering and favorable trends in market-sensitive businesses throughout the year”. Furthermore, the stock valuations are improving and the ongoing consolidation in the industry plays a significant role to that. Along the lines of community bankers, “mergers and acquisitions among big institutions have historically created opportunities for community banks”. This statement seems to have a strong base, since community banks and in general small banks are less efficient than large banks and

can benefit a lot from consolidations and acquisitions. The potential for growth and profitability is greater when partnering with an institution, which complements the vision and mission of your organization.

Overall, the U.S. banking industry is vigorous, profitable and well-positioned to play its proper role in supporting growth and prosperity in the U.S. economy, while many of the factors that made 2003 such an outstanding year for the industry are more than likely to carry over into 2004 as well. Of course, new challenges and perhaps some new opportunities will arise further on. Taking into consideration that adapting to change is an important aspect of the banking business, the U.S. banking industry's 2003 incredible performance was indisputably due to its sound response to the changing circumstances.

3.2.2. Internet Banking Growth Trends in the U.S.

The pioneers of online banking in the United States were first Net Bank in 1996, with WingSpan following in 1997. Traditional banks had developed earlier versions of telephone banking, but they started using Internet banking in 1998 (Laudon C.K., Traver G.C., 2003, pg. 639).

On May of 1995 there were 300,000 online banking households and in May of 2002, 28 million. The monthly bank and credit card Web traffic was 100,000 on May of 1995 and 50 million on May of 2002. Zero monthly credit card applications were submitted via the Web on May 1995 and 1.5 million on May of 2002 (Appendix 1: Table1). According to a Delphi study of the drivers and inhibitors of Internet banking, it is estimated that by 2011 eight out of ten banks will offer Internet banking services (Bradley L., Stewart K., 2002).

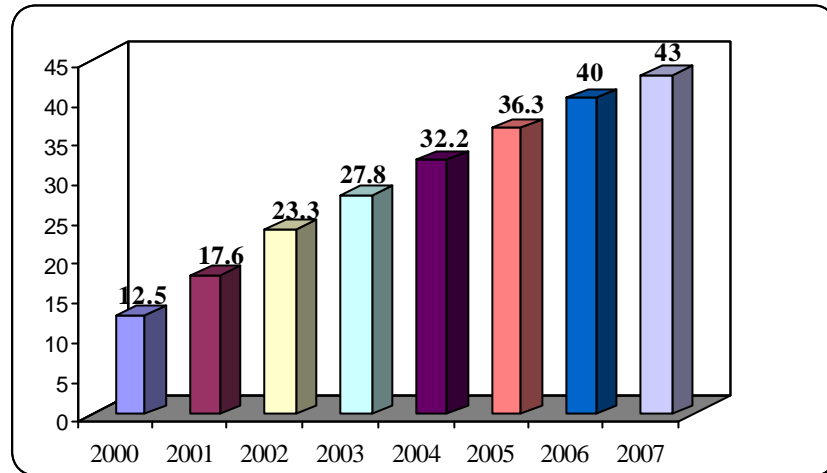
Indisputably, the Internet has revolutionized the way people manage their money and the growth of Internet banking in the United States has been enormous. According to

Nielsen Ratings, from fall of 2001 to fall of 2003 there was a 79 percent increase in the number of people conducting banking transactions over the Internet. This translates into approximately 13 million people in 2001 versus 23.2 million people in 2003. The projections are that online banking transactions will continue to increase in the future, following the continuous increase of Internet usage. Furthermore, a report from Gartner group indicated that 17 percent of Americans used online banking services since 2002. Gartner group also predicts that by the end of 2007, 30 percent of Americans (or 67 million people) will be conducting their banking transactions over the Internet (Nua Internet Surveys) and it is probable that by the end of the decade more than 50 million households will be conducting their banking transactions over the Internet (Online Banking Report, 2002).

Along with the Online Banking Report, the Pew Internet & American Life project in November 2002 also estimated that more than 50 million U.S. households will bank online by 2010. Pew's Online Banking Report also found that 37 million Americans have done some of their banking online; this reflects a 164 percent increase since early 2000 (Ecommerce News Study: E-Banking Blooming, but Needs New Apps).

To the same extent, and according to eMarketer (2003A), the number of U.S. households who bank online is showing a steady growth from 2000 to 2007. As shown in Graph 1, 27.8 million households (or 26.1 percent of total households and 39.5 percent of online households) banked online in 2003. In 2007, 43 millions will bank online (or 38.7 percent of total households and 50.6 percent of online households).

Graph1. U.S. Households Banking Online, 2000-2007 (in millions)



Source: eMarketer (2003A)

Although the numbers regarding the use and growth of Internet banking in the United States are very optimistic, some analysts say that so far the growth was slower than initially anticipated. Moreover, there are implications that consumers use the traditional way of banking, especially for some specific products, such as mortgage and payments with checks. In fact, less than 1 percent of mortgages originated online in 2001 (this is rising to 2.1 percent in 2003 and 6.7 percent in 2007) (eMarketer 2003A), while the majority of the U.S. households (41 percent in 2002) prefers sending the checks via the U.S. mail (Greenspan R., 2002). Overall, the Internet banking growth and profitability is directly connected with the adoption of not just a few, but many products and services and figures should be carefully examined.

3.2.3. U.S. Internet Banking User Profile

Internet Use in the U.S

According to a nationwide survey from the U.S Department of Commerce, in 2001 66 percent reported having access to a computer from somewhere (home, workplace, school, community center, library or elsewhere); in 1997 54 percent reported so. The percent of those who had Internet access, more than doubled from 1997 to 2001; in 2001 54 percent reported having Internet access, as opposed to only 22 percent in 1997. Moreover, only 4 percent used computer banking in 1995, while this rose to 34 percent in 2003. The same study suggests that the high adoption rates have been exaggerated from the access to high-speed Internet. In 2002, 75 percent of the Internet connections were through a standard phone line (88 percent in 2000), 17 percent through broadband cable modem (8 percent in 2000), while 5 percent connected through high-speed DSL (1 percent in 2000) (Anguelov C. E., Hilgert M.A. and Hogarth J. M., 2004).

Internet Banking Usage Patterns in the U.S

The demographic information concerning the Internet banking usage from the U.S. households involves the variables of sex, age, ethnicity, educational level/background, income and years of interaction with the Internet. Research findings from 2002 indicate that the usage rates among men and women are about the same (33 versus 30 percent respectively). The usage is greater among the age group 30-49 (36 percent); those who belong in the age group 18-29 follow with 33 percent, and last is the age group 50-64 with 27 percent. Meanwhile, 70 percent of U.S. generations X (those born somewhere between 1964 and 1979) and Y (those born somewhere between 1975 and 1983) consumers do their own research before making financial decisions, compared to 62 percent of baby boomers (those born somewhere between 1946 and 1964) and 53 percent of seniors (eMarketer 2003A). As regards to the ethnicity, the Internet banking activity is greater among the Hispanics (33 percent); the Caucasians follow with 32 percent and last the African-Americans with 30 percent. When considering the income

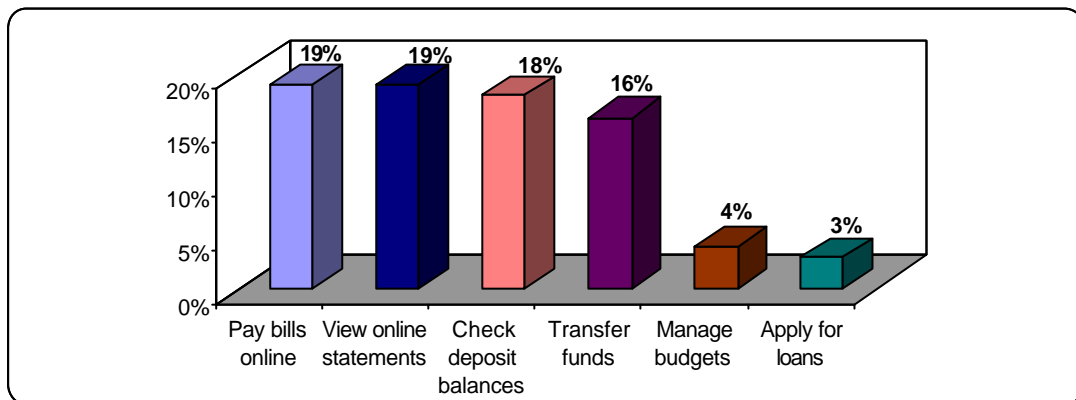
variable, research found that 44 percent of those households who bank online earn \$75,000+ annually, while 21 percent earns \$30,000. Regarding the educational level, 41 percent are college graduates, while 23 percent hold a high school diploma. Finally, regarding the years of Internet usage, 39 percent of those banking online use the Internet for 4 years or more (experienced users), 20 percent use the Internet for 2 to 3 years (less experienced users), while 6 percent have an experience of less than one year (new users) (Greenspan R., 2002).

As it was mentioned in the previous section, Internet banking usage has become widespread among the U.S. households in the last years. At the same time, research has concluded that the proportion of households using traditional means of banking has decreased. Additionally, while the average number of Internet banking technologies used per household has increased over the last years, the average number of non-electronic means of banking has remained steady. Surveys have also found that the perceptions of electronic banking users have significantly changed from 1999 to 2003. In the 2003 Surveys of Consumers, the respondents were leaning more towards the positive statements, saying that their familiarity with these technologies was greater now than in the past; the majority also regarded their money to be safer when using Internet banking than when using other banking services (Anguelov C. E., Hilgert M.A. and Hogarth J. M., 2004). Also having a high-speed Internet connection, made them feel more confident about the security of their transactions.

Laudon C.K and Traver G.C., (2003, pg.627) mention that there were 37 million users of online banking services in 2002; however, only 4 percent of them said would use a pure Net-only bank as their primary bank. The remaining 96 percent use the Internet channel that is provided by their physical bank. This is indicative of the consumer's tendency to be associated with the bank that he/she interacts with, for both the traditional and the online services. Consumers seem to be skeptical and cautious to switch and they prefer the Internet banking services of the already established banks. Besides, that is the reason for which the majority of the Internet banking transactions occurs at brick-and-mortar banks.

The 2003 Surveys of Consumers (Anguelov C. E., Hilgert M.A. and Hogarth J. M., 2004), found that 95 percent of those who use computer banking use it to monitor their accounts; 64 percent use it in order to transfer funds between accounts and 5 percent use it in order to pay bills. As shown in Graph2, (from eMarketer's Interactive Banking report in the U.S.) the major activities conducted by U.S. online banking consumers are paying bills (19 percent), view online statement and checks (19 percent), check deposit balances (18 percent) and transfer funds (16 percent). Manage budgets and apply for loans ranked last (4 and 3 percent respectively).

Graph2. Major Activities Conducted by US Online Banking Consumers (2003)



Sample = 847 Source: eMarketer (2003B)

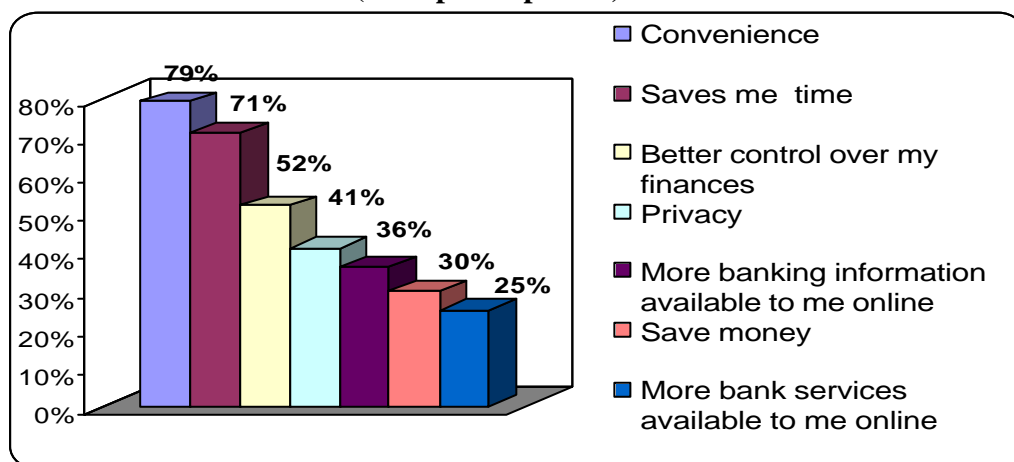
Regarding the online bill payments from the U.S. households, eMarketer (2003A) provides some interesting statistics:

- U.S. online bill payment households numbered 8 million in 2000, growing to 23 million in 2003 and a forecasted 44 million in 2006. In terms of online households, that translates to 17.4 percent in 2000, 32.7 percent in 2003 and 53 percent in 2006.
- Methods of bill payment by U.S. consumers include paper checks (70 percent of total payments), direct debit (24 percent) and online payments (6 percent) (Celent Communications).
- Among U.S. consumers who pay bills online, 57 percent access accounts, 53 percent transfer funds among accounts, 34 percent research financial information and 25 percent access bank contact information (InsightExpress).

- Leading reasons why U.S. consumers enroll to pay bills online, include wanting to spend less time paying bills (55 percent of respondents), wanting to get better organized (46 percent) and wanting better control of money (40 percent) (CheckFree).

When it comes to reasons that U.S. adults consider as very important factors in their decision to bank online (see Graph3), 79 percent mentioned convenience, 71 percent saving time, 52 percent having better control over their accounts, 41 percent being able to do their banking in private, without having to talk to anybody, 36 percent that there is more banking information available online, 30 percent that banking online saves them more money, and 25 percent that there are more banking services available to them online. Consequently, convenience, time savings, along with better control, privacy and content are the major considerations.

Graph3. Reasons Adults in the US Cite as "Very Important" Factors in their Decision to Bank Online (multiple responses)



Sample = 2,092 adults ages 18+

Source: Pew Internet and American Life Project, November 2002 (eMarketer 2003B)

Finally, the most important sources of online banking information for U.S. consumers include the Web (for 28 percent of respondents), bank branches (15 percent), bank statements (14 percent) and friends/colleagues (12 percent) (eMarketer 2003A).

3.3. The Situation in Greece

3.3.1 Greek Economy and Banking Sector Overview

Greek Economy Overview

Greece joined the Euro zone in January of 2001. Growth in Greece is stronger than in the EU zone; this growth was accelerated from the 2004 Olympics. The upcoming Olympic Games boosted investments and infrastructure works were financed through EU funds. In addition to that, the Third Community Support Framework created favorable conditions for developments in 2003. More specifically, for the years 2002 to 2004 (Alpha Bank Investor Presentation, 2004):

Key Financial Indicators

- 2002 GDP growth 3,8 percent vs. EU 1,1 percent
- 2003 GDP growth 4,7 percent vs. EU 0.5 percent
- 2004 GDP growth (forecast) 4,2 percent vs. 2,0 percent for EU
- 2005 GDP growth (forecast) 3,7 percent vs. 2,4 percent for EU
- 2006 GDP growth (forecast) 3,6 percent vs. 2,8 percent for EU

According to the CIA World Fact Book (CIA - The World Fact Book: Greece):

- GDP (purchasing power parity) - \$203.3 billion (2002 estimation)
- GDP/Capita (purchasing power parity) - \$19,100 (2002 estimation)
- GDP real growth - 4 percent (2002 estimation)
- Inflation rate: 3.6 percent (2002 estimation)
- Unemployment rate: 10.3 (2002 estimation)

The Banking Sector in Greece

The Greek banking sector is still less developed when compared to that of other European countries. Nevertheless, the positive prospect of the Greek economy and the anticipated profits from the stable euro zone environment makes the picture very optimistic for the years to come.

The Greek banking sector operates in a deregulated environment, despite the fact that the Central Bank of Greece partly controls the market. In order to provide financial services, Greek banks have created subsidiaries; subsequently the market is occupied by groups of companies each established around a central bank. It is rather interesting to mention that the Greek banking market is dominated by a small number of banks; the top five banks (National Bank of Greece, Alpha Bank, EFG Eurobank, Emporiki Bank and Piraeus Bank), constitute approximately 80 percent of the market (Piraeus Bank Group Presentation, 2004).

In general, the Greek banking sector consists of 56 banks, 21 of which are foreign and 35 are Greek (commercial, investment, cooperative and specialized credit institutions). Of the fourteen commercial banks, nine are privately owned and the rest are controlled - directly or indirectly - from the Greek state (Lymberopoulos K., Chaniotakis I. E., 2003).

In the table below, the Greek banking industry's performance highlights for the year 2002 are compared with those of the European Monetary Union (EMU). Just to mention some of the figures, the assets per branch for the Greek banks comprise 63 percent of the EU average; the loans per branch comprise the 65 percent of the EU average, while the deposits per branch comprise 88 percent of the EU average. Interestingly enough, there are 28 branches per 100,000 inhabitants for Greece, while for the EU there are 56 branches per 100,000 inhabitants (Piraeus Bank Group Presentation, 2004).

Table1: Greek Banking Industry Performance Highlights for 2002 vs. EMU (European Monetary Union) average

	Greece 2002	EMU 2002	% of EU Average
Assets/Branch	78,104,600	124,711,656	63%
Loans/Branch	36,559,600	56,244,840	65%
Deposits/Branch	57,925,600	65,974,960	88%
Total Credit/GDP (%)	79,529,000	137,645,600	58%
Loans to Corporations/GDP (%)	52,821,500	82,468,696	64%
Loans to Households/GDP (%)	26,698,500	55,176,900	48%
Assets/GDP (%)	169,683,792	304,956,192	56%
Branches/100,000 inhabitants	28.0	56.0	50%

Source: ECB - Structural analysis of the EU banking sector in 2002, European Banking Federation, Bank Piraeus Bank Group Presentation (2004)

Overall, the changing economic landscape in Greece and in particular the move towards the European Monetary Union (EMU), is anticipated to add more pressure on the banking industry over the next few years in order to improve its efficiency even more (Lymberopoulos K., Chaniotakis I. E., 2003). That is why Internet banking has lured the Greek banker's attention; it is viewed as a means of improving the industry's efficiency as well as a portal for its future viability.

3.3.2. Internet Banking Growth Trends in Greece

It is believed that the U.S. is three to five years ahead of Europe to the degree that Internet banking is concerned. When it comes to Greece, as soon as Greek banks realized the upcoming developments, they started transforming their services in order to become more up-to-date, more competitive, but also cut down the costs of operating too many physical branches. The investments in technology have significantly increased in the last few years and most of the banks update their websites and they add new services that can attract customers from many different backgrounds.

From the early 1990s, Greek banks realized the necessity for alternative channels in order to better serve their customers. For instance, Alpha Bank, named Pisteos Banks at that time, introduced the Alpha Phone and Alpha Line services and EFG Eurobank the EuroPhone Banking (HBA, 2000). Internet banking was introduced in Greece in 1997 and since then many banks followed the international Internet banking practices and technologies. The pioneer was Piraeus Bank, with the introduction of winbank; the first integrated Internet banking service in Greece (Pouloudi, N. 2002). Egnatia Bank, also in 1997 introduced the Web Teller service. Alpha Bank introduced Alpha Web banking in 1998 (HBA, 2000), while EFG Eurobank-Ergasias and Novabank followed (Pouloudi, N. 2002).

The banks which offer Internet banking services in Greece are the following (HBA: Internet Banking):

1. National Bank of Greece: <http://www.ethniki.gr/>
2. Alpha Bank: <http://www.alpha.gr/>
3. Commercial Bank of Greece: <http://www.emporiki.gr/>
4. EFG Eurobank-Ergasias: <http://www.eurobank.gr/>
5. Piraeus Bank: <http://www.winbank.gr/>
6. Citibank: <http://www.citibank.gr/greece/>
7. Egnatia Bank: <http://www.egnatiabank.gr/>

8. Laiki Bank <http://www.laiki.gr/>
9. Novabank: <http://www.novabank.gr/>
10. Aspis Bank : <http://www.aspisbank.gr/>
11. Bank of Cyprus: <http://www.bankofcyprus.gr>

In the European front, analysts suggest that the Internet banking usage rates vary significantly among the EU countries. There are very obvious differences among the more and less developed and prosperous countries. According to Jupiter Communications, a London-based Internet consultant, Sweden will lead the change, as more than 54 percent were expected to bank online during 2002 and this number is expected to surpass 63 percent in 2007 - followed by Finland and Norway. Internet users in Greece were the least likely to bank online, accounting for just over 13 percent in 2002, and 30 percent in 2007. Regarding the European adoption of Internet banking, Jupiter Research had predicted that 39 percent (approximately 54.1 million) would bank online by the end of 2002 and 51 percent (approximately 103 million) by the end of 2007 (Greenspan R., 2002). At the same time, the business information company Datamonitor projects that there will be 84 million Internet banking customers on the continent by 2007. Jupiter Communications, estimates that 42 percent of Germany's Internet users already have an online bank account, compared with just 7 percent in Britain and 5 percent in France (IHT: Online banking, 2003).

Despite the not very optimistic numbers for Greece when compared to other European countries and the United States, in the Hellenic Banks Association report (2000) "e-banking: New Horizons for Corporate Banking" it is mentioned that "Internet banking will be a one-way destination for Greek banks". Taking into consideration the worldwide trend towards e-commerce, the competition from abroad, the European Monetary Union (EMU) and the Euro, the reduction of interest rates, the involvement of non-banking organizations in the financial services market, along with the fact that banks have developed into financial supermarkets, offering a wide variety of products and

services and globalization as a general rule, the belief of the Hellenic Banks Association is positively likely to become a reality in the near future.

In general, Internet usage in Greece is increasing and consumers, as well as corporations, are expected to make more use of Internet banking services in the near future. Obviously, the worldwide adoption of technology in banking transactions could not leave the Greek banking sector unaffected. However, there is no clear statistical inference for the levels of Internet banking usage from consumers, at least not yet, due to the fact that this is a relatively new development for Greece and there are continuously new players in this field. Research has been focused on the corporate use of Internet banking. Nevertheless, from research that has been done so far regarding the use of Internet by consumers and according to estimations, Internet banking users were expected to increase at least by 200 percent by 2003 (Pouloudi, N. 2002). The forecasts given by EFG-Eurobank's management suggested that by 2003 there would be around 2.5 million users in Greece who would be able to bank through the Internet. In addition to that, by 2005, 70 percent of the population will be able to make transactions using mobile banking while 8 to 9 percent of the population will be able to use digital television offering equivalent services (HBA, 2000). Obviously, a huge increase is anticipated in this market in the near-term.

The growth might come on a slower pace in relation with other European countries and the United States. The market comprised by Internet users is still small in Greece, covering only 8 percent of households, but the fact that there is an increasing trend for the use of Internet, suggests that there is a positive and promising ground for Internet banking in Greece. Greek Bankers are optimistic that the growth will be accelerated in the next five years since the new generation of future banking customers is less technology-phobic and more open-minded when it comes to transactions via the Internet and new technologies as a general rule. In addition to that, Greek banks have made tremendous efforts; not only are they improving their services, but they are adding more as well and the Internet channel might become a common practice.

The conclusion drawn from the interviews conducted with Alpha Bank, Egnatia Bank and winbank (see Appendix 3) was that Internet banking will take the lead in the years to come. According to Mr. Vihos of Alpha Bank's alternative channels division, "the role of branches is increasingly changing as banks move from a view of the Internet as a means for improving efficiency, to one of seeing it as a strategic device for transforming the business". He also stated that more and more of the transaction processing load is taken over by technology (telephone, Internet, mobile /cellular etc.), and so banks are concentrating on strengthening their marketing approach and re-inventing their business model. He regards that traditional bank branches, with an infrastructure supporting transaction processing, are being transformed into an open-space interface within which bank experts engage intimately with their customers, delivering specialized, advisory services. And he concluded that the move from 'tellers-to-sellers' has been greatly leveraged by the advent of Internet banking. To the same extent, Mr. Aggelis of Egnatia Bank's electronic banking department considers the future of Internet banking to be very bright. He mentions that according to domestic and international research, Internet usage will be continuously increasing and banking institutions will be encouraging their customers to use their Internet banking services. He then concludes that those banks which have the appropriate infrastructure will have the competitive advantage for the years to come.

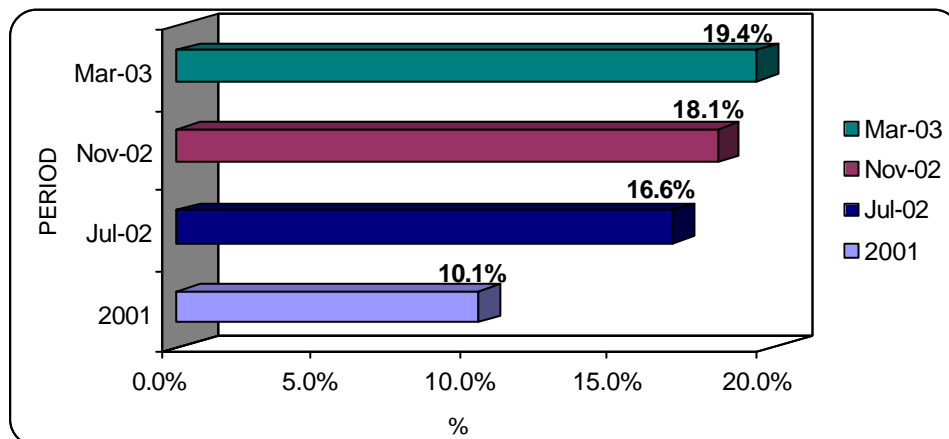
3.3.3. Greek Internet Banking User Profile

Internet banking is correlated with the attitude of the public towards the Internet and its usage patterns. Due to the low penetration and use of Internet, and the lack of extensive statistical inference for the consumer usage of Internet banking in Greece, it is interesting to present information from studies that were conducted in order to profile the Greek Internet users.

Internet Usage in Greece

The research agency Metron Analysis published a study on December of 2000 according to which only 10.4 percent (or 800.000 people) of those aged 18 and above use the Internet. As of November 2002, Metron Analysis research projected that in the 18+ population, the growth rate of Internet penetration will be 20 percent for the next 6 month period. From Graph 4 below, in 2002 the Internet penetration was 10.1 percent, while in March of 2003 it was 19.4 percent.

Graph4. Internet Penetration

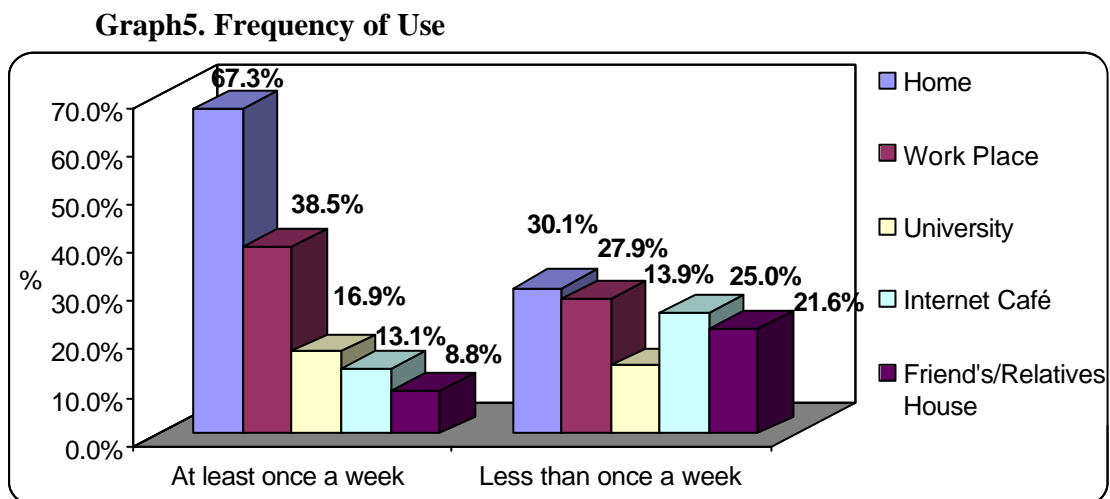


Sample: 2.200 people 18+ Source: Metron Analysis: Internet Section (March, 2003) http://www.metronanalysis.gr/Internetsection/is_files/frame.htm

In the 2000 study, Metron Analysis projected that about one million people would use the Internet in 2001, two million in 2002 and three million in 2003. The same study

had found that those who use the Internet mostly belong to the 18-24 age group (45.5 percent), the majority of them are males (62.1 percent vs. 37.9 percent of women), they have higher education level (25.5 percent holds a university degree), they are mostly urban citizens (12.4 percent of those living in the big cities and 11.9 percent of those living in the smaller cities), they have moderate to high income in relation to the non-users, and in general they use a wider range of electronic products when compared to the non-users.

Additionally, in the Internet Section study, which was conducted on November of 2002, Metron Analysis found 58.0 percent connects to the Internet from home, 36.4 percent from their work place, and 15.9 percent from the university, 15.7 percent from Internet cafes and 11.7 percent from a friend's/relative's house. For the frequency of use, as shown in Graph5, 67.3 percent connects from home at least once a week and 38.5 percent connects from home at least once a week. Again, those who use the Internet less than once a week, still connect mainly from home or their workplace (30.1 and 27.9 percent respectively).



Source: Metron Analysis Internet Section study (March, 2003)
<http://www.metronanalysis.gr/Internetsection/>

As for the online activities, the table below shows the preferences of the Greek Internet banking user (Metron Analysis Internet Section Study March, 2003); these are also split among the age groups 18-24, 25-34 and 35+. Overall, 58.6 percent goes online

in order to send and/or receive email, 57.9 percent to surf the Internet, 56.7 percent to retrieve business information, 49.5 percent to read the news, 32.1 percent to retrieve general information (about hobbies and other interests), 26.7 percent for entertainment, 23.9 percent for travel search, 23.3 percent to chat, 16.5 percent to retrieve medical information, 11.5 to purchase products and services, 7.9 percent to retrieve stock market and information. In bold are featured the largest percentages for each online activity by age group.

Table 2: Online Activities of the Greek Internet User

Online Activities of the Greek Internet User	TOTAL	AGE		
		18-24	25-34	35+
Send/Receive email	58.6%	57.9%	64.0%	53.5%
Surf the Internet	57.9%	71.1%	62.5%	37.4%
Retrieve Business Info	56.7%	52.2%	58.8%	59.9%
Read the News	49.5%	43.3%	52.6%	53.6%
Retrieve General Info (for hobbies)	32.1%	48.8%	26.0%	18.7%
Entertainment	26.7%	46.8%	19.5%	10.3%
Travel Search	23.9%	19.2%	24.9%	28.6%
Chat	23.3%	39.2%	19.2%	8.6%
Retrieve Medical Info	16.5%	11.9%	19.5%	18.8%
Purchase Products & Services	11.5%	7.3%	16.8%	10.9%
Retrieve Stock Market Info	7.9%	7.0%	9.2%	7.7%

Source: Metron Analysis Internet Section Study (March, 2003)

<http://www.metronanalysis.gr/Internetsection/>

Only 11.5 go online in order to purchase products and services; this is indicative of the fact that Greek consumers are not confident about giving their personal information via the Internet. Research findings from a Greek research agency had also found in 2002 that when it comes to purchasing products and services on line, Greeks rank last when compared to the rest of the European Union countries. Only 6 percent mentioned purchasing products and services over the Internet occasionally (vs. the EU mean of 23 percent) (Gosub.gr).

According to another study that was conducted from the research agency VPRC in 2002, there was a significant increase in the number of Internet users compared to 2001. More specifically, in 2002 19.3 percent made use of the Internet compared to 10

percent in 2001. Also in 2002, 67 percent of those who used the PC used the Internet as well (vs. 50 percent in 2001). However, the numbers are very low in relation to the corresponding numbers in the EU. In November of 2002, only 14 percent had access to the Internet (vs. the EU mean of 43 percent). Among the reasons for not using the Internet were: no need for it, lack of awareness, and no incentives.

Regarding the type of Internet connection, Greek households connect almost exclusively (78.4 percent) through dial up connection, 19.4 percent through ISDN, and 0.7 percent through ADSL. An interesting finding of the above mentioned study was that 53 percent of those who have an Internet connection are interested in having a high-speed connection. This is probably related to the fact that the rates that telecommunications companies charge for high-speed Internet are falling and it becomes more affordable.

Internet Banking Usage in Greece

In international level and according to research performed by Jupiter in 2002, more than one third of Europeans Internet users (or 39 percent) executed their banking transactions online, while 5 percent of them performed their Stock Exchange transactions online; the corresponding percentages for Greece were 13 percent and 1.3 percent respectively (winbank Press Release, 2003).

The adoption rate of Internet banking in Greece by both the individual customers and businesses is low in relation to the U.S. and Europe. In the report “New developments of e-business in Greece (2002)” from the Athens University of Economics and Business, it is mentioned that the main reasons for this slow respond and adoption of Internet banking in Greece are the lack of e-culture, and the mistrust towards the electronic transactions safety.

The culture and the purchasing behavior of the Greek consumer seem to differ from that of the American consumer. Greek consumers usually obtain products and services from the local market, are open with developing relationships with their suppliers and are not very familiar or do not prefer purchasing products/services from distance (i.e. from online catalogs).

The reduced trust towards the safety of electronic transactions is a worldwide phenomenon; is one of the main reasons that alienate most people from banking online. The Greek consumers seem to embrace this philosophy. The many incidents of identity theft have made them reluctant to want to share personal information via the Internet. However, there were incidents of identity theft and Personal Identification Numbers (PINs) theft with ATMs as well, but their use is very wide spread in Greece.

Nevertheless, the younger consumers have developed a different culture from that of the older generations; they are more Internet-savvy and more willing to perform transactions though the web. Also, the increasing use of the Internet along with the improved and enhanced electronic services offered by banks today, are estimated to change the negative attitude of the Greek user towards transacting via the Internet, and Internet banking is expected to become a common practice in the near future. It seems to be just a matter of time.

Key persons such as, vice presidents and managers from the electronic banking department of nine of the eleven banks that offer Internet banking services in Greece (National Bank of Greece, Alpha Bank, EFG Eurobank, Emporiki Bank, winbank of Piraeus Bank, Laiki Bank, Aspis Bank and Novabank) were interviewed by the PC magazine (a Greek technology magazine). Regarding the profile of the Greek Internet banking user they said that the age of users ranges between 25 to 45, they have medium to high income and higher education as well (university or college graduates), while they are mostly urban citizens and in many occurrences entrepreneurs (PC Magazine Issue 37: Extra 2004).

3.4. Comparison between the U.S. and the Greek Internet Banking User

For the U.S., extensive research has been conducted regarding the Internet use in general and the Internet banking use more specifically. For Greece, there is research that has been done on the corporate usage of Internet banking there, but there is no clear statistical inference for the Internet banking usage on the consumer's side, at least not yet. The majority of the research findings and statistics previously presented have to do with the general use of the Internet. Taking into consideration the statements of the Greek bankers to the PC magazine, the conclusions that can be drawn from the aforementioned analysis can be briefly outlined below:

The most important variables that formulate the adoption and use of Internet banking for both the U.S. and Greek user are the educational background and the income level. For the U.S., the majority of Internet banking users belongs to the age groups 18-29 and 30-49, are almost equally male and female, have high income level and hold a college or university degree. For Greece, Internet banking users share the same demographic characteristics with the U.S. user, and the use is concentrated mainly in the age group 20-45; also the Greek users are mostly urban citizens and connect to the Internet from home or their workplace. The number of years of interaction with the Internet is also important because it affects the familiarity of the user with the Internet technology.

The U.S. consumers are closer to technology and more familiar with e-commerce applications, perform more transactions online and are less reluctant to bank online. The Greek consumers are more traditional, less technology and Internet savvy, only a small percentage of the Internet population purchases products and services online and are more distrustful for the electronic services security.

Finally, the perception of both the U.S. and the Greek consumers about Internet banking is less negative than it was in the past. Also, the new generations are expected to bank online in a more intense manner.

VI. DESCRIPTION AND ANALYSIS OF U.S. AND GREEK BANKS

4.1. Cases of U.S. Banks

4.1.1. Wells Fargo

A. Corporate Profile

Wells Fargo (NYSE: WFC) is a diversified financial services company. It provides banking, insurance, investments, mortgage and consumer finance from 5,900 plus stores, the Internet and other distribution channels (6,192 ATMs, telephone banking, direct mail etc.) across North America and internationally as well. Its main headquarter is located in San Francisco, but as it is a decentralized firm, with every local Wells Fargo store being a headquarters itself. Thus the company sticks well to its vision, which is to satisfy all of their customers' financial needs and help them succeed financially. Wells Fargo has \$388 billion in assets, 144,000 team members and is one of the United States' top-40 largest employers. It ranked fifth in assets and third in market value of its stock at December 31, 2003, among its peers (Wells Fargo Today, 2003). It has also successfully acquired many companies which strengthened its position, added value to its customers and its shareholders. Since the Norwest-Wells Fargo merger in 1998, Wells Fargo acquired 22 banks, (\$43 billion in assets), 12 consumer finance banks companies, (\$14 billion), 10 specialized lending companies (\$5.5 billion), four broker dealers, several servicing and loan portfolios, three trust companies, three asset management firms and three commercial real estate firms (Wells Fargo Annual Report, 2003).

Wells Fargo's Internet channels sales showed considerable increase from 2002 to 2003, on both the consumer and small business online products. More specifically, Consumer online product sales went up 45 percent, Small Business online product sales went up 106 percent, while the wholesale revenue through channel went up 56 percent from November 2002 to November 2003. Also there was a 234 percent increase in e-

Payments (volume \$, including additional volume from PayPal), Student Loans increased 215 percent, Mortgage increased 106 percent, Personal Lines/Loans increased 106 percent, Cash Management and Treasury increased 68 percent, Checking increased 63 percent and Savings 50 percent (Wells Fargo Investors' Presentation, 2004b).

In general, the online activity has improved significantly compared to a few years ago. For example, 43 percent of Wells Fargo's checking accounts are now online (only 6.4 percent in 1998). The road to success was not effortless; it took four years to attain one million customers online. In the last four years Wells Fargo attracted four million new customers, hence surpassing the five million customers in February of 2004. At the end of 2003, Wells Fargo had 1.5 million bill payment and presentment customers, whereas during 2003 there were enrolled almost 700,000 deposit accounts for online statements. Also the sales of products and services through the Internet channel increased 100 percent in 2003. The total business sales increased 13 percent. Regarding the revenue from the Internet channel in 2003 from both the commercial and corporate customers, there was a 53 percent increase. Finally, \$12 billion were processed through Internet payments for 600,000 online merchants in 2003, twofold the amount from the previous year (Wells Fargo Annual Report, 2003).

Wells Fargo is considered to be an industry leader and has received many distinctions and awards. It has been rated as number one Internet bank by Gomez, number one Small Business Web Service and number one Consumer Website by Speer & Associates, number one Wholesale Bank by Global Finance, number two e-commerce innovator by Institutional Investor and has received the "Gold" Medal for Online Bill Pay by Corporate Insight. Also, it came first in the industry's rankings by Forrester Research for the cross-channel customer experience; Business Week "Web Smart 50" featured Wells Fargo as a leader in Customization (November 2003) and according to Javelin Strategy & Research (2003), it has the largest number of e-bills (277) available in one place (Wells Fargo Today, 2003).

Corporate Strategy for Growth

The factors which lead to this phenomenal growth were related to the fact Wells Fargo does not consider the Internet channel as a separate segment of its business, but as an integrated part of its “when, where and how” customer choice strategy. The shift of its customers from one channel to another (ATM, telephone banking, Internet, direct mail) is efficient, rather convenient, and seamless. This strategy prevents from disappointing and frustrating or even losing a customer; it is an effective strategy in order to retain and increase the customer base, encourage customers to use several products and services and remain loyal.

Regarding the customer service, Wells Fargo believes that increased sales do not always result in quality service, but quality service will always produce increased sales. Their vision remains the same: “We want to satisfy all of our customers’ financial needs, help them succeed financially, be the premier provider of financial services in every one of our markets, and be known as one of America’s great companies” (Wells Fargo Investor Presentation 2004b). Wells Fargo employs a customer-centric rather than a product-centric business model and its management considers that “sticky” products improve retention and increase customer loyalty.

Wells Fargo’s overall performance is a result of a successful business model. The key corporate objective is the double digit growth on revenues. The company has a strong balance sheet, a dynamic management team, which is viewed as its major competitive advantage, solid risk management, and good earnings diversification by product and geography, strong retail and middle-market banking franchise and high focused sales culture. Moreover, it partners successfully with firms, which are carefully selected and should satisfy several criteria; for instance they should complement its vision, fit with the company’s culture, and meet its earning goals.

Richard M. Kavacevich, Wells Fargo’s chairman and CEO, regards that the long-term winners, implying those who keep a consistent good performance throughout the years no matter the economic conditions, will be the diversified financial services

companies and not those which are narrowly-based; those who will be able to prove to their customers that they can save them time and money by bringing more or all of their financial services business to them (Wells Fargo Annual Report, 2003). He also believes in the fully integration of the traditional distribution channels with the electronic channels. More specifically, he says that Wells Fargo has achieved a “distribution channel community”. The importance of this strategy is that it offers the customers incredible opportunities to be served and access their accounts 24x7.

Products and Services Overview

Wells Fargo offers a wide range of products and services for individual consumers, small business and large corporations: **Banking** (Online Access, Bill Pay, Checking and Savings, Downloads to Quicken and Microsoft Money), **Loans and Credits** (Auto Finance, Credit Cards, Home Equity Loans, Home Mortgage, Personal Loans and Credit Lines, Students, Loans, Wells Fargo Financial, Military banking), **Insurance** (Life and Health insurance, Annuities, Property insurance, Small Business group health insurance, Property and Casualty insurance, Agribusiness insurance), **Investing** (Brokerage through WellsTrade and Well Share Builder, Retirement, Education through WellsTrade Education and Wells Share Builder Education, and Wells Management with Portfolio Management, Trust and Estate Planning), and **Planning Centers** (Credit, Home, Insurance, Investing, Retirement, Hands on Banking).

Web bill pay is offered for free for two months. Regularly Wells Fargo charges \$6.95 per month, but there is a list of waiver qualifications that if customers satisfy will not need to pay for the service.

Unique Products

Hands on Banking is available at: <http://www.handsonbanking.org/> (Figure 1) and is also available in the Spanish language. Wells Fargo introduced this program in order to teach families how to manage money while simultaneously having fun (age groups from 4th and 5th grade, 6th to 8th grade, teens and finally adults).

Figure 1: Wells Fargo's Hands on Banking Program



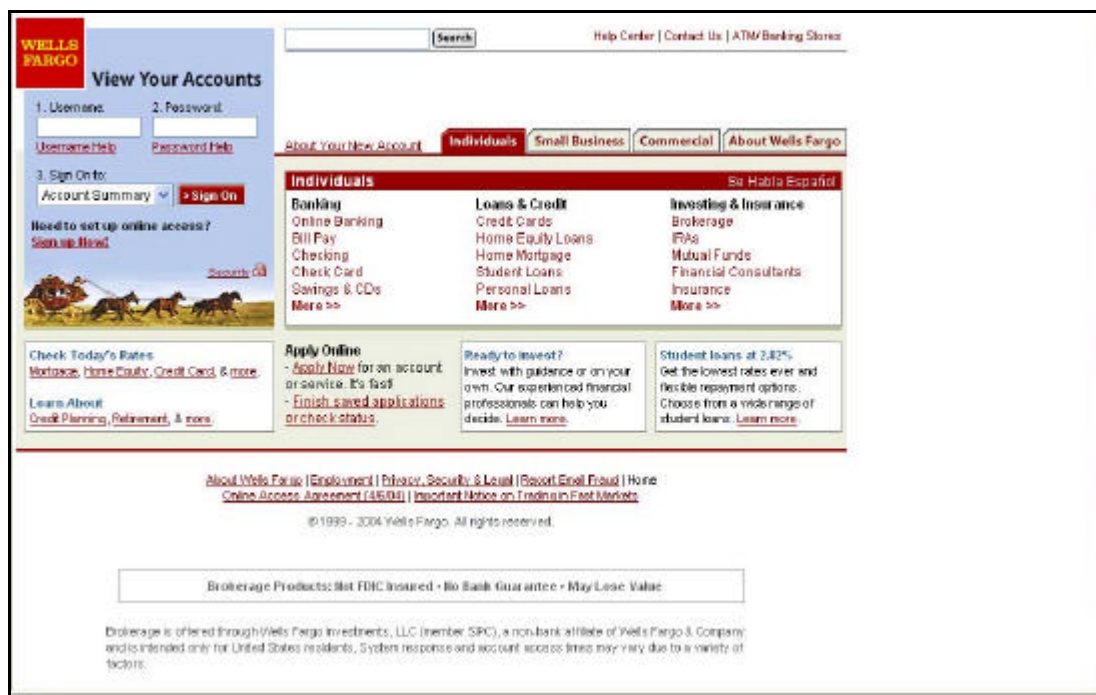
Furthermore, the OneLook service brings together online and offline accounts on one secure page; thus customers can easily track and manage account balances, recent transactions, payment due dates, and more. Customers can also get a snapshot summary of all their accounts, account detail pages for each account, as well as direct login access to the institution that holds their accounts.

To make it easier for visually-impaired customers to bank online Wells Fargo has spoken content on wells Fargo.com. According to a customer's report, on-line banking that used to take her two hours now takes 15 minutes.

B. Analysis of “Wells Fargo Online” Website

Wells Fargo’s website is an example of great navigation structure where the information regarding the online services offered is plenty and very easy to obtain. Its customers have the option to sign on to specific services (account summary, transfers, bill pay, brokerage, trade, site map) from the homepage and also register if they are new users. As shown in Figure 2, the webpage has a horizontal menu: **Individual** customers, **Small Business**, **Commercial** and **About Wells Fargo**. Also the “**About your New Account**” link, directs customers to a webpage where they can go step-step through a tutorial on how to use their new account. There is a search engine available as well as links to a Help Center, Contact us, and ATM and Banking stores locator.

Figure 2: Wells Fargo Homepage (<http://www.wellsfargo.com/>)



Furthermore the homepage contains a space where individual customers are informed about the transactions they can perform as regards to Banking, Loans and Credits, Insurance and Investments. Customers can also retrieve information about investments and student loans, employment, check rates, read the privacy and security statements and report fraud.

Figure 3 shows the Wells Fargo Online webpage. The interface is very user-friendly and there is a perpendicular menu regarding the transactions that customers can perform; Account Management, Bill Pay (optional), Features and Services (free online statements and Onelook), Demo, How to Enroll and View all Banking. All of the services are also presented with additional information in the center of the webpage. An important feature of this webpage, which also appears in all of the web pages modified according to each webpage's content, is the **Related Information**. This helps the customer quickly pick any relevant services that he/she wishes to perform, without getting lost in the entire website.

Figure 3: Wells Fargo Online Page
(<http://www.wellsfargo.com/per/wfonline/index.jhtml>)



Regarding security, Wells Fargo utilizes firewall, personal identification codes (user name and individualized password), SSL 128-bit encryption, and automatic log-off after ten minutes of account inactivity; also, it constantly surveillances the security systems (Wells Fargo - How We Protect Your Information Online).

Overall, Wells Fargo's website is very informative, uses the "Learn More" feature to provide any additional information if requested, offers online banking demo, has good back-tracking and provides tutorials in every webpage. There are no promotions used, but only highlights of products and services and how its customers can benefit from them. For instance, student loans rates and home equity accounts guides. The website is also available in Spanish.

4.1.2. Citibank

A. Corporate Profile

Citigroup (NYSE: C) is an industry leader, providing financial products and services to over 100 countries around the world. It is a diversified company with wide array of products and services and as of December of 2003 had total assets of approximately \$1.3 trillion, which reflects a 15 percent increase from 2002. The group has completed a number of successful acquisitions; some of these are: Sears' Credit Card and Financial Products Business (November 2003, which resulted in a \$32.4 billion increase in assets at December 2003), The Home Depot's Private-Label Portfolio (July 2003, which added 12 million accounts), Washington Mutual Finance Corporation (January 2004, which strengthened its position as a leader in community-based lending in the United States), Golden State Corporation (November 2002), Banamex (August 2001), and the European American Bank or EAB (July 2001) (Citigroup Annual Report, 2003).

Citibank offers a wide array of banking, lending, investment and insurance products and services, which are distributed through 3,100 retail bank branches, 9,800 ATMs, though the Internet channel at Citibank.com, as well as through the network of Primerica independent agents. In addition to Citibank in North America and Banamex in Mexico, Citigroup's Retail Bank operates in EMEA, Japan, Asia, and Latin America (Citigroup: Retail banking).

By comparison, Citibank Corporation has been a market leader for years, using technology to create new products and services for businesses. The bank entered the online brokerage business through acquisitions. The Internet distribution channel is very successful; in 2003, Citibank customer activations for online banking services have doubled, and customer activations of bill payment have increased nearly threefold. More importantly, 56 percent of Citibank's checking customers use Citibank Online (Citigroup Annual Report, 2003). CitiDirect is Citibank's corporate online banking and is available at: http://www.citibank.com/cashtradetresury/homepage/wccm/payb/citidirect.htm?bt_x

Citibank Online has received many awards and distinctions. Gomez, the Internet benchmarking and improvements strategies firm, ranked Citibank first in online banking in 2003 and this was the sixth time that the bank received this distinction (Citigroup Press Release, 2003). In the 2003 Bank Monitor's online banking awards, Citibank received four gold awards in the categories Best Home Page, Transfer Capabilities, Customizability, and Online Applications, while in Forbes Magazine's "Best of the Web" Awards it has been named "Forbes Favorite" six times (Citigroup Press Release, April 27, 2004).

Corporate Strategy for Growth

Citigroup seeks out innovations in technology to help further develop and enhance its online financial services offerings. The goal is to add value to its customers, continue to be a dynamic diversified group, and have long term results. Citibank has long been known as an industry leader in innovation and technology and maintaining this leadership while doing the right thing, is of vital importance to the group. Online customer acquisition is a key component of its consumer banking strategy; new developments in online account opening, new and more enhanced services, increased website functionality, more convenient and efficient processes can guarantee that its existing customers will remain loyal and new customers will be easy to attain.

All mergers, acquisitions and strategic alliances were and are carefully selected and are completed only after benefits are realized. Filling market gaps is what Citibank wants to achieve from these strategic movements. For instance through its alliance with CashEdge, a provider of secure Online Money Movement and Advanced Account Aggregation platforms, Citibank was able to introduce two new services; CashEdge delivered a comprehensive end-to-end solution for the Inter-Institution Transfer service and the one-step account opening, a cutting-edge solution, which transforms the online platform into a valuable customer acquisition channel, and will fundamentally change the

way banks leverage the Internet. Citibank gained tremendous competitive advantage by introducing these services and added more value to its customers.

The group's strategy for growth also includes efforts to increase market share in existing locations, and investments on countries with fast GDP growth. Investing in key geographic markets, such as the U.S., China, India, Japan and Korea, helps Citibank achieve benefits at a faster pace. Moreover, its focus continues to be on cross-marketing globally and on improving customer retention. Cross-selling of products and services across multiple distribution channels is something that Citibank does really well.

Regarding its brand power, Citigroup is the number one financial services brand globally. The group leverages its brand through heavy advertising and marketing. It markets its products and services as a global brand with a local touch. Also promotes the Internet banking channel by making the services offered very apparent in its website and offers great sources of information, such as tutorials and demos.

Products and Services Overview

Citigroup has a unique product mix and six of the nine product lines generated double-digit earnings growth in 2003. The product lines are: 1.Cards (World's largest provider of credit cards with First Quarter 2004 Net Income of \$980 million), 2.Consumer Finance (World's consumer finance leader with First Quarter 2004 Net Income of \$567 million), 3.Retail Banking (Citibank is the highest-rated, leading global brand with First Quarter 2004 Net Income of \$1.122 billion), 4.Capital Markets and Banking (Number one underwriter of Combined Debt and Equity and Equity-related transactions with First Quarter 2004 Net Income of \$1.477 billion), 5.Global Transaction Services (Leading provider of transaction products with \$6.6 trillion in assets under custody and First Quarter 2004Net Income of \$234 million), 6.Life Insurance and Annuities (One of the fastest growing life insurers in the U.S with expanding international presence and First Quarter 2004 Net Income of \$287 million), 7.Private

Bank (Offers widest range of services to more than 25,000 of the world's most successful and influential families; First Quarter 2004 Net Income of \$159 million), 8.Asset Management (A leader with \$530 billion in assets under management and First Quarter 2004 Net Income of \$105 million), and 9.Private Client Services (A leader in managed accounts with \$1.087 trillion in total client assets and First Quarter 2004 Net Income of \$251 million) (Citigroup's Product Lines).

The online banking services cover account management at MyCity.com, online bill payment and transfers between Citibank and non-Citibank accounts, investments through Cititrade, loans, account servicing, monthly bank statements (seven-year statement history), fraud alerts, online check images, email and wireless banking alerts and smart deals (exclusive offers). Other product enhancements include the online chat with callback features, online bill payment promise. Also Citibank offers Global Transfers, online wire transfers and real-time funds transfer service between Citibank accounts domestically and to Banamex accounts in Mexico.

The financial portal MyCity.com (see Appendix 2: Figure A), allows its users to personalize their financial web pages and provides account aggregation services as well. An important feature of Citibank's online services is that users can edit the content of their homepage and include non-financial material (such as quick-links to any external sites, news headlines) alongside personal account information. According to Bank Monitor, the customization capabilities of Citibank online exceed those of any other financial institution (Citigroup Press Release April 27, 2004).

Just recently Citibank introduced two new services. The first is the complete online account opening and was announced on May 5th of 2004; customers will not need to mail any paperwork whatsoever, as they will be able to open a Citibank account with just one session. The second service is the Inter-Institution Transfer, or Account-to-Account (A2A), service; this was introduced in late 2003, and allows customers to transfer funds between Citibank and their accounts at other financial institutions (Citigroup Press Release May 05, 2004). Apparently, as it was mentioned and in the

strategies section, Citibank values its customers, and uses state-of-the-art technology to implement products and services that will simplify their life.

B. Analysis of “Citibank Online” Website

Citibank’s online banking service is offered for free, along with free unlimited online bill payment, to Citibank account holders. The products and services are presented in a coordinated way and not as separate capabilities and messages. There is very good integration across the service lines.

As shown in Figure 4, there are drop-down menus which can help individual or business customers find the products or services they are looking for, apply for a new account or find a store location. Also they can jump to several sections; Small Business, Small Business at-a-glance, AAdvantage Business Card, CitiBusiness Global, CitiBusiness Platinum Card, CitiBusiness U.S. CitCapital, CitiStreet 401 (k) Success, Commercial Real Estate Grp., Credit Card Merchant Services, Cash Management, CitiDirect Online Banking, Citigroup Asset Management, Citigroup Global Transaction Services, Citigroup Private Banking, Expatriate Banking, Fund Services, Global Investment Bank, Securities and Trade Services (Citibank privacy and security). Citibank also uses the Consumer Alert, to inform consumers about fraudulent e-mails and encourages them to report any incident.

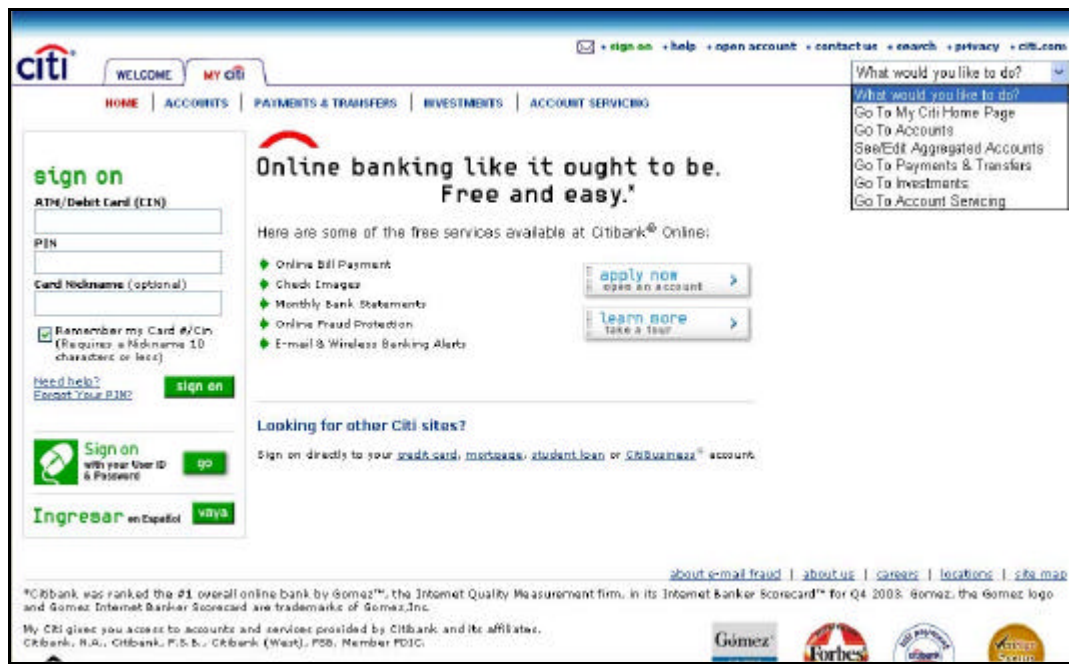
Figure 4: Citibank Homepage (<http://www.citibank.com/us/index.htm>)



Citibank uses promotions as incentives for opening accounts posted on its homepage and in other web pages as well. For example as shown in Figure 4, “Get \$75 when you open a checking account and pay two bills online”. There is a webpage named “Special Offers” and customers can chose those that apply to them. Also there are many drop-down menus in all the web pages and there is a lot of information as regards to the products and services and to the group as well. In addition to that, the homepage is personalized by allowing the customers to choose their country of origin. The website is also available in Spanish language.

In the Citibank Online Banking webpage shown in Figure 5, customers are offered two options to sign on. The first option is by entering an ATM or Debit Card Number, a Personal Identification Number (PIN) and an optional Card Nickname. The second option is by using a username and a password. By clicking on the green Sign on button shown in Figure 5, the customers are directed to another webpage where they can use their username and password. Other security features include firewalls, intrusion detection, sanitized systems, SSL encryption, audits and inspections (Citibank privacy and security).

Figure 5: Citibank Online Banking Homepage
(https://web.da-us.citibank.com/signin/citifi/scripts/login2/user_setup.jsp)



Also on the bottom of the webpage, are shown some of the awards that the Citibank Online banking has received (by Gomez and Fortune magazine), the Citibank online bill payment promise and the VeriSign Secure Site graphic.

The Contact us webpage, offers many options such as phone numbers, sending a message through email, or post and reporting suspicious emails. The main menu is a part of the webpage so that customers can jump to the products and services they desire even form the contact webpage. Finally, help can be provided through FAQs, glossary, and search engines by topic and by question category (general, business, and technical) as well as through the toll free call number on a 24x7 basis.

The application procedure for opening an online account can be completed in four steps: 1. Tell us about yourself, 2. Confirm your identity, 3. Fund your account and 4. Accept disclosures and agreement. It is supposed to take about ten minutes to complete the registration.

Overall, Citibank has an award-winning website with a user-friendly interface, which increases its usability; the navigation and the functionality are very good, it offers its customers the ability to edit their homepage and valuable information about the products and services, while the drop-down menus make it less “busy”. Also a lot of emphasis is given on the consumer’s protection from fraud. The four golden awards that the website received in 2003 in categories theories Best Home Page, Transfer Capabilities, Customizability, and Online Applications verify the quality of Citibank’s Internet banking services.

4.1.3. Bank of America

A. Corporate Profile

Bank of America (NYSE: BAC) had an incredible performance in 2003. The corporation as a whole achieved 10 percent increase in revenue, 22 percent increase in equity, 17 percent increase in earnings and 49 percent increase in shareholder value added. The Consumer and Commercial Banking Segment accounted for 70 percent of the 2003 earnings; the Global Corporate and Investment Banks accounted for 19 percent of the 2003 earnings, while the Asset Management segment accounted for 6 percent of the 2003 earnings (Bank of America Annual Report, 2003).

On April of 2004 Bank of America completed its merger with FleetBoston Financial Corporation and now together, Bank of America and Fleet provide coast-to-coast resources and convenience and they bring their services to 35 million households and businesses across the country. Bank of America, along with the force of FleetBoston, has a national network of services that include more than 16,000 ATMs and a nearly 5,700 branches in 29 states and the District of Columbia Furthermore, Bank of America has international operations in more that 150 countries (Bank of America Overview).

The online active users account for 9 million, which is the largest active online banking customer base and almost double from the customer base of 2002 (4.7 million). This represents an active customer penetration rate of 47 percent. As of 2003, 44 percent of the consumer households that hold checking accounts used online banking. It also has 3.7 million active bill pay users who paid \$16.3 billion worth of bills the first quarter of 2004. The number of customers who sign-up and use Bank of America Bill Pay Service continues to far exceed that of any other financial institution. Currently, over 300 companies are presenting over 9 million e-bills per quarter (Bank of America: Facts Overview, 2004).

Bank of America is one of the most recognized banks in the world and has received numerous awards and distinctions. Global Finance magazine, Jupiter Research and Nielsen Ratings have rated Bank of America's website as "best-in-class". In January of 2003 Barron's recognized the Future Scholar 529 College Savings Plan, managed by Bank of America Capital Management Inc., LLC, as one of the six best 529 college savings plans in America. Global Finance magazine named (October 2003) Bank of America the best consumer Internet bank site in the world and Bank of America's Connection the best online securities trading site, while the market research Company Vividence ranked Bank of America's online banking No. 1 in customer and potential customer experience (September 2003). In 2003 for the second year in a row, Global Finance magazine named Bank of America as the world's best consumer Internet bank site, as well as number one in the world for consumer online bill payment while Forbes' Global 2000 list, named Bank of America the fifth most powerful company on. This list observes the world's biggest and most important companies; these are measured by sales, profits, assets and market value. Again in 2003, Bank of America was named one of the "50 Best Companies for Minorities" by Fortune magazine in its sixth annual listing and EuroMoney magazine named Bank of America "World's Most Improved Bank" and "Best U.S. Bank" (Bank of America: Newsroom, Press Kits).

Corporate Strategy for Growth

The main driver of Bank of America's strategy is to make certain that the customers have the right products and services to meet their banking and investment needs. Its objective is to attract more customers, retain more of the existing ones and deepen relationships with both of these groups. To achieve these goals, Bank of America provides its customers with enhanced products by employing innovative technologies, improved convenience, and better customer service through increased customer contact and added convenience. The bank also employs the six sigma-error free processing in credits and payments, transaction fulfillment, cycle time, deposit, sales and service; (Bank of America: Game Plan for Growth). These flawless procedures result in customer satisfaction, better products and services and increased revenue.

Bank of America also invests on research in several fields. Research may regard the level of its customer's satisfaction, or may be conducted in order to identify factors that affect the bank's productivity and/or customer acquisition and retention. For instance, in 2003, when it was realized that a substantial number of customers never completed their registration process for online banking, Bank of America conducted research and discovered that the customers had problem with the identifiers, had security concerns and also were finding the process very inconvenient. What Bank of America did was to switch to identifiers that most consumers could easily memorize, and upgrade its security procedures while it simplified the process from five screens to one. Thus, the enrollment success rate increased 23 percent, totaling 100,000 completed enrollments per month. The bank also saw a reduction to its costs, due to the fact that customers didn't need to call for help as frequently. Subsequently, the bank simplified the online bill payment process, which reduced the number of screen fields by half and helped to increase use of the service by 84% in 2003 (Bank of America Annual Report, 2003). Apparently, Bank of America listens to the customer's voice, cares about doing the right thing and sticks well to its vision, "to make the banking and investing work for its customers and clients in ways they never have before" (Bank of America: Investor Factbook, 2003).

Another important strategic movement was the merger with FleetBoston Financial Institution, which gave rise to a bank unrivalled in America's fastest-growing and wealthiest markets. Laudon C.K and Traver G.C., (p. 640) refers to the top online banking firms in 2002 in the United States (percentage of customers who use online banking). Among twelve financial services firms FleetBoston Financial Corporation ranked first with 35 percent; Bank of America ranked six positions lower, with 25 percent along with AmSouth Bancorp and Sun Trust Banks Inc. In the last position was US Bancorp with 9 percent. Consequently, as a strategic movement this merge seem to have benefited Bank of America, by adding a considerable number of customers.

Bank of America's strategy for growth also includes efforts to increase its brand awareness. The major goal is to communicate its vision to its customers and prove that it

can present “higher standards” as it promotes. Through advertising it tries to bring its message across all lines of businesses, customer segments and geography. Also the presentations to conferences and to investors are another means of getting its message across and improving the relationship with its customers.

An interesting aspect of Bank of America’s plan for growth is the effort to accelerate its growth in the Hispanic markets (Bank of America: Game Plan for Growth 2004). For that reason, the bank implemented and piloted new products, educational programs, hired more bilingual personnel, enhanced the already existing “Safesend money to Mexico” service and the ATM services, targeted marketing programs to the Hispanic populations, deployed Spanish website and developed Small Business products and services.

Products and Services Overview

Bank of America offers **Consumer Banking** (Retail, Small Business, Financial Products, and Dealer Financial Services), **Commercial Banking** (Business Credit, Commercial Real Estate), **Global Corporate and Investment Banking** (Global Investment Banking, Global Credit Products, and Global Treasury Services), **Asset Management** (Private bank, Bank of America Investments, Bank of America Capital Management), and **Equity Investments** (Principal Investing and Other Strategic Investments).

The services offered for **Personal Banking** are: **Account Services** (online banking with bill pay, My Bank of America, Self-directed Investing, Advisory Services, Future Scholar 529 College Savings Plan, Military Bank Online, Service My Mortgage), **Checking and Savings** (Overview, Checking Account, Savings Account, CDs), **Cards** (Credit Cards, Check Cards, Gift Cards, Teen Visa), **Loans and Home Banking** (Overview, Mortgages, Refinance, Home Equity, Auto Loans, Education and other loans), **Investments and Wealth Management** (Investing Services, Premier Banking and Investments, The Private Bank, IRAs, Nations Funds, Trust Services, Future Scholar

529, Charitable Giving Program), and **Specialized Banking and Additional Services** (Military Bank, Student Banking, Accessible Banking, Moving Center, Insurance, Foreign Currency/Travelers Cheques, Safe Send Money to Mexico).

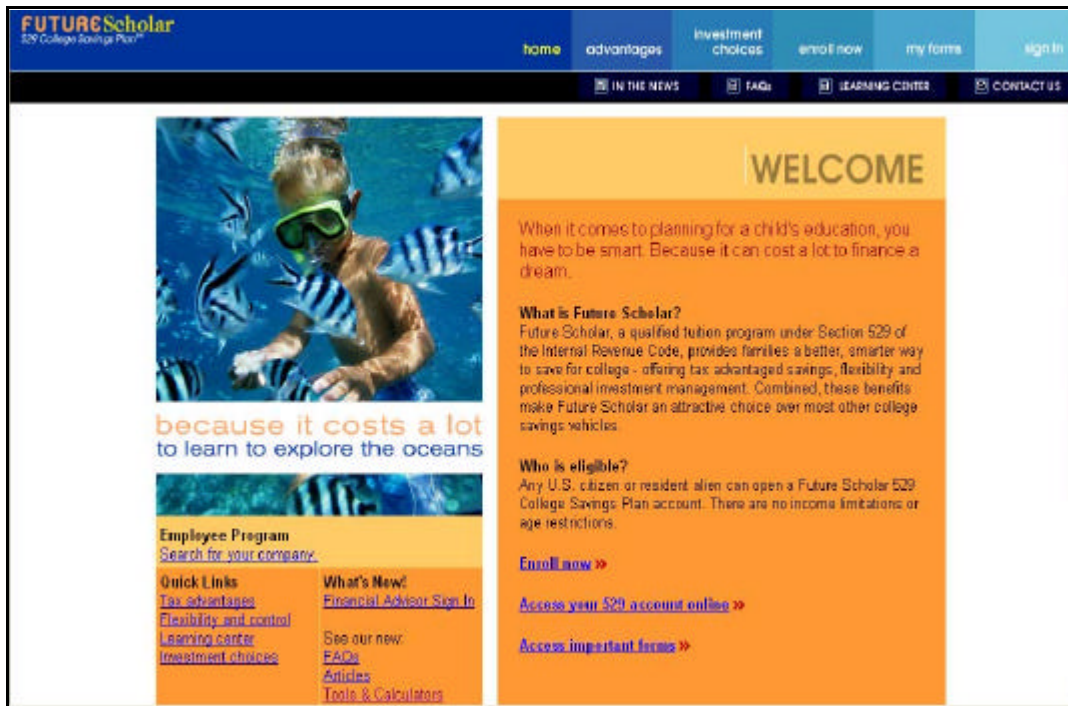
Additional products for Small Business include Merchant Services, Payroll and Tax Services, Leasing, Resource Center for starting, growing, financing, managing, protecting a business. Furthermore there are additional Corporate and Institutional services, such as Capital Markets, Capital Management, Capital Raising, Sponsorships, Securities, and Treasury Management.

Also, under the **About Bank of America** webpage, there is information regarding the talking ATMs service for visually-impaired customers.

Unique Products

Figure 6, illustrates the **Future Scholar 529 College Saver Program** website homepage; this is a qualified tuition program and those interested can open an account with as little as \$250 and systematically contribute as little as \$50 per month. Customers can enjoy significant tax benefits, since earnings grow free from federal income tax while in the account and are tax exempt when used to pay for qualified expenses. They can use their money at virtually any accredited school in the United States and can use the College Tuition Finder to search for tuition, fees, and room and board costs. In January of 2003, Barron's recognized the Future Scholar 529 College Savings Plan, managed by Banc of America Capital Management Inc., as one of the six best 529 college savings plans in America (Bank of America: Newsroom, Press Kits).

Figure 6: Future Scholar 529 College Savings Plan (<http://www.futurescholar.com/>)

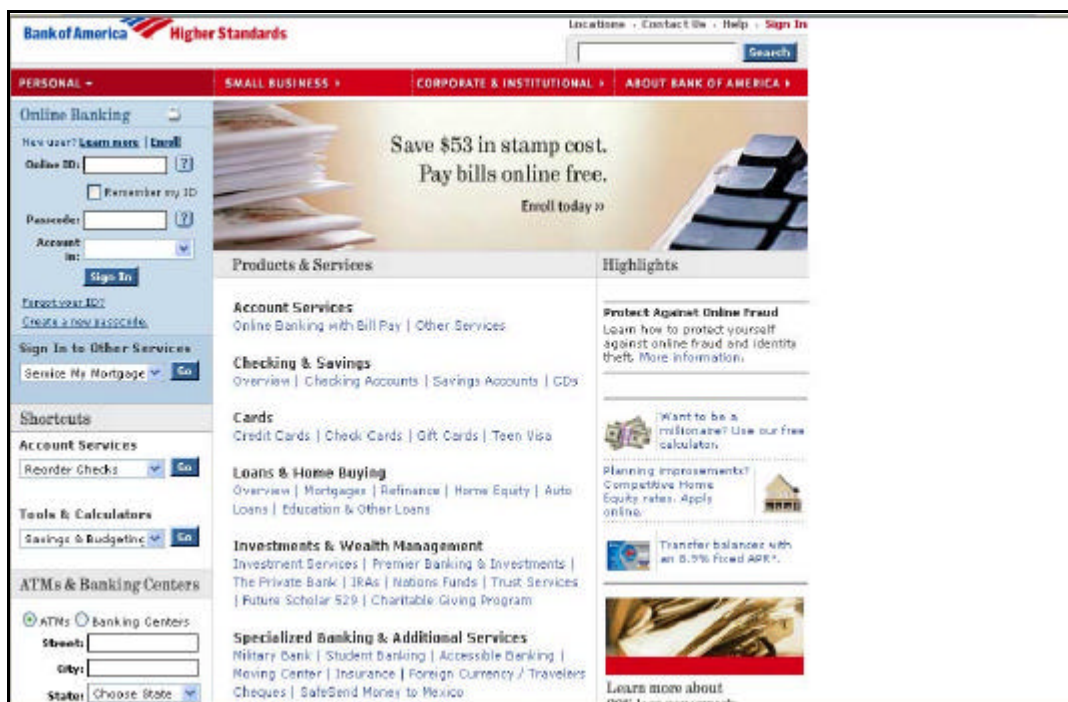


Obviously, Bank of America embraces the global trend of “financial supermarkets”. Besides, with unique products and tools offered in its website, it adds value to its customers and aims at covering the demands of a wide customer base; from younger to older customers, from individual consumers to large corporations.

B. Analysis of “Bank of America Online” Website

As shown in Figure 7, customers can sign in to their accounts from the homepage. There are also shortcuts, drop-down menus for **Account Services** (Reorder Checks, Set up Direct Deposit, Request a Check Card), and the financial planning resources **Tools and Calculators** (Savings and Budgeting, Home Purchase, Loans and Credit Cards, Credit Management, Investing, Retirement, Estates, Taxes, Education, Car Purchase). Customers can also sign in to other services available under a drop-down menu, and there is also an ATM and Banking Services locator.

Figure 7: Bank of America Homepage (<http://www.bankofamerica.com/>)



The homepage contains a section named **Highlights**, where the customer can retrieve information regarding fraud protection, mortgage, and loans and also find online banking application forms.

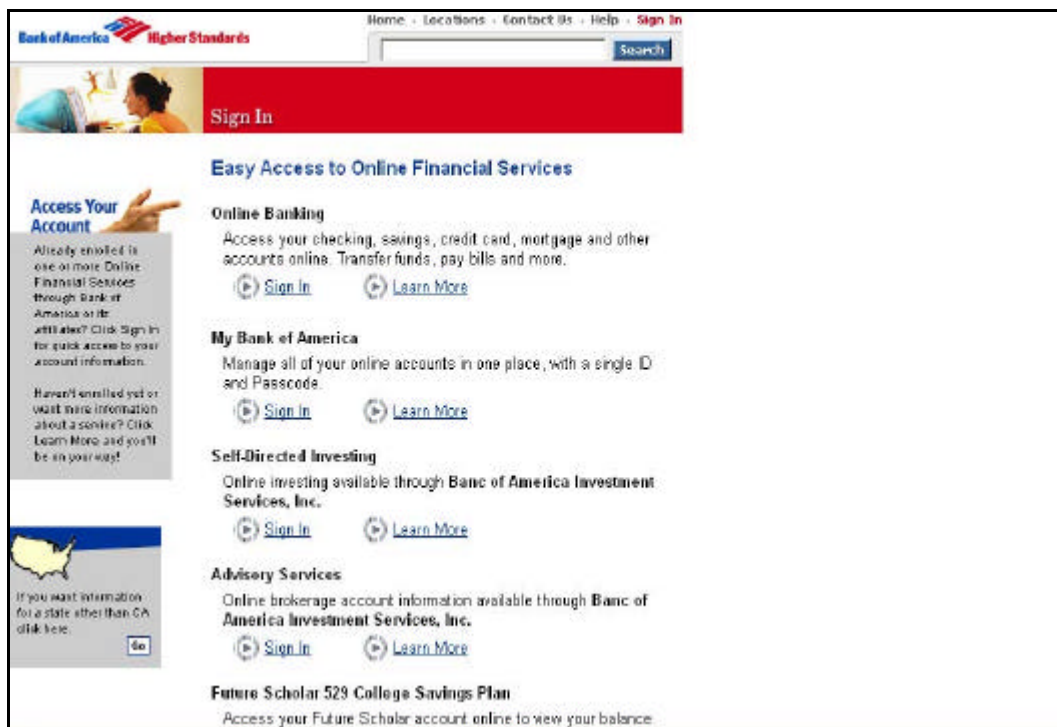
In the **Online Banking** page (see Appendix 2: Figure B), the customer can go through a tutorial, using the online banking Demo or click on the available links to learn more about the services offered.

Chose your State feature; Bank of America personalizes its website by allowing its customers to choose their state before signing in to a service. In that way it provides information about the customer's state which is more convenient when customers want to contact the bank.

Help is provide by subject and by state and through frequently asked questions (FAQs), while customers can contact the bank by phone or through a secure e-mail after they select the category/topic of interest.

Figure 8, shows how customers can sign in to their account or other services separately. They can also retrieve more information by clicking on the Learn More button.

Figure 8: Access your Account by signing in to services separately
(<http://www.bankofamerica.com/signin/>)



Bank of America's website is all about offering its customers convenience. The structure is simple, and there is a plethora of information regarding the products and services. It does not utilize promotions in order to lure customers; the emphasis is on

promoting ways that they can save money by using Bank of America's online banking services. For example, "Save \$53 in stamp cost. Pay bills online free" or "Learn more about 80% less paperwork mortgage".

In general, there is no redundant information, and new users are encouraged to use the online services by a simplified registration process with easy-to-remember identifiers; they need to provide the state where the accounts were opened, their social security number or bank of America ATM/ check card number, Bank of America ATM/Check Card PIN and their e-mail address.

As regards to security, Bank of America uses a strict Active User standard; customers must have used its online services within the last 90 days. Also it utilizes firewall, SSL 128-bit encryption, Global Certificates and provides computer virus protection, the ability to send secure e-mail through the contact us page, and also a lot of information regarding identity theft and ways that customers can protect themselves from fraud (Bank of America privacy and security).

4. 2. Cases of Greek Banks

4.2.1. winbank of Piraeus Bank

A. Corporate Profile

Piraeus Bank is one of the most dynamic and innovative organizations in Greece. Its vision is “to be an identifiable Universal Banking Group playing an important role in South-Eastern Europe by satisfying its customers’ needs, possessing devoted and competent personnel and offering high Shareholder returns”. Following its vision, Piraeus Bank has completed a series of acquisitions and strategic alliances with boosted its performance and increased its customer base. In 2000 it merged with Macedonia-Thrace Bank and Xiosbank, which acquired in 1998 and 1999 respectively, and that made Piraeus Bank the third largest bank in Greece, with assets of \$17.61bn and an 8.2 percent market share. In early 2002, Piraeus Bank acquired the Hellenic Industrial Development Bank (ETBAbank), thus enhancing the Group’s capital base and increasing its market share in banking activities, leasing and asset management. In Greece it has presence in 89 cities with 221 branches. Furthermore, it has international presence with 41 branches in five countries; U.S. (Marathon Bank with 11 branches, U.K. (one Piraeus Bank Branch), Romania (six Piraeus Bank branches), Bulgaria (8 Piraeus Bank branches) and Albania (Tirana Bank with 15 branches) (Piraeus Bank Group Presentation, 2004). At the end of December 2003, Piraeus Bank Group had a network of 257 branches and its equity capital amounted to \$1,607.45 million (or EUR 1,342 million). The clients’ deposits amounted to \$12,449.93 million (or EUR 10,394 million), loans reached \$12,793.70 million (or EUR 10,681 million) and total assets were \$17,649.58 million (or EUR 14,735 million) (Piraeus Bank Brief Presentation). For the first quarter of 2004, Piraeus bank achieved a 36.7 percent net profit growth, which was more than its management anticipated (Piraeus Bank Press Release).

Piraeus Bank chose to introduce its Internet banking services under a different brand name – winbank. Therefore, winbank comprises the Internet banking division of

Piraeus Bank. It is the one and only integrated Internet banking service in Greece, is one of the fastest growing Greek financial organizations, and offers a wide range of Internet banking services to its customers. It was established in January of 2000 and it officially introduced its services to the Greek public on March 17th of 2000 (Pouloudi, N., 2002).

winbank has a unique customer base; there are more than 113,000 customers using the winbank's services (Internet, mobile, phone), while the value of the banking and equity trading transactions conducted via the Internet increased in 2003 more than 500 percent. In addition to that, more than 50 percent of the total Value Added Tax payments that were executed by Piraeus Bank are performed through winbank (Piraeus Bank Group Presentation, 2004).

winbank is among the few banks that lead the way of Internet banking in Greece and holds fourteen awards and special distinctions in a four year period; it was voted by the distinguished international magazine "The Banker", as the best bank in 2003 (Piraeus Bank – winbank) and is the only ISO 9001:2000 certified Internet banking service in Greece (Piraeus Bank Group Presentation, 2004). On 14 April 2003, winbank together with five other Piraeus Bank divisions and the Group's subsidiary Exodus were awarded by the EFQM (European Foundation Quality Management) for their achievements as organizations "Committed to Excellence". winbank was also selected as a best practice case among the Greek business and organizations operating on the Internet during a survey conducted by the Athens University of Economics on behalf of ROTA E.P.E. within the e-Commerce Show, in January 2003.

Corporate Strategy for Growth

The focal strategic targets of Piraeus Bank as Group continue to be the following (Piraeus Bank Brief Presentation): enhancing market share in Greece and the Balkans, improving service quality and customer satisfaction, creating innovative products, further enhancing the Group's position in retail banking and small and medium-sized enterprises financing, strengthening the group in the areas of asset management and bancassurance (formed a strategic alliance with ING to achieve this goal) and, finally, strengthening profitability with the purpose of constantly increasing shareholder value. For the next four years the group wants to achieve: (a) a market share of 14 percent in loans in Greece, (b) further expansion in South Eastern Europe, (c) balanced focus of the loan portfolio on individuals - SMEs (Small to Medium Sized Businesses) - Corporate/Shipping Banking, (d) further establish a business culture where the main focus will be on the quality of service, (e) technological leadership and maintenance of winbank's dominant position and (f) manage effectively the undertaken risks (market, credit, and operational) (Piraeus Bank Group Presentation, 2004).

In the Internet banking field, the strategy of the Group can be expressed with the phrase: "Banking services everywhere, anywhere and with any means" (Hellenic Banks Association, 2000). For the successful implementation of this strategy, Piraeus Bank Group houses all of its services under winbank and this shows the strategic importance attached to this field.

In addition, winbank regards the promotional strategies essential for its welfare. The bank follows probably the most intense advertising strategy among the Greek banks in order to change the consumer's perception of Internet banking. According to Mrs. Peleki (see Appendix 3: winbank Interview), Internet banking is a basic channel for the bank and supports marketing and sales plan, which is incorporated to the general marketing and sales plan. The awareness is created mainly through direct marketing actions as all branches have the winbank logo at their labels and all the flyers and brochures promote winbank's services. The appearance to exhibitions, forums and

industry conferences is always of high priority and winbank's management tries to organize online contests and games to reward and to truck new consumers. According to Mrs. Peleki, Piraeus Banks internet banking through winbank is fully accepted, since 91 percent of their customers have stated that they are satisfied from the internet banking services and the number of customers is growing dynamically. As for what makes Internet banking successful, she mentioned being able to offer customers value added services that are not offered through the branches; these can be tools in order to organize and to manage their transactions, view the history of their transactions and the status of their financial actions (see Appendix 3: winbank Interview). Having this in mind, winbank offers unique products such as those presented in the following section.

Products and Services Overview

winbank has a global presence in Internet banking. With a broad range of activities, it offers truly integrated services to its clients; these are divided into services for retail users and services for corporate users in order to meet particular needs in specialized services. It offers distance banking and stock exchange transaction services through its electronic networks: **“winbank Internet personal”** and **“winbank Internet business”** (Portfolio/Accounts, Payments/ Transfers of Funds, Securities Transactions, Customer Service, Product Applications), **“winbank phone”**, **“winbank mobile”**, **“winbank ATM”**, **“winbank commerce”**. Also, **“winbank alert”** is a unique service which allows customers to receive notifications about their banking and equity trading matters via e-mail, SMS or phone calls.

Unique services include the presence of a winbank expert advisor in every branch, the **“winbank agent”**. Customers or any other interested party can contact them. This advisor is the human “link” between winbank and its customers. Moreover, at the winbank Call Center there is an agent available 24 hours a day, 365 days a year.

Special e-commerce applications include the “**winlife**” (which undertakes remarkable actions, such WWF, MoM, The Smile of the Child, Medecins sans frontiers, UNICEF, UNHCR and SOS Villages for Children) and “**Syndromes.gr**” (an electronic shop selling subscriptions in the Greek market)

Mrs. Peleki of winbank regards that the new trend in Internet banking is focused on adding more services so as customers won't need to visit a branch. Most of the services offered through Internet banking are free of charge and customers can proceed with their transactions more often since Internet banking covers a wide range of services, 24x7. She also states that winbank Internet banking is fully accepted since the 91 percent of its customers state that they are satisfied from the Internet banking services and till now the number of its active Internet users is growing dynamically. Finally, winbank plans to offer services that will add value and will be useful to its customers; services that will become tools for their transactions in daily basis. These will be more high-tech services through alternative communication channels (see Appendix 3: winbank Interview).

B. Web Site Analysis

As shown in Figure 9, the main menu is placed on the top horizontal position of the webpage and the customer can choose among many options. By pointing to the headers, submenus appear; more specifically the options offered are: **winbank** (Profile, Who is who), **E-banking** (Internet, mobile, Phone, Alert, ATM, Application Internet banking), **E-commerce** (e-payments, Commercial partners), **Services** (Internet connection, Donations online, Subscriptions online), **Products** (Personal Banking, Banking for Business, Application forms), **Awards**, **Press Room** (Press releases, Publications, Press kit), **Contact us** (Fax/Phone, e-mail, Post).

Figure 9: winbank Homepage (<http://www.winbank.gr/>)

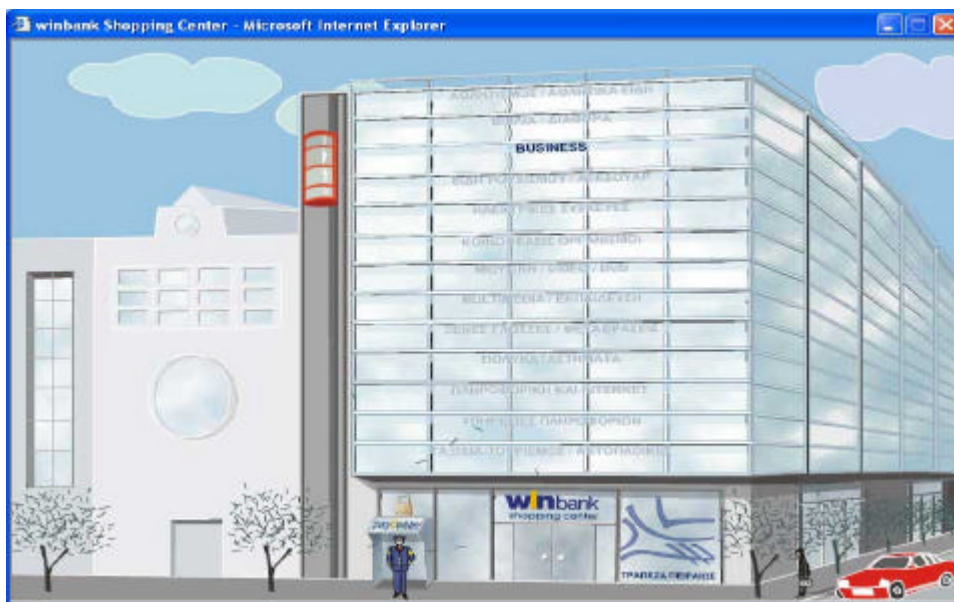


Also, a drop-down menu with winbank quick links is available. Customers can choose among many options; Application forms, Alert!, Internet Personal, Internet Business, Mobile SMS, Mobile WAP, Phone, Phone IVR, ATM transactions, e-Payments, Syndromes.gr, winweb (Internet connection), winlife, Branch network, Glossary, FAQ and Tutorial. Additional features include the International Bank Account Number Calculator (IBAN), search engine, news and success stories, products highlights,

tips and hints for several services. For further information regarding the Piraeus Bank Group, the customer can also refer to the Piraeus Bank website. In addition, as in the case of the U.S. banks (i.e. Citibank), winbank uses promotions as incentives in order to attract customers. For example: “Refer winbank and win grand prizes from Sony” (see Figure 9).

Below the main menu there is a submenu: **Organizer**, **Shopping Center** and **Business Center**. The Organizer offers value added services to winbank customers, such as creating their profile, manage their alerts etc. The Shopping center is a portal where a customer can “go” shopping. Using Macromedia Flash Payer (see Figure 10), the bank has created an animated environment where the customers can “drive” to the bank, “take the elevator” and “go to any floor” according to their point of interest (sports clothes, books, business, clothes and accessories, electronics, multimedia, education etc.)

Figure 10: winbank’s Shopping Center (<http://www.winbank.gr/shopping.asp>)



Regarding security, winbank offers Privacy Protection by utilizing the SSL 128-bit encryption protocol, the VeriSign authentication certificate, client identification with User ID and Personal Identification Number (PIN), Automatic Log-off, if the site is idle for five minutes, firewall, and Security Code Lock is the User ID is entered wrong threes

times repeatedly. In that case, the customer should call the customer support center at Piraeus Bank and verify his/her personal information in order to unlock the codes (winbank security). In addition to that it is worth mentioning that when a customer clicks on the sign-in to e-banking button, a winbank security alert window appears automatically, informing the customers about possible security problems (code leak, bogus phone calls, scam spam, bogus sites) and how to avoid them (see Appendix 2: Figure C).

Overall, winbank's website is well organized; there is a very user-friendly interface and plenty of information regarding the products and services. Furthermore winbank uses online marketing; organizes online contests and allows its customers to add the www.winbank.gr to "My Favorites" on their computer or even make it their homepage. Finally, the language conversion from Greek to English and the opposite is available in every webpage, while all the services offered in Greek are also available in English.

4.2.2. EFG Eurobank Ergasias

A. Corporate Profile

EFG Eurobank Ergasias was first established in 1990 as Euromerchant Bank; it became a leading banking group through rapid organic growth and successful acquisitions: in 1996 it acquired Interbank, in 1997 Credit Lyonnais branch network, in 1998 Bank of Athens (23 branches), in 1999 Cretabank (87 branches), in 2000 Ergobank (140 branches), in 2001 Telesis Investment Bank, and recently in 2003 ErgoInvest & Investment Development Funds. Moreover, the group is expanding its presence in South Eastern Europe: it holds 53% of Banc Post in Romania, 92% of Post Bank in Bulgaria and 91% of Postbanka in Serbia (EFG Eurobank Ergasias Investors Presentation, 2004).

Today, EFG Eurobank Ergasias offers a full range of banking products, aimed at individuals, corporations and institutions. The Bank has built up leading market positions in a number of areas, in particular in the high margin, high growth segments, which form the key focus of its activities. EFG Eurobank Ergasias owns assets of \$30.36 billion and \$2.43 billion of equity and is the leading provider of consumer loans and credit cards, small business lending, SMEs lending and mutual fund management in Greece. Moreover, it has a significant presence in corporate banking and holds the leading position both in investment banking, through EFG Telesis Finance, and in capital markets, through EFG Eurobank Securities. The bank employs over 13,000 people, both in Greece and abroad, has a local distribution network of over 300 branches, 690 ATMs and alternative distribution channels, including phone banking (leader with over 220,000 users, 4.1 million transactions and offers the only in-house call center, with 99 transactions), electronic banking (with over 43,000 active users) and mobile banking (with over 8,000 active users). Also there are 45 Open24 technologically advanced retail sales points. In that way, by integrating all the distribution channels, the Bank achieves countrywide distribution and service capability. Access to European markets is provided through the strategic alliance with Geneva-based EFG Bank Group (EFG Eurobank Ergasias, Corporate Profile).

Among the rewards and distinctions that the bank has received are: Best Bank in Greece 2003, 2002 (Global Finance), Bank of the Year 2002, 2001 (The Banker), Best Internet Bank 2003 (Global Finance magazine), Best Phone Banking Service in the Large Call Centers category (The Teleperformance CRM Grand Prix 2003), Best e- banking Website (PC Magazine and RAM Magazine) and No1 Local Custodian in Greece 2003, 2002 (Global Custodian) (EFG Eurobank Ergasias Investors Presentation, 2004).

Corporate Strategy for Growth

The philosophy of EFG Eurobank Ergasias management is that successful strategic alliances, training and marketing are the triangle of success. Following the global trends, the group has completed a number of successful acquisitions as it was previously mentioned. EFG Eurobank Ergasias desires to become the bank of first choice for Greek clients, offering comprehensive service through a universal banking mode and to develop a presence in the wider region (currently in Romania, Bulgaria and Serbia), expanding on the local business model. It also develops a working environment that promotes and rewards initiative and effectiveness and there is continuous improvement of efficiency in order to create shareholder value.

Part of EFG Eurobank Ergasias mission is to offer the best of the European markets to the Greek public and makes this a reality through the strength of its strategic alliances. The management of the bank regards that strategic alliances among banks, communications and media companies can create “best-of-breed” products and services and better satisfy today’s demanding customers (HBA, 2000). Offering a wide range of services (Europhone banking, mobile banking, Internet banking, e-commerce, loans, mutual funds, credit cards, ATMs, securities, insurance, real estate etc.) the entire group follows the “financial supermarket” trend. Through investments in technology and alternative distribution channels the bank strives to come closer to its clients and become the frontrunner in customer service quality. More importantly, it is building on its success by developing innovative, client-oriented products, employing state-of-the-art

technology, and offering services of the highest standards by knowledgeable professionals, whose advancement and education constantly supports.

EFG Eurobank Ergasias links value management to its overall strategy and tries to develop an internal and external highly accepted and efficient value management system. The focus is on quality in both systems and services; on monitoring internally the quality of products and services offered to clients and manage customer complaints. The Client Relations Office forms policies concerning quality and the Quality Management Services measures and overviews quality issues at the retail network, in order to improve service. The staff is trained on both quality issues and products. Moreover the bank applies Mystery Shopping at own and competitors' branches, conducts Customer Surveys on a quarterly basis and Internal Evaluation at branch and operations level. Also, there are ISO qualifications in most areas of operations and services, including Human Resource Management, Custodian Services, and Payment Services (EFG Eurobank Ergasias Investors Presentation, 2004).

The organization as a whole has wide horizons and peer reviews the strategies of both European and American well-established organizations of the industry. Like U.S. banks, for instance Wells Fargo, EFG Eurobank Ergasias views the Internet channel as something of strategic importance for the improvement of its customer service, the promotion of its products and services through alternative channels and the further expansion of the bank, which would not be feasible otherwise. The bank also embraces and the multi-channel approach and utilizes an active and integrated cross-selling strategy, which is another trend in the online financial services market. For EFG Eurobank Ergasias, Internet banking comes in order to complete its general strategy, which is "to be in open line with the customers, 24x7".

Regarding its marketing strategies, EFG Eurobank Ergasias utilizes direct sales (through mailing, telemarketing, direct sales agents, and Internet and e-commerce). It also tries to educate its customers on-site (when they visit the branch) and by encouraging them to visit the bank's website. The presentations to conferences and to investors are also means of promoting the Internet banking products and services.

Products and Services Overview

EFG Eurobank Ergasias provides **Personal Internet banking services**, **Corporate Internet banking services** as well as **Mobile banking services**; it also has an e-commerce portal, the Open24.gr and offers access to the web through Hellas Online.

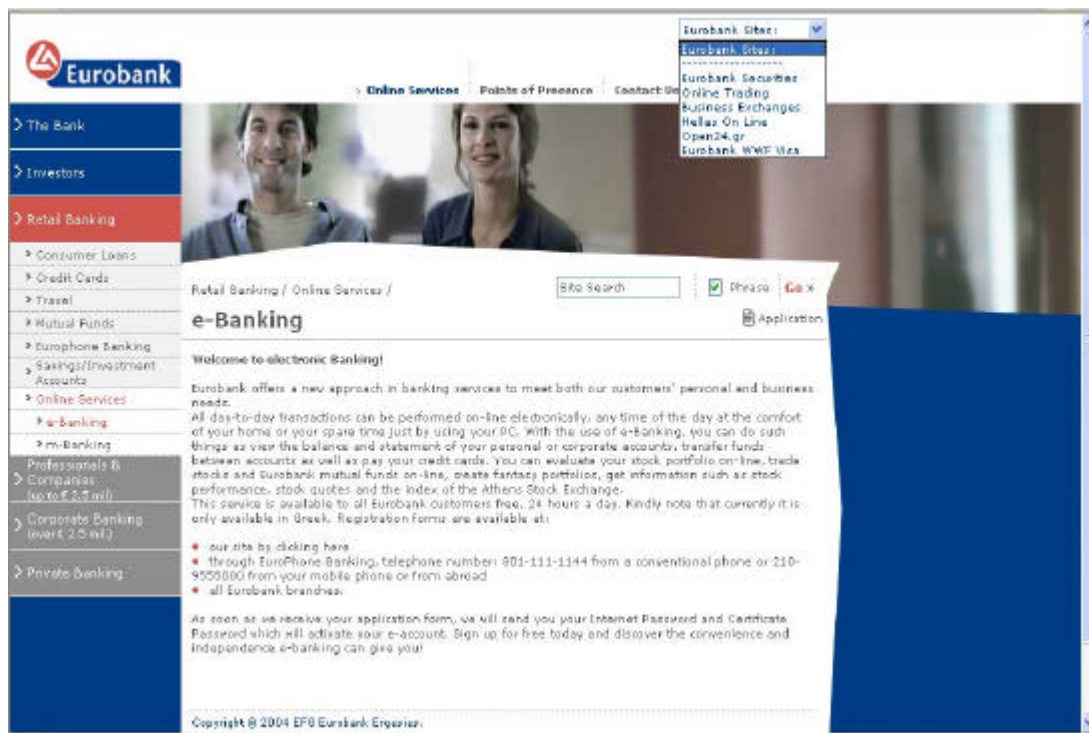
The bank does not promote these services under different brand names, but as a part of the bank. The personal Internet banking covers accounts, credit cards, loans, transfer of funds, e-payments, payment orders (utilities, telephone and mobile phone bills, public sector payments etc.), account statements, contributions, customer service and personal messages. The corporate Internet banking services also include salary payments and mass payments and banks directory. It is interesting that EFG Eurobank Ergasias splits its corporate banking among Professionals and Corporations up to Euro 2.5 million (or \$3,018,500.00) and Corporations over Euro 2.5 million and offers products that are appropriate for the needs of the specific customers.

B. Web Site Analysis

Eurobank's homepage features information about the bank, press releases and social contribution with Great Moments in Athletics, Education and Culture (see Appendix 2: Figure C). On the Retail Banking, Online Services: Internet Banking webpage shown in Figure 11, the main menu is located on the left side of the webpage and is consistent in all the web pages; in the perpendicular menu there is plenty of information regarding the Bank, the products and services for Investors, Retail Banking, Professionals and Companies up to Euro 2.5 million (or \$3,018,500.00), for Corporations over Euro 2.5 million, as well as for the Private Banking.

There is also a search engine to look for information within the site and a drop-down menu for other Eurobank sites (Eurobank Securities, Online Trading, Business Exchanges, and Hellas on Line, Open24.gr, and Eurobank WWF VISA).

Figure 11: Retail Banking, Online Services: Internet Banking webpage
(<http://www.eurobank.gr/online/home/generic.aspx?id=104&mid=471&lang=en>)



There is also a horizontal menu with links to the Online Services, the Point of Presence, Contacts us and Language selection. The customer has to click on the Online Services in this menu in order to be directed to the log-in page.

Figure 12 is a screenshot of the Internet banking services webpage. There is a login space and plethora of information about the Internet banking services available to the individual consumers, to corporations as well as for the mobile banking. Underneath each category there are links to applications, information and Internet banking Demo.

Figure 12: EFG Eurobank Ergasias Internet Banking page
(<https://www.eurobank.gr/europortal/login/logonpromo.asp>)

Online Services Information

Stock Markets Information

Regarding security, EFG Eurobank Ergasias offers Privacy Protection by utilizing the SSL 128-bit encryption protocol, the VeriSign authentication certificate, client identification with User ID and a 16-digits Personal Identification Number (PIN) of any Eurobank card that the customer possesses, digital certificates, firewalls, automatic log-

off, if the site is idle for fifteen minutes, mandatory change of user name and password from the first activation of the Internet banking account by the user (customers choose on their own something that is easy to remember, instead of the 16-digit number), and Security Code Lock if the User ID is entered wrong three times repeatedly or nine times separately within a week. In addition to these security measures, and concerned about identity theft, the bank utilizes virtual keyboards and the user has to enter either the user name or password using this keyboard. So, even if someone steals one of the clients' identifiers, still cannot sign in (Eurobank Internet banking security).

In general, Eurobank keeps a consistency among the web pages. The navigation is good as the main menu is available in every webpage and this provides good back-tracking; there is no redundant information to confuse the customer and help is available in every webpage. There are differences between the English and Greek sites, as not all of the services appear in both languages. Also the online services webpage is available only in Greek language, but the bank intends to introduce the English version as well.

4.2.3. Alpha Bank

A. Corporate Profile

Alpha bank is the second largest bank in Greece and the largest bank not controlled by the state. The Group's national Branch network consists of 370 branches throughout Greece and its customer base of some 2.6 million retail and corporate accounts. The Alpha Bank Group consists of the following banks: Alpha Bank London, Alpha Bank Jersey, Alpha Bank Romania, Alpha Bank Cyprus, and Alpha Bank Skopje. It has formed mergers and acquisitions in the past; in 1999 the bank acquired 51 percent of the shares of the Ionian Bank. On April 11, 2000 the merger of the Ionian Bank was approved through absorption by Alpha Credit Bank. The name of the enlarged, new Bank, resulting from this merger was Alpha Bank. Alpha Bank is now established as the most versatile banking institution with the widest appeal for customers in Greece and South-Eastern Europe. The group has presence in Cyprus (with 29 branches), in Romania (with 19 branches), in Albania (with 7 branches), in Bulgaria (with 1 branch), in Skopje (with 7 branches), and in Serbia and Montenegro (with 3 branches) (Alpha Bank Investor Presentation, 2004). As of December 2003, the bank's assets were \$37.28bn (or Euro 30.8bn) vs. \$34.89bn (or Euro 28.9bn) on December 2003. In the first quarter of 2004, Alpha Bank's Net profit after tax and minorities went up 64.5% to \$120.24 million (or Euro 99.6 million) from \$73.16 million (or Euro 60.6 million) in Q1 2003, while the return on equity was 18.6%, despite the more than doubling of capital in 2003 (Alpha Bank Press Release April 28, 2004).

Alpha Bank is the official bank of the Athens 2004 Olympic Games and that presented the organization with numerous opportunities for brand growth, corporate image improvement and profit generation. This also resulted in the introduction of new products especially designed for the Olympic Games (i.e. 136,000 gold and silver VISA Olympic cards, and 113,000 EPATHLON cards, co-branded VISA from Olympic Sponsors Alpha-OTE-Cosmote) (Alpha Bank Investor Presentation, 2004).

Alpha Bank's online banking comprises nine percent of all transactions. The number of subscribers increased 80 percent in 2002 as compared to 2001. Transactions via Alpha Web Banking in 2002 increased by 146 percent over 2001, their number increased to 5.4 million, and the amounts handled by the system amounted to \$6.76bn (or Euro 5.6 billion) (Alpha Bank Annual Report, 2002).

In 2003, 66 percent of the banking transactions were done through branches, 25 percent through ATMs and 9 percent through online banking. For the online bill payments, 94 percent was conducted through Alpha Web Banking, 5 percent through Alpha Line and 1 percent through Alpha Phone. For online account transfers, 37 percent was done through Alpha Web Banking, 61 percent through Alpha Line, and 2 percent through Alpha Phone (Alpha Bank Investor Presentation, 2004).

Corporate Strategy for Growth

The main axes of Alpha Bank's plan for growth, consist of a steady increase of its activities in retail banking (housing and consumer credit) and in the sector of SMEs, and the attainment of high rates of growth in asset management sectors (mutual funds, mass affluent banking, private banking), in insurance, in investment banking, and in corporate banking. Positive performance in the above sectors is anticipated to bring better results and further market share. The group aims at keeping the cost-income ratio in the low 50s, reaching an 18 percent ROE, improving its profitability so that its shareholders can enjoy the maximum possible returns and is committed to maintain Tier I and Total capital ratios above 7 percent and 10 percent respectively. The Group's prospects, as recorded in the Business Growth Plan for the three-year period 2003-2005, are positive (Alpha Bank Strategy).

In the question what makes Internet banking successful, Mr. Vihos, assistant manager of Alpha Bank's Alternative Channels Division, stated constant update of services, help desk and support, reliable technology, marketing and branding and

experienced personnel at the branches to sell promote the services properly (see Appendix 3: Alpha Bank Interview).

By offering a wide range of services through the companies that comprise its group, in addition to the Internet banking services that are mentioned in the next section, Alpha Bank follows the online financial services trend towards the so called “financial supermarkets”. At the same time it seeks to be benefited from consolidations and mergers within the group. For instance, in 2002 Alpha Finance merged with Alpha bank, while in 2003 Alpha Bank consolidated with its holding Alpha Investments (Alpha Bank: Significant events during the last 5 years).

Alpha Bank is committed to constant innovation, service excellence and productivity improvement. It possesses leadership in technology and product innovation and this is proved from the introduction of new and successful products, such as the Alpha 11213. According to Mr. Vihos (see Appendix 3: Alpha Bank Interview), in Alpha bank they believe that Internet banking used to be and still is an alternative channel complementary to the physical channel - the branch. Product innovation is important to Alpha Bank, since the trend is towards bringing the bulk of transactions through the Internet channel. So, special emphasis is given to alternative networks of providing banking products and services. Alpha Bank is exploiting the capabilities provided by electronic banking applications and new networks for marketing products and services. By providing full service in connection to the entire range of products and services marketed by the group, by improving the time required for completing each activity, and by restricting costs, the bank aims at maximizing its clients' satisfaction. That is why Alpha Bank sees the Internet as a means of improving efficiency and as a strategic device of improving and transforming its business.

In his interview, Mr. Vihos stated that as increasingly the transaction processing load is taken over by technology (telephone, Internet, mobile /cellular etc.) banks and consequently and Alpha Bank, are concentrating on strengthening their marketing approach and re-inventing their business model. Therefore, traditional bank branches,

with an infrastructure supporting transaction processing, are being transformed into an open-space interface within which bank experts engage intimately with their customers, delivering specialized, advisory services. He regards that the move from ‘tellers-to-sellers’ has been greatly leveraged by the advent of Internet banking (see Appendix 3: Alpha Bank Interview).

Regarding Alpha Bank’s strategy in order to create awareness about its Internet banking services, Mr. Vihos stated (see Appendix 3: Alpha Bank Interview) that first, the bank is price sensitive; for the time being, and all Internet banking transactions are free of charge, whereas a customer pays Euro1 or \$1.2 per transaction, if s/he does more than four transactions through tellers in a branch. Secondly, when a customer complains about a specific charge when she/he performs a transaction at a branch, the personnel explains that the same transaction can be easily executed with very low or at no cost through Internet banking. And third, the bank publishes articles to its newsletter and these are freely distributed via the network of branches. Other marketing strategies include taking part in conferences and paying visits to significant corporate customers. Finally, occasionally the bank will publish advertisements.

Products and Services Overview

Together with the companies that comprise the Alpha Bank Group, Alpha Bank covers all aspects of the financial sector, providing comprehensive services in the following fields: **Financing Services** (through the companies Alpha Leasing and ABC Factors), **Financial Services** (through Alpha Mutual Fund Management, Alpha Finance, Alpha, finance U.S, Alpha Asset Management and European Development Programs Management Company of Thessaly and Sterea Hellas), **Investment Services** (through Alpha Ventures and Ionian Holdings), **Data Processing Services** (through Delta Singular), **Information and other Services** (through ICAP), **Insurance** (through Alpha Insurance and Alpha Insurance Brokers), Real Estate (through Alpha Astika

Akinita), Hotels (through Ionian Hotel Enterprises) (Alpha Bank: Significant events during the last 5 years).

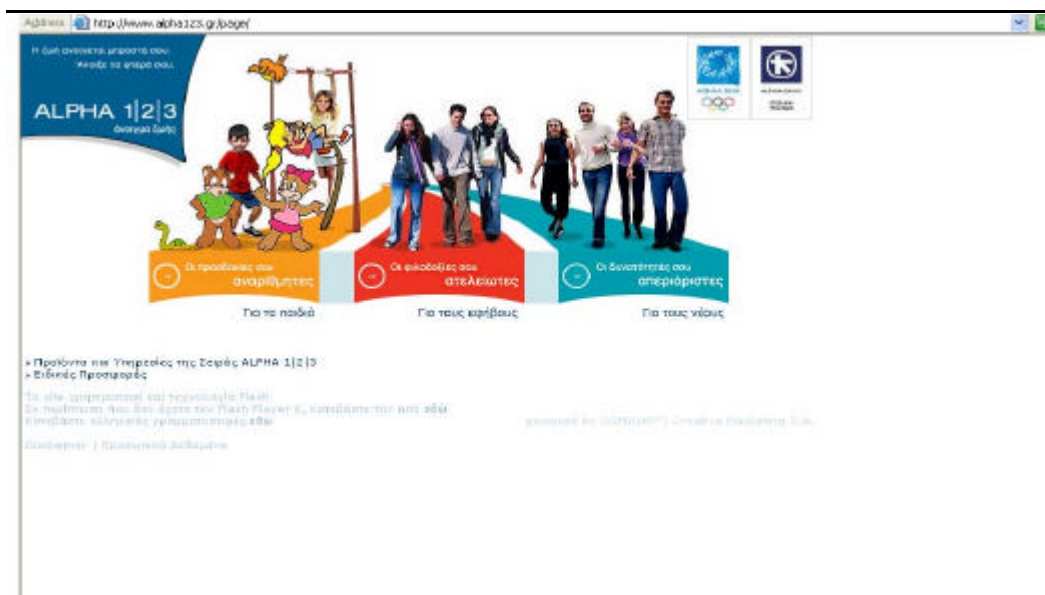
Alpha bank is acknowledged as an innovator in introducing new electronic services; the products and services offered are: **“Alphaphone”** (telephone banking with 60,000 subscribers); **“Alpha Line”** (PC banking for companies with 2,500 subscribers); **“Alpha Bank m-Banking”** (banking services over a mobile phone); **“Alpha Web Banking”** (banking services through the Internet for individual customers and small companies, with 86,000 subscribers), which according to official statistics from the Hellenic Banks Association, is used by half of the Greek Internet users in order to pay V.A.T and social security bills on a monthly basis. The volume of use for Alpha Web Banking, which is defined as the number of log-ins, ranges on a monthly basis from 43 percent to 50 percent of the total number of Internet banking usage in Greece (see Appendix 3: Alpha Bank Interview). The Bank also offers **Shipping Services** and a wide range of **Deposits and Loan Accounts, On-line Brokerage**, (which comprises 55 percent of all transactions) and **Alpha Trade** (direct stock broking via the phone, web and mobile).

Mr.Vihos, of Alpha Bank’s Alternative Channels Division, stated in his interview that Internet Banking used to be a self-service banking tool for individuals – retail customers only, but in the last few years it has gained momentum as a tool for corporations and many banks are offering different versions of their Internet banking facilities to individuals and corporations. He concluded that customer segmentation for Internet banking users has been adopted clearly and this is indicative of the fact that that Internet banking is being equally treated as a proper distribution channel for banking services. He regards that this trend is going to further evolve so that Internet banking web sites won’t be identical for all types of banking users (see Appendix 3: Alpha Bank Interview).

Following this belief for the future trend on Internet banking, Alpha Bank introduced a new product in 2003, the **Alpha 11213** (see Figure 13), in order to satisfy

young customers; from children, to adolescents, to young adults and their families. The Alpha 1|2|3 Line portrays high acceptance in the market, as it has already attracted 39,000 customers. Through its wide ranging benefits (savings accounts, cards, insurance loans, gifts, shopping discounts, promotions and rebates, educational and recreational content), the Alpha 1|2|3 line creates a strong and long-lasting relationship with “the family” and its young clients (Alpha Bank: Significant events during the last 5 years).

Figure 13: Alpha 1|2|3 (<http://www.alpha123.gr>)



Finally, Alpha Bank plans to introduce three new services in the next few years: International funds transfers, participation and liquidation of investment products, cash management facilities for retail and corporate clients (see Appendix 3: Alpha Bank Interview).

B. Web Site Analysis

As shown in Figure 14, Alpha Bank uses a perpendicular menu in its homepage, which can direct the customer to the following web pages: **Web Banking** (Alphanet ATM-24, Alpha Web Banking, Alpha m-Banking, Alphaphone Banking), **Web Site**, **Applications**, **Tools** (Branch Search, IBAN calculator, loan calculation, press release search), **Interest and Foreign exchange rates**, **Investor Relations**, **Contact us**, and **CV Submission**. A search engine is also available.

Figure 14: Alpha Bank Homepage (<http://www.alpha.gr/mainen.asp>)



There is also a horizontal menu, where under the Alpha Bank logo-button there are submenus with additional options. Underneath the logo are the following menus: **The Group**, **The Bank**, **Bank's Financial Data**, **Press Releases**, **Information Analyses**, **Alpha Bank News**, and **Cultural Activities**.

The drop-down menu the “**Alpha Bank for you**” is separate for individual customers and corporate customers. The **Individuals** menu includes links to the following: Deposit Accounts, Investment Products, Cards, Loans, Alpha 1|2|3 Youth Line, Electronic Services, Private Banking, Insurance Products, Standing Orders, and

Other Services. The **Firms** menu includes links to the same as the Individuals menu, without the Alpha |2|3 Youth Line, plus some additional services such as Loans and Advances, Alpha Pentathlon 2004, Payroll Privileges, Imports-Exports, and Shipping Services.

Additional features include a running banner with information regarding the bank's performance highlights, stock market news and indexes as well as events for the Olympic Games of 2004 in Athens. Being the official bank of the Athens 2004 Olympics, Alpha Bank is paying vast attention to the promotion of this major event.

As regards to security, alpha Bank offers Privacy Protection by utilizing the SSL 128-bit encryption protocol, the VeriSign authentication certificate, personal security codes (User ID and password) with some of the transactions to require an additional password, firewall, "idle time-out" (automatic log-off) if no transactions are performed within ten minutes, or "process time-out" if the transactions are not completed within a 30-minutes time frame, while in the case of disclosure of personal security codes to third parties the customer must contact the bank immediately (Alpha Bank security).

Overall, Alpha Bank's website does not use many graphics, does not use promotional incentives, but prefers to promote specific products and services such as credit cards and loans (i.e. Bank of America). Also, it is apparent that the focus for this period of time is on the promotion of the Athens 2004 Olympic Games. The navigation is good, the site map is very convenient, all the web pages are available in both the Greek and English language and according to Mr. Vihos (see Appendix 3: Alpha Bank Interview) "Alpha Web banking is very reliable and with downtime very close to zero".

4.2.4. Egnatia Bank

A. Corporate Profile

Egnatia Bank S.A. was established in July 1991, having its headquarters in Thessalonica by a group of successful Greek businessmen. Their vision was to create a contemporary and flexible financial organization, which would totally cover the banking needs of their customers-partners and would dynamically claim a substantial portion of the Greek banking market. Today, Egnatia Bank Group, with a 62-branches network, with its subsidiaries Egnatia Mutual Funds Management Co. S.A., Egnatia Securities S.A., Egnatia Leasing S.A., Egnatia Insurance Agency Ltd., Egnatia Fin., Egnatia Bank (Romania) S.A. and Eurocambio S.A., with the comparative advantage of its systematically trained human resources and its state-of-the-art technological infrastructure, offers a wide range of innovative products and services, satisfying even the most specialized demands of its customers-partners (Egnatia Bank Investors Relations).

Clearly, having a client based orientation and adopting contemporary and effective methods of management, Egnatia Bank today, has dramatically increased its volumes and has substantiated its position through long term relationships that cultivates and develops with its customers-partners. As of December of 2003, Egnatia Bank had assets of \$2.95 billion a 14, 3 percent increase from 2001 (Egnatia Bank: Analysis of basic financial figures).

An impressive raise of 89 percent in Internet banking transactions was achieved in 2003 compared to 2002. According to research from the Greek computer magazine RAM, Egnatia Bank was proved the third best bank in Greece in Internet banking (Egnatia Bank, 2003). Considering the number of users, which is increasing with a rate of 100 percent each year, the volume and the turnaround of the Internet transactions, the e-payments share in the Greek market, the great customer service and the degree of response and finally the innovative services, Mr. Aggelis of Egnatia Bank's Electronic Banking Department, considers their Internet banking to be rather successful.

Corporate Strategy for Growth

Egnatia Bank desires to continue to perform well in all of its business aspects and aims at increasing its growth rates. In its plans is also to take advantage of the alliances which have occurred within the Egnatia Bank Group and form partnerships with companies which can promote the groups products, to develop alternative channels for its products, to emphasize on the high-quality of its personnel and to serve its customers in such a way that they feel like being a component of the bank. Moreover, there are plans for the involvement or the development of Real Estate and the Stock Market Investments firms, for the establishment of the bank in the Romanian market and for the expansion of the group in the wider Balkan and East Mediterranean region (Egnatia bank Investors Relations).

In the Hellenic Banks Association report (HBA, 2000) it is mentioned that from the first steps in the Internet banking field in 1997 with the Web Teller service, Egnatia Bank's management believed that Internet banking would offer them competitive advantage and they did not hesitate to invest in this technology, although this was something new for the Greek banking industry. The initial target remains the same: "To offer innovative and high-tech products and services to their customers and to be established as a technology-oriented bank".

All of the electronic services are incorporated under Egnatia Bank's umbrella, but each has a different brand name according to the type of the service (i.e. egnatia Trader). Egnatia bank does not consider the Internet banking distribution channel as a separate part of the physical channel; on the contrary, it considers that it complements its traditional banking and enhances the way it attracts and retains its customers. In 2000, the Chief Operating Officer of Egnatia Bank had stated in the HBA report that the bank does not bring to a standstill its efforts to cover the customer's needs for new products and services. There is a continuous effort to follow and utilize niche technologies and also keep a close eye to the strategic actions of well-established banks from abroad.

Finally, Egnatia Bank emphasizes on the education of its customers. Based on the results drawn from numerous studies regarding the technology-phobic attitude of the consumers and their distance from the new technologies, the bank realized the necessity to educate its customers about the outcomes they can enjoy from its Internet banking services. The promotion however of its services was mainly done through its physical branches and less through the media. In the interview with Egnatia Bank (see Appendix 3: Egnatia Bank Interview), Mr. Aggelis underlined the need to make more dynamic efforts to create awareness about the Internet banking services. Its marketing strategy needs to become more intense and this is a goal of high-priority for the near future.

Products and Services Overview

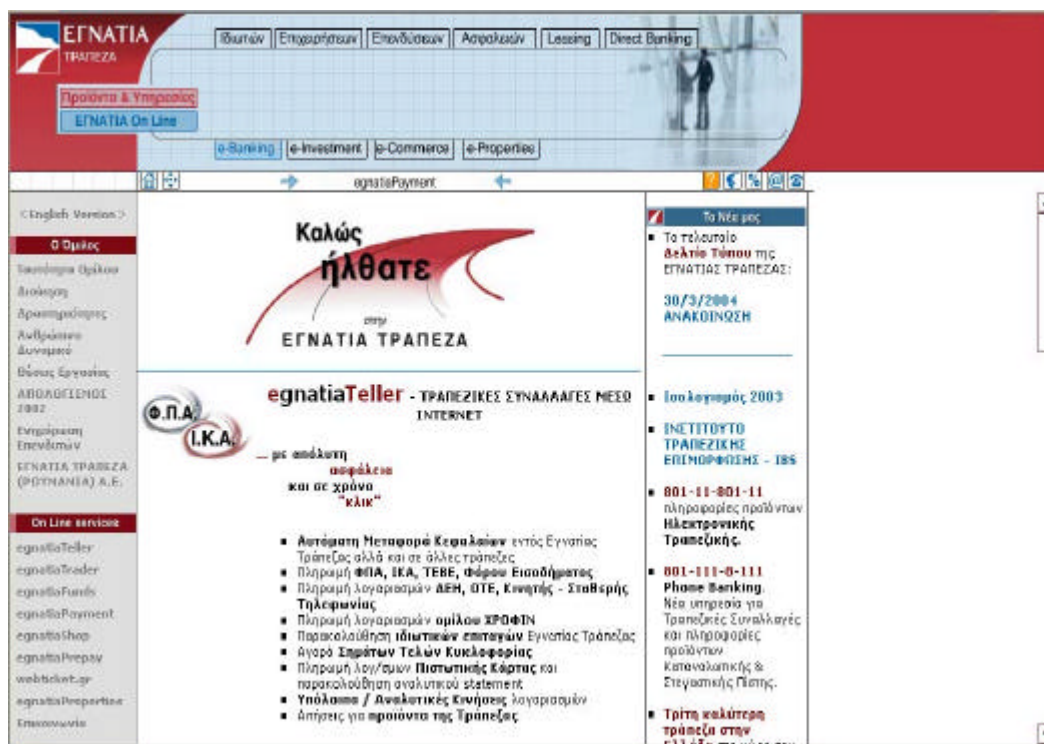
EgnatiaTeller: Automatic inbound and outbound funds transfer; VAT, Social Security and other public pension funds payments; utility and other 3rd party payments; private Egnatia Bank checks follow up; credit card payment and statement follow up; account balance and statement follow up; electronic submission of applications for Bank's products; **EgnatiaPayment:** Offers the ability to every company that holds demand or savings accounts at Egnatia Bank to execute automatically their payrolls or any other third party payments via Internet; **EgnatiaInvestment:** Egnatia Trader, Egnatia Funds; **E-Commerce:** egnatiaShop, egnatiaPrepay; and **EgnatiaProperties.**

Some of the services that Egnatia Bank plans to offer the next few years are mobile payments and P2P payments.

B. Website Analysis

Egnatia Bank uses both perpendicular and horizontal menus. In the horizontal menu, as shown in Figure 15, there are two navigation bars (a) the **Products and Services: Private** (cards, deposit accounts, other), **Business Financing** (deposit accounts, merchant banking, large companies, SMEs, shipping services, other), **Investments** (securities, private banking, treasury), **Insurance**, **Leasing**, and **Direct Banking** and (b) **Egnatia online: Internet banking** (Egnatia Teller, Egnatia Payment), **e-Investment** (Egnatia Trader, Egnatia Funds), **e-Commerce** (Egnatia Shop, Egnatia Prepay), **e-Properties**. The English webpage has only the Products and Services menu (see Appendix 2: D).

Figure 15: Egnatia Bank Homepage (<http://egnatiasite.egnatibank.gr/>)



In the perpendicular menu there are links to the Group Profile, Activities, Human Resources, Annual Reports 2004, Egnatia Bank Romania S.A, language selection (English and Greek), Investor Relations, Exchange Rates, Interest Rates, A.S.E Review, Press Releases, Open contact line, Swift Addresses and Corresponding Banking.

There is also a space on the right side of the webpage with news regarding the performance highlights of the bank, awards, press releases, stock market news and indexes, headlines and useful toll-free phones numbers. In addition, the bank promotes other services that it provides, such as webticket.gr (for reservations to several events, for instance movies, theaters, concerts etc.), egnatia Salary 1+1 (for payments in advance, for employees and pensioners), egnatia line and voice banking.

A unique feature is the way Egnatia Bank informs its customers for invalid actions or error that occur when they perform their transactions (See Figure 16). There is a wide textbox at the end of the accounts pages, where instant information regarding the progress of the transactions or errors that occurred, is provided to the customer (in red letters).

Figure16: Egnatia Bank Web Teller: Value Added Tax (VAT) Payments

ΕΓΝΑΤΙΑ ΤΡΑΠΕΖΑ WebTeller

Λογ. Χρέωσης: 0013217428 Ημ/νία Εκτέλεσης: 26/08/2003

Αιτιολογία:

Α.Φ.Μ.: Ποσό σε Ευρώ:

Α/Α	ΑΦΜ	Ποσό	Αιτιολογία

Εισαγωγή Διαγραφή

Επιθυμώ Δέσμευση του ποσού ☐

Εξοδος Βοήθεια Επιστροφή Logout Ok

Αν θέλετε να εισάγετε μία μόνο εντολή, παρακαλούμε συμπληρώστε τα στοιχεία της εντολής σας και αφού επιλέξετε 'Εισαγωγή', πατήστε το κουμπί 'OK'. Αν θέλετε να εισάγετε πολλαπλές εντολές, για κάθε νέα εντολή επιλέξετε 'Εισαγωγή' και όταν εισάγετε όλες τις εντολές, επιλέξτε το κουμπί 'OK'.

Bank Identification Code: EGNAGR2T

Egnatia Bank utilizes this textbox, where instant help is provided to the customer.

Regarding security, Egnatia Bank offers Privacy Protection by utilizing the algorithm IDEA 128-bit for encryption, the VeriSign authentication certificate, Java Applet, client identification with User ID and Personal Identification Number (PIN) that can be changed by the user anytime, firewall, automatic log-off, if the site is idle for fifteen minutes and Security Code Lock is the User ID is entered wrong three times in a row. Also for transferring funds, the use of conformation number is required; these numbers are provided by the bank to the customers themselves or are sent with courier to the address that appears on the initial application (Egnatia Bank security).

Overall, Egnatia Bank's website is "busy", but well organized and there in plethora of information regarding the Internet banking services. The main menu of the homepage is not consistent through the whole site; the user can go back by clicking on the "return" button. The English version differs from the Greek version; for instance the content of Egnatia Online is not available in the English language.

4.3. Comparison Among the Greek Bank's Websites

From 2001 to 2004, banks added many services and updated their websites. Overall, the online services offered by the Greek banks, which were presented in this paper winbank, Eurobank, Alpha Bank and Egnatia bank, regarding the accounts (balance, summary, transactions, transfers, credit cards bills and transactions, reorder cheques etc.), the payments (transfer funds to third party accounts, utilities payments, credit card payments etc.), the securities transactions (portfolio valuation, real-time share prices, charts, updates etc.), are about the same. All of the aforementioned banks offer online demo for the Internet banking and their online services for free; also all of them offer mobile and ATM services and have call centers (phone banking).

All of the banks interviewed winbank, Alpha Bank and winbank, including EFG Eurobank Ergasias, continue to update their services, introduce innovative products and have realized benefits from Internet banking; these benefits are related to operational cost reduction (\$0.01 transaction cost via the Internet channel vs. \$1.40 via the branch), increased customer acquisition and better customer service 24x7. Also all the three interviewed anticipate that the future is very optimistic. More specifically: Mr. Vihos from Alpha Bank believes that the “there will be tight integration of Internet banking with corporate ERP (Enterprise Resource Program) systems and establishment of banking relationship without visiting branches at all by authenticating the customers with digital signatures”. Mr. Aggelis regards that “since the use of Internet banking is continuously increasing and banks are going to encourage their customers to make use of it, those banks which have the appropriate infrastructure will have the competitive advantage for the years to come”. Finally, Mrs. Peleki from winbank believes that “Internet banking has a long way to cover and many new services to show us in the forthcoming years. First of all more users will become active users, which means that the demand for these services will increase. As long as technological innovations and communications tools are of customers' interest the Internet banking will continue to gain market share and unique characteristics” (see Appendix 3: Interviews).

A research that was conducted by the magazine ARENA (published in December of 2002) and which was based on the Gartner Group's standards, rated the sites of the Greek banks which offer Internet banking services. The criteria on which the research was based had to do with (see Table2): (a) the Design and Structure, (b) the Added Value for the Customer, (c) the Services Offered and (d) the Online Marketing and Security.

As for the security, they utilize SSL 128-bit encryption, firewall, and the VeriSign authentication certificate, personal security codes (User ID and Password or PIN), Security Code Lock, automatic log-off (winbank within five minutes, Eurobank within fifteen minutes, Alpha Bank within ten minutes and Egnatia bank within fifteen minutes). Alpha bank also has the process time-out within thirty minutes of inactivity and a third password that is required for some transactions, while Eurobank uses the "virtual keyboard" and Egnatia utilizes the IDEA 128-bit encryption.

As shown in Table 2, among eleven banks, the four which gathered the higher score are (from higher to lower score): winbank of Piraeus Bank (58 points out of 70 possible), Alpha Bank (55 points out of 70 possible), NOVA Bank (50 points out of 70 possible) and EFG Eurobank (50 points out of 70 possible). Citibank and Egnatia Bank followed with 49 and 48 points respectively.

On the Total Design and Structure section, Alpha bank along with Citibank ranked first; on the Total Added Value for the Customer section, Alpha Bank along with Egnatia Bank ranked first; on the Total Services Offered section, winbank ranked first; Eurobank, Egnatia bank and National bank followed. Finally, on the Online Marketing section winbank ranked first.

Table2. Greek Banks Website Evaluation

	MAXIMUM	winbank	Eurobank	Alpha Bank	Egnatia Bank	Citibank
Design & Structure						
Ease of Navigation	11	8	9	11	7	11
Aesthetics, Appearance	15	15	15	14	14	15
Search Engines	8	6	0	7	1	6
Total Design & Structure	34	29	24	32	22	32
Added Value						
Content	5	2	4	4	3	3
Information	5	5	5	5	5	4
Customer Service	5	4	3	4	5	3
Total Added Value	15	11	12	13	13	10
Offered Services						
Range of Services	10	9	8	6	8	5
Depth of Services	3	3	3	3	3	2
Total Offered Services	13	12	11	9	11	7
Online Marketing	8	6	3	1	2	0
GRAND TOTAL	70	58	50	55	48	49

Source: Pouloudi N. 2002. "New developments of ebusiness in Greece". Logistics and Technology Department of the Athens University of Economics and Business

Table2. (Continued)

	MAXIMUM	National Bank	Commercial Bank	HSBC	Laiki Bank	NOVA Bank	Bank of Cyprus
Design & Structure							
Ease of Navigation	11	8	9	7	7	9	9
Aesthetics, Appearance	15	5	14	15	12	14	15
Search Engines	8	0	0	0	0	6	1
Total Design & Structure	34	13	23	22	19	29	15
Added Value							
Content	5	1	2	2	-2	3	-1
Information	5	5	5	3	3	4	5
Customer Service	5	4	3	4	2	1	2
Total Added Value	15	10	10	9	3	8	6
Offered Services							
Range of Services	10	8	4	3	5	7	6
Depth of Services	3	3	1	3	2	3	3
Total Offered Services	13	11	5	6	7	10	9
Online Marketing	8	3	2	3	4	3	1
GRAND TOTAL	70	37	40	40	35	50	41

Obviously, Greek banks pay attention to different functions and features of their websites: Alpha Bank on the Total Design and Structure; winbank offers a wider range of services, for both individual and business customers and also has online marketing; Eurobank ranked high on the Added Value Services and does a great job in communicating its corporate vision, mission, and strategy. Egnatia Bank also ranked high on Total Services Offered and on Added Value Services.

4.4. Comparison between the U.S and Greek Banks

From the research conducted for the purpose of this paper, some similarities and some differences were identified between the U.S. and Greek banks. The similarities have mainly to do with the strategies that banks analyzed in the two countries utilize. Apparently, globalization, developments in technology and the trends in the banking industry and the online financial services towards consolidation and integration are the drivers of the developments that occurred in both Greece and the U.S. Banking institutions in both countries have formulated a number of mergers and acquisitions and have transformed into the so called “financial supermarkets”, where customers can enjoy numerous services from account management, bill payment and presentment, to investment and insurance services. Also value added services (i.e. several tools) and similar products that apply to specific customer segments were identified for Greece and U.S. (see Figure 1: Wells Fargo’s Hands on Banking Program and Figure 13: Alpha 11213).

Accordingly, as regards to the services offered, these are about the same, except that Greek banks offer mobile banking as well, as oppose to the U.S. banks which do not. This is an interesting observation; most likely this it derives from the fact that the use of mobile phones in Greece is more prevalent than in the U.S. The use of mobile phones is very common in Greece; people tend to use the latest mobile phone technologies and in many cases they own more than one mobile phone.

Another difference among the U.S. and Greek banks, which is also what makes Internet banking more successful in the U.S., is that the U.S banks have better positioned their products and services and they employ more intense marketing strategies than Greek banks. Although Greek banks provide great amount of information on their websites regarding their Internet products and services including online demo on how to use these services and what benefits customers can enjoy, the adoption rate is low in relation to the U.S. and other European countries.

Regarding the bank's websites, as it can be seen from the homepage screenshots of the banks previously analyzed in this paper, Wells Fargo and Bank of America provide the sign in area in their homepage; Citibank has the sign in button also in its homepage (see Figures 2, 7 and 4 respectively). From the Greek banks, only winbank has the sign in button in its home page. In the case of EFG Eurobank Ergasias, Alpha Bank and Egnatia Bank, the customer must look under the online services menu in order to sign in to the Internet banking (see Figures 9, 11, 14 and 15 respectively). From this detail it is evident that U.S. banks offer their online services not as a separate segment, but as an integrated part of their overall business.

Finally, marketing research and identification of who the customer really is and what are his/her preferences, is what makes the difference. This was illustrated in the case of Bank of America, which conducted research and discovered that the complexity of the identifiers used and the application process was making the consumers abandon the registration process.

Greek banks have made tremendous progress since they first employed Internet banking. From the analysis presented in this paper, it became apparent that the target customers in Greece are more difficult to capture than it is in the U.S. That is why Greek banks need to continue and strengthen their efforts in order to educate the public, utilize best practices in technology, user interfaces and marketing.

V. CONCLUSIONS AND RECOMMENDATIONS

Indisputably, Internet banking has added innovation to the banking industry and has expanded its capabilities. Internet banking technology has presented the industry with means of attaining competitive advantage and has enhanced its value proposition. The opportunities offered are numerous; lower operating costs, customer acquisition, conversion and retention, improved customer services and satisfaction, product innovation and customization, opening of new markets, reduced entrance barriers, and cross-selling opportunities by offering a wide array of products, from accounts management to brokerage and investments services. From the literature review it was confirmed that customers prefer the multi-channel approach. Internet banking offers to customers the multi-channel experience, more flexibility to manage their accounts 24x7 and more information about products and services available to them.

However, along with the opportunities, Internet banking entails many risks, the most significant of which are the increased competition, the risk of the technology becoming obsolete and the trust and security issues. For all these reasons, banks strive to differentiate and offer innovative and unique products and services, employ state-of-the art technology and invest a great deal on the security of transactions.

Analysts have observed that globalization is reshaping the structure of financial markets and is the driving force of most of the recent global trends, the most important of which being the industry consolidation and the movement towards integrated financial services. Throughout this paper, it was verified that both of these trends have been and continue to be followed by U.S. and Greek banks.

Regarding the factors that affect the adoption of Internet banking, research suggests that consumer acceptance and use of Internet banking technologies are related to the characteristics of both the individual consumer and the specific technology. These

include socioeconomic characteristics, the perception of Internet technologies, personal preferences and involvement, the status of a bank, the capability of having privacy and general incentives offered from a bank.

In the e-commerce era I, when the Internet banking trend came along, Greek banks implemented it, however not right way but a few years later. This was proven to be both an advantage and a disadvantage; advantage because they could learn from the mistakes of others by utilizing the successful strategies and avoiding those who failed. For example, the Internet only model was proved later on to be less profitable than the brick-and-mortar model. Or they could share best practices in technology, user interfaces, and marketing. The late implementation was a disadvantage, because the Greek banks lost valuable ground, thus running behind the European and American banks and still are today.

However, I believe that an early adoption of the Internet banking channel by Greek banks could have result in failure for many banks. On the one hand, the appropriate infrastructure, necessary for the implementation of Internet banking model, was not there yet. On the other hand, are the consumers; as a general conclusion, the major difference between the United States and Greece is the adoption rate of Internet banking from the U.S. and the Greek consumers respectively. Even currently the adoption is slow in Greece, and this is due to the fact that the Greek consumers and mostly the older generations are not technology-savvy; they are more reluctant to use the new technologies and more suspicious regarding the security of the online transactions. At the same time, the slow adoption rates stem from the low marketing efforts of banks to promote their Internet-based services and the insufficient consumer education regarding these new technologies.

However, in the midst of the e-commerce era II, things are taking a new direction. The new generation, the young consumers have developed an e-culture, are more acceptable to the Internet, and are making more use of it and it seems as the technology-phobic attitude is drifting apart. Greek banks have made tremendous efforts in the last

few years and all offer online demo and further information on the products and services offered, while they peer-review the examples of European and U.S. banks. They seem to be on the right track as they have started to realize the importance of this remote distribution channel and the benefits that it has to present them with.

The following are strategies and analysis concluded from my research:

- **Careful selection of strategic alliances, mergers and acquisitions:** These should match the company vision and mission, fit with the company's culture, meet its earning goals and fill market gaps.
- **Diversification:** Diversified financial companies that will be able to prove to their customers that they can save them time and money by bringing more or all of their financial services business to them, will be the winners.
- **Technology integration with business strategies:** Banks should employ innovative technologies that guarantee the safety of the transactions and provide information on the measures that the bank implements in order to avoid any fatal incident. They should emphasize on security and build trust (include statement about the protection of personal information). Convince the public that the Internet banking transactions are safe and advertise so.
- **Offer unique products according to the customers needs:** "Sticky" products improve retention and increase customer loyalty. As online active customers increase, their preferences for products and services will become more complex.
- **Educate the public:** Educate the public on how to use the new technologies and offer a coached hands-on experience to the customers. In addition to that, provide a lot of information about the products and services through tutorials, online demo, and on-site (in-branch merchandising, trial displays), and about the corporation as well. The transition of the existing branch-customers to online-customers is crucial; once consumers stick with a bank's website it will be difficult to switch to another bank. In addition, training the customers will increase their level of confidence and will improve the relationship of the bank with its customers.

- **Educate the IT and marketing personnel:** This is important in order to develop a culture that is more customer-oriented instead of technology-oriented. The outcome will be more effective communication with the customer and consequently better customer service.
- **Customer-centric business model:** Banks should embrace a customer-centric rather than a product-centric business model. The focus should be on the customer.
- **Flawless integration of physical and virtual distribution channel:** Thus banks will avoid channel conflict. The two channels should complement each other, not competing against each other.
- **Multicultural perspective:** Markets are international, so it is important for banks to be able to deal with customers of different backgrounds; accordingly, with different languages, regulations and cultures (i.e. English for Greek banks, Spanish for U.S. banks).

A successful website should contain the following features:

- **Easy navigation:** Make the Internet banking experience a good experience. The position of specific products and services should be consistent through the web pages and allow customers to locate the critical functions that they need to complete their transactions. In addition, banks should offer customization capabilities so that the more mature and advanced customers can pick out the features that are mostly useful to them.
- **User-friendly interface:** The quality of user interface is crucial when developing an Internet banking website. It is critical because it will determine the online customer relationships with the bank. Well-designed user interfaces will encourage new customers to use the online offerings and will also deliver more complex information to the more sophisticated customers.
- **Offer integrated services across the service lines:** Effective integration will allow banks to position their online products and services in a coordinated way and not as separate capabilities. Thus, the possibilities that customers will engage in online offerings are increasing.

- **Make the registration process simple and convenient:** The more complex the process, the greater the possibility that the user will become frustrated and terminate it before completing it.
- **Utilize promotional incentives:** Internet banking services should be more noticeable on the homepage; promoting Internet banking by utilizing promotional incentives and special offers shown on the homepage, can be an effective practice in order to lure more customers.
- **Provide value added services:** Such as calculators, search engines, automatic enrollment, etc. and customization capabilities, such as the ability to edit the content of their homepage.
- **Customer service:** This is a very important tool; help should be instant and available 24x7 (e-mail, alerts, phone, post).

For Greek banks it is important that they conduct solid and extensive research in order to identify the true profile of the Greek Internet banking user. They should invest on marketing research, because it is essential to understand the customer's needs and keep a close eye on any changes regarding their preferences and their online behavior. They should also increase their marketing efforts and promote Internet banking as an integrated part of their overall business. In that way, they will achieve not only increased product awareness, but customer education and familiarity with the capabilities offered online as well. Customers need to be convinced that the new services worth the effort. Besides, this can result in a great source of viral marketing; word-of-mouth communication can increase adoption rates and is also a very cost-effective means of advertising. Taking into consideration the resources invested in technology, the human resources required for developing new products and services and the risks taken, Greek banks should focus on bringing more customers to the Internet channel, in order to enhance its profitability.

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APPENDIX

Appendix 1: Tables

Table A. Web Banking in 1995 and 2002

Metric	May 1995	May 2002
Financial Institutions with Web Banking World Wide	1	6,000
Financial Institutions with Web Sites World Wide	50	14,000
Total online banking households World Wide	5 million	100 million
Total online banking households in the U.S.	300,000	28 million
Monthly bank and credit card Web traffic in the U.S.	100,000	50 million
Monthly credit card apps submitted via Web in the U.S.	0	1.5 million

Table: 7.5 Years of Web Banking

Source: Online Banking Report: Internet Strategies for Financial Institutions (2002).

**Table B: Direct Competitor Comparison:
Citibank, Wells Fargo and Bank of America vs. Industry**

	Bank of America Corp.	Citibank	Wells Fargo Corp.	Industry
Market Cap:	164.19B	267.13B	96.19B	184.00M
Employees:	133,549	253,000	140,000	265
Rev. Growth (ttm):	0.065	0.018	0.036	0
Revenue (ttm):	31.64B	57.05B	19.42B	56.31M
Gross Margin (ttm):				0.3446
EBITDA (ttm):				25.38M
Oper. Margins (ttm):				0.6226
Net Income (ttm):	10.81B	17.78B	6.20B	9.80M
EPS (ttm):	7.138	3.424	3.651	1.39
PE (ttm):	11.28	15.13	15.51	17.66
PEG (ttm):	1.14	1.12	1.17	1.55
PS (ttm):	5.25	4.73	5.01	3.56

Source: Yahoo Finance: Bank of America Corporation BAC

<http://finance.yahoo.com/q/co?s=BAC>

Appendix 2: Figures

Figure A: Citibank's "My City" Financial Portal

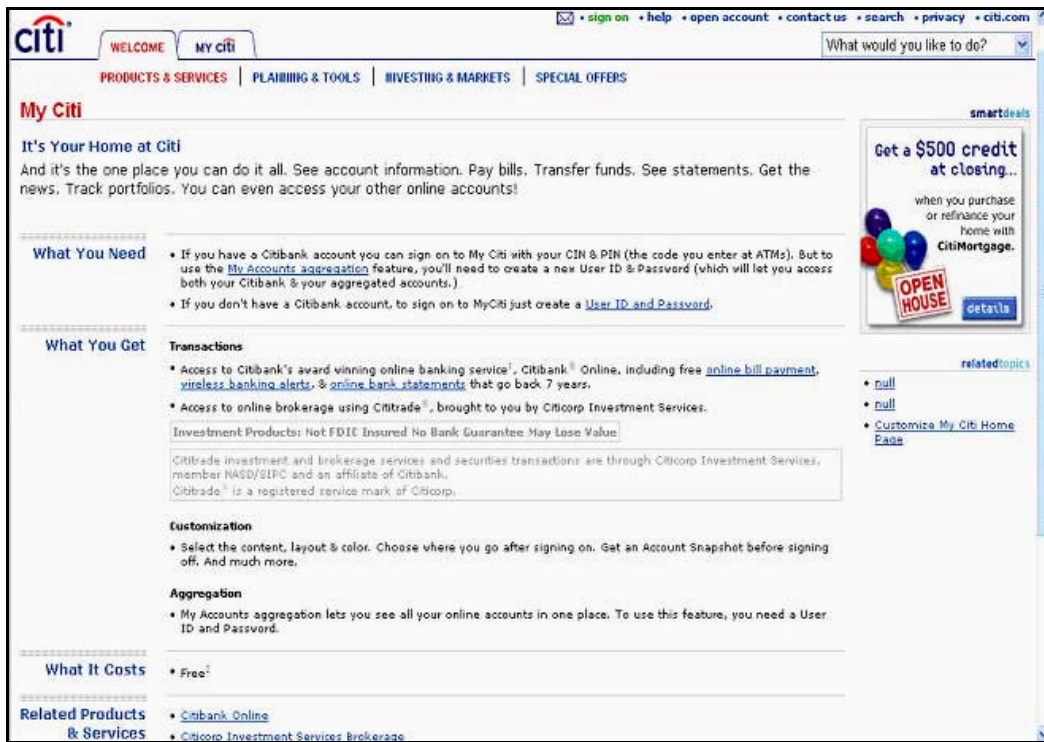


Figure B: winbank Security Alert

https://www.winbank.gr/info/SecurityPopup/secure_EN.asp

Winbank Security Alert - Microsoft Internet Explorer

Code leak

The access codes that you use for your e-transactions are strictly personal (your PIN in particular) and should not be disclosed to third parties.

- **Never disclose your Security Code (PIN) to any third parties.**

Bogus phone calls

Be ware of anyone who might call you and present themselves as a Piraeus Bank representative asking for any of your personal data (PIN, User ID, account number etc.)

- **Ignore such phone calls! Piraeus Bank will never ask for your personal data.**
- *The **only** information we may ask for is your **User ID** (and not your PIN) and this may **only** happen if you call us and inform us that you have been 'locked out' and the system does not recognize your PIN.*

Scam spam

Be ware of any e-mail asking you to provide your personal data (PIN, User ID, account number etc.) Senders of such e-mails pretend they are the Bank as it is very easy to include the Bank's name in the "From:" field. Even more, those pretending to be Bank representatives may try to lure you by claiming that they have to deposit a considerable amount of money to your account, that they want to send you a remittance etc. and that they thus need your personal data. Do not believe them.

- **Ignore such e-mails! Piraeus Bank will never ask for your personal data (and definitely not through an e-mail message which is not encrypted).**

Bogus sites

Be ware particularly of e-mails containing a link to any Piraeus Bank sites (<http://www.winbank.gr>, <http://www.piraeusbank.gr>) and specifically to our internet banking site (<https://www.winbank.gr>). The sender may attempt to mislead you to a site apparently similar to that of our internet banking. He/she wants you to enter your personal details so as to capture them.

The same applies to links, banners etc. you may find on pages of other sites which intend to mislead you to the bogus winbank site.

- **Before entering your codes, make sure you are on the correct site: <https://www.winbank.gr/>.** There has to be an "s" after "http". The URL has to be "winbank" and not "win-bank" or "wimbank" etc.
- **Make sure the page has the icon showing that the site is secure.** Even better, double-click on the icon in order to open the digital certificate and in the window that appears make sure you are on the authentic Piraeus Bank and winbank sites.
- **For your convenience but also for security reasons, save the winbank address in your browser's Favourites. Do the same for the other Bank's sites: <http://www.piraeusbank.gr> and <https://www.winbank.gr>**

Print

Figure C: EFG Eurobank Ergasias Homepage

<http://www.eurobank.gr/online/home/generic.aspx?id=3&mid=333&lang=en>

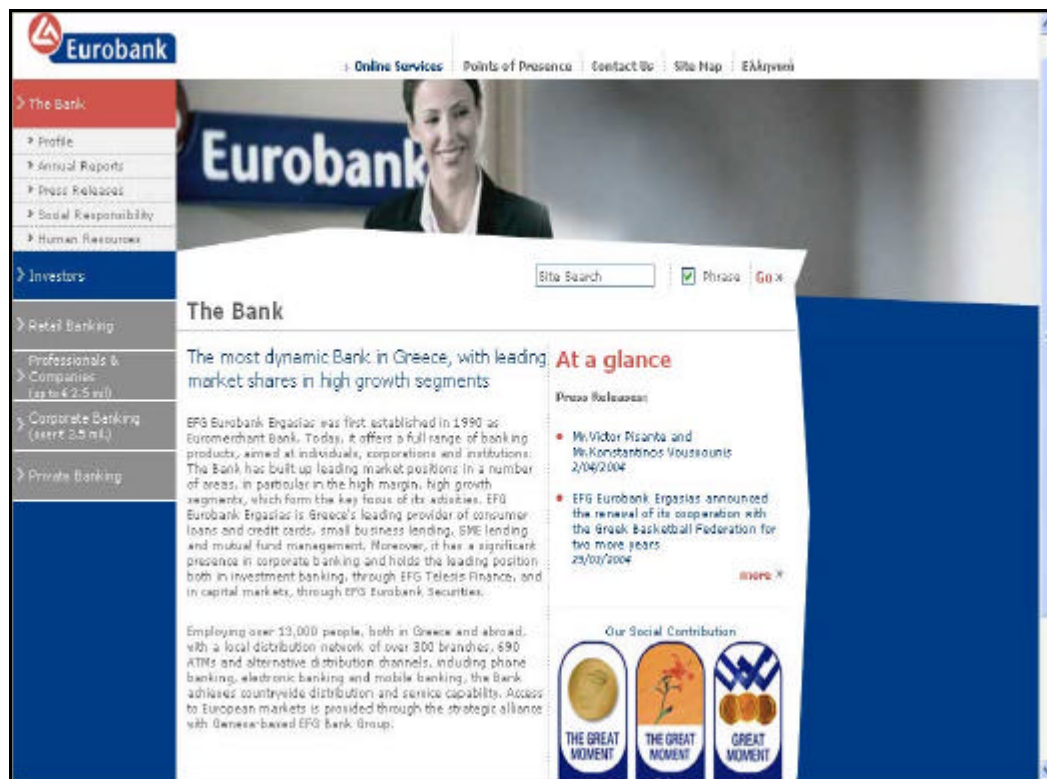
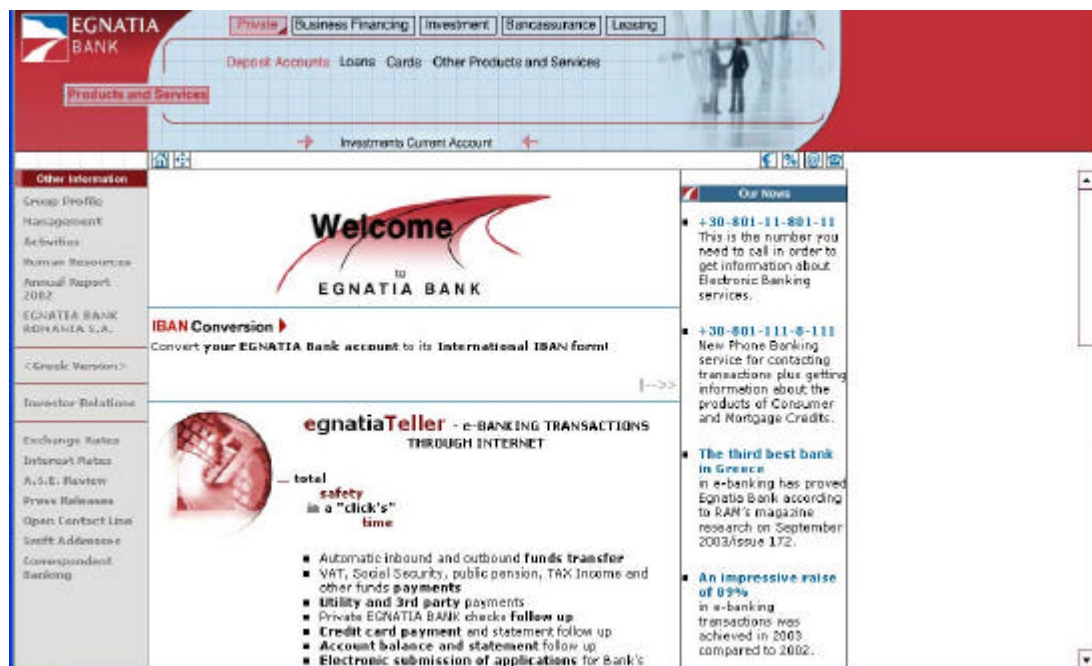


Figure D: Egnatia Bank English Homepage

<http://egnatisite.egnatibank.gr/En/default.htm>



Appendix 3: Interviews

Background & Statement of Purpose:

The Internet has become a necessity for banks that want to move forward and follow the developments in information and communications technology. According to analysts, Internet banking has revolutionized the whole banking industry; it is said to have provided banks with new and cost-effective means of retaining and increasing their customer base.

The purpose of this interview is to gather information for the requirements of my thesis project: *“Internet Banking History and Strategies: A Case Study of U.S and Greek Banks”*. My project will describe the history, the current status as well as the projections and trends of Internet banking for both the United States and Greece. The situation in the U.S and in Greece will be described and the case of some successful U.S banks and some successful Greek banks will be analyzed in an attempt to identify their critical success factors. Also, the risks and opportunities of Internet banking will be summarized and some recommendations will be made for Greek banks.

END NOTE:

Thank you very much for your time.

Any information will be solely used in order to complete my thesis research.

Interview 1: Alpha Bank

Answers where provided through e-mail on Friday April 2, 2004 by:

T.E. Vihos, Assistant Manager, Alpha Bank - Alternative Channels Division

QUESTIONS (You can provide examples wherever you feel it is necessary)

1. What, from your perspective, is the latest trend in Internet banking?

Internet Banking used to be a self-service banking tool for individuals – retail customers only. In the last few years it has gained momentum as a tool for corporations and many banks are offering different versions of their Internet banking facilities to individuals and corporations. Apparently, customer segmentation for Internet banking users has been adopted clearly indicating, therefore, that Internet banking is being equally treated as a proper distribution channels for banking services. This trend is going to further evolve so that Internet banking web sites won't be identical for all types of banking users. See, for example, <http://www.alpha123.gr>.

2. What are the impacts brought by Internet banking to your corporation?

The role of branches is increasingly changing as banks move from a view of the Internet as a means for improving efficiency, to one of seeing it as a strategic device for transforming the business. Since more and more of the transaction processing load is taken over by technology (telephone, Internet, mobile /cellular etc.), banks are concentrating on strengthening their marketing approach and re-inventing their business model. In this context, traditional bank branches, with an infrastructure supporting transaction processing, are being transformed into an open-space interface within which bank experts engage intimately with their customers, delivering specialized, advisory services. The move from 'tellers-to-sellers' has been greatly leveraged by the advent of Internet banking.

3. What new services (if any) do you plan to offer in the next few years?

- International funds transfers
- Participation and liquidation of investment products
- Cash management facilities for retail and corporate clients.

4. *How has the Internet impacted your marketing and business strategies?*

See answer to q. 2 above.

5. *How do you create awareness about the Internet banking services that your corporation offers?*

- Price sensitivity: For the time being, all Internet banking transactions are free of charge, whereas a customer pays €1 per transaction, if s/he does more than four (4) transactions through tellers in a branch.
- When a customer complains about a specific charge when s/he performs a transaction at a branch, the personnel explains that the same transaction can be easily executed with very low or at no cost through Internet banking.
- We publish articles to the bank's newsletter freely distributed via the network of branches, we present Internet banking services at conferences' audiences and we pay visits to significant corporate customers. Finally, from time to time we publish advertisements.

6. *Is the Internet channel more challenging than the physical channel (branch)? Are online consumers more difficult to capture?*

- Customer 'training': sometimes the 'sales' of Internet banking services fail because the potential user needs or wants to be trained before s/he decides to subscribe. A coached hands-on experience is the best way to effectively transform a customer to an Internet banking user.
- Since there is no face-to-face contact, it is difficult to explain to the customer the 'what and how' of Internet banking.

7. *How successful is your Internet banking?*

Some key statistical indicators that argue for the success of Alpha Web Banking (official statistics of 2003, Hellenic Banking Association):

- (July 2002): half of the Greek Internet users are choosing Alpha Web Banking to pay VAT and social security bills monthly [Hellenic Interbanking Systems data].

- Alpha Web Banking active users account for 35% - 40% of the total Internet Banking users in Greece, which is more than 10% bigger than Alpha Bank's market share.
- In terms of Usage: Alpha Web Banking's 'volume of use' [defined as the number of log-ins] ranges on a monthly basis from 43% to 50% of the total number of Internet banking usage in Greece.
- As for the volume and Euro value of the funds transfers through Internet banking, Alpha Web Banking's score ranges between 60% and 70% of the corresponding totals of the Greek market.

Customer satisfaction is expressed in numerous e-mails that we receive daily. A few questions / complaints are replied within 24 hours improving customer loyalty and satisfaction even more.

8. *What lessons (if any) have you learned from other banks which failed in their Internet banking model?*

We did not choose to follow a zero-gravity dot com bank model. We believe that Internet banking used to be and remains an alternative channel complementary to branches and a means of adding value to the relationship with customers. As people become more and more keen to using the Internet and can perform more transactions through Internet banking, the bulk of banking transactions will eventually migrate from the branch to the electronic distribution channels. This balanced approach moves forward towards innovation without taking business-wise risky steps.

9. *How has Internet banking impacted your profitability?*

Alpha Web Banking as well as the other electronic alternative channels that the Bank is operating has contributed towards the reduction of the operating costs of the Bank. It is not at all easy to measure it quantitatively – however we do calculate the cost savings on a case-by-case basis.

10. *Why should customers choose your bank to conduct Internet banking instead of another bank?*

- We constantly develop new content and new services

- We support customer by telephone and by e-mail
- Alpha Web Banking is very reliable, with downtime very close to 0.

11. What do you think makes Internet banking successful?

- marketing and branding
- experienced personnel at the branches to sell it properly
- reliable technology
- help desk and support
- constant update of services

*12. What can banks in other countries (including Greece) learn from the U.S experience?
Do you think strategies used in U.S Internet banking can apply to other countries?*

Best practices in technology, user interfaces and marketing can be shared.

13. What do you think the future of Internet banking will be?

- Tight integration of Internet banking with corporate ERP systems.
- Establishment of banking relationship without visiting branches at all by authenticating the customers with digital signatures.

14. Is there anything else you think I should ask or I should know about your Internet banking?

Interview 2: Egnatia Bank

*Answers where provided through e-mail on Monday April 5, 2004 by:
Vasilis Aggelis, Electronic Banking Department*

QUESTIONS (You can provide examples wherever you feel it is necessary)

1. *What, from your perspective, is the latest trend in Internet banking?*
 - **The ability to serve large corporations** (telephone and mobile phone companies, Internet Service Providers etc.) as well as companies in the Public Sector.
 - **Provide full Internet banking services for corporations** (salary payments, mass payments, corporate obligations transactions etc.)
 - **Micropayments**
2. *What are the impacts brought by Internet banking to your corporation?*
 - **Reduction of operations costs**, given that a transaction on a physical branch costs €1.17, while through the Internet it costs €0.01.
 - **Better Customer Service, there** is no need to get to the physical branch, so there are no long waiting lines, customers can save time and can enjoy free services.
 - 24 hours customer service; 24x7, 365 days a year.
3. *What new services do you plan to offer in the next three years?*
 - **Mobile payments**
 - **P2P payments, etc.**
4. *How has the Internet impacted your marketing and business strategies? How do you create awareness about the Internet banking services that your corporation offers?*

This is the only thing that we have not take advantage of. However, it is one of our goals for the near future.

5. *Is the Internet channel more challenging than the physical channel? Are online consumers more difficult to capture?*

Of course; the Internet is a greater challenge. Internet technologies are developing so fast that it is inevitable not to adjust your current and new services into the new circumstances. Internet customers are for sure more familiar with both the new

technologies and the banking issues. Attracting these customers is easier due to the many advantages that we have to offer to them. However, one stumbling block would be the insufficient promotion of our products.

6. How successful is your Internet banking? And how do you measure success?

Our Internet banking is among the most successful in Greece. In the last comparative test that the technology magazine RAM conducted, Egnatia's Internet banking gained the 3^d position. Given the market share of Egnatia Bank in a National level, the position that our Internet banking possesses is many steps further on. Taking that into consideration, we can say that in relation to leading Greek banks, such as the National Bank of Greece, Commercial Bank of Greece and Alpha Bank, Egnatia Bank is in a better position.

Factors responsible for our success are:

- **The number of users**, which is increasing with a rate of 100% each year
- **The volume and the turnaround of the Internet transactions**
- **The e-payments share** that we possess in the Greek market
- **The great customer service and the degree of response**
- **Our innovative services**

7. What lessons have you learned from other banks which failed in their Internet banking model?

Experience has shown that in order to offer successful electronic services 2 major rules should take effect:

- Customers should be ready and also educated to accept these services
- There should be clear, detailed and well established specifications, able to cover any possible future change or modification.

8. How has Internet banking impacted your profitability?

There are two major variables that affect our profitability:

- Supply income from individual customers and organizations (OTE, D??, FORTHNET, etc.)

- Reduction of our operational cost

9. *Why should customers choose your bank to conduct Internet banking instead of another bank?*

- **Ease of using our services**
- **Instant customer service**
- **Personal communication with the customer**
- **Low supply rates**
- **Innovative and unique services** (prepaid card egnatiaPrepay, webticket.gr, egnatiaProperties)

10. *What do you think makes Internet banking successful?*

- **Continuous Availability**
- **Online Response**
- **Cheaper rates**
- **Reduction of paperbases transactions etc.**

11. *What can banks in other countries learn from the U.S experience? Do you think strategies used in US Internet banking can apply to other countries?*

For the time being we emphasize on the European Internet banking. Certainly, in the future, we will take into consideration the U.S experience as well.

12. *What do you think the future of Internet banking will be?*

The future of Internet banking seems to be very bright. Domestic and international research has found that Internet usage will be continuously increasing and banking institutions will be encouraging their customers to use their Internet banking services. Consequently, those banks which have the appropriate infrastructure will have the competitive advantage for the years to come.

13. *Is there anything else you think I should ask or I should know about Internet banking?*

I think that your questions cover a wide range of issue related to your case study.

Interview 3: winbank

*Answers where provided through e-mail on Thursday April 22, 2004 by:
Mrs. Georgia Peleki, winbank Marketing Department*

QUESTIONS (You can provide examples wherever you regard it is necessary)

1. What, from your perspective, is the latest trend in Internet banking?

The new trend is focused on adding more services so as customers won't need to visit a branch. Most of the services offered through Internet banking are free of charge and customers can proceed with their transactions more often since Internet banking covers a wide range of services, 24x7.

2. What are the impacts brought by Internet banking to your corporation?

Taking into consideration that Internet banking adds value to our customers and we want to attract and retain new customers the impact brought, a direct affects on the way we manage and support our customer's needs.

3. What new services (if any) do you plan to offer in the next few years?

Mainly services that will add value as well as useful services to our customers; services to become tools for their transactions in daily basis; more high tech services through alternative communication channels.

4. How has the Internet impacted your marketing and business strategies? How do you create awareness about the Internet banking services that your corporation offers?

Internet banking is a basic channel for the bank and supports marketing and sales plan, which is incorporated to the general marketing and sales plan. The awareness is created mainly through direct marketing actions as all branches have the winbank logo at their labels, all the leaflets and brochures presents the winbank services, the appearance to

exhibitions, forums is always of high priority and in general we try to organize on line contests and games to reward and to truck new consumers.

5. *Is the Internet channel more challenging than the physical channel (branch)? Are online consumers more difficult to capture?*

Internet channel is more challenging than physical channel since it gives access 24hours to users, not only to enter, but also to complete banking transactions and to be informed about their transaction result in real time with only one mouse click away. Customers can access their accounts from everywhere, any time. In general the can have control of their accounts a fact that differentiates the Internet from the physical channel (branch) since there is no need to visit and wait in queues.

6. *How successful is your Internet banking?*

Without a doubt, winbank Internet banking is fully accepted since the 91% of our customers state that they are satisfied from the Internet banking services and till now the number of our active Internet users is growing dynamically.

7. *What lessons (if any) have you learned from other banks, which failed in their Internet banking model?*

8. *How has Internet banking impacted your profitability?*

9. *Why should customers choose your bank to conduct Internet banking instead of another bank?*

Piraeus Bank through its online bank channel, winbank offers a wide range of banking products which can definitely content our customers demanding needs. In the document that you already hold you can be informed in detail about the mediums and the services we offer.

10. What do you think makes internet banking successful?

From the time that Internet banking began operating the customers can complete their transactions any time during the day without having to visit a branch. Even more the customer can take advantage of the extra tools offered from the banks in order to organize and to manage their transactions, view the history of their transactions and the status of their financial actions, benefits that the traditional banks can not offer to its customer to the extent that online banks can.

*11. What can banks in other countries (including Greece) learn from the U.S experience?
Do you think strategies used in U.S Internet banking can apply to other countries?*

12. What do you think the future of Internet banking will be?

I believe that Internet banking has a long way to cover and many new services to show us in the forthcoming years. First of all more users will become active users which means that the demand for these services will increase. As long as technological innovations and communications tools are of customers' interest the Internet banking will continue to gain market share and unique characteristics.

13. Is there anything else you think I should ask or I should know about your Internet banking?