



FACTORS THAT AFFECT THE TRUST OF CUSTOMERS IN INTERNET BANKING. THE CASE OF POLAND

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Abstract

Consumer trust is an important factor in practically all business-to-consumer interactions and a crucial aspect of internet banking. Literature review on internet banking shows that the lacking of trust has to be considered to be one of the main reasons why consumers are still reluctant to conduct their financial transactions online. Internet banking transactions have some unique characteristics, such as the extensive use of technologies, there is no direct physical contact between the bank personnel and customer but there is high level of customer concern about security in online financial transactions e.g. identity theft and transaction fraud. This study seeks to investigate the factors that affect the trust of customers in internet banking. We focus on the following factors that influences the Polish consumers' trust in internet banking: their perceptions about complexity, relative advantage, perceived risk, as well as their socio-demographic variables. The statistical data used in article has been based on publications and reports of the National Bank of Poland (NBP). To examine what influences customers' trust in internet banking, we used results of NBP questionnaire survey conducted in 2012 on the payment habits of Polish households. Survey respondents documented in a payment diary over a three-day period, among others; all personally transacted expenditures, the relevant payment amount or means of payment used. The results in the paper showed that consumer trust in internet banking, is influenced by incomes, age and education. For example, the share of internet banking users is 85% for Polish university graduates. The findings of this study suggest that, in order to develop trust and to attract more users to internet banking it is essential for banks to develop secured internet banking systems that are trustworthy, for their users. Another outcome of this study is that perceived benefits of internet banking impact user trust and determine behavior motivation.

KEYWORDS: trust, customer, internet banking, perceived risk, user acceptance.

Introduction

Internet banking allows customers to carry out a range of banking transactions faster, with lower fee and without leaving their homes compared to traditional face-to-face transactions. Transactions carry out electronically via the bank's web site are also a very cost-efficient for banks (Zhao et al. 2010). Consumer trust is an important factor in practically all business-to-consumer interactions and a crucial aspect of internet banking. Trust is crucial wherever risk, uncertainty, or interdependence exist. These factors are present in, for example, online environments. Compared to traditional (online) transactions, internet banking transactions have some unique characteristics, such as the extensive use of technologies, the distant and impersonal nature of the online environment, and the implicit uncertainty of using an open technological infrastructure for financial transactions (Yousafzai et al. 2003). Information asymmetry is another important factor that affects customers' trust when they are banking online. In comparison with other goods and services, some financial products also require a high level of customer's economic expertise. The bank enjoys not only organizational and financial advantage, but mainly advantages based on information.

The issue of factors which determine trust in B2C (business to consumer) relations is important because at a time of global crisis, it turned out that many financial institutions have failed the trust of customers who search for a new assessment approach evaluating who to entrust capital and how it will be managed. Analyzing the concept of consumer trust in financial institutions, it can be applied to two basic dimensions: a / trust in the

financial institution in which the customer deposited savings or benefits from other products using various forms and systems of communication with the bank, b / trust in bank employee who offers a product to a customer. The article focuses on the first dimension of trust in the context of internet banking.

The goal of the study is to analyze the conception and factors of customers' trust in internet banking. We focus on the following factors that influences the Polish consumers' trust in internet banking: their perceptions about complexity, relative advantage, perceived risk, as well as their socio-demographic variables. The object of the study is the consumer trust in internet banking.

In our study, we applied such research methods as comparative analysis of scientific literature and data analysis of questionnaire survey. The statistical data used in article has been based on publications and reports of the National Bank of Poland (NBP). To examine what influences customers' trust in internet banking, we used results of NBP questionnaire survey conducted in 2012 on the payment habits of Polish households. Survey respondents documented in a payment diary over a three-day period, among others; all personally transacted expenditures, the relevant payment amount or means of payment used. The study entitled *Payment habits of Polish Consumers* (2013) consisted of two studies involving the same number of respondents (n=1000). The first part is a computer-assisted personal interviews - CAPI. The second part is a detailed paper payment diaries filled in by the respondents every day for three consecutive days. Days of interviews and payments

recording in diaries were rather evenly distributed during the investigation, without focusing on selected weekdays or part of month. The study of payment habits of Polish customers using payment diaries is the first such study in Poland. Detailed payment diaries filled in by respondents are characterized by the best accuracy and precision of data acquisition among all previously used methods. The concept of the study conducted by the National Bank of Poland refers to a global research conducted by the World's Central Banks such as Deutsche Bundesbank, Bank of Canada, De Nederlandsche Bank, Magyar Nemzeti Bank, Reserve Bank of Australia, Oesterreichische Nationalbank (Mooslechner et al. 2006). The additional data used in the article has been based on publications of the Polish Bank Association.

Defining Trust

Problem of wide definition of trust has been and still is a source of major confusion in the trust literature (Nooteboom 2006, Yousafzai et al. 2003, Zhao et al. 2010). The concept of trust has been defined by researchers in many different ways, which often reflect the paradigms of the particular academic discipline of the researcher (Grabner-Krauter and Faullant 2008, Yap et al. 2010). Trust and trust relationships have been a topic of research in many fields including economics, sociology, psychology, philosophy, political science, management, marketing, electronic commerce or IT.

Analyzing various definitions of trust, one can point at some common reference points of trust concept interpretation. The trust is a belief, on the basis of which, an A unit agrees to be dependent on B unit (individuals, organizations) in a specific situation, with a relative sense of security even though negative consequences are possible. The trust is therefore an orientation to the future with an optimistic expectation.

Two broad approaches to defining trust can be distinguished: behavioral and attitudinal. The behavioral definition of trust holds that trust finds reflection in the decision to rely on another. Behavioural trust has a variety of aspects: trust in competence (competence trust), intentions (intentional trust), honesty or resource availability. Like people, organizations can be object of trust, in both their competence and their intentions (Nooteboom 2006). On the organization level competence trust includes technological, innovative, commercial, organizational and managerial competence. The attitudinal definition views trust as “an expectation of the partner’s reliability with regards to its obligations, predictability of behaviour, and fairness in actions while faced with the possibility of behaving opportunistically” (Janowicz and Noorderhaven 2006). However, an attitude cannot be attributed to an organization, as it is an inherently individual-level phenomenon.

Many scholars have defined trust as a multi-dimensional construct and included specific attributes of the trusted party in their trust definitions such as ability, benevolence, integrity, predictability, credibility or dependability (Mayer et al., 1995, McKnight and Chervany, 2002, Rousseau et al., 1998). These attributes of the trusted party are often referred to interchangeably as elements or antecedents of trust (Grabner-Krauter and Faullant 2008). Mayer et al. (1995) identify attributions regarding

“ability”, “benevolence” and “integrity” as three primary antecedents of trust. Furthermore, trust is context-specific. Depending on the situation, there are several potential attributions which might serve as antecedents of trust. The things that lead to trust are often referred to as trust antecedents. Exploring the antecedents to trust is important to understand the variables that influence trust. Trust literature has suggested two wide categories of variables, one customer-specific and one company-specific (Dimitriadis and Kyrezis 2008, McKnight and Chervany 2002). Among the individual characteristics that influence the level of trust, one of the most commonly used is the disposition to trust. As noted by Dimitriadis and Kyrezis (2008), disposition to trust has been examined and confirmed as a factor that explains a part of trust, specifically in the case of internet and e-commerce.

Across disciplines there is agreement that trust only exists in an uncertain and risky environment (Mayer et al., 1995). First, there is the risk associated with the transaction or relationship with the other party, and then there is an issue of trust. Trust would not be needed if actions could be undertaken with complete certainty and no risk. In B2C relationships, perceived risk is commonly thought of as an uncertainty regarding possible negative consequences of using a product or service. Yousafzai et al. (2003) describe the notion of perceived risk, in the context of internet banking, as “the potential of loss in the pursuit of a desired outcome from using electronic banking services”. The definitions of trust relevant to e-banking are summarized in Table 1.

Table 1. Definitions of trust

Study	Definition of trust
Mayer et al. (1995)	Trust is “the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party”.
Rousseau et al. (1998)	Trust is a “psychological state comprising the intention to accept vulnerability based upon positive expectation of the intentions or behaviour of another”.
Yousafzai et al. (2003)	Trust is “a psychological state which leads to the willingness of customer to perform banking transactions on the Internet, expecting that the bank will fulfil its obligations, irrespective of customer’s ability to monitor or control bank’s actions”.
Nooteboom (2006)	Trust is the “expectation that a partner will not engage in opportunistic behaviour, even in the face of opportunities and incentives for opportunism”.
Ennew and Sekhon (2007)	Trust is „individual’s willingness to accept vulnerability on the grounds of positive expectations about the intentions or behavior of another in a situation characterized by interdependence and risk”.

Source: authors.

McKnight and Chervany (2002) propose an interdisciplinary model of trust in the e-commerce context that includes the following: institutional trust, dispositional trust and interpersonal trust. Authors define institutional trust as “an individual’s belief that favorable conditions are in place which are conducive to situational

success" the beliefs held by an individual about impersonal structures and situations, in which "one feels safe, assured, and comfortable (not distressed or fearful) about the prospect of depending on another". It should be noted here, that the model usually reflects only a part of reality that seems to be the most significant to a researcher (Blašková, 2008). For example, the construct of institution based trust comes from sociology; people can rely on others because of structures, situations, or roles that provide assurances that things will go well. Disposition to trust is construct derives primarily from trait psychology (Sunikka et al.2010).

Financial products are very sensitive services, since customer cannot overview the bank's ability to offer the promised service at the time when they sign the contract. Customers have to trust in the bank and its promised reliability i.e. when customers deposit their money in a bank, they trust the bank not to fail and to pay back the money (Sołoma 2010). In the context of internet banking, the trustor is a consumer who has to decide whether to adopt internet banking or carry out financial transactions using traditional, real-world bank branches. Several studies have confirmed the lacking of trust has to be considered to be one of the main reasons why consumers are still reluctant to conduct their financial transactions online (Grabner-Krauter and Faullant, 2008, Mukherjee and Nath, 2003).

The development of internet banking in Poland

In the twenty-first century, the era of the new economy in which the Internet has become the key element, retail banks around the world face new challenges and opportunities, which imply new strategies as well as organizational structures. Internet banking, also commonly known as online banking or e-banking is a form of banking services through a publicly available Internet network with the use of standard software (web browser) or software dedicated to communication with the bank (home systems / corporate banking). Due to the adopted model of bank operating activity, Internet channel can act as a supplement or equivalent of standard form of services provision in banking institutions, or as the only (next to other forms of electronic banking) service distribution channel (so called virtual bank).

Internet banking services were first introduced in Poland by Powszechny Bank Gospodarczy S.A. in 1998 . The next important phase in the history of Polish internet banking was reached in 2000, when BRE Bank established mBank - the first fully virtual bank in the Polish market. At the end of 2013, the internet banking services in Poland were provided by 45 commercial banks and the majority of cooperative banks.

In Poland there are number of institutions monitoring market of internet banking. Data on payment cards are collected by the National Bank of Poland (NBP), on the other hand, data on electronic banking services - but only in respect of online banking and home / corporate banking and mobile banking – by the Polish Banks Association. Statistical analyses in this area are conducted by the Central Statistical Office, the National Bank of Poland and public opinion research centers. Internet banking is becoming more popular among customers in Poland. Research conducted by Polish Bank

Association reported an increase in the popularity of this type of e-services and the scale of their use. In the first quarter of 2013, the number of individual bank customers, who concluded a contract on services of internet banking, was estimated at about 20.5 million people (an increase of 10.8% as compared to 1st April 2012) and the number of active customers who carry out at least five operations in a month through the internet was assessed at 11.4 million. One should also pay attention to the fact that one person may be a customer of several banks.

Developments taking place in related industries and government development programs of the information and telecommunication technologies (broadband and good-quality physical internet connections) were vital for attracting a new users to the internet banking in Poland. For example, the "innovation economy" programme implemented in 2007 - 2013 in the construction of internet access infrastructure was under UE support estimated at around one billion of euros. In the first phase of the project, in 2007 - 2009, the proportion of households with broadband Internet access in Poland increased from 30 to 51%. Increase in the number of online banking customers was also influenced by banks' marketing activities. Low unit costs of performing banking transactions as compared to customer services in bank branches, made this channel of services distribution one of the most important factors in gaining market position. Through online banking there is an ability to simultaneous and automatic handling of a large number of customers in real time, minimizing the circulation of paper documents. Opening a bank account with the access via the Internet often constitutes the beginning of stronger relationships establishment with a customer, which facilitates latter sell of other products. However, from customer viewpoint, it has been identified that the lack of trust was one of the main reasons why consumers are still reluctant to conduct their financial transactions online (Wong et al.2009).

Sources and factors of customer trust in internet banking

Research findings show that trust plays a large role in determining consumers' initial and continued use of the e-banking service (Yap et al. 2010, Yousafzai et al., 2003). A very important element of customers trust to financial transactions via the Internet is perceived credibility of institution which serves as the Internet provider. This credibility is described by four factors: perceived honesty, perceived competences, perceived security control, and perceived privacy protection. No less important are also elements of external environment such as opinions and third-party recommendations, and national legislation to protect customers during transaction.

In case of general consumer trust in the bank as an institution, in Poland it was reported to be high. Research conducted by the Polish Financial Supervision Authority reported that among respondents who invested deposits in a given financial institution, each of customer groups trusted mostly in this institution to which the currently financial assets were mandated: 76% of customers trust in banks and as much as 91% of customers trust in credit

unions. A high rate of customer trust in credit unions may partially be explained by marketing activities of these institutions showing that they are 100% owned by the Polish capital. However, as the research findings show, the primary criterion for the selection of institution where customers want to invest their money, is the interest rate of deposits and not the risk of bankruptcy of institution (*Zaufanie do wybranych ...*2012). Probably, the influence on low risk perception associated with insolvency of bank is influenced by the fact that in 2002 -2012 no bank failure in Poland was reported. High trust in banks impacts on their level of trust in online banking. In case of this form of banking services, it is noteworthy that perceived benefit impact user trust and determine behavior motivation. The prominent benefits of using internet banking lie in:

- the speed of transaction and time saving resulting from the lack of need for direct contact of customer with bank branch,
- low costs and high functionality of banking services, including the access to all standard services available at traditional bank branches,
- no territorial restrictions and 24-hour access to banking services,
- satisfactory level of transactions security and assets account, with the assumption of keeping basic safety rules by a customer.

However, not only benefits have an impact on consumer trust in internet banking. One cannot forget to take into account the perceived risk, which is an expression of customer's concerns against the presence of unexpected, negative consequences of transaction. The higher the risk, the lower the propensity to conduct transactions on the Internet. Moreover, the trust literature indicates a number of factors to have strong predictive importance in relation to consumer trust in e-banking. The most common factors identified include risk, perceived security, privacy and technological trustworthiness, relational benefit, website quality and user interface, quality of product and service information, and the bank's reputation (Eriksson et al. 2008, Yap et al. 2010). Online consumers are worried about risks associated with privacy and security, such as identity theft and transaction fraud. Among factors that influence user trust in internet banking, disposition to trust, defined as one's positive or negative disposition to trust other people or entities even in the context of low information available for them (McKnight and Chervany, 2002), belongs to internal factors. The user's disposition to trust will be different because individual varies in learning and growth experience and personality characteristics. For example, for new users who have not yet come into contact with internet banking, some banking experience in doing business in traditional way (off line) i.e. face- to- face, is an important source of trust.

In the literature on electronic banking, other factors affecting the trust also attract the attention. For example, an important factor that effect the trust is perceived trustworthiness, which is defined as trusting beliefs, i.e. perceptions of the trustworthiness of the object of trust (McKnight et al. 1998). In the context of electronic banking, perceived trustworthiness is often defined as a customers' perception of confidence in the bank's

competence, integrity and benevolence to provide the banking services over the Internet (Yousafzai et al. 2003).

Mukherjee and Nath (2003) suggested that customers' orientation towards the technology of electronic communication and the internet is frequently a proxy for their trust in internet banking. Moreover, a consumer's willingness to use e-banking primarily depends on their perception of risk in transacting on the internet. Consumers who have low perceived risk of transacting on the internet are generally more willing to use e-banking (Wong et al. 2009).

Research findings by Yap et al. (2010) suggest that satisfaction with the bank's traditional service quality as well as the bank's size and reputation provide credibility to new delivery channels. Above mentioned factors of customer's trust to online banking presented above, do not cover whole issue because one cannot forget, that trust is an interdisciplinary phenomenon. It is investigated not only by economists but also e.g. psychologists for whom a tendency to trust is considered as a character trait, meaning a general belief in others. The tendency to trust depends on e.g. factors associated with culture (Sun 2011), experiences from the past or personality traits which affect the relations between customers and enterprise within the confines of online transactions.

NBP survey shows that about 77% of Polish customers have a personal bank account and this rate, according to various empirical and statistical data, has not increased during the past few years (*Payment habits of Polish Consumers* (2013). Bank account implies a number of people who use internet banking. The bank account and access to the Internet banking is owned by 51% of adult Polish customers (Fig. 1).

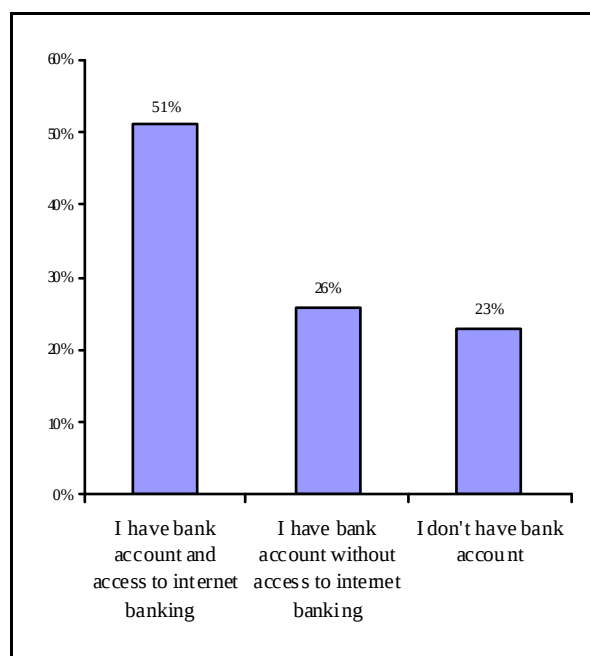


Fig.1. Internet banking accessibility among adults in Poland

Source: *Payment habits of Polish Consumers* (2013).

The analysis of internet banking access by various sociodemographic characteristics of personal bank account holder clearly reveals some interesting trends in this respect:

a/ the higher people's income, the more accessibility to internet banking (Fig.2)

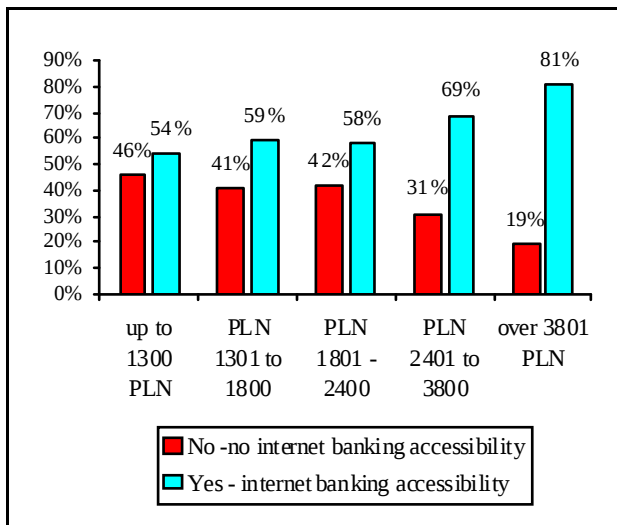


Fig.2. Breakdown of internet banking accessibility by income of personal bank account holder.

Source: *Payment habits of Polish Consumers* (2013).

b/ the higher respondents' level of education, the more accessibility to internet banking; while it is 34% for respondents with compulsory school leaving certificates, it is 85% for university graduates (*Payment habits of Polish Consumers* (2013)).

Almost 18% of Polish customers do not benefit from online banking despite having access to it. Lack of computer is the most important reason of not using online banking, lack of the Internet, or inability to use the Internet, which was indicated by 35% of people who have a personal account and do not use online banking (Table 2). Another reason (24%) is represented by the lack of ability to use online banking, the perception about its complexity. However, factors such as safety (20%) and the risk associated with concerns that someone may get the password and close the unauthorized deal (16%), worries about identity theft and transaction fraud, were referred to another place (Table 2).

Table 2. Reasons for not using internet banking

Reasons for not using internet banking	%
Lack of computer, internet connection or lack of internet skills	35
Lack of skills for using the internet banking	24
Internet banking is not secure	20
Worries about privacy (identity theft and transaction fraud)	16
Lack the trust to engage in online transactions, could do without it	13
I do not know, it's hard to say	4

Source: *Payment habits of Polish Consumers* (2013).

No general trust as a reason of not using online banking, was indicated in the last place (13%). Failure in online banking use does not result directly from the lack of trust

in this form of banking services, but especially from the lack of technical options and inability to use the Internet and online banking. These barriers are dependent on the development of information society in Poland, availability of infrastructure at an acceptable cost, and computer science education. Changes in these areas may affect adoption of online banking, which unlike other forms of banking services, requires from customers the knowledge on computer services, internet access, awareness of the potential risks associated with the use of the Internet and following basic safety rules in this area.

From service providers viewpoint, to dispel customers' concerns associated with security and confidentiality of data in order to develop trust and to attract more users to internet banking it is essential for banks to develop secured internet banking systems that are trustworthy, for their users. From users viewpoint, possibility of personal contact with the bank (availability of bank branch in a short distance from a place of residence), despite the use of the Internet channel, is still an important criterion of banking services selection for consumers in Poland (Sołoma 2010). Moreover, according to Eriksson et al. (2008), consumers' perceptions of the relative advantage of use of internet banking and the lack of complexity play an important role in the e-banking adoption in some Central and Eastern European countries.

Conclusions

1. Approximately 77% of Polish customers have a bank account and this rate has not increased in the past few years. Personal bank account implies a number of people that will hold and use online banking.
2. Banks and credit unions are widely trusted by customers in Poland.. High trust in financial institutions (e.g. credit unions are trusted as much as 91% of customers) affects the confidence for online banking. More and more customers appreciate the benefits of electronic banking, systematic growth in the number of people who have an access to it and use it actively is reported. The number of active users of online banking exceeded 11 million at the beginning of 2013.
3. Results of the studies indicate that significant factors affecting consumer trust in internet banking is the issue of systems security and risk associated with identity theft and unauthorized transaction fraud. In addition, it was observed that the access to online banking allowing for its use is dependent on socio-demographic characteristics of respondents. The following trend was outlined most evidently: the level of internet banking accessibility by bank account holders significantly increases with the increase of income and education level. Bank account holders with higher education possess internet banking in 85% of cases. The most important reason for not using online banking is the lack of computer, Internet, or inability to use the Internet, which was indicated by 35% of people who have a personal account and do not use online banking.

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