THE PROS AND CONS OF INTERNET BANKING FOR IMPROVING THE TQM: A SHORT REVIEW

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ABSTRACT

The Bank fees often strike fear in the heart of the average banking customers. According to a survey by Bank-rate system, a company that reports on banks and banking, customers continue to get smashed with higher fees, ranging from ATM charges to minimum-balance fees. In addition, some customers are even charged a commission fee just to speak to a real live bank teller! In a recent checking account pricing study, it was found that interest-bearing checking account customers charged the worst. The average interest charging checking account earns only 0.27 percent interest while account holders pay $10.86 on average in monthly fees. This review in internet banking seeks to show an alternative to banking through "bricks and mortar" and provide an understanding of the pros and cons of going online. Many traditional banks offer some online services, but the very cheapest choices some will find are internet-only banks, which operate specifically online. Customers can get the same services online that are used to from traditional banks, such as checking and savings accounts, CDs, and other financial products and services. Those who are interested in paying lower fees for better customer service, they should investigate internet banking. Improving the total quality management system for software services with the use of internet banking system. Our focus is also improving the performance of services issues.

Keywords: Internet Banking, E-Commerce, Financial Engineering, Online Economic Review, Total Quality Management, Service Issues.

I. INTRODUCTION

As commercialization of the internet evolved in the early 1990s, traditional "bricks and mortar" banks start to investigate ways of delivering limited online services to reduce operating costs. The success of these early efforts led many banks to expand their internet presence with improved websites that featured the ability to open new accounts, download forms and process loan applications. The next stage of development was the arrival of internet-only banks that offered online banking and other financial products and services without a network of branch offices. These so-called "virtual" or "direct" banks were able to pass savings in labour and overhead costs on to their customers by offering higher interest rates on deposit accounts, lower loan costs and reduce service fees.

Now a days in India, every banks are makes charge on their customers. Some of the way is correct like interest on loan, debit card, credit card, mobile banking service, e banking services etc, but for general users like saving account, salary accounts, pension account, loan Account charges are very hard on behalf of maintaining the account.[1]

The first fully-functional direct bank, in U.S.A., insured by the FDIC was the Security First Network Bank. Based in Atlanta, it began operations on October 18, 1995. While it was not very profitable before it was bought out three years later, it proved the feasibility of the virtual bank concept. Online banking solutions have many features and capabilities in common but traditionally also have some features that are application specific. The common features fall broadly into the following categories:

- **Transactional** (e.g., performing a financial transaction such as an account to account transfer, paying a bill, wire transfer, apply for a loan, new account, etc.):
  - Payments to third parties, including bill payments and telegraphic/wire transfers.
  - Funds transfer between a customer's own transactional account and savings accounts.
  - Investments purchase or sale.
  - Loan applications and transactions such as repayments of enrolments.
- **Non-transactional** (e.g., online statements, cheque links, co-browsing, chat):
  - Viewing recent transactions.
  - Downloading bank statements, for example in PDF format.
  - Viewing images of paying checks.
- **Financial Institution Administration.**
- **Management of multiple users having varying levels of authority.**
- **Transaction approval services.**

Features commonly unique to internet banking include personal financial management support, such as importing data into personal *accounting software*. Some online banking platforms support *account aggregation* to allow the customers to monitor all of their accounts in one place whether they are with their main bank or with other institutions. However, this paper presents a short review of the advantages and disadvantages of internet banking in order to withdraw some main points based on which a reader or future online banking customer can understand and thus, have a clearer insight of the overall financial and otherwise benefits that the internet banking can offer.[2]

II. THE EVOLUTION OF INTERNET BANKING

The ancestor for the contemporary home online banking products and services were the distance banking products and services over electronic media from early 1980s. The term “online” became popular in the beginning of 1990s and referred to the use of a terminal, keyboard and TV (or monitor) to access the banking system using a phone line. Online services started in New York in 1981 when four of the city's major banks (Citibank, Chase Manhattan, Chemical and Manufacturers Hanover) offered home banking services using the videotex system (Cronin, 1997). Because of the commercial failure of videotex these banking services never became popular except in France where the use of videotext (Minitel) was subsidised by the telecom provider and the UK, where the Prestel system was used.[3]

Today, many banks are internet only banks. Unlike their predecessors, these internet only banks do not maintain brick and mortar bank branches. Instead, they typically differentiate themselves by offering better interest rates and online banking features. In Europe, adoption rates of internet banking usage decreases from north to south and from rich to poor. According to a research report from Deutsche Bank, GDP per capita and latitude explain statistically around 80 per cent of the variation in Europe, as suggested by linear regression analysis, and the

European average (EU-25, 36%) is below the USA average (44%) (February, 2006). Internet banking grows – usually, but not always at the expense of branch visits. Bank customers in Europe increased their use of internet banking while Europeans do not discriminate between internet banking and e-commerce[4]. By saying this, there is a tendency that those who shop online are also more willing to bank online with nordic countries to be more responsive to internet banking than their share of online shoppers would suggest while Germans and British exhibit a more reserved and constant attitude towards online banking (Deutsche Bank Research Report, 2006). Moreover, the same research report from Deutsche Bank states that the share of internet bankers does not decrease with age. In the opposite, internet usage declines with age but relative to internet users as a whole, the share of internet bankers in the EU is constant for those over 24 years, e.g., out of those who use the internet, around 40 percent also use internet banking, irrelevant of age. In doing so, one of the most difficulties in people approaching the internet is their reluctance which is further an obstacle to proliferation of online banking between older customers.[5] In addition, Europeans with higher education are more likely to use the internet and do financial transactions online because better educated people have fewer reservations about technology adoption and therefore, are early adopters of it. However, following Rousseau et al. (1998), customers' trust in e-banking is defined as *willingness of customers to perform on-line banking transactions, expecting that the bank will ful-fill its obligations, irrespective of their ability to monitor or control banks' actions*. Security of online financial transactions is a main concern for customers' trust in e-banking services and specifically, in internet banking products and services. In doing so, even if security incidents have been on the fall, customers do not have trust in online banking services, partly, of their concern of loosing their money. In the following section, a withdraw on security issues is raised in order for security to be better understood.[6]

III. INTERNET BANKING SECURITY

Internet banking is a new specific banking area, part of e-banking industry, which allows people to interact with their banking accounts virtually from anywhere in the world. Internet banking addresses few emerging trends such as customer demand for any time, anywhere services, product time to market essentials, and increasingly complex back-office integration challenges. One such challenge is the security of online financial transactions. In order for the industry to develop further, secure transactions with the trust of the customers are necessary aspects.[7] Many banks advertise secure online services, and allow their customers to do a wide range of banking activities. Some of the security features in internet banking usage include:

3.1 Security Token Devices

Protection through single password authentication, as its the case in most secure internet shopping sites, it is not considered secure enough for personal online banking applications in some countries. Specifically, here are two different methods for internet banking:

- The PIN/TAN system where the PIN represents a password, used for the login and TANs representing one-time passwords to authenticate transactions. TANs can be distributed in different ways, the most popular one is to send a list of TANs to the internet banking user by postal letter. The most secure way of using TANs is to generate them by using a security token. These token generated TANs depend on the time and a unique secret, stored in the security token. Usually, internet banking with PIN/TAN is done via a web browser using SSL secured connections, so that there is no additional encryption needed. Another way to provide TANs to an internet banking user is to send the TAN of the current bank transaction to the user's (GSM) mobile phone via

SMS. The SMS text usually quotes the transaction amount and details, the TAN is only valid for a short period of time.8

- Signature based internet banking where all transactions are signed and encrypted digitally. The Keys for the signature generation and encryption can be stored on smartcards or any memory medium, depending on the concrete implementation.

3.2 Attacks

Most of attacks in internet banking are based on deceiving the user to steal login data and valid TANs. Two well known examples for those attacks are phishing and pharming. Cross-site scripting and keylogger/trojan horses can also be used to steal login information. A method to attack signature based internet banking methods is to manipulate the used software in a way, that correct transactions are shown on the screen and faked transactions are signed in the background. A recent FDIC Technology Incident Report, generated form security risk activities reports that banks record quarterly, lists 536 cases of computer intrusion with an average loss per incident of $30,000. That adds up to nearly $16 million loss in the second quarter of 2007.[9]

3.3 Countermeasures

There exist few countermeasures which try to avoid attacks. For instance, digital certificates are used against phishing and pharming, the use of class 3 card readers is also a measure to avoid manipulation of transactions by the software in signature based internet banking variants. To secure their systems against viruses, trojan horses and worms, customers must use virus scanners and be careful with downloaded software or e-mail attachments. However, in order to provide secure and effective internet banking transactions, there are four main technology issues that need to be resolved. These issues are:

3.4 Security

Security of the transactions is a main concern for banks while the lack of security may result in serious actual loss. Examples of potential hazards of internet banking include online transactions, minting electronic currency, etc.

3.5 Anonymity

The privacy issue is a subset of the security issues banks face. By strengthening the sececy of the sender's personal information and enhance the security of the transactions. Examples of private information relating to the internet banking industry include the amount of transactions, the date and time of a transaction as well as the name of the merchant where the transaction is taking place.[10]

3.6 Authentication

Encryption may help make the transactions more secure but there is also a need to guarantee that no one can change data at either end of the transaction. In doing so, there are two possible ways that someone can verify the integrity of the message. One form of verification is the secure Hash algorithm which protects data from any possible modification (Pfleeger, 1997). In practice, the sender sends the Hash algorithm generated data. The recipient performs the same calculation and compares the two to make sure everything arrived correctly. If the two results are different, a change in the message has occurred. The other form of verification is through a third party called Certification Authority (CA) with the trust of both sender and the receiver to verify that the electronic currency or the digital signature that they received is real.[11]

3.7 Divisibility

Electronic funds may be divisible into different units of currency similar to real money value. For example, electronic money needs to account for pennies and nickels. Internet banking, at least to some degree, has become the norm for many simple bank transactions. And that's not a bad thing - the easier and more secure it is for consumers to check their accounts, pay their bills and transfer money from one account to another, the more likely they are to actually do these things and maintain a more organized financial life. However, it's important to consider that just because internet banking is a good addition to the world of consumer banking, doesn't necessarily mean that direct internet banks are a substitute for their brick-and-mortar peers in all cases. That is why in the following we'll take a look at what internet banks have to offer - and where they may fall short.[12]

IV. THE ADVANTAGES OF INTERNET BANKING

Many banks have begun to offer customers the option of online-internet banking, a practice that has advantages for both all parties involved. The convenience of being able to access accounts at any time as well as the ability to perform transactions without visiting a local branch, draw many people to be involved. Some of these advantages of internet banking but are not limited to, include:

4.1 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 while if internet service is not available, customer services is normally provided around the clock via telephone. Real-time account balances and information are available at the touch of a few buttons thus, making banking faster, easier and more efficient. In addition, updating and maintaining a direct account is easy since it takes only a few minutes to change the mailing address, order additional checks and be informed for market interest rates.[12]

4.2 More Efficient Rates

The lack of significant infrastructure and overhead costs allow direct banks to pay higher interest rates on savings and charge lower mortgage and loan rates. Some offer high-yield checking accounts, high yield certificate of deposits (CDs), and even no-penalty CDs for early withdrawal. In addition, some accounts can be opened with no minimum deposits and carry no minimum balance or service fees.[13]

4.3 Services

Direct banks typically have more robust websites that offer a comprehensive set of features that may not be found on the websites of traditional banks. These include functional budgeting and forecasting tools, financial planning capabilities, investment analysis tools, loan calculators and equity trading platforms. In addition, they offer free online bill payments, online tax forms and tax preparation.[14]

4.4 Mobility

Internet banking also includes mobile capabilities. New applications are continually being created to expand and improve this capability or smart-phones and other mobile devices.

4.5 Transfers

Accounts can be automatically funded from a traditional bank account via electronic transfer. Most direct banks offer unlimited transfers at no cost, including those destined for outside financial institutions. They will also accept direct deposits and withdrawals that the customer authorizes such as payroll deposits and automatic bill payment.[15]

4.6 Ease of use

Online accounts are easy to set up and require no more information than a traditional bank account. Many offer the option of inputting the customer's data online or downloading the forms and mailing them in. If the customer runs into a problem, he has the option of calling or e-mailing the bank directly.

4.7 Environment Friendly

Internet banking is also environmentally friendly. Electronic transmissions require no paper, reduce vehicle traffic and are virtually pollution-free. They also eliminate the need for buildings and office equipment.

V. THE DISADVANTAGES OF INTERNET BANKING

Internet banking seems like an obvious choice to leave the hassles of traditional money management behind in exchange for it. However, there are potential problems associated with banking over the internet of which customers may not be aware.[16] Consumers need to weigh the advantages as well as the disadvantages of internet banking before signing up. Some of the disadvantages of internet banking include:

5.1 Bank Relationship

A traditional bank provides the opportunity to develop a personal relationship with that bank. Getting to know the people at your local branch can be an advantage when a customer needs a loan or a special service that is not normally offered to the public. A bank manager usually has some discretion in changing the terms of customer's account if the customer's personal circumstances change. They can help customers solve problems such as reversing an undeserved fee. The banker also will get to know the customer and his unique needs. If the customer has a business account, this personal relationship may help if the customer needs capital to expand. It’s easier to get the bank’s support if there is someone who understands customer's business and vouch for his operating plan.[16]

5.2 Transaction Issues

Sometimes a face-to-face meeting is required to complete complex transactions and address complicated problems. A traditional bank can host meetings and call in experts to solve a specific issue. Moreover, international transactions may be more difficult (or impossible) with some direct banks. If a customer deposits cash on a regular basis, a traditional bank with a drive-through window may be more practical and efficient.-17

5.3 Service Issues

Some direct banks may not offer all the comprehensive financial services such as insurance and brokerage accounts that traditional banks offer. Traditional banks sometimes offer special services to loyal customers such as preferred rates ad investment advice at no extra charge. In addition, routine services such as notarization and

bank signature quarantee are not available online. These services are required for many financial and legal transactions.

5.4 Security

Direct banks are subject to the same laws and regulations as traditional banks and accounts are protected by the FDIC. Sophisticated encryption software is designed to protect your account information but no system is perfect. Accounts may be subject to phishing, hacker attacks, malware and other unauthorised activity. Most banks now make scanned copies of cleared checks available online which helps to avoid and identify check fraud. It enables verification that all checks are signed by the customer and that dollar or euro amounts have not been changed. The timely discovery of discrepancies can be reported and investigated immediately.[18]

VI. IMPROVING THE PERFORMANCE WITH THE USE OF TQM

The main issues now a day to improving the software service issues in banking system. Each of banking service is depend on the internet service. Core banking service is cover all branch services. All of the branches are depend on internet. Now a day in India banking service are not working properly mostly in rural areas. All service faces the problems about the connectivity. Now how we should be react on this problem.[19]

VII. CONCLUSIONS

The rise of internet banks has increased the competition of the banking business. Since both, internet and "brick-and-mortar" banks offer unique benefits and drawbacks, it may not be wise for a potential future banking customer to do banking exclusively with either option. While its not possible for everyone, the best thing may be to separate banking between both in-store and online services and enjoy the conveniences and savings of internet banks while maintaining the customer service and personal relationships that a physical branch can provide. Although the benefits of internet banking are undeniable, there are some inconveniences and concerns of which customers should be aware of. Many people have difficulty relying on the security of online transactions, fearing the very real possibility of identity theft. Identify theft is a significant concern, but some online banks take this risk more seriously than others. Before opening an online account, its better for the customer to investigate the bank's security policies and protections to ensure they meet his expectations.

Clearly, choice of whether or not to bank over the internet depends on many variables. Even if a customer can see benefits, he may be unwilling if he does not trust or have much experience with the internet. At the other end of the spectrum, people may sign up for limited services like account viewing. This will save them from safety concerns but will give them daily access to account activity. If the customer decides that internet banking is right for him, he must be sure to review other offers from several banks. Each bank has different fees and advantages that can make a big difference in how much internet banking costs. By comparing deals and being educated, a customer can find an internet banking service that suits his needs.

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