Print ISSN: 2288-4637 / Online ISSN 2288-4645 doi:10.13106/jafeb.2021.vol8.no7.0079

Factors Affecting Acceptance and Use of E-Tax Services among Medium Taxpayers in Phnom Penh, Cambodia

Samnang ANN¹, Jirapun DAENGDEJ², Rawin VONGURAI³

Received: March 20, 2021 Revised: May 22, 2021 Accepted: June 01, 2021

Abstract

The purpose of this research is to identify factors affecting the acceptance and use of e-tax services among medium taxpayers in Phnom Penh, Cambodia. The researcher conducted the study based on a quantitative approach by using multi-stage sampling method, which selects a sample size by two or more stages. The first stage sampling was the stratified random sampling and the subsequent stage was purposive sampling. In this study, the stratified random sampling was first used, followed by purposive sampling. The data were collected from 450 medium taxpayers who experienced using e-tax services located in three tax branches in Phnom Penh. This study adapted the confirmatory factor analysis (CFA) and structural equation model (SEM) to analyze the model accuracy, reliability and influence of various variables. The primary result showed that behavioral intention has a significant effect on user behavior of e-tax services among medium taxpayers in Phnom Penh, Cambodia. Moreover, the results revealed that performance expectancy, effort expectancy, social influence, and anxiety have significant impact on behavioral intention. In addition, social influence has the strongest impact on behavioral intention, followed by anxiety, performance expectancy and effort expectancy. Conversely, facilitating conditions, trust in government, and trust in internet do not influence behavioral intention.

Keywords: User Behavior, Social Influence, Performance Expectancy, Effort Expectancy, Anxiety

JEL Classification Code: M10, M3, O32

1. Introduction

Public organizations enhance their management process in an exchange for efficient and effective organizations. This means that they need to increase the service quality standard towards their people. To achieve this goal, information and communications technology (ICT) has become necessary

¹First Author and Corresponding Author. Ph.D. Candidate, Innovative Technology Management, Graduate School of Business and Advanced Technology Management, Assumption University, Thailand [Postal Address: 592/3 Soi Ramkhamhaeng 24, Khwaeng Hua Mak, Khet Bang Kapi, Bangkok, 10240, Thailand] Email: annsamnang@hotmail.com

This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (https://creativecommons.org/licenses/by-nc/4.0/) which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited

and inevitable tools. Many authors (Barzelay, 2001; Ganesan & Hess, 1997; Hughes, 2003) have considered this process change as an act of revitalizing new approach of public management, that peaked during late 1980s. Moreover, this new approach changed the way of delivering public services and the interaction between people and governments (Teicher et al., 2002). E-government, a mean for governments to deliver public services, procedures and relevant information online or over other digital platforms (West, 2004), was one among other critical aspects of the reform. Importantly, it played a catalytic role not only to change the traditional ways of delivering public services and but also to influence the citizens' interaction with governments (Snellen, 2002; Teicher et al., 2002). E-government provides citizens many benefits, for example governance transparency, time saving, cost reduction, responsive attitude, process simplification and better office management (Laudon & Laudon, 2009). Even though, e-government services have developed worldwide, the deployment and adoption of these services still posed challenges.

In tax administration, to deal with a growing demand by taxpayers for convenience, cost effectiveness and a faster tax

²Lecturer, Innovative Technology Management, Graduate School of Business and Advanced Technology Management, Assumption University, Thailand. Email: jirapun.daengdej@gmail.com

³Program Director, Innovative Technology Management, Graduate School of Business and Advanced Technology Management, Assumption University, Thailand, Email: rawinvng@au.edu

[©] Copyright: The Author(s)

returns processing, online taxation services using ICT were provided (Brand & Roberts, 2000). Though many countries have been using e-tax services, their deployment and adoption of the internet-based services still pose challenges. According to several studies (Alshehri et al., 2012; Carter & Weerakkody, 2008; Dwivedi & Irani, 2009; Irani et al., 2007; Rehman et al., 2012), these challenges can be as a result from infrastructure and government regulation shortage, lack of awareness, limited capacity of human resource, technical skill shortage and low-cost technology. Similarly, provisions of public services in Cambodia have not yet gained enough trust from the public, this may result from insufficient institutional building, regulatory framework and law enforcement capacity. Therefore, it became necessary that public institutions improve their human resources capacity and good governance to ensure an effective and efficient delivery of public services aimed at better serving the people, and improving business and investment environment (Fung & McAuley, 2020). For many years, the general department of taxation (GDT) has used its traditional methods to interact with taxpayers and tax officials to perform duties. Since 2014, the GDT has transformed its traditional paper-based system to information technology-based system, which it first implemented in its support of human resources unit and business registration, then gradually expanded to core functioning units such as e-Payment, e-VAT, e-DTA and e-Filing (Kong, 2020).

Moreover, existing literature on e-government have identified two different research streams over e-government. The first stream was from the supply side, for example government policies or government infrastructures and the second stream was from the demand side, which may include citizens' perception or users' view. The first-stream research had examined matters related to the development and delivery of e-government services (Gauld et al., 2010; Heeks & Bailur, 2007; Reddick, 2005) by countries' groups based on the level of policy or technological development. From the demand side, several researchers had stated that human beings used these systems but literature on e-government had not much focused on human behavior and related factors (Heeks & Bailur, 2007; Verdegem & Verleye, 2009). The failure of e-government can be caused by citizens who were not ready to adopt the innovation (Carter & Bélanger, 2005) and several governments mainly emphasized on the supply side of e-service adoption and paid little attention to the demand side. Therefore, what the governments supplied may not meet people needs (Maiga & Asianzu, 2013).

The GDT as the government's tax administration, had invested many resources to improve tax administration capacity to deal with fast changing business and economic environment by introducing e-tax services in order to improve quality standard of tax service provisions. However, the success of e-tax services relies on users' acceptance,

hence it is important to identify influencing factors on acceptance and use of e-tax services from medium taxpayers' perspective and to encourage them to use e-tax services instead of conventional ways.

2. Literature Review

2.1. Theory of Reasoned Action (TRA)

Fishbein and Ajzen (1975) introduced the theory of reasoned action (TRA) to study the impact of attitudes on behaviors. The TRA model showed that the actual behavior of any individual can be strongly predicted by the intention to perform a behavior. This has been applied to foresee different behaviors within diverse domains such as marketing, sociology and information technologies (Agarwal, 2000). This theory contained two constructs - attitude towards behavior and subjective norms (Fishbein & Ajzen, 1975). Though there were many studies using this theory to describe the acceptance of technology, the theory was less beneficial when individual did not make his own decision (Ajzen, 1991).

2.2. Theory of Planned Behavior (TPB)

Ajzen (1991) developed the theory of planned behavior (TPB) as an addition to the TRA model. Even though, a number of research had applied the TRA model to explain the acceptance of technology, the TRA model was not as useful if an individual was led by others (Ajzen, 1991). With that purpose, Ajzen (1991) aimed to correcting this limitation by extending the TRA model by adding another independent variable-perceived behavioral control to deal with the weakness of the theory, which ignored social factors and their associated effect. The TPB model is not different from the TRA model, it explained a wide range of individual behaviors (Agarwal, 2000). This theory was adopted and used by many studies to predict intention and behavior in different contexts (Ajzen, 1991). Perceived behavioral control, attitude towards behavior and subjective norms had become predictors of behavioral intention and strongly explained actual behavior.

2.3. Technology Acceptance Model (TAM)

Davis et al. (1989) developed the technology acceptance model (TAM). Though, a number of studies adopted the TRA model to examine the acceptance of technology (Brown & Venkatesh, 2005; Davis et al., 1989; Wang et al., 2016), the TAM model had extended the TRA model to another context of the information system. The only main purpose of the TAM model was to describe influencing factors on computer acceptance and it was expanded to determine behavior in

a broader range of technologies and different users. While the TRA model included two constructs as determinants of intentions, the TAM model excluded subjective norms as a determinant of intentions. Moreover, the TAM model was different from the TRA model, which was considered general and designed to describe almost the behavior of people (Fishbein & Ajzen, 1980), while the TAM model was developed only for the application to computer use. The TAM model explained individual behavior towards technology use, relying on perceived usefulness and perceived ease of use. This theory maintained that the perceived ease of use influenced perceived usefulness, and that actual behavior was controlled by intention to use.

2.4. Unified Theory of Acceptance and Use of Technology (UTAUT)

Though, the TAM model had been very useful in several studies to determine the individual's intention (Lee et al., 2005; Saade et al., 2007), the two theories, the TAM model and the TPB model could explain less than 50% of user behavior's variance. This shows that the two models mentioned above failed to be valid theories for determining users' acceptance, as the models did not consider other social and institutional aspects that affected the manner in which people accepted technology (Eagly & Chaiken, 1993). With some limitations, and lower percentage of the variance of user behavior under the three models, Venkatesh et al. (2003) tried to overcome failure and address some limitations of the above-mentioned theories by incorporating various acceptance theories to develop the unified theory of acceptance and use of technology (UTAUT) model. This UTAUT model consists of four constructs: performance expectancy (PE); effort expectancy (EE); social influence (SI); and facilitating conditions (FC) to predict behavioral intention and to determine user behavior. Moreover, this model includes gender, age, experience and voluntariness as moderator variables to check the tendency of the relationship between independent constructs and dependent construct. A moderator can gradually change the strength or the direction of the relationship between predictors and dependent variable (Sharma et al., 1981). To support the four moderators, Venkatesh et al. (2003) stated that the impact of social variables on motive was affected by gender, experience, age, and desire of usage, while the impact of activity-based variables was influenced by gender, experience and age.

Moreover, the UTAUT model explained 70% of the variance of acceptance and user behavior and also considered social aspects and other organizational factors as additional variables to determine user behavior (Masrom & Ismail, 2008), therefore, this model was viewed as a successful theory to be used for examining the acceptance of technologies (Goodhue, 2007). Hence a number of

researchers had applied this theory to study the acceptance and use of technologies in many areas (Ali et al., 2016; El-Masri & Tarhini, 2017).

Though, the UTAUT model was better than other theories, it was necessary to expand this model to other sectors in order to get favorably acceptable outcomes (Bagozzi, 2007). Therefore, a number of researchers had modified the model by adding new constructs such as anxiety (Huang et al., 2017) and trust (Carter & Belanger, 2004; Pavlou, 2003). With a number of literature reviews and the comparison of the various theories, the researcher decided to modify the UTAUT model by including three additional constructs in the model: trust in government, trust in internet and anxiety.

3. Hypotheses

3.1. Performance Expectancy and Behavioral Intention

Performance expectancy (PE) is the level of individuals' belief that their performance would be improved if they use the system (Venkatesh et al., 2003). For this study, researchers defined performance expectancy as the level of medium taxpayers' belief that their performance would be improved when they use e-tax services. Many previous studies have shown that performance expectancy positively influenced behavioral intention (Mansoori et al., 2018; Phan et al., 2020; Weerakkody et al., 2009; Wiafe et al., 2019). Hence, this following hypothesis is proposed.

H1: Performance expectancy has a significant impact on behavioral intention to use e-tax services.

3.2. Effort Expectancy and Behavioral Intention

Effort expectancy is the level of individuals' belief that the systems are easy to use (Venkatesh et al., 2003). For this study, the researchers defined effort expectancy is the degree to which medium taxpayers' belief that e-tax services are easy to use. Previous studies identified that effort expectancy had significant impact on behavioral intention (Rana et al., 2017; Wiafe et al., 2019; Yakubu & Dasuki, 2019), thus, the following hypothesis is derived.

H2: Effort expectancy has a significant impact on behavioral intention to use e-tax services.

3.3. Social Influence and Behavioral Intention

Social influence is the extent to which the use of the system was influenced by the opinions of others (Venkatesh et al., 2003). Moreover, social influence is the effect of a specific attitude from a large social group which will influence individuals (Vongurai, 2020). For this study, the

researcher defined social influence is the extent to which the use of e-tax services was influenced by the opinions of others. Previous studies found that social influence significantly affected behavioral intention to use (Ahmad et al., 2013; Kurfalı et al., 2017; Weerakkody et al., 2009). Hence, the following hypothesis is developed.

H3: Social influence has a significant impact on behavioral intention to use e-tax services.

3.4. Facilitating Conditions and Behavioral Intention

Facilitating condition is the relevant resource readiness, for example, organizational or technical infrastructure to assist users to use the system (Venkatesh et al., 2003). In this study, facilitating condition is the availability of relevant resources such as organizational or technical infrastructure which support the use of e-tax services. Previous studies revealed that facilitating conditions significantly influenced behavioral intention (Kurfalı et al., 2017; Rana et al., 2017; Weerakkody et al., 2009). Therefore, the following hypothesis is proposed.

H4: Facilitating conditions have a significant impact on behavioral intention to use e-tax services.

3.5. Trust in Government and Behavioral Intention

Trust in government refers to a citizen's perception of the quality and technical skills of government entities in delivering services (Becerra & Gupta, 2003; Ganesan & Hess, 1997; Jarvenpaa & Shaw, 1998; Lee & Turban, 2001; McKnight & Chervany, 2000). Previous studies found that trust in government significantly influenced behavioral intention (Carter & Bélanger, 2005; Carter & Weerakkody, 2008; Mansoori et al., 2018). Therefore, the following hypothesis is derived.

H5: Trust in government has a significant impact on behavioral intention to use e-tax services.

3.6. Trust in Internet and Behavioral Intention

Trust in internet is the trust of the means by which the system or technology reaches users (Almaiah et al., 2016). For this study, trust in internet can be defined as the confidence in electronic means of the tax service provision with security measures and performance. Previous studies identified that trust in internet significantly influenced behavioral intention (Alanazi, 2013; Carter & Bélanger, 2005; Kurfalı et al., 2017; Mansoori et al., 2018). Hence, the following hypothesis is developed.

H6: Trust in internet has a significant impact on behavioral intention to use e-tax services.

3.7. Anxiety and Behavioral Intention

Anxiety can be defined as individual fear or apprehension when dealing with computers (Simonson et al., 1987). For this study, the researchers defined anxiety as an emotional reaction or a fear of using e-tax services or performing any task with e-tax services. Previous studies found that anxiety significantly influenced behavioral intention (Alenezi & Karim, 2010; Alsharif, 2013; Wiafe et al., 2019). Hence, the following hypothesis is derived.

H7: Anxiety has a significant impact on behavioral intention to use e-tax services.

3.8. Behavioral Intention and User Behavior

Behavioral intention is the individual's readiness to adopt a particular action or behavior (Davis et al., 1989). For this study, behavioral intention was defined as a measure of probability use of e-tax services. User behavior refers to the physical and mental acts which include the information found in the person's existing information base (Wilson, 2000). Many previous studies found that behavioral intention significantly influenced user behavior (Mansoori et al., 2018; Wang & Shih, 2009; Weerakkody et al., 2009). Therefore, the following hypothesis is developed.

H8: Behavioral intention to use e-tax services has a significant effect on user behavior of e-tax services.

4. Research Methods and Materials

4.1. Research Framework

The conceptual framework is developed from investigating the theoretical frameworks related to this research. It is adapted from various theoretical models to examine the factors affecting the acceptance and use of e-government services. Moreover, this conceptual framework was developed based on nine variables: performance expectancy, effort expectancy, social influence, facilitating conditions, trust in government, trust in internet, anxiety, behavioral intention and user behavior. The conceptual framework of this study is shown in Figure 1. This study aims to investigate the factors affecting the acceptance and use of e-tax services such as performance expectancy (PE), effort expectancy (EE) social influence (SI), facilitating conditions (FC) trust in government (TGOV), trust in internet (TNET), anxiety (AN), behavioral intention (BI) and user behavior (UB) among medium taxpayers in Phnom Penh, Cambodia

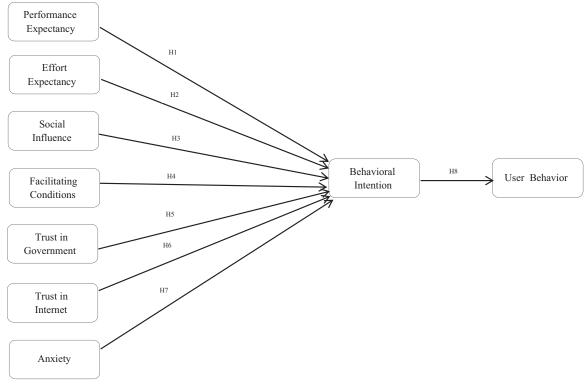


Figure 1: The Conceptual Framework

4.2. Methodology

The researchers applied the quantitative research approach and survey method in this study to collect primary data through questionnaires. The questionnaires were prepared and distributed to three tax branches in Phnom Penh and the target respondents were medium taxpayers located in the three tax branches. The questionnaire comprised three parts. First part refers to the screening question. The second part is a five point Likert scale, wherein questions related to eight independent variables and one dependent variable. The last part of the questionnaire are the demographic factors of respondents.

4.3. Population and Sample Size

Hair et al. (2014) mentioned that target population was a complete set of the elements related to the research project. They were related because they provided information that the researchers wanted to gather. Moreover, Clark and Carter (2010) mentioned that the target population consisted of a group of people with common behavior towards a specific element. Furthermore, according to Cooper and Schindler (2011) target population can be people, records, and events which were the focus of the research. In addition, target

population can also be considered as a big group of the elements with similar characteristics (Zikmund et al., 2013).

The population for this research was the medium taxpayers located in three tax branches in Phnom Penh and experienced with e-tax services of the GDT. The researchers used a-priori sample size calculator for SEM from Danielsoper's website to determine the recommended minimum sample size. The results show that anticipated effect size was 0.2, desired statistical power level was 0.8, a number of latent and observed variables was 5 and 17 respectively, probability level was 0.05, and the number of recommended minimum sample size was equal to 376. For a better statistical result, the researchers collected 450 qualified respondents.

4.4. Sampling Technique

In this study, the researchers used multi-stage sampling. Multi-stage sampling contains the selection of a sample size by two or more stages (Onwuegbuzie & Leech, 2007). Stratified sampling was used in the first stage to select only medium taxpayers located in Phnom Penh. Purposive sampling was used in the second stage to select three tax branches in Phnom Penh (Chamkarmorn tax branch, Toulkork tax branch and Dounpenh tax branch) and the

selection of respondents is based on the proportionate sample of each tax branch. The survey has been conducted from October to December 2020 and the questionnaires were sent to the official in charge at each tax branch to distribute to the relevant respondents. The respondents were selected from the active medium taxpayers, who experienced using e-tax services in the three tax branches in Phnom Penh. Moreover, purposive sampling was used to select respondents who have knowledge about the issues in questions of the interview or the questionnaire (Tongco, 2007) and can help researchers to choose respondents whose opinions are relevant to the research topic (Jankowicz, 1995).

Table 1 showed that the researchers selected the three tax branches in Phnom Penh, Cambodia, namely Chamkarmorn tax branch, Toulkork tax branch and Dounpenh tax branch and as of August 2020, Chamkarmon tax branch had 3,162 active medium taxpayers, from which the researchers selected 220 as a proportionate sample size. Toulkork tax branch had 1,756 active medium taxpayers, from which the researchers selected 122 as a proportionate sample size. Dounpenh tax branch consists of 1,581 active medium taxpayers, from which, the researchers selected 108 as a proportionate sample size.

5. Results and Discussion

5.1. Demographic Factors

From 450 valid respondents of this study, 54.7% of respondents were female and 45.3% of respondents were male. For the age of respondents, 78% were 26 to 45 years old, 19.3% were 18 to 25 years old and only 2.7% were over 45 years old. For the education level, 97.8% of the respondents have a Bachelors and Masters degree and 1.8% with high school or lower. In terms of respondents' working experience, 64% have been working for more than 6 years, 17% have been working for 3 to 5 years and 19% have been working for less than 2 years. Moreover, 92.4% of the respondents have their own computer or laptop.

5.2. Confirmatory Factor Analysis (CFA)

Confirmatory factor analysis (CFA) was used to test the convergent and discriminant validity of the scales. Table 2 showed that all items of each variable are significant and have factor loading to establish discriminant validity as illustrated in Table 3. Most of the constructs of this study had AVE between 0.506 to 0.667 exceeding the recommended lower limit of 0.50 (Fornell & Larcker, 1981), except performance expectancy, trust in government and user behavior with AVE of 0.428, 0.440 and 0.461 respectively, which were below the minimum of 0.50. Even though, certain constructs have AVE less than 0.5 but their composite reliability is higher than 0.6, this means that the convergent validity of the construct is still adequate (Lam, 2012). In this research, first orders factor analysis technique with the estimation of weight factor was used to determine the goodness of fit indices. Moreover, this research was also measured by the Chi-square statistics, goodness of fit index (GFI), comparative fit indices (CFI), Tucker-Lewis Index (TLI) and root mean square error of approximation (RMSEA) involving 9 measurement models: Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Trust in Government, Trust in Internet, Anxiety, Behavioral Intention and User Behavior as illustrated in Table 4.

From Table 4, the results of all indices were above the recommended values, which show that the hypotheses have proper suitability for this research, where $\chi^2/df = 1.915$, GFI = 0.910, AGFI = 0.869, NFI= 0.949, TLI= 0.901, CFI = 0.930, RMSEA = 0.045.

5.3. Structural Equation Model (SEM)

Structural equation model (SEM) is an approach used to analyze and explain the relationships between multiple variables. Chi-square was a traditional measure to assess the fit of the model and the magnitude of the error between the sample and the fitted covariance matrix (Hu & Bentler, 1999). The results of the SEM analysis on factors affecting

Table 1: Population and Sample Size by the Three Tax Branches

Tax Branch	Active Medium Taxpayers	Percentage (%)	Proportionate Sample Size	
Chamkarmorn	3,162	49%	220	
Toulkork	1,756	27%	122	
Dounpenh	1,581	24%	108	
Total	6,499	100%	450	

Source: Constructed by author (based on GDT's internal e-tax systems as of August 2020).

Table 2: Confirmatory Factor Analysis Result, Composite Reliability (CR) and Average Variance Extracted (AVE) Results

Constructs	Source of Questionnaire	No of Item	Cronbach's Alpha	Factors Loading	CR	AVE
Performance Expectancy (PE)	Venkatesh et al. (2003)	4	0.776	0.456-0.873	0.735	0.428
Effort Expectancy (EE)	Venkatesh et al. (2003)	4	0.815	0.518-0.934	0.827	0.559
Social Influence (SI)	Venkatesh et al. (2003)	4	0.839	0.527-0.904	0.831	0.564
Facilitating Conditions (FC)	Venkatesh et al. (2003)	4	0.791	0.572-0.875	0.799	0.506
Trust in Government (TGOV)	Carter and Belanger (2005)	5	0.801	0.518-0.804	0.793	0.440
Trust in Internet (TNET)	Carter and Belanger (2005)	4	0.898	0.677-0.882	0.888	0.667
Anxiety (AN)	Huang et al. (2017)	4	0.827	0.520-0.946	0.819	0.542
Behavioral Intention (BI)	Venkatesh et al. (2003)	3	0.798	0.582-0.893	0.802	0.582
User Behavior (UB)	Wang and Shih (2009)	3	0.711	0.584-0.765	0.717	0.461

Note: CR: Composite Reliability; AVE: Average Variance Extracted.

Table 3: Discriminant Validity

Factor Correlations									
Constructs	PE	EE	SI	FC	TGOV	TNET	AN	ВІ	UB
PE	0.654								
EE	-0.190	0.747							
SI	0.644	-0.024	0.751						
FC	0.364	0.057	0.478	0.711					
TGOV	0.274	-0.002	0.338	0.367	0.663				
TNET	-0.125	0.054	-0.153	-0.069	-0.146	0.817			
AN	0.227	-0.090	0.252	0.261	0.289	-0.120	0.736		
ВІ	0.541	0.026	0.425	0.193	0.194	-0.174	0.295	0.763	
UB	0.056	0.139	0.172	0.269	-0.014	-0.044	0.105	0.226	0.679

Note: The diagonally listed value is the AVE square roots of the variables.

Table 4: Goodness of Fit

Fit indices	Recommended Values	Obtained Values		
CMIN/df	≤3.0 (Schreiber et al., 2006)	1.915		
GFI	≥0.90 (Bagozzi & Yi, 1989)	0.910		
AGFI	≥0.85 (Schermelleh-engal et al. 2003)	0.869		
NFI	≥0.90 (Bentler, 1992; Arbuckle, 1995)	0.949		
TLI	≥0.90 (Hair et al. 2014; Hopwood & Donnellan, 2010)	0.901		
CFI	≥0.90 (Hair et al. 2014; Hopwood & Donnellan, 2010)	0.930		
RMSEA	≤0.10 (Maccallum et al. 1996; Hopwood & Donnellan, 2010)	0.045		

Hypothesis	Paths	Standardized Path Coefficient (β)	S.E.	<i>t</i> -value > 1.98	Test Result
H1	PE → BI	0.229	0.069	3.466*	Supported
H2	$EE \to BI$	0.132	0.058	3.253*	Supported
H3	$SI \rightarrow BI$	0.271	0.076	4.391*	Supported
H4	$FC \rightarrow BI$	-0.020	0.056	-0.356	Not Supported
H5	$TGOV \rightarrow BI$	-0.019	0.055	-0.359	Not Supported
H6	TNET → BI	-0.095	0.027	-2.197	Not Supported
H7	$AN \rightarrow BI$	0.214	0.044	4.341*	Supported
H8	$BI \to UB$	0.288	0.070	4.708*	Supported

 Table 5: Hypothesis Result of the Structural Model

Note: p < 0.05.

the acceptance and use of e-tax services among medium taxpayers in Phnom Penh, Cambodia were acceptable and consistent with the criteria as illustrated in Table 4. According to Table 4, the results show a reasonably good fit of the model's indices to the data of fit statistics, where $\chi^2/\text{df} = 1.947$, GFI = 0.908, AGFI = 0.865, NFI = 0.90, TLI = 0.928, CFI = 0.948, RMSEA = 0.046. The results strongly revealed that each set of items represents a single underlying construct and provides evidence for discriminant validity or fit.

5.4. Research Hypotheses Testing Results

For H1, the standardized path coefficient between performance expectancy and behavioral intention was 0.229 (t-value = 3.466*). Performance expectancy has a significant impact on behavioral intention. Thus, H1 was supported. For H2, the standardized path coefficient between effort expectancy and behavioral intention was 0.132 (t-value = 3.253*). Effort expectancy has a significant impact on behavioral intention. Therefore, H2 was supported. For H3, the standardized path coefficient between social influence and behavioral intention was 0.271 (t-value = 4.391*). Social influence has a significant impact on behavioral intention. Hence, H3 was supported. For H4, the standardized path coefficient between facilitating conditions and behavioral intention was -0.020 (t-value = -0.356). Facilitating conditions have no significant impact on behavioral intention. Thus, H4 was not supported. For H5, the standardized path coefficient between trust in government and behavioral intention was -0.019 (t-value = -0.359). Trust in government has no significant impact on behavioral intention. Therefore, H5 was not supported. For H6, the standardized path coefficient between trust in internet and behavioral intention was -0.095 (t-value = -2.197). Trust in internet has no significant impact on behavioral intention. Thus, H6 was

not supported, though the questions in this construct were made in a reversed pattern. For H7, the standardized path coefficient between anxiety and behavioral intention was 0.214 (t-value = 4.341*). Anxiety has a significant impact on behavioral intention. Consequently, H7 was supported, though the questions of this construct were made in a reversed pattern. For H8, the standardized path coefficient between behavioral intention and user behavior was 0.288 (t-value = 4.708*). Behavioral intention has a significant effect on user behavior. Consequently, H8 was supported. This is summarized in Table 5.

6. Conclusion, Recommendations and Limitations

6.1. Conclusion

In this study, the research has expanded the current literature by investigating behavioral intention and user behavior. This research examines the factors affecting the acceptance and use of e-tax services among medium taxpayers in Phnom Penh, Cambodia. Data was collected from 450 medium taxpayers utilising e-tax services and located in the three tax branches in Phnom Penh through a survey questionnaire. The conceptual framework was applied from theory which comprised performance expectancy, effort expectancy, social influence, facilitating conditions, trust in government, trust in internet, anxiety, behavioral intention and user behavior for investigating all hypotheses. CFA was used in this research to validate the reliability and the SEM was used to verify the influence of measuring variables and concluded the research.

The findings of this research show that behavioral intention has a significant impact on user behavior, consistent with existing studies (Alsaif, 2014; El-Masri & Tarhini, 2017; Nair et al., 2015; Wang & Shih, 2009; Weerakkody

et al., 2009; Yakubu & Dasuki, 2019). It was also noted that, performance expectancy, effort expectancy, social influence and anxiety significantly influence behavioral intention, consistent with existing studies (Ahmad et al., 2013; Alenezi & Karim, 2010; Carter et al., 2011; Kurfalı et al., 2017; Sudarsono et al., 2020; Sundaravej, 2010; Wang & Shih, 2009; Weerakkody et al., 2009; Wiafe et al., 2019).

Conversely, facilitating conditions, trust in government and trust in internet have no significant impact on behavioral intention, consistent with existing studies (Alsaif, 2014; Carter & Belanger, 2004; Kolog et al., 2015; Kurfalı et al., 2017; Venkatesh et al., 2003; Weerakkody et al., 2009).

6.2. Recommendations

The result of this research indicates that behavioral intention strongly influences user behavior. Four important factors: performance expectancy, effort expectancy, social influence and anxiety significantly affect behavioral intention, where social influence is the most significant factor, followed by anxiety, performance expectancy and effort expectancy.

Therefore, this research recommends that government institutions that seek to introduce new technologies such as e-services should proactively manage social influence that could motivate individuals. This could be done by organizing seminars or forums for sharing best use practices, selecting champions who are interested in e-services, generate positive word-of-mouth traction and develop countermeasures for any negative feedback (Chiu et al., 2012; Pynoo et al., 2007; Šumak et al., 2010).

In addition, government institutions must ensure that new technologies meet the performance expectancy of users by providing a faster and useful means to get services with increased productivity and users' ability to get services.

Furthermore, government institutions must ensure that the interaction with new technologies need to be clearly understandable and users can easily learn to operate the service and become skillful.

Lastly, government institutions must provide frequent trainings to users as training is expected to reduce anxiety and can provide the skill set for users to use a technology or e-services. Continuous support by offerring necessary resources and information must be well provided, to encourage users of being less fearful of using new technologies.

6.3. Limitations

Although, appropriate precautions have been made in conducting this research, this work still has limitations and requires further investigations.

First, data was collected from a sample of medium taxpayers experiencing using e-tax services. This means that

future researchers should be careful when applying its results to other taxpayers with no experience in using e-tax services.

Second, this study focused on medium taxpayers located in the three tax branches in Phnom Penh, Cambodia and experiencing using e-tax services, the generalization of the findings should be cautiously undertaken. Therefore, future research should collect data from other types of taxpayers which would make the findings safer to generalize.

Third, this study did not examine the effect of demographic factors such as gender, experience, age and education on any construct. Therefore, future research work may need to incorporate the influence of moderating variables in the proposed conceptual model, for example, gender or experience variation.

Lastly, this study has already incorporated three additional constructs to the original UTAUT model to examine behavioral intention. However, previous empirical research found that there were other critical constructs that influence behavioral intention such as attitude, self-efficacy, voluntariness, personal innovativeness, individual mobility, perceived risk (Dwivedi et al., 2017; Fishbein & Ajzen, 1975; Kijsanayotin et al., 2009; Liébana-Cabanillas et al., 2015; Rattanaburi & Vongurai, 2021). Therefore, future research should incorporate these critical constructs in proposed conceptual model, for example, perceived risk, attitude or personal innovativeness.

References

- Agarwal, R. (2000). Individual acceptance of information technologies. Framing the Domains of IT Management: Projecting the Future Through the Past, 85–104.
- Ahmad, M. O., Markkula, J., & Oivo, M. (2013). Factors affecting e-government adoption in Pakistan: A citizen's perspective. *Transforming Government: People, Process Policy*, 7(2), 225–239. https://doi.org/10.1108/17506161311325378
- Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-t
- Alanazi, J. (2013). E-government continuance from an expectation confirmation theory perspective: survey research on citizen experience [Doctoral dissertation, University of Wollongong]. https://ro.uow.edu.au/cgi/viewcontent.cgi?referer=&https redir=1&article=4913&context=theses
- Alenezi, A. R., Veloo A., & Karim, A. (2010). An empirical investigation into the role of enjoyment, computer anxiety, computer self-efficacy and internet experience in influencing the students' intention to use e-learning: A case study from Saudi Arabian governmental universities. *Turkish Online Journal of Educational Technology-TOJET*, 9(4), 22–34. http://tojet.net/articles/v9i4/943.pdf
- Ali, F., Nair, P. K., & Hussain, K. (2016). An assessment of students' acceptance and usage of computer supported collaborative

- classrooms in hospitality and tourism schools. *Journal of Hospitality, Leisure, Sport & Tourism Education*, 18, 51–60. https://doi.org/10.1016/j.jhlste.2016.03.002
- Almaiah, M. A., Jalil, M. A., & Man, M. (2016). Extending the TAM to examine the effects of quality features on mobile learning acceptance. *Journal of Computers in Education*, *3*(4), 453–485. https://doi.org/10.1007/s40692-016-0074-1
- Alsaif, M. (2014). Factors affecting citizens' adoption of e-government moderated by socio-cultural values in Saudi Arabia. [University of Birmingham]. https://core.ac.uk/ download/pdf/19757623.pdf
- Alsharif, F. F. (2013). *Investigating the factors affecting on-line shopping adoption in Saudi Arabia*. De Montfort University. https://ethos.bl.uk/OrderDetails.do?uin=uk.bl.ethos.585451
- Alshehri, M., Drew, S., & Alfarraj, O. (2012). A comprehensive analysis of e-government services adoption in Saudi Arabia: Obstacles and challenges. *International Journal of Advanced Computer Science and Applications*, 3(2), 1–6. https://doi.org/ 10.14569/ijacsa.2012.030201
- Bagozzi, R. P. (2007). The legacy of the technology acceptance model and a proposal for a paradigm shift. *Journal of the Association for Information Systems*, 8(4), 3. https://doi.org/ 10.17705/1jais.00122
- Barzelay, M. (2001). *The new public management: Improving research and policy dialogue* (Vol. 3). Univ of California Press. https://www.ucpress.edu/ebook/9780520925274/the-new-public-management
- Becerra, M., & Gupta, A. K. (2003). Perceived trustworthiness within the organization: The moderating impact of communication frequency on trustor and trustee effects. *Organization Science*, 14(1), 32–44. https://doi.org/10.1287/orsc.14.1.32.12815
- Brand, P., & Roberts, L. (2000). E-commerce and tax administration. *Tax Advisor*, 31(5), 336–339.
- Brown, S. A., & Venkatesh, V. (2005). Model of adoption of technology in households: A baseline model test and extension incorporating household life cycle. MIS Quarterly, 399–426. https://doi.org/10.2307/25148690
- Carter, L., & Belanger, F. (2004). Citizen adoption of electronic government initiatives. 37th Annual Hawaii International Conference on System Sciences, https://doi.org/10.1109/hicss. 2004.1265306
- Carter, L., & Bélanger, F. (2005). The utilization of e-government services: Citizen trust, innovation and acceptance factors. *Information Systems Journal*, 15(1), 5–25. https://doi.org/ 10.1111/j.1365-2575.2005.00183.x
- Carter, L., Schaupp, L. C., & McBride, M. (2011). The US e-file initiative: An investigation of the antecedents to adoption from the individual taxpayers' perspective. A Journal of Electronic Services in the Public Private Sectors, 7(3), 2–19. https://doi.org/ 10.2979/eservicej.7.3.2
- Carter, L., & Weerakkody, V. (2008). E-government adoption: A cultural comparison. *Information Systems Frontiers*, 10(4), 473–482. https://doi.org/10.1007/s10796-008-9103-6

- Chiu, Y.-T. H., Lee, W.-I., Liu, C.-C., & Liu, L.-Y. (2012). Internet lottery commerce: an integrated view of online sport lottery adoption. *Journal of Internet Commerce*, 11(1), 68–80. https:// doi.org/10.1080/15332861.2012.650990
- Cooper, D., & Schindler, P. (2011) Business Research Methods. 11th Edition, McGraw Hill, Boston.
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, 35(8), 982–1003. https://doi.org/10.1287/mnsc.35.8.982
- Dwivedi, Y., & Irani, Z. (2009). Understanding the adopters and non-adopters of broadband. *Communications of the ACM*, 52(1), 122–125. https://doi.org/10.1145/1435417.1435445
- Dwivedi, Y. K., Rana, N. P., Jeyaraj, A., Clement, M., & Williams, M. D. (2017). Re-examining the unified theory of acceptance and use of technology (UTAUT): Towards a revised theoretical model. *Information Systems Frontiers*, 21(3), 719–734. https://doi.org/10.1007/s10796-017-9774-y
- Eagly, A. H., & Chaiken, S. (1993). The psychology of attitudes. Harcourt Brace Jovanovich College Publishers. https://psycnet.apa.org/record/1992-98849-000
- El-Masri, M., & Tarhini, A. (2017). Factors affecting the adoption of e-learning systems in Qatar and USA: Extending the unified theory of acceptance and use of technology 2 (UTAUT2). Educational Technology Research and Development, 65(3), 743–763. https://doi.org/10.1007/s11423-016-9508-8
- Fishbein, M., & Ajzen, I. (1975). Intention and behavior: An introduction to theory and research. Boston, MA: Addison-Wesley. https://doi.org/10.2307/2065853
- Fishbein, M., & Ajzen, I. (1980). *Understanding attitudes* and predicting social behavior. Upper Saddle River, NJ: Prentice-Hall.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50. https://doi.org/ 10.1177/002224378101800104
- Fung, S., & McAuley, B. (2020). Cambodia's property tax reform: Policy considerations toward sustained revenue mobilization. Asian Development Bank. https://www.adb.org/publications/cambodia-property-tax-reform-revenue-mobilization
- Ganesan, S., & Hess, R. (1997). Dimensions and levels of trust: Implications for commitment to a relationship. *Marketing Letters*, 8(4), 439–448. https://doi.org/10.1023/a:1007955514781
- Gauld, R., Goldfinch, S., & Horsburgh, S. (2010). Do they want it? Do they use it? The 'Demand-Side' of e-Government in Australia and New Zealand. *Government Information Quarterly*, 27(2), 177–186. https://doi.org/10.1016/j.giq.2009.12.002
- Goodhue, D. L. (2007). Comment on Benbasat and Barki's" Quo Vadis TAM" article. *Journal of the Association for Information Systems*, 8(4), 15. https://doi.org/10.17705/1jais.00125
- Hair, Jr, J., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM):

- An emerging tool in business research. *European Business Review*, 26(2), 106–121. https://doi.org/10.1108/EBR-10-2013-0128
- Heeks, R., & Bailur, S. (2007). Analyzing e-government research: Perspectives, philosophies, theories, methods, and practice. Government Information Quarterly, 24(2), 243–265. https://doi.org/10.1016/j.giq.2006.06.005
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. Structural Equation Modeling: A Multidisciplinary Journal, 6(1), 1–55. https://doi. org/10.1080/10705519909540118
- Huang, C.-L., Srite, M., & Haried, P. (2017). Thinking, feeling, and worrying: How uncertainty and anticipatory anxiety affect technology use. AIS elibrary. https://aisel.aisnet.org/ amcis2017/HumanCI/Presentations/15/
- Hughes, O. E. (2003). *Public management and administration: An introduction.* Macmillan International Higher Education.
- Irani, Z., Elliman, T., & Jackson, P. (2007). Electronic transformation of government in the UK: A research agenda. *European Journal of Information Systems*, 16(4), 327–335. https://doi.org/10.1057/palgrave.ejis.3000698
- Jankowicz, A. (1995). Negotiating shared meanings of the management process: A discourse in two voices. *Journal of Constructivist Psychology*, 8(2), 117–128. https://doi.org/ 10.1080/10720539508405246
- Jarvenpaa, S. L., & Shaw, T. R. (1998). Global virtual teams: Integrating models of trust. In: P. Sieber & J. Griese (Eds.). Organizational Virtualness (pp. 35–53). Simowa Verlag Bern.
- Kijsanayotin, B., Pannarunothai, S., & Speedie, S. M. (2009). Factors influencing health information technology adoption in Thailand's community health centers: Applying the UTAUT model. *International Journal of Medical Informatics*, 78(6), 404–416. https://doi.org/10.1016/j.ijmedinf.2008.12.005
- Kolog, E. A., Sutinen, E., Vanhalakka-Ruoho, M., Suhonen, J., & Anohah, E. (2015). Using unified theory of acceptance and use of technology model to predict students' behavioral intention to adopt and use E-counseling in Ghana. *International Journal of Modern Education and Computer Science*, 7(11), 1–11. https://doi.org/10.1109/afrcon.2015.7331926
- Kong, V. (2020). GDT's Annual Report for 2019. General Department of Taxation, Phnom Penh.
- Kurfalı, M., Arifoğlu, A., & Tokdemir, G. (2017). Adoption of e-government services in Turkey. Computers in Human Behavior, 66, 168–178. https://doi.org/10.1016/j.chb.2016.09.041
- Lam, L. W. (2012). Impact of competitiveness on salespeople's commitment and performance. *Journal of Business Research*, 65(9), 1328–1334. https://doi.org/10.1016/j.jbusres.2011.10.026
- Laudon, K., & Laudon, J. (2009). Management Information Systems: International Edition (11th ed.). Prentice-Hall.
- Lee, M. K., Cheung, C. M., & Chen, Z. (2005). Acceptance of internet-based learning medium: The role of extrinsic and

- intrinsic motivation. Information & Management, 42(8), 1095–1104. https://doi.org/10.1016/j.im.2003.10.007
- Lee, M. K., & Turban, E. (2001). A trust model for consumer internet shopping. *International Journal of Electronic Commerce*, 6(1), 75–91. https://doi.org/10.1080/10864415.2001.11044227
- Liébana-Cabanillas, F., Ramos de Luna, I., & Montoro-Ríos, F. (2015). User behaviour in QR mobile payment system: The QR payment acceptance model. *Technology Analysis Strategic Management*, 27(9), 1031–1049. https://doi.org/10.1080/09537325.2015.1047757
- Maiga, G., & Asianzu, E. (2013). Adoption of e-tax services in Uganda: a model of citizen-based factors. *Electronic Government an International Journal*, 10(3-4), 259-283.
- Mansoori, K. A. A., Sarabdeen, J., & Tchantchane, A. L. (2018). Investigating Emirati citizens' adoption of e-government services in Abu Dhabi using modified UTAUT model. *Information Technology & People*, 31(2), 455–481. https://doi. org/10.1108/itp-12-2016-0290
- Masrom, M., & Ismail, Z. (2008). Computer ethics awareness among undergraduate students in Malaysian higher education institutions. ACIS 2008 Proceedings, 41. https://doi.org/10.1109/ itsim.2008.4632042
- McKnight, D. H., & Chervany, N. L. (2000). What is trust? A conceptual analysis and an interdisciplinary model. *AMCIS* 2000 *Proceedings*, 382. https://aisel.aisnet.org/amcis2000/382
- Nair, P. K., Ali, F., & Leong, L. C. (2015). Factors affecting acceptance & use of ReWIND. *Interactive Technology and Smart Education*, 12(3), 183–201. https://doi.org/10.1108/ itse-02-2015-0001
- Onwuegbuzie, A. J., & Leech, N. L. (2007). Sampling designs in qualitative research: Making the sampling process more public. *Qualitative Report*, 12(2), 238–254. https://doi.org/10.46743/2160-3715/2007.1636
- Pavlou, P. A. (2003). Consumer acceptance of electronic commerce: Integrating trust and risk with the technology acceptance model. *International Journal of Electronic Commerce*, 7(3), 101–134. https://doi.org/10.1080/10864415.2003.11044275
- Phan, T. N., Ho, T. V., & Le-Hoang, P. V. (2020). Factors affecting the behavioral intention and behavior of using e-wallets of youth in Vietnam. *The Journal of Asian Finance, Economics Business*, 7(10), 295–302. https://doi.org/10.13106/jafeb.2020. vol7.n10.295
- Pynoo, B., Devolder, P., Voet, T., Vercruysse, J., Adang, L., & Duyck, P. (2007). Attitude as a measure for acceptance: Monitoring IS implementation in a hospital setting. SIGHCI Proceedings, 21.
- Rana, N. P., Dwivedi, Y. K., Lal, B., Williams, M. D., & Clement, M. (2017). Citizens' adoption of an electronic government system: Towards a unified view. *Information Systems Frontiers*, 19(3), 549–568. https://doi.org/10.1007/s10796-015-9613-y
- Rattanaburi, K., & Vongurai, R. (2021). Factors influencing actual usage of mobile shopping applications: Generation Y in Thailand. The Journal of Asian Finance, Economics,

- Business, 8(1), 901–913. https://doi.org/10.13106/jafeb.2021.vol8.no1.901
- Reddick, C. G. (2005). Citizen interaction with e-government: From the streets to servers? *Government Information Quarterly*, 22(1), 38–57. https://doi.org/10.1016/j.giq.2004.10.003
- Rehman, M., Esichaikul, V., & Kamal, M. (2012). Factors influencing e-government adoption in Pakistan. *Transforming Government: People, Process and Policy*, 6(3) 258–282. https://doi.org/10.1108/17506161211251263
- Saade, R., Nebebe, F., & Tan, W. (2007). Viability of the "technology acceptance model" in multimedia learning environments: A comparative study. *Interdisciplinary Journal* of E-Learning and Learning Objects, 3(1), 175–184. https:// doi.org/10.28945/392
- Sharma, S., Durand, R. M., & Gur-Arie, O. (1981). Identification and analysis of moderator variables. *Journal of Marketing Research*, 18(3), 291–300. https://doi.org/10.1177/002224378 101800303
- Simonson, M. R., Maurer, M., Montag-Torardi, M., & Whitaker, M. (1987). Development of a standardized test of computer literacy and a computer anxiety index. *Journal of Educational Computing Research*, 3(2), 231–247. https://doi.org/10.2190/7chy-5cm0-4d00-6jcg
- Snellen, I. (2002). Electronic governance: Implications for citizens, politicians and public servants. *International Review* of Administrative Sciences, 68(2), 183–198. https://doi. org/10.1177/0020852302682002
- Sudarsono, H., Nugrohowati, R. N. I., & Tumewang, Y. K. (2020). The effect ofcovid-19 pandemic on the adoption of internet banking in Indonesia: Islamic Bank and Conventional Bank. *The Journal of Asian Finance, Economics, Business*, 7(11), 789–800. https://doi.org/10.13106/Jafeb.2020.Vol7. No11.789
- Šumak, B., Polancic, G., & Hericko, M. (2010). An empirical study of virtual learning environment adoption using UTAUT. 2010 Second international conference on mobile, hybrid, and on-line learning. https://doi.org/10.1109/elml.2010.11
- Sundaravej, T. (2010). Empirical validation of unified theory of acceptance and use of technology model. *Journal of Global Information Technology Management*, 13(1), 5–27.
- Teicher, J., Hughes, O., & Dow, N. (2002). E-government: A new route to public sector quality. *Managing Service Quality:* An International Journal. 12(6), 384–393. https://doi.org/ 10.1108/09604520210451867

- Tongco, M. D. C. (2007). Purposive sampling as a tool for informant selection. *Ethnobotany Research*, *5*, 147–158. https://doi.org/10.17348/era.5.0.147-158
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. MIS Quarterly, 425–478. https://doi. org/10.2307/30036540
- Verdegem, P., & Verleye, G. (2009). User-centered e-government in practice: A comprehensive model for measuring user satisfaction. Government Information Quarterly, 26(3), 487–497. https://doi.org/10.1016/j.giq.2009.03.005
- Vongurai, R. (2020). Factors affecting customer brand preference toward electric vehicle in Bangkok, Thailand. *The Journal of Asian Finance, Economics, Business*, 7(8), 383–393. https://doi.org/10.13106/jafeb.2020.vol7.no8.383
- Wang, S., Fan, J., Zhao, D., Yang, S., & Fu, Y. (2016). Predicting consumers' intention to adopt hybrid electric vehicles: Using an extended version of the theory of planned behavior model. *Transportation*,43(1),123–143. https://doi.org/10.1007/s11116-014-9567-9
- Wang, Y.-S., & Shih, Y.-W. (2009). Why do people use information kiosks? A validation of the unified theory of acceptance and use of technology. *Government Information Quarterly*, 26(1), 158–165. https://doi.org/10.1016/j.giq.2008.07.001
- Weerakkody, V., Al-Shafi, S., Irani, Z., & Lee, H. (2009). E-government adoption in Qatar: An investigation of the citizens' perspective. *Digit Proceeding*. http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.426.4588&rep=rep1&type=pdf
- West, D. M. (2004). *Global E-government*, 2004. Center for Public Policy, Brown University.
- Wiafe, I., Koranteng, F. N., Tettey, T., Kastriku, F. A., & Abdulai, J.-D. (2019). Factors that affect acceptance and use of information systems within the maritime industry in developing countries. *Journal of Systems and Information Technology*, 22(1), 21–45. https://doi.org/10.1108/jsit-06-2018-0091
- Wilson, T. D. (2000). Human information behavior. *Informing Science*, 3(2), 49–56. https://doi.org/10.28945/576
- Yakubu, M. N., & Dasuki, S. I. (2019). Factors affecting the adoption of e-learning technologies among higher education students in Nigeria: A structural equation modelling approach. *Information Development*, 35(3), 492–502. https://doi.org/ 10.1177/0266666918765907
- Zikmund, W. G., Carr, J. C., & Griffin, M. (2013). *Business Research Methods*. Boston, MA: Cengage Learning.