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AN EXAMINATION OF DIGITAL BANKING TECHNOLOGY ACCEPTANCE AMONG MIDDLE AGED PEOPLE IN KAZAKHSTAN: A CONCEPTUAL INVESTIGATION

Abstract. The rapid growth of global internet use has caused an acute need for organizations to implement technologies in their daily operations. In particular, financial institutions began to promote digital banking services among their customers. Although online banking seems attractive, many people from different age groups are still resistant to its adoption. Thus, this paper proposes a conceptual approach to adoption of internet banking among middle-aged people in Kazakhstan.

The studies conducted on IS/IT adoption by using Technology Acceptance Model (TAM) have revealed the limitations of the original model. That is why original TAM should be extended in order to explain the key factors that are affecting the customers' adoption of internet banking. In this work we studied the IS literature about internet banking adoption through implementing different theories from the psychology field in order to construct a conceptual model that would have greater explanation of people's beliefs to use new technologies. In particular, we added variables, such as Subjective Norm, Trust, Perceived Risk and Word of Mouth to the conceptual model.

Keywords: Technology Acceptance Model (TAM), Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB), Word of Mouth, internet banking, middle aged people.

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Аңдатпа. Ғаламдық Интернетті пайдаланудың қарқынды өсуі ұйымдардың күнделікті қызметіне технологияны енгізу қажеттілігін тудырды. Атап айтқанда, қаржы институттары өз клиенттері арасында сандық банктік қызметтерді ілгерілете бастады. Интернеттегі банкинг тартымды болып көрінгенімен, әр түрлі жастағы топтардағы көптеген адамдар оны жүзеге асыруға әлі де қарсы. Осылайша, бұл мақалада Қазақстанда орта жастағы адамдар арасында интернет-банкингті енгізуге тұжырымдамалық көзқарас ұсынылады.

Технологияларды қабылдау моделін (TAM) пайдалана отырып ИС/ИТ енгізу бойынша жүргізілген зерттеулер бастапқы модельдің шектеулерін анықтады. Сондықтан түпнұсқа TAM клиенттердің интернет-банкингті қабылдауына әсер ететін негізгі факторларды түсіндіру үшін кеңейтілуі керек. Бұл жұмыста біз жаңа технологияларды қолданудағы адамдардың сенімдерін жақсырақ түсіндіретін тұжырымдамалық модель

құру үшін Психология саласынан әртүрлі теорияларды енгізу арқылы интернет-банкингті енгізу туралы «IS» әдебиетін зерттедік. Атап айтқанда, біз тұжырымдамалық модельге субъективті норма, сенім, қабылданған тәуекел және ауызша сөз сияқты айнымалыларды қостық.

Түйін сөздер: технологияларды қабылдау моделі (TAM), негізделген әрекеттер теориясы (TRA), жоспарланған мінез-құлық теориясы (TPB), сарафандық радио, Интернет-банкинг, орта жастағы адамдар.

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Аннотация. Быстрый рост глобального использования Интернета вызвал острую необходимость для организаций внедрять технологии в свою повседневную деятельность. В частности, финансовые учреждения начали продвигать цифровые банковские услуги среди своих клиентов. Хотя онлайн-банкинг кажется привлекательным, многие люди из разных возрастных групп все еще сопротивляются его внедрению. Таким образом, в данной статье предлагается концептуальный подход к внедрению интернет-банкинга среди людей среднего возраста в Казахстане.

Исследования, проведенные по внедрению ИС/ИТ с использованием модели принятия технологий (TAM), выявили ограничения исходной модели. Именно поэтому оригинальную TAM следует расширить, чтобы объяснить ключевые факторы, влияющие на принятие клиентами интернет-банкинга. В этой работе мы изучили литературу “IS” о внедрении интернет-банкинга путем внедрения различных теорий из области психологии, чтобы построить концептуальную модель, которая лучше объясняла бы убеждения людей в использовании новых технологий. В частности, мы добавили в концептуальную модель такие переменные, как Субъективная норма, Доверие, Воспринимаемый риск и Сарафанное радио.

Ключевые слова: Модель принятия технологий (TAM), Теория обоснованных действий (TRA), Теория планируемого поведения (TPB), Сарафанное радио, интернет-банкинг, люди среднего возраста.

1. Introduction

Technological advances during the recent couple of decades have inevitably changed the individual and social lives of mankind and thus use of technology has become an important phenomenon[1]. In general terms, digitalization refers to the transition to information systems-based lifestyles in different aspects of our lives. Therefore, digitalization is a kind of continuous transformation through using the most updated technologies in the digital era. In

[1] Zhirikov, A. Что такое цифровизация? Executive.ru. 7 June, 2020. URL: https://www.e-xecutive.ru/management/itforbusiness/1989667-chto-takoe-tsifrovizatsiya.

this context, individuals and business organizations are supposed to adopt new business processes, organizational structures and regulations in order to get in track with the fast-changing digital technologies. That is, the usage of digital technologies enables firms to make up new business models, provide new opportunities in order to create value and generate revenue (Gray *et al.*, 2015). For example, when firms are able to use IT intensively, they can store and process a greater scale of data. Moreover, all information is accessible at anytime and anywhere. This is definitely a huge advantage of digitalization. However, there are some cons as well. For example, it is quite difficult to protect data privacy, maintain user trust and regularly make sure that there is no technology malfunction (Munoz-Leiva et al 2010).

Recent technological developments in the information systems call for their intensive application in almost every area of the business world, especially in the banking sector. Hence, banking is the core element of the modern economic system since it creates bridges between all other sectors of local and global economies (Tan and Teo, 2000). According to the data accumulated on "we are social" and "Hootsuite", in January 2020 the number of internet users worldwide reached 4.57 billion. Particularly, the share of Internet users who adopt mobile banking or financial services apps in their daily lives is 35% which rounds up to 1.6 billion people. This global growth affected Kazakhstan as well. Namely, internet users among Kazakh people in January 2020 reached 14.73 million. The report also indicates that 59% of Kazakhstan residents have accounts in financial institutions [2]. These general statistics shows the importance of development in the banking sector, which is promoted by the general digitalization trend. It enables banks to optimize their costs by cutting operating expenses and savings on human resources, meanwhile providing quick and remote customer services[3]. Thus, internet banking is considered as the lifebuoy for banks to operate in the long-term in the world of e-commerce (Tan and Teo, 2000). Recent studies also pointed out the factors that contribute to the adoption of online banking by customers, such as time savings, availability of the service anytime and anywhere, speed and convenience (Laukkanen, 2007).

Despite the advantages of online banking to the customers, the use of internet banking did not spread as expected (Kim *et al.*, 2009; Laukkanen, 2007; Laforet and Li, 2005). For example, according to forecasts, in 2018 the number of successfully completed online banking transactions in Kazakhstan should

[2] Kemp, S. Digital 2020: Kazakhstan. DataReportal. 18 February, 2020. URL: https://datareportal.com/reports/digital-2020-kazakhstan?rq=kazakhstan.

[3] Vidyanova, A. Банки начинают предлагать через банкинг не только свои услуги. Kapital.kz. 25 October, 2019. URL: https://kapital.kz/finance/77570/banki-nachinayut-predlagat-cherez-banking-ne-tol-ko-svoi-uslugi.html.

have exceeded 90%, but amounted only to 80% [4]. That might have happened due to the drawbacks of adoption of the bank's online services for customers. Namely, the lack of trust for online banking, habitual usage of cash and lack of technical literacy of the information technology[5]. In addition, it is significant to notice that acceptance and usage behavior of technology varies among users. That is, technology acceptance is strongly affected by the person's mindset about the technology and security concerns relating to it (Westin and Maurici, 1998; Cranor et al., 2000). First of all, in order to keep up to date, it is vital to obtain a proper technology literacy and understand the need for the technology from now on. Because only relevant knowledge will reveal all the flaws and question the trustworthiness of any system. Generally, due to digitalization, people's perceptions towards technology are positive. This fact makes acceptance and adoption of digital services a lot more effective.

Some researches in developing countries suggest that people are more comfortable with obtaining services in traditional bank offices. Because they are resistant to changes and are concerned about features of internet banking. In this context, new users should first always have internet access; second, need to learn how to use services properly (Mols *et al.*, 1999). Consequently, banks are paying a lot of attention to security and possible technical breaches (Safeena *et al.*, 2013).

1.1. Problem Statement

According to Porter and Donthu (2006), it is quite difficult for older people to accept new technologies in the banking sector because they are more likely to prefer traditional means of financial services. In contrast, younger people are more inclined to use new technologies, but their financial position is rarely stable to stimulate digital banking services (Lewis *et al*., 1994). In other words, technology acceptance for older and younger generations is a bit predictable, but for middle-aged people the concept is quite problematic since this age group might contain the properties of both younger and older generations. That is why we scoped down our focus to middle aged people, as they are financially stable and are more open to new technologies as compared to older people. Consequently, we believe that understanding the mechanism of digital banking acceptance among medium aged people is important, especially in Kazakhstan. According to statistics on Forbes.kz, 52.6% of Internet users are

[4] 7kun.kz. В Казахстане появится универсальный интернет-банкинг. 12 April, 2018. URL: https://7kun.kz/v-kazahstane-poyavitsya-universalnyj-internet-banking/.

[5] Contributors, E. 5 reasons why consumers still don't use digital payments. The Economic Times. 28 June, 2018. URL: https://economictimes.indiatimes.com/wealth/spend/5-reasons-why-consumers-still-dont-use-digital-payments/articleshow/64699938.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst.

classified as middle-aged. And the group of young users accounts for 32.4% of the total, and the remaining 15% is for older users[6]. Drawing on these arguments, the main purpose of the study is to determine the factors as well as the relationships regarding the digital banking acceptance among medium aged people in Kazakhstan. Hence, we formulate two research questions:

1. *What are the factors that determine digital banking acceptance among medium aged people in Kazakhstan?*
2. *What are the relationships between these factors to determine digital banking acceptance among medium aged people in Kazakhstan?*

1.2. Significance of the work

Generally, the banking sector has been playing a crucial role for society through introducing new digital services. In this context, those new technologies offer greater economies of scale through facilitating more effective and efficient services to the clients. In order to ensure the sustainability of the competitiveness of the new technologies, it is crucial to understand the mechanisms through which new banking technologies are accepted among the existing and potential clients. Furthermore, due to digitalization phenomena, the banking sector was introduced to the next level of conducting services and working effectively and efficiently. However, Kazakhstan has only limited research works concerning the importance, acceptance and utilization of online banking by customers. By conducting this research, we are constructing a model that will try to explain the customer's acceptance of online banking. Addressing these arguments, current study suggests both theoretical and practical contributions.

1.3. Theoretical contribution

This research paper might be useful for developing the model which will in turn build an understanding of the digital banking acceptance among middle-aged people in Kazakhstan. The base of our conceptual model has been derived from the original TAM, which consists of variables, such as perceived ease of use, perceived usefulness, attitude and intention to use. The original TAM in turn has its roots from the Theory of Reasoned Action introduced by Ajzen and Fishbein (1980). Thus, the conceptual model was extended by subjective norm. Furthermore, to have a full understanding of the customers intention to use online banking, we included additional variables, such as trust, perceived risk and word of mouth (Uses and Gratification Theory).

1.4. Practical contribution

This research paper might build valuable insight to the internet banking's future, as it enables management of the banks to be more informed about the

[6] Shigayeva, D. (2015, July 28). Интернет-аудитория Казахстана: портрет и предпочтения пользователя. Forbes.kz. 28 July, 2015. URL: https://forbes.kz//stats/internetauditoriya_kazahstana_portret_i_predpochteniya_polzovatelya/.

customers technology acceptance regarding different age groups. In this context, older people have only limited usage of the internet banking, while young people are not financially stable to adopt or use an online banking system. That is why management should target middle-aged people more, since they are considered as the most important generation for banking sectors.

2. TRA and TAM as the Study Background

2.1. Theory of Reasoned Action (TRA)

The TRA is a social psychological model, which focuses on conscious behavior and intentions. The theory considers that people tend to act rationally when making decisions and performing an action (Ajzen and Fishbein, 1980). The TRA specifically observes two factors of behavioral intention: a personal factor which is attitude towards an action, and a social impact on a person's behavior which is subjective norm. Attitude, in this context, shows the person's individual behavioral performance (Ajzen and Fishbein, 1980). According to Ajzen and Madden (1986), subjective norm is an external factor, which impacts either approval or disapproval of the person's behavioral performance. The theory suggests that people tend to comply with others' expectations regarding their behavior and are often influenced by their social environment. As we are discussing Kazakh society in our research paper, we believe that subjective norm has a great impact on individual's behavior towards adoption of the internet. Because technologies have been introduced relatively not long ago, that is why people have dual and uncertain feelings about them. Subsequently, in order to avoid possible mistakes, people will likely listen to their relatives and friends. As a result, the role of subjective norm becomes significant and applicable in daily life. Considering all these facts, we decided to use a variable derived from Theory of Reasoned Action in our conceptual model.

2.2. Technology Acceptance Model (TAM)

Technology acceptance model (TAM) is constructed based on the TRA (Ajzen and Fishbein, 1980), model (theory of reasoned action) and use it as a link between perceived usefulness and perceived ease of use, and helps in predicting consumers intention and attitude to use IS technologies. The Technology Acceptance Model received a significant notice on the literature of Information System/Information Technology acceptance and use. Because it is considered as the most effective and frequently applied theory for portraying individual's acceptance of IT systems. Due to TAM, IT/IS usage behavior is identified with an attitude toward using a system, which drives two significant variables originally suggested by Davis (1986): PU (perceived usefulness) and PEOU (perceived ease of use) that would affect the users intention to use through attitude (ATT). Determination of perceived usefulness is "the degree to which a person believes that using a particular system would enhance his or her job performance", since perceived ease of use is defined as "the degree to which a person believes that using a particular system would be free of effort". Because internet banking is deemed to be popular in use not so long ago, some people

may face difficulties in using internet banking due to lack of information and skills.

2.3. Extended TAM

Technologies and people's attitudes towards innovations have been developing for decades. This constant development affected TAM as well. Different researchers have been using additional variables in order to test their hypotheses. Following their paths, we also modified TAM and introduced a completely new conceptual model. First of all, basing on studies of Benassi (1999), Gefen (2002), Hoffman, Novak & Peralta (1999), we added "Trust" as an extending variable. Because we believe that banks should treat their customers with higher carefulness, as personal security and confidentiality are the utmost priority in internet banking environment. Then, the second variable which has updated our conceptual model is "WOM". Basically. "WOM" can be described as the influence on internet banking use via affecting customers' behavior through granting more information about products and via familiarity (Alam & Yasin, 2010; Chatterjee, 2001; Park & Lee, 2009). Finally, the last variable which has been used in our study is "Perceived Risk". Generally, perceived risk is a factor which affects people's beliefs in the righteousness and safety of using new technologies and building a trust in internet banking systems (Jarvenpaa & Tractinsky, 1999; Kesharwani & Bisht, 2012; Glover & Benbasat, 2010).

2.3.1. Trust

Nowadays internet banking is widely popular among the population, over the last decade in the world, the Internet has changed the use of guidelines for all types of industrial activities, including banking area. This is noticeable in the number of different sites and internet banking services provided for use by customers, so today every self-respecting bank provides such opportunities (Gurau, 2002). In a point of view from technology acceptance has been found that trust significantly influences and improves users perception and implementation of technology at early stages (Hernández-Ortega, 2011). According to different studies trust is considered as an important variable which significantly reveals users loyalty to new technologies (Hong & Cho 2011). Mainly trust is affected by the behavioral intention of users because they are afraid to be used by scammers and hackers and lose confidential information about their person. Their mistrustful perception is associated with a fear of risks. The trust of users and their safety is one of the important issues that all countries of the information society are trying to solve. Thus, they strengthen the security measures of transactions on the Internet to prevent the interception of data to third parties. Nevertheless according to study of (Deng *et al.,* 2010) and (Kim *et al.,* 2009) trust is a variable that positively affects to detect users intention to use internet banking service. Because consumers view trust as an important aspect in internet transactions.

2.3.2. Subjective Norm

It is a social influence, which can be defined as "person's perception that most people who are important to him think he should or should not perform the behavior in question" (Fishbein & Ajzen 1977). There is a debate between researchers whether subjective norm has a direct effect on the intention to use internet banking. The general rationale explaining the direct link is as follows: the person is more likely to perform a behavior even if he does not feel good about it, because people who are important to him motivate to do so.

2.3.3. Perceived Risk

According to the definition given by Featherman and Pavlou (2003), perceived risk is the possible loss which may occur during the process of achieving a desired outcome. There are several dimensions of risk, such as financial, performance, social, physical, privacy and time-loss (Jacoby & Kaplan, 1972; Kaplan *et al.,* 1974; Roselius, 1971, as cited in Lee, 2009). After analyzing outcomes of many researches and considering local factors, we decided to choose financial, social and security risks as main dimensions to focus on.

Financial risk is the risk of potential loss of money due to website malfunction or processing error. Kuisma *et al.* (2007) stated that people are usually worried about the monetary loss while making banking transactions, such as money transfer or service payment.

Performance risk is the risk of the product's poor performance, which can result in failure to deliver the expected benefit (Featherman and Pavlou, 2003; Beikzad *et al.,* 2011). Particularly, in internet banking this risk can be explained as the low internet speed, website maintenance, server breakdown and problems with an access on a timely basis (Hanafizadeh and Khedmatgozar, 2012).).

Security risk is mostly associated with monetary loss. But in fact, security risk can relate to unauthorized access, hacker attacks on bank account, disclosure of private information and fraud (Lee, 2009). Many researchers thus proposed that banks should improve their security by two-factor authentication or encryption in order to attract new customers and keep existing ones (Safeena *et al.,* 2013; Bestavros, 2000). The problem of phishing, unauthorized access, malicious software (viruses) are vital all around the globe, and in Kazakhstan as well. According to statistics, the spread of malicious software (viruses) and unauthorized access grew by 31% and 18% respectively in 2019, phishing and other cyberattacks rocketed by 344% and 134% respectively in 2019 as well (KZ-cert, 2020). From this, we can conclude that privacy concerns are significant both worldwide and in Kazakhstan. The same conclusion was achieved by researchers as well: Aldas-Manzano *et al.,* 2009, Lee, 2009; Maditinos *et al.,* 2013; Ozdemir *et al.,* 2008.

2.3.4. Word Of Mouth (WOM)

Word of mouth (WOM) is information in the form of advice transmitted orally from one person to another in an informal manner. According to Keaveney (1995), 50% of brand-to-brand shifts are due to word of mouth's influence on customers' choice. There are two types of WOM: positive and negative. Positive word of mouth (PWOM) supports the choice of a particular brand or company, while negative word of mouth (NWOM), on the contrary, restricts the choice of use. The probability of using or buying a product or service may depend directly on the prevalence of people's opinions about it. Although both positive word of mouth and negative word of mouth are targeted to increase the demand for the product, in our work we incline to positive word of mouth. Because we believe that positive word of mouth will have a greater effect on adoption of internet banking among middle-aged people. As the bad experience is not popular among the mentioned age group.

3. Conceptual Model and Propositions

3.1. Conceptual model

The common model for IT acceptance and usage is TAM, which contains Perceived Usefulness, Perceived Ease of Use, Attitude and Intention to use. In our model, we also used basic relationships, such as *direct* influence of PEOU on PU and *indirect* influence of both perceptions on Intention to use via Attitude as a mediator. Due to restricted scope of original TAM, the conceptual model was updated via several new variables and links. As a result, extended TAM was constructed.

First of all, referring to studies conducted by Taylor and Todd (1995), Venkatesh and Davis (2000), Abadi *et al.* (2012) and Wua *et al.* (2014), we added the term "subjective norm", which had a *direct* effect on intention to use internet banking. Then, considering geographical, social and mentality factors, "perceived risk" was deemed to have a *direct* impact on people's intention to adopt and use online banking services. Along with that, several studies also revealed a bond between trust and attitude towards the use of internet banking, which implies the fear of risks and common security concerns. Finally, in line with Mehrad and Mohammadi (2017), our model contains the term "word of mouth", which has both *direct* and *indirect* effects on intention to use and attitude towards the use of internet banking via perceptions, trust, subjective norm and perceived risk.

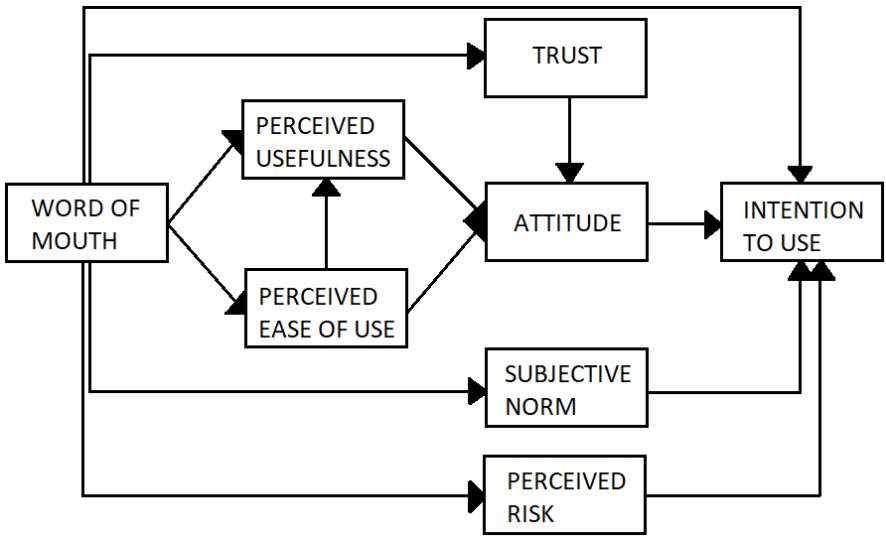

Figure 1. The conceptual model

3.2. Propositions drawn from the conceptual model

Considering all of the above, we made three propositions for the conceptual model. They are as follows:

Proposition 1: WOM might have a direct and indirect effect on intention to use digital banking such that subjective norms and perceived risk might act as mediating variables on the relationships.

Word of mouth is an interpersonal communication, which is claimed to be more powerful than simple advertisements or promotional campaigns (Mehrad *et al.*, 2017). It works both in pre-adoption and post-adoption stages of any online products. In pre-adoption period, WOM might be used as a risk reduction factor, whereas during adoption and post-adoption stages it can prevent other customers from potential errors and motivate them to use the product (Flanagin *et al.*, 2014; Laughlin & MacDonald, 2010). Mehrad *et al.* (2017) has proven that WOM directly affects intention to use online banking, and also has a huge impact on variables, such as trust, social norms and perceptions. Apart from study results, in our propositions we consider psychological, cultural and mentality factors. According to Nielsen's Survey (2012)[7], 92% of 28,000 respondents are relying on their friends' and families' advice more than on any other types of advertisements (Barnes & Corbit 2003). This phenomenon can be explained with psychological traits of human beings. A person simply does not want to take unreasonable risks and it is more

[7] https://www.nielsen.com/us/en/insights/article/2012/consumer-trust-in-online-social-and-mobile-advertising-grows/.

convenient for him to learn from someone's mistakes and feel more secure (Bomil & Ingoo 2003). Moreover, people unconsciously tend to follow the majority. In other words, many people all over the world, and especially in Kazakhstan, have a herd instinct or a herd mentality. It means that the collective thinking prevails over the individual decision-making and unwillingly spreads word-of-mouth effect. Taking into account this popularity of WOM in the world, including post-soviet region, we propose that Word of Mouth *positively* influences all variables and helps to make the adoption of internet banking more appealing to people.

Apart from the above, many research papers examine the impact of Subjective Norm and Perceived Risk individually and consider them as stand-alone variables. The majority of papers propose that Subjective Norm has a direct effect on the intention to use internet banking. The general rationale explaining the direct link is as follows: the person is more likely to perform a behavior even if he does not feel good about it, because people who are important motivate him to do so. Considering the general values and culture of Kazakh people, we also think that Subjective Norm might have a *direct positive* impact on intention to use online banking. Our rationale is supported by several studies of researchers like Taylor and Todd (1995), Venkatesh and Davis (2000), Abadi *et al.* (2012) and Wua *et al.* (2014). Similarly, we agree with researchers, who have found out that Perceived Risk is an important factor affecting the intention to adopt and use online banking services. Subsequently, our conceptual model is constructed based on several studies, such as Fadare *et al.* (2016) and Cunningham *et al.* (2005), who proved that financial risk had an impact on customers' intention to use the internet banking. Then, Aldas-Manzano *et al.* (2009), Munene *et al.* (2002), Lee (2009) Maditinos *et al.* (2013), Jayawardhena and Foley (2000) who stated that performance risk is the most significant dimension, which affects middle-aged people with higher income more than others due to psychological and generational features. Finally, we support Mortimer *et al.* (2015), Aldas-Manzano *et al.* (2009), Lee (2009), Maditinos *et al.* (2013), Ozdemir *et al.* (2008) and propose that security concerns are the matter of importance and need to be thoroughly focused on. Summing up, we believe that perceived risk will *negatively* affect intention to use online banking and find studies of Kesharwani and Bisht (2012), Singh *et al.* (2010), Ramayah and Kassim (2015) useful in constructing our conceptual model.

Proposition 2: WOM might have an indirect effect on attitude towards online banking via trust and user's perceptions towards the technology.

The nature of word of mouth is very flexible. In some contexts, WOM can also be defined as a "positive or negative attitude of customers towards a product or a company". Particularly, perceptions about various institutions which provide online services and online products (Hennig-Thurau *et al.*, 2004). For example, Chu and Choi (2011) mentioned that the importance of WOM expanded due to digitalization of business activities and popularization of the

internet. Taking into account this and other research papers, we believe that although it is getting a lot easier for companies to attract new customers, in order to succeed they have to seek for customer loyalty. The loyalty, in turn, might be reached by customers' trust.

Nowadays consumers prefer to obtain information about products from different social media platforms rather than from official websites. This happens due to the presence of unbiased opinions and experience-based reviews of current users. In most cases, users' feedback and comments help potential customers to evaluate the usefulness of a product or a service and decide whether to purchase them or not. As mentioned above, reviews of previous customers, their experience and trust level to the brand are the matter of significance. This fact could be well-seen in studies of Hajli et al., (2014), where they found a significant connection between trust and a word of mouth. Although "Trust" might seem simple to understand, there are several precedents necessary to actually use this term for academic purposes. First of all, in order to test the level of trust, customers should experience a sort of risk (Coleman, 1990; Deutsch, 1958). Furthermore, trust is connected to self-efficacy, or in other words, the confidence in the righteousness and trustworthiness of third parties' actions and words (Deutsch, 1960). According to Mitchell (1999), trust appears to be a result of the reduction in the level of anxiety towards risk. It means that a customer's attitude changes when one feeling is replaced by another, i.e perceived risk is replaced by trust. Therefore, we believe that in order to understand people's attitude towards offline and online services, we need to focus on factors affecting the trust and the trust itself. According to the research of Stewart (1999), there are two dimensions of online banking trust: first is customer's trust in the bank and the second one is the trust in digital systems. "Trust to the bank" is one of the key factors that has a direct effect on the customer's risk perception (Yousafzai *et al*., 2003). We propose that trust has a *direct positive* effect on attitude towards the use and adoption of internet banking.

Proposition 3: Extending the *proposition 2*, attitude will influence intention to use online banking.

The attitude is the central variable of TAM, which connects various variables with the main outcome - intention to use or adopt internet banking. There is a wide range of possible factors which affect banking adoption, thus models also vary. In spite of these differences, all the models have one thing in common - relationship between attitude and intention to use. This relationship concludes the purpose of the whole research paper.

First of all, the most common and widely used dimensions of "attitude" are cognitive and affective. Cognitive attitude explains the beliefs and judgement of the person towards something (Bandura, 1989). In our case it is online banking. So basically, a person with cognitive attitude will make a decision based on his values and perceptions. Whereas, affective attitude measures the extent to which an inspected object is appealing to the person (Bagozzi, 1979).

In other words, the person with an effective attitude towards online banking would prefer to rely on his emotions and feelings rather than on the surroundings. In this work we imply cognitive dimension of the attitude and propose that an attitude will have a *positive* influence on the intention to use online banking.

4. Conclusion

The digital banking technologies are under continuous development each day, as financial institutions implement online banking in their daily operations in order to sustain a profitable position in the market. In this context, digitalization helps not only to cut costs, but also to maintain an efficient workflow. This efficiency, in turn, is highly demanded by middle-aged people, as they possess monetary resources and are time conscious. Considering all of the above, we decided to develop a conceptual framework which would explain people's behavior towards adoption of digital banking.

Taking TRA and original TAM as the base for the research work, we propose an extended TAM with additional variables, such as subjective norm, trust, perceived risk and word of mouth. These variables were proven to have an impact on consumer's intention to adopt online banking by many researchers from all around the globe. In reference to related research findings, we developed three propositions. According to which, word of mouth might have both *direct* and *indirect positive* effects on customer's intention to adopt online banking. Likewise, the subjective norm might also *positively* and *directly* impact the intention to use digital banking services. On the contrary, there might be an opposite effect caused by perceived risk. Finally, the mediating role of attitude might be *positively* influenced by trust.

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