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A detail comparative study on e- banking VS traditional banking

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Abstract

The e-banking system is a system which makes enable financial institutions customers to perform financial transactions i.e.: account transfers, balance information, bill payments and some of them provide even the probability to build credit card or loan applications on a website operated by the institution by internet at any time or place. The e-banking is also known as interne banking or online banking. The banks have selected to be part of the wide world Web for staying competitive in the rapid changing business world and also to take further benefits. This innovation (achieved by globalization and technology growth) has “obliged” the business entities to remodel and redefine their operations. Electronic banking is the future wave. It offers tremendous advantages to consumers in terms of the cost and ease of transactions. But it also introduces new challenges for country management in regulating and monitoring the financial system and in implementing and designing macroeconomic scheme. In the first section there is a summary of E-banking products and facilities provided world wide web and in Albania as a particular case. In the second section there is a basic summary of the e-banking benefits and drawbacks. In the third section there is an explanation about the characteristics, challenges, benefits and drawbacks of E-Banking versus traditional banking. Finally, there are provided some basic suggestions to be taken in account for maintaining efficient and to further formulate the operating atmosphere for the available and potential e-banks.

Keywords: E-banking, Transactions, Online Banking Security, Security Flaws, Security Policy

1. Introduction

As internet commercialization emerged in the early 1990s, conventional “bricks and mortar” banks started to inquire ways of providing limited online facilities to decrease operating costs. The success of these early attempts led several banks to increase their internet availability with enhanced websites that featured the capability to download forms, open new accounts and process loan applications. The next phase of development was the arrival of internet-only banks that provided online banking and other financial services and products without a network of branch offices. The past of online banking begins in the early 1980s in UK and US but it began to achieve its popularity in the late 1980s and had a very different meaning than it does have nowadays. The term online banking referred to the usage of a keyboard, terminal and computer monitor or television to access one’s bank account utilizing landline telephone. In 1981 New York City become the first place in the U.S to check this advanced way of doing business (four of the major banks used it: Chase Manhattan, Citibank, Chemical and Manufacturers Hanover) but since, customers were used about this novel way of doing business so it firstly failed but achieved attention again in the mid-1990-s. Customers were hesitating to employ e-banking because some didn’t trust its security characteristics, were not sure how to utilize it. At the 1990s banks employed the web as a way of increasing its service, without communication with the customer. Their web pages offered only information i.e. images of their maps of branches or building and ATM locations, phone no. to call for further information and simple products listings. Wells Fargo was the first bank to initialize the interactive banking facilities on the Web in 1995. After that “Presidential” became the first bank in US that provided the chance to open bank accounts across the internet.

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In 2000 about 80% of the banks in America provided online banking facility and with the dissemination of e-commerce a novel era for e-banking began. In 2001, Bank of America built history as the first financial institution that obtained more than 3 million online banking users which meant 20% of its user's base. According to research by Online Banking Report at the starting of 2004, about 33 million U.S. households (31% of the market) were utilizing online banking. After Five years, 47% of Americans employed online, according to a review by Gartner Group. During this time, in the UK e-banking developed its reach from 63% to 70% of internet subscribers between 2011 and 2012. Globally, 423.5 million people used online banking sites during April 2012, arriving 28.7% of the internet audience. In North America, 45% of internet users used banking sites. Online banking began in the automatic teller machines form and telephone transactions form but recently, it has been converted by the Internet, into a new delivery channel for banking facility that advantageous both banks and customers. Access is convenient, fast and existed around the clock, whatever the user's location. This can offer facilities more effectively and at considerably lower costs.

2. The Evolution of Internet Banking

The ancestor for the contemporary home online banking services and products were the distance banking services and products over electronic media from early 1980s. The term "online" became famous in the starting of 1990s and referred to the usage of a terminal, TV (or monitor), keyboard to access the banking system utilizing a phone line. Online facilities began in New York in 1981 when four of the city's bigger banks (Chase Manhattan, Citibank, Chemical and Manufacturers Hanover) provided home banking facilities utilizing the videotex system (Cronin, 1997). Due to the commercial failure of videotex these banking facilities never became famous except in France where the usage of videotext (Minitel) was subsidised by the telecom supplier and the UK, where the Prestel system was employed. Today, several banks are internet only banks. Unlike their predecessors, these internet only banks do not manage brick and mortar bank branches. Rather, they basically distinguish themselves by providing better interest rates and online banking characteristics. In Europe, adoption rates of internet banking use reduce from rich to poor and north to south. According to a research report from Deutsche Bank, GDP per capita and latitude describe statistically around 80% of the variation in Europe, as recommended by linear regression analysis, and the European average (EU-25, 36 percent) is lesser than the USA average (44 percent) (February, 2006). Internet banking develops – often, but not always at the cost of branch visits. Bank users in Europe increased their usage of internet banking whereas Europeans do not differentiate between e-commerce and internet banking. By saying this, there is a capacity that those who shop online are also more wanting to bank online with nordic countries to be more responsive to internet banking as compared to their share of online shoppers would propose while British and Germans exhibit a more constant and reserved attitude towards online banking (Deutsche Bank Research Report, 2006).

Furthermore, the same research report from Deutsche Bank specifies that the share of internet bankers does not reduce with age. In the contrary, internet use decreases with age but related to internet subscribers as a whole, the share of internet bankers in the EU is constant for those over 24 years, for

example, out of those who utilize the internet, approx 40% also employ internet banking, without regarding of age. In doing so, one of the most complications in people approaching the internet is their reluctance which is further a problem to development of online banking among older users. Additionally, Europeans with higher education are more likely to utilize the internet and perform financial transactions online because better educated people have fewer reservations about technology adoption and thus, are early followers of it. Since, following Rousseau *et al.* (1998), users' trust in e-banking is described as *willingness of users to do on-line banking transactions, requiring that the bank will satisfy its responsibilities, regardless of their capability to scan or control banks' actions.* Security of online financial transactions is a primary concern for customers' trust in e-banking facilities and particularly, in internet banking services and products. In performing so, even if security incidents have been on the fall, users do not have trust in online banking facilities, partly, of their concern of losing their money. In the following section, a withdrawal on security problems is raised for security to be better understood.

3. E-Banking or Traditional Banking?

The question that naturally arises to each banking user is whether they should invest (deposit) my money in the conventional way by presenting physically in the bank counters or utilizing online banking. Now a day "time" has picked up a significant value for both businesses and individuals and for certain in this perspective e-banking has much more precedence. Alike conventional banks, online banks are secured at Deposits Insurance Agencies so at this perspective, users funds are equally protected by both systems. Apart this every system has its own benefits and drawbacks.

The benefit of Traditional Banking vs E-Banking

- The main benefit is the speed of accessing the funds;
- Direct interaction with a teller, bank manager or special accounts representative;
- Clients have much more security because the funds they have deposited are certified by a hard copy document which is signed by the allocated bank staff;
- Another security factor offered by the availability of surveillance cameras and the existence of security persons at the bank.

4. The Advantages of E-Banking Vs. Traditional Banking

Online Banking operates in the same manner as traditional banking except that it provides to its clients the probability to: access information about their accounts, to build payments or reconcile movements performed in the accounts at any specified time with no requirement to be physically available at the Bank Wicket. All this is possible through the internet mediation. According to studies e-banking is becoming more and more famous because of the benefits it provides:

- Possibility to access all its facility at any time and any place and all is required is a PC or a mobile and internet connection;
- Clients are served with no requirement to wait in queue;
- It is an effective system which provides the possibility to: pay bills, reconcile accounts, obtain the outstanding balance, make transfers, pay bills;
- Reduced costs: No requirement to spend money for transportation to Bank Units and no requirement to pay commissions for account statement or other information

which are offered because of some commissions in the conventional way of banking;

- Users get alerted through sms or email alerts if there is any unauthenticated activity on any their accounts for protecting the safety of their money.

4.1 Advantages and Disadvantages That Accompany the E-Banking Usage

Online banking has achieved great significance and one of the main causes is that it provides the probability to utilize banking facilities in real time 24/7. Through this each banking user has no requirement to be physically available in the bank or to obtain information about his statement of bank because he can download it within a minute.

E-banking provides benefits not only for the user but also for the economy and the bank as a whole. The main benefit of users (individuals or corporate) from e-banking are as following:

- Account assessing and bank facilities cost reduction. Clients can access information, cash withdrawals, make transfers or reschedule future payments by avoiding conventional e-banking services costs.
- Convenience. Online banking builds it possible to make transaction 24 hours at any place with no requirement of physical availability and as a result with no requirement of transportation costs. This builds banking easier, faster, more effective and even more efficient because consumers are capable to always stay on top of their account balances.
- Fast and continual information access. This has a great significance for both individual and corporate customers because they can access information for all their transactions and accounts simultaneously and can continue utilizing this information for their financial analysis and reports or for further future decisions.
- Better Cash management. The electronic performance of the transactions increases the cash flow speed through the instruments availability that build possible its better management. For instance: E banking builds it easier to maintain the company short term fund through: overnight investments, securities or money market operations. By online banking users can build a consolidated interface and can easily maintain their credit or debit accounts, their investment portfolio, loans or other financial assets.

4.2 The Disadvantages of E-Banking

Some users nowadays hesitate utilizing online banking because they suspect the safety of performing transactions through internet. Their statement is described somehow by the strong drawbacks that come with online banking:

- Indirect cost. Accessing e-banking facilities ask good knowledge and access to a PC and also internet link which means extra costs for the subscriber.
- The deficiency of cash availability. Users can not make physical cash deposits when utilizing online banking.
- Transaction problems – face to face meeting is better in managing complex transactions and issues. Customary banks may call for meetings and look for expert suggestions to resolve problems.
- The risk of security breach - Security is by far one of the major concerns dealing with e- banking, worrying that intruders will get into their account and spend their money. The access of unauthenticated persons in the system is a concern for both clients and banks.

5. Internet Banking Security

Internet banking is a new particular banking area, part of e-banking industry, which permits people to communicate with their banking accounts virtually from anywhere in the world. Internet banking approaches few evolving trends i.e. customer need for any time, anywhere facilities, product time to market essentials, and increasingly complicated back-office integration challenges. One such issue is the online financial transactions security. In order for the industry to grow further, secure transactions with the customers trust are essential aspects. Some banks advertise secure online facilities, and permit their user to perform a broad range of banking activities. Some of the security characteristics in internet banking use involve:

5.1 Security token devices: Protection through single password authorization, as its the case in most secure internet shopping sites, it is not assumed secure enough for personal online banking applications in some countries. Particularly, here are two different techniques for internet banking: The PIN/TAN system where the PIN shows a password, utilized for the login and TANs showing one-time passwords to authorize transactions. TANs can be disseminated in various ways, the most famous one is to forward a TANs list to the internet banking customer by postal letter. The most protected way of utilizing TANs is to producing them by employing a security token. These token created TANs are based on the time and a unique secret, saved in the security token. Often, internet banking with TAN/PIN is performed by a web browser utilized SSL secured links, so that there is no extra encryption required. Another way to offer TANs to an internet banking customer is to forward the TAN of the current bank transaction to the subscriber's (GSM) mobile phone through SMS. The SMS text often provides the transaction amount and details, the TAN is only valid for a short time period.

5.2 Signature based internet banking: where whole transactions are signed and encrypted digitally. The Keys for the signature creation and encryption can be recorded on smartcards or any memory medium, based on the concrete implementation.

5.2.1 Security: Transactions security is a primary concern for banks whereas the deficiency of security may result in critical actual loss. Examples of powerful hazards of internet banking involve minting electronic currency, online transactions etc.

5.2.2 Anonymity: The privacy problem is a subset of the security problems banks face. By strengthening the secrecy of the sender's personal information and improve the transactions security. Examples of private information related to the internet banking industry involve the transactions amount, the transaction time and date as well as the merchant name where the transaction is occurring.

5.2.3 Authentication: Encryption may support make the transactions more protected but there is also a requirement to ensure that no one can modify data at either end of the transaction. In performing so, there are two ways that someone can validate the message integrity. One verification form is the secure Hash algorithm which secures data from any possible changes (Pfleeger, 1997). In practice, the sender forwards the Hash algorithm created data. The receiver performs the same computation and compares the two to make ensure everything reached correctly. If the two results

are different, a modification in the message has taken place. The other verification form is through a third party known as Certification Authority (CA) with the trust of both the receiver and sender to verify that the electronic currency or the digital signature that they achieved is real.

5.2.4 Divisibility: Electronic funds may be divisible into several currency units same as real money value. For instance, electronic money requires to accounts for nickels and pennies Internet banking, minimum to some degree, has become the norm for several simple bank transactions. And that's not a bad thing - the simpler and more protected it is for consumers to examine their accounts, transfer money from one account to another, pay their bills and the more likely they are to actually do these things and manage a more organized financial life. Since, it's significant to assume that just because internet banking is a good addition to consumer banking world, doesn't essentially mean that direct internet banks are a replacement for their brick-and-mortar peers in all cases. So in the following we'll take a view at what internet banks have to provide - and where they may fall short.

6. The Advantages of Internet Banking

Some banks have started to provide customers the alternative of online-internet banking, a practice that has benefits for both all parties included. The convenience of being capable to access accounts at any time as well as the capability to do transactions without visiting a local branch, draw several people to be included. Some benefits of internet banking but are not restricted to, involve:

6.1 Customer's convenience: Direct banks are open for business anywhere there is an internet connection. They are also 24 hours a day, 365 days a year open whereas if internet facility is not present, customer facilities is generally offered around the clock through telephone. Real-time account information and balances are present at the touch of a few buttons hence, building banking easier, faster and more effective. Additionally, updating and managing a direct account is simple however it takes only a few min to change the mailing address, order extra checks and be reported for market interest rates.

6.2 More efficient rates: The deficiency of important infrastructure and overhead costs permit direct banks to pay higher interest rates on savings and charge lower mortgage and loan rates. Some provide high yield certificate of deposits (CDs), high-yield checking accounts, and even no-penalty CDs for early withdrawal. Additionally, some accounts can be opened with no least deposits and carry no least balance or service fees.

- **Services:** Direct banks normally have more robust websites that provide a comprehensive set of characteristics that may not be discovered on the traditional banks websites. These involve financial planning capabilities, functional budgeting and forecasting tools, loan calculators and equity trading platforms, investment analysis tools. Additionally, they provide online tax forms, free online bill payments and tax preparation.
- **Mobility:** Internet banking also involves mobile capabilities. New applications are seamlessly being generated to expand and enhance this capability or smart-phones and other mobile devices.

- **Transfers:** Accounts can be automatically funded from a conventional bank account through electronic transfer. Most direct banks provide unrestricted transfers at no cost, involving those targeted for outside financial institutions. They will also accept direct deposits and withdrawals that the user authorizes i.e. automatic bill payments and payroll deposits.
- **Ease of use:** Online accounts are simple to establish and need no more information than a conventional bank account. Some provide the option of inputting the user's data online or downloading the forms and mailing them in. If the user runs into a problem, he has the option of e-mailing or calling the bank directly.
- **Environment friendly:** Internet banking is also environment friendly. Electronic transmissions need no paper, decrease vehicle traffic and are virtually free from pollution. They also remove the requirement equipment.

7. The Disadvantages of Internet Banking

Internet banking appears like an obvious choice to leave the hassles of conventional money management behind in exchange for it. Since, there are powerful issues related with banking over the internet of which users may not be aware. Consumers require to weigh the benefits as well as the drawbacks of internet banking before signing up. Some drawbacks of internet banking involve:

- **Bank relationship:** A traditional bank offers the chance to develop a personal relationship with that bank. Getting to know the people at your local branch can be a benefit when a user requires a loan or a particular service that is not generally provided to the public. A bank manager often has some discretion in changing the terms of customer's account if the customer's personal situations change. They can support customers solve issues i.e. reversing an undeserved fee. The banker also will get to know the user and his unique requirements. If the customer has a business account, this personal relationship may support if the customer requires capital to expand. It's simpler to achieve the bank's support if there is someone who understands user's business and vouch for his operating plan.
- **Transaction issues:** Many times a face-to-face meeting is needed to finish complicated transactions and address complex issues. A conventional bank can host meetings and call in experts to resolve a particular problem. Furthermore, international transactions may be more complicated (or impossible) with some direct banks. If a user deposits cash on a regular basis, a conventional bank with a drive-through window may be more effective or practical.
- **Service issues:** Some direct banks may not provide all the comprehensive financial facilities i.e. brokerage and insurance accounts that traditional banks provide. Conventional banks sometimes provide special facilities to loyal customers i.e. preferred rates and investment advice at no additional charge. Additionally, routine services i.e. notarization and bank signature assurance are not present online. These facilities are needed for several legal and financial transactions.
- **Security:** Direct banks are subject to the same regulations and laws as conventional banks and accounts are secured by the FDIC. Sophisticated encryption software is planned to secure your account information but no system is perfect. Accounts may be subject to hacker attacks, phishing, malware and other

unauthenticated activity. Most banks now build scanned copies of cleared checks presented online which supports to avoid and determine check fraud. It enables verification that all checks are signed by the user and that dollar or euro amounts have not been changed. The timely discovery of variances can be informed and inquired immediately.

8. Conclusions and Recommendations

E-banking and the last generation of electronic transactions has opened a new window of possibilities for the financial and banking sector. It is observing a great development particularly in developed countries. Initial costs of e-banking are not so greater and new entrants with innovative concepts and techniques can definitely have a place in the sector. The changes on the outside atmosphere of e-banking involving globalization have increased the competition in this sector. It is becoming much more complicated for the banks to compete through prices for this cause they are always researching for new innovative ways of attracting users whose request are increasing and are becoming more and more advanced. The development of internet banks has increased the banking business competition. However, both internet and “brick-and-mortar” banks provide unique advantages and disadvantages, it may not be wise for a powerful future banking user to do banking exclusively with either option. While it's not possible for everyone, the best thing may be to separate banking between both online and in-store services and enjoy the savings and conveniences of internet banks while managing the customer service and personal relationships that a physical branch can offer. Although the advantages of internet banking are undeniable, there are some concerns and inconveniences of which users should be known of. Some people have complications depending on the online transactions security, fearing the very real possibility of identity theft. Identity theft is an important concern, but some online banks take this risk more severely as compared to others. Before opening an online account, it's better for the user to inquire the bank's security schemes and protections to assure they satisfy his needs. Clearly, choice of whether or not to bank over the internet is based on several variables. Even if a user can see advantages, he may be unwanted if he does not trust or have much experience with the internet. At the other spectrum end, people may sign up for restricted facilities i.e. account viewing. This will protect them from safety concerns but will provide them daily access to account activity. If the user decides that internet banking is right for him, he must be sure to survey other provide from many banks. Every bank has different fees and benefits that can build a large difference in how much internet banking costs. By comparing deals and being educated, a user can find an internet banking facility that suits his requirements.

Apart from that there are some suggestions that should be considered in account by both available and new entrants. Some are as following:

- Accessing internet is a primary element for e-banking. A study made by OECD has represented that there is a powerful correlation between e-banking and internet usage. Even though development of internet customers does not ensure e-banking usage companies can still take benefit by this by motivating internet subscribers to utilize e-banking by providing cost subventions, free trainings on e-banking use or by providing access services for subscribers and potential users.

- Traditional model combined with online banking has resulted to be more attractive as compared to only online banking model. All the models that have attempted to generate an online banking based only in internet have still not resulted successful. For this cause it is much more efficient for the banks to present first physically and e-banking to be as one of the provided facilities. This will provide users more security and more causes of trust in online banking. Moreover analyses has represented that corporate clients across world are much more attracted by the specified model (Physical banking+ online banking) for this cause disappearance of traditional banking might cause a corporate clients portfolio loss.
- Governments have a significant role in producing the appropriate atmosphere but without intervening in their operations because this can yield to weak results.
- The last but not the least is that online banks should attempt to arrive the severe mass as a key indicator for success. This can be arrived through great internet utilization and when the banks are able of providing facilities for which there is an inclusive request.
- Online-banking requires to be promoted as the banking sector future and apart of the advanced marketing campaigns the power of person to person interaction in information transferring should never be under estimated. Satisfied customers are the best PR and “traders” for the services.
- Related to risk management there should be a specified technique approved and led by the governing board by taking in account all the e-banking impacts in the banking business and there should be also an efficient technique of controlling the risks that obtains from it.

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