

THE EFFECTIVENESS OF E- BANKING ENVIRONMENT IN CUSTOMER LIFE SERVICE AN EMPIRCAL STUDY (POLAND)

Khrais L.T.*

Abstract: Advanced technology allows the banks to enhance its operations with cost cutting effectively and efficiently in order to handle daily banking affairs via online banking channel. Customers are being facilitated by reducing their visits in banks and doing their transactions via internet or ATM machines instead of personally visiting the branches. The purpose of this study is attempts to investigate the effective factors of facilitate using e-banking services for customers. This study is approached by using survey method to examine the relationship between independent and dependent variables .Data were collected through questionnaires which were attached by a letter explaining the purpose of study and assuring respondents of the confidentiality of their answers, those participants were online banking users in Poland. Statistical tools were used to test hypotheses and achieve the objectives, thus the research is descriptive and as a result quantitative methods have been used. The findings indicate that the entire hypotheses are supported positively the effectiveness of e-banking environment in customer service, and provide valuable information for banking industry, hopefully.

Key words: E-banking, online banking, service quality and security

Introduction

Banking industry is one of the major users of information and communication technologies in business life. Since the new millennium, millions of dollars have been spent in developing online banking infrastructures; therefore internet banking has transformed traditional banking practice and looking on online services as the next technology in many countries. Today, through online banking, customers could conduct a wide range of banking services electronically, anytime and anywhere [28].By offering internet banking services, traditional financial institutions seek to offer lower operational costs [26], improve consumer banking services, retain consumers and expand share of customer . In the new banking environment, internet banking is increasing managed as an operational activity and an important component of a multi-channel strategy [4]. In Poland, traditional banks have the main role for providing financial services as well as the electronic method is still growing up confidently [6].

The majority of polish banks now offer some form of online services banks which are running to expect more clients in the next years, The number of online account was increase 1 million by the end of 2002, (Grzegorz Zawada) said a banking analyst at Erste securities in Warsaw ,predicted there will be 3 million online banking accounts in 2004. Previous study shows that, the behavior of Polish

* **Laith Talal Khrais M.s.c**, Khrais, Laith Talal, Department of Business Administration, Salman Bin Abdulaziz University, Saudi Arabia

✉ corresponding author: Laithkh82@hotmail.com

internet users and that of consumers in more developed countries exhibit similar traits, and there is a link between the decision to open an online account and the perceived level of security of internet transactions [25]. The advancement of technology especially the internet has changed the way how organizations run their business. Nowhere has the revolution of internet been more apparent than in the banking and financial services industry. Many firms adapt rapidly to changes in internet and technology by improving their business efficiency and service quality via new applications in the internet, and attracting new customers [20].

Banks have become increasingly interested and concerned about online banking services and are seeking methods to provide high quality service that exactly fulfills the requirements or preferences of their customers, they also developing differentiated service quality strategies to effectively retain their competitiveness or even obtain competitive advantage in this rapidly growing virtual market, especially given the deep impact of the internet on daily life during the past few years and the apparently assured growth of online banking in the financial service industry. Service quality has identified as an overall evaluation similar to attitude; expected service quality is a consumer desire; and perceived service quality indicates consumer perceptions of a firm's performance in providing a service [22]. Online banking has known in different names such as cyber bank [10], Internet banking [3] virtual banking [2], Internet-based e-banking [16], and e-banking [1]. Hence, the technology acceptance model (TAM) may also be influences in user adoption of technologies, [8] suggested that usefulness refers to "the degree to which a person that using a particular system would enhance or improve his or her job performance" and ease of use refers to "the degree to which a person that using a particular system would be free from effort", likewise [17] has also defined ease of use as "the consumer's perception that online banking involves minimum effort". Therefore, if the system that does not help people perform their jobs is not likely to be received favorably [21]. As online banking continues to grow, banks need to meet these consumer demands in order to create a product that better serves the customer. Therefore in this research, if the bank enhances online user's productivity, it is more likely to be positively enhancing customer life service.

E-banking

It's defined that provision of information and services by a bank to its customers via electronic wired or wireless channels [7], also [24] have other definition of e-banking as internet portal, through which customers can use different kinds of banking services. In other word, some researcher cited that e-banking is an umbrella term for the process by which a customer may perform banking transactions electronically without visiting a brick-and-mortar institution, and it has become a one stop service and information unit that promises great benefits for both banks and consumers [29]. Websites provide not only a direct contact between the organization and its customers but also present an opportunity for innovation in delivery/sell of products. It has categorized the website of online banking into three

different ways namely the informational websites, communicative websites and transactional websites [27].

Some factors such as internet accessibility, awareness, attitude towards change, computer and internet access costs, trust in one's bank, security concerns, ease of use and convenience have significant effect on e-banking industry [27]. Furthermore, online banking provides a best way of low-cost channel for both transactions and building relationships [5][9][13]. Therefore bank web sites that offer only information on their pages without possibility to do any transactions are not qualified as online banking services. The measure of this online service is this system satisfies customers need or not? If it's satisfy then we can call that this system success.

There are four basics services for online banking according to [15]

- 1) View account balance with transaction history.
- 2) Paying bills, traffic violation and residence fees.
- 3) Transferring funds between accounts (locally and globally).
- 4) Online purchasing and request credit card advance.

Online Banking has made life much easier and banking much faster and more pleasant, for customers, it allows customers to do their banking outside of bank hours and from anywhere where internet access is available. In most cases a web browser is utilized and any normal internet connection is suitable. No special software or hardware is usually needed. Banks have to improved quality services to their customers to survive in this vulnerable environment [30] among other things, banks must understand who specially adopting commercial technology and why. A primary benefit for the bank is cost savings because its use cheapest delivery channel and reduce number of service staff; and, for the consumer, a primary benefit is convenience with self service. The advantage of operating online banking in term of bank and customer, respectively, which it shows in (Table 1) below.

Table1.The advantage of operating online banking

Operating online banking	Advantage
Bank	<ul style="list-style-type: none"> -Improved market image -Reduce transaction cost -Rapid response to the market changes & customer needs -Increased market penetration -Advertise/Sell new product
Customer	<ul style="list-style-type: none"> -Reduce cost in accessing and using the bank service -Increase comfort and time saving(transaction can be made 24 hours a day) - Facilitate services & speed of transaction -Better administration of funds

Personal device /Availability of internet

Personal device such as “computers, laptops and smart-phones” is important tool in almost all the business transactions that are made today/has to be connected to the

internet all day, therefore it would readily available, unless the user has personal device; it is unlikely to consider using internet banking. The internet as a medium for information consumption underpins consumer adoption of internet banking; internet allows companies to easily reach millions of customers around the world at a very low cost. On other hand, Internet as a marketing channel considered with three main functions namely providing information, conducting transactions, and extending self- help [19].

Hence, the internet is changing the global marketplace, including the banking industry; the use of the internet is lowering entry costs and removing barriers to entry for many businesses. The lowering of barriers has led to a flood of banks entering the industry, ultimately increasing competition and providing increased value to potential customers. Moreover, internet can be used to facilitate development by taking advantage of its easy access to information and the transfer of technology, also increased competition in the banking sector and customer demand is forcing banks to provide their services online. Unless the user has availability of internet at home or at work; it is unlikely to consider using internet banking. Thus, the future success of financial institutions will depend on how well they understand the market environmental changes position themselves to adapt to the new internet age.

Convenience

The main impulse for internet banking to be convenience in terms of 24/7 access and time savings, and was found the main reason why American consumers selected the internet channel for news services [23]. In most cases a web browser is utilized and any normal internet connection is suitable, which means no special software or hardware is usually needed. People will choose the cheaper method to transact when choosing between electronic or traditional services [14]. Internet access in the expectation that many services and other needs fulfillment would be more convenient through its use. Means mostly described in terms of lifestyle, workplace use, household use, not having to travel, personal safety, not having to wait , 24/7 access and saved time .

Security

It's defined as user's perception of protection against threats when transmitting private information over the internet banking and it is important matter regardless of age group, education and income level in online banking environment. The reliability of internet connections and internet banking applications are considered, users who have a technical background and understood security technology have higher levels of confidence in internet security than others and trust can indeed be a powerful force [18], but users still concerns about internet security, privacy and trust [11]. Similarly, [12] cited that hackers may access to customer's internet account if the internet banking security is weak, therefore customers need to be aware and up-to-date with the latest safety programs such as firewalls, virus programs.

Research Framework

In particular, customers now enjoy unlimited access to any bank via the internet and thus have a wider range of choices in selecting banks, without geographical limitation. For example, a customer in Poland may have a savings account in Germany and a credit card from a bank in France. The research framework for the study is shown in (Figure 1), based on the literature review, a model of e-banking was developed, and the major objective of the study was to examine the effective factors of facilitate using e-banking services for customers in Poland; whereby, the independent variables of those factors are (personal device , availability of internet, convenience and security); are taken the sequential order carefully depends on the importance of each factor to facilitate service for customer, and the dependent variable represented by e-banking services.

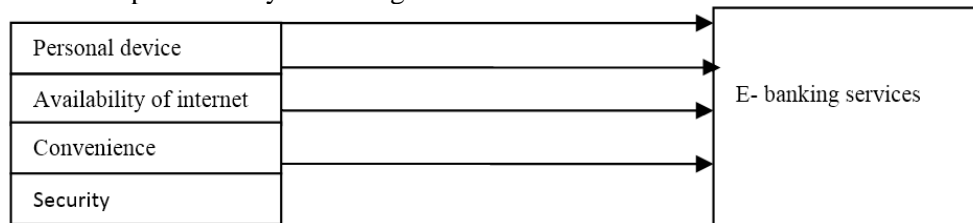


Figure 1. Model of e-banking

Research hypotheses

In order to achieve the objectives designed for this study, the following research hypotheses are stated and concerning the effective factors of facilitates using e-banking services for customers. Four hypotheses will be tested as follows:

H1: A significant relationship exists between personal device and e- banking service.

H2: A significant relationship exists between availability of internet and e-banking service.

H3: A significant relationship exists between convenience and e- banking service

H4: A significant relationship exists between security and e-banking service.

Research objective

The main purpose of this study is to evaluate the effectiveness of e-banking environment in customer life service. In order to meet this objective, the following objectives taken up under consideration.

- To find out the effective factors of e-banking facilitation to customer service.
- To enhance online services and meet beyond the expectation.
- To contribute in useful direction for future research.

Methodology

The main purpose of this study is to investigate effective factors of facilitates using e-banking services for customers in Poland. Since the questionnaire is one mechanism of data collection which is very famous among researches, a self-

administered questionnaire was constructed and developed based on previous literatures, in order to test the above mentioned hypothesis. By using survey method, five-point Likert scales with ranging from “strongly disagree” to “strongly agree” were used to examine participants responses ,as well as, tested the main factors of facilitates using e-banking services for customers. The questionnaire will be handed out directly to the sample and will be collected back after specific time that already determined to ensure the validity and accuracy as well as credibility of data. As such, the survey was targeted e-banking users in Poland. From the 220 questionnaires have distributed, 171 responses were received, which yielded response rate of about 77%. Out of 171 responses, 5 samples were eliminated from the analysis due to incomplete data.

Data collection methods

Primary data were collected by using a questionnaire, while secondary data were obtained from previous researches and literatures. The questionnaires were distributed randomly, whereby; the respondents will be from a different level. The distribution and collection process took about four week’s period (from Aug 2013 to Sep 2013).The questionnaire consisted of two major parts, the first part was designed to collect demographic data and the second part was designed to measure the study variables. The questionnaire was prepared in English, and then translated into Polish language; it is composed of 22 items measuring the independent variables and dependent variable of the study, personal information such as name, mobile number, address etc is avoided in questionnaire.

Sample Profile

The demographic profile of the survey respondents is presented in (Table 2), which includes gender, age, level of education and ect. The gender distribution of the survey respondents shows that (54.2%) were males, while (45.8%) of them were females. The results also show that majority of the respondents fall into the age group of 31-40 years (35.6%) while only (11.4 %) are above 40 years old. Out of all the respondents, (74.7 %) were graduated; which indicates that respondents were composed of well educated people. Furthermore, all the respondents have a personal device (computer/laptop) and internet availability at home and work, as well (80%) they logged onto the internet up to 8 hours daily.

Table2.Demographic Profile of Responses

Classification	Item	Number of e-banking users	Percentage (%)
Gender	Male	90	54.2
	Female	76	45.8
Age	Below 25	38	22.9
	26-30	50	30.1
	31- 40	59	35.6
	Above 40	19	11.4
Level of education	Graduated	124	74.7
	Under-Graduated	40	24.1

	High school	2	1.2
Owing personal device	Computer	29	0.17
	Laptop	137	0.83
Internet usage	1-4 times a day	52	0.31
	5-8 times a day	80	0.49
	9 times a day	34	0.20
Internet availability	Home	99	0.60
	Office	67	0.40

Reliability test

The reliability test concerned with stability and consistency measurement to access the goodness of a measure, as well as reduce the possibility of getting error result. Data were entered and analyzed using statistical SPSS to obtain the Variance and reliability estimate of each variable. Based on the analysis, the results of variance have measured in the range from (0.6154 to 0.7267), which has exceeded the recommended value (0.5). Furthermore, the reliability of variables are in the range from (0.7123 to 0.7654) considered as acceptable and stable, in other word, the Cronbach's alpha values are above acceptance value (>0.7), thus indicating content consistency within the questions related to each factor.

Pearson correlation test

It's a measure of the strength and direction of the linear relationship between two variables to obtain the result of reject or accept the hypothesis. As well as, how well the variables are related.

Hypotheses tested are shown as:

H1: A significant relationship exists between personal device and e- banking service.

As shown in (Table 3), the result of correlation between personal device and e-banking service, indicates that there is a significant result between them. Pearson correlation value is ($r=0.715$ at $p<0.01$). Thus, the correlation between independent variable and determinant of e-banking service has high correlation value. Meaning that Personal device has a very good significance to support and reinforce the e-banking service among online customers positively. Therefore, *H1 is accepted*. However, Personal device is represented a heart tool of operating the online service from banks and use it by customers.

H2: A significant relationship exists between availability of internet and e-banking service.

As shown in (Table 3), the result of correlation between availability of internet and e-banking service, indicates that there is a significant result between them. Pearson correlation value is ($r=0.698$ at $p<0.01$). Thus, the correlation between independent variable and determinant of e-banking service has high correlation value. Meaning that availability of internet has a very good significance to support and reinforce the e-banking service among online customers positively. Therefore, *H2 is accepted*.

H3: A significant relationship exists between convenience and e- banking service

As shown in (Table 3), the result of correlation between convenience and e-banking service, indicates that there is a significant result between them. Pearson correlation value is ($r=0.683$ at $p<0.01$). Thus, the correlation between independent variable and determinant of e-banking service has high correlation value. Meaning that convenience has a very good significance to support and reinforce the e-banking service among online customers positively. Therefore, *H3 is accepted*.

H4: A significant relationship exists between security and e-banking service.

As shown in (Table 3), the result of correlation between security and e-banking service, indicates that there is a significant result between them. Pearson correlation value is ($r=0.549$ at $p<0.01$). Thus, the correlation between independent variable and determinant of e-banking service has good correlation value. Meaning that security has a good significance to support and reinforce the e-banking service among online customers positively. Therefore, *H4 is accepted*.

Generally, from the above of all results of personal correlations have a very good value, which means all hypotheses are positively supported to concentrate and develop those factors to facilitate the service of e-banking to their customers.

Table 3. P-correlation test

Variables	E-banking service	Personal device	Availability of internet	Convenience	Security
Personal device	0.715**	1.000			
Availability of internet	0.698**		1.000		
Convenience	0.683**			1.000	
Security	0.549**				1.000

**Correlation is significant at the 0.01 level (2-tailed)

Summary

In sum, e-banking process could be defined as "a customer who is using a personal device (computer/laptop), with doing all the online transactions 24/7 offered by the bank website". Unless the user has personal device and availability of internet; it is unlikely to consider using internet banking at all. The internet can play a profound role in maintaining and developing a high level of customer service, the amount of services in the internet is already enormous and more services are evolving. The paper aims to investigate the effective factors of facilitate using e-banking services for customers in Poland through , have been tested (personal device , availability of internet , convenience and security) , hence , the result proved that they have a strong influences of facilitating customer life service easily and comfortably . A new results have appeared as an advantage of e-banking services to their customers " customer can do different types of transactions ; whenever he /she wants to, not bound to the bank's opening /closing hours and avoiding traffic jam or upon weather condition, it is more private and feels safer to do it at home or work". Whereby, the results provide valuable information for practitioners and online banking systems developers and bank service providers when formulating online

banking services. Furthermore, online banking has numerous advantages over traditional banking, for example, reaching far more people in cheap cost, offering more content than a brick-and-mortar branch, enabling easy access to desired services anywhere and anytime 24/7, avoiding the need to wait in lines, and so on. Future research needs to find out more factors could be effective for enhancing and facilitating of using online services coming from banks to their customers, as well as compare e-services with traditional interpersonal services to identify the differences in term of customer life services .However; respondents were sampled only from banks in Poland, which implies that the general of the study is limited. More studies in European countries are definitely needed. Accordingly, online banking truly changes the environmental methods and the roles of banks in servicing customers, and with the rapid growth of online banking services and large consumers shifting to banking online more empirical research are needed. The researcher also hoped that developers of online technique factors should consider this sentence "how to make online services of banks become easier to their customers".

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EFEKTYWNOŚĆ E-BANKOWOŚCI W OBSŁUDZE KLIENTA

Streszczenie: zaawansowana technologia umożliwia bankom prowadzenie operacji, w celu zwiększenia swoich operacji, cięcia kosztów i skutecznej obsługi codziennych spraw bankowych, poprzez kanał bankowości internetowej. Klienci są zadowolenie gdyż liczba ich wizyt w banku została zmniejszona, a swoje operacji przeprowadzają za pośrednictwem internetu lub maszyn ATM, zamiast osobiście odwiedzać oddziały. Celem niniejszego artykułu jest próba zbadania czynników ułatwiających skuteczne korzystanie z usług bankowości elektronicznej dla klientów. Badanie zostało przeprowadzone przy wykorzystaniu metody ankiety, służącej do badania relacji między zmiennymi niezależnymi i zależnymi. Dane zebrano za pomocą ankiet, które zostały dostarczone wraz z pismem wyjaśniającym cel badania, i zapewnienie respondentów o poufności ich wypowiedzi, uczestnikami badania byli użytkownicy bankowości online w Polsce. Do zbadania hipotezy i osiągnięcia celu wykorzystane zostały narzędzia statystyczne, dlatego też badanie jest opisowe, a w rezultacie wykorzystano metody ilościowe. Wyniki badań wskazują, że postawione hipotezy są prawdziwe i przedstawiają efektywność bankowości w obsłudze klienta, dostarczają także cennych informacji dla samego sektora bankowego.

Słowa kluczowe: E-bankowość, bankowość internetowa, jakość obsługi i zabezpieczeń

電子銀行環境客戶生命 Service 的 EMPIRCAL 研究 (波蘭) 的有效性

摘要: 先進的技術使銀行加強其業務與削減成本有效和高效，從而通過網上銀行渠道辦理日常銀行事務。客戶正在推動通過減少銀行走訪，並通過網絡或 ATM 機上做他們的交易，而不是親自來訪的分支。本研究的目的是嘗試使用電子銀行服務，為客戶方便調查的有效因素。本研究採用問卷調查法，研究自變量和因變量之間的關係接近。通過它被裝了一封信，解釋的研究和保證了他們的答案的保密受訪者的目的，問卷收集的數據，這些參與者是網上銀行用戶在波蘭。統計工具被用來測試假設和實現的目標，因此研究是描述性的，因此定量方法已被使用。研究結果表明，整個假說積極支持網上銀行環境中客戶服務的有效性，並提供有價值的信息，為金融行業，希望。

關鍵詞: 電子銀行，網上銀行，服務質量和安全性。