

Acceptance of e-tax by the consumers based on the theory of planned behaviour

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Abstract

The concept of e-tax filing is introduced by the e-government that motivates the use of ICT (information and communication technology), specifically they focus on the usage of the internet-related application to run an activity. The current study is aimed to understand the acceptance of e-tax by the consumers. The impact of attitude towards adopting e-tax, subjective norm, perceived behavioural control on intention of electric e-tax. The current study uses the close-ended questionnaire to conduct the survey and to collect the responses from the contributors. The total number of a questionnaire that was supposed to be filled by the participant was 193. All the construct uses a five-point Likert scale. All variables of TPB are regressed with adoption intention to analyse whether TPB variables have any significant impact on adoption intention. Thus we can conclude that H1, H2 and H3 of the current study are accepted. A future researcher should examine the other factors that may influence the e-tax adoption. This study is limited to the Iraqi context, other nation's dimension must also be analysed. A future researcher should also examine the culture-specific and cross-culture factors in their researchers. Future study should also focus on the relationship among the component so that they can achieve higher explanation power and lastly, a researcher should also examine the variation in the subjective norms, attitude and control behaviour across primary adoption and extension stages.

Keywords: e-tax, theory of planned behaviour, attitude, subjective norms, perceived behavioural control

Introduction

The tax system nowadays considered as a critical role in maintaining the financial resources of governments, making it a reliable way in many countries (علي و عطية، 2020). Use of electronic devices to conduct the governance activities are considered as the E-governance, it helps to provide a speedy, efficient, effective and transparent procedure of information distribution to the public, different agencies and also facilitate government activities. In some cases, the terms e-government and e-governance are used simultaneously. However, both the term is different. We can describe E-governance as a broader concept that involves a complete range of networks and relationship that exist in government concerning the application, implication and usage of ICT, on the contrary E-government is consider as a narrow topic as it involves online service development to the business and citizen like e-procurement, e-tax, e-participation and e-transportation (Gupta et al, 2016). Faaeq (2014) studied the Factors affecting continued usage intention of electronic government among public servants in Iraq; the findings of the study confirmed the positive influence of Effort Expectancy, Performance Expectancy and Facilitating Conditions on the Usage Behaviour. In addition, the results supported the strong positive influence of usage behaviour on continued usage intention.

While the moderating effect of PICC was not supported, usage behaviour was found to have a significant power to explain the effect of UTAUT variables on continued usage intention.

The concept of e-tax filing is introduced by the e-government that motivates the use of ICT, specifically they focus on the usage of the internet-related application to run an activity (Akram et al, 2019). The advancement of IT helps e-tax filing to reach a developed level, to delivery of and entrance to information of government and provide facilities and services to the employees, entities, citizens, agencies, business partners (United Nations, 2016; Rose, Persson, Heeager, & Irani, 2015). Conversely, the probability of e-government project's success does not only depend on the advancement of ICT rather it also depends on the adoption capabilities of the citizen for whom the application is formed (Venkatesh et al., 2014).

The importance and value of the electronic channel are now highlighted and globally, the government are shifting their tax process to e-tax in order to provide efficient and effective service to citizen (Stefanovic, Marjanovic, Delić, Culibrk, & Lalic, 2016; Lallmahomed, Lallmahomed, & Lallmahomed, 2017). Now a day's individual becomes more aware and efficient with the help of the internet, most of the countries' citizens become more attracted towards internet and use it for various services like e-tax filing, applying for driving license or identity cards by simply using mob application or websites (Veeramootoo, Nunkoo, & Dwivedi, 2018). The government aim to empower the citizen by providing different online services to the cities such as e-tax filing, it is considered as a good step to make taxpayer authorise (Bhuasiri, Zo, Lee, & Ciganek, 2016). The current study is aimed to inspect the acceptance of e-tax by Iraqi consumers based on the TPB.

Problem Statement

The TPB has earned the interest of the researchers and been studied thoroughly by scholar, they mainly focus on the factors of TPB such as subjective norm, attitude and perceived behavioural control), these factors help to measure the intention that influence to conduct certain behaviour. According to Hung et al. (2006), TPB has the most effective framework that helps to predict the customer adoption of new technology changes. Other researchers such as Pavlou & Fygenson (2006) and Harrison et al. (1997) have been studied in their researches the effectiveness of TPB extensively. In the contemporary environment of technology and innovation understanding the individual citizen's behaviour towards the initial adoption of e-tax and their expectations towards the e-tax are primary for the identification of the various challenges found at the very first steps. Initially the focus of the model is on acceptance of technology i.e. internet and the services providers. Hence it is important to understand the citizens' behaviour towards the adoption of e-tax.

Research Objectives

This current study is aimed:

- To examine the impact of Attitude toward adopting e-tax on adoption intention
- To understand the impact of Subjective norm on adoption intention of e-tax
- To assess the impact of perceived behavioural control on adoption intention of e-tax.

Importance of the Study

In the modern era of internet, e-tax filing is treated as an attractive topic to the researchers and many studies have been conducted to investigate the adoption and implementation of e-filing, it also facilitates the user by offering benefits like time-saving, ease of use and a place to failing tax electronically (Azmi & Kamarulzaman, 2010). Research conducted by numerous

researchers such as DeLone & McLean (1992), Davis (1989), Ajzen (1985) and Ajzen (1991) to understand the adoption intention based on three theories i.e. Technology Acceptance Model (TAM), Theory of Planned Behavior (TPB) and Information Systems Success Model (ISSM). Hence this study provides how individuals perceive the adoption of e-tax filling in the context of Iraq.

Literature review

The TPB has earned the interest of the researchers and been studied thoroughly by scholar, they mainly focus on the factors of TPB such as subjective norm, attitude and perceived behavioural control), these factors help to measure the intention that influence to conduct certain behaviour. According to Hung et al. (2006), TPB has the most effective framework that helps to predict the customer adoption of new technology changes. Other researchers such as Pavlou & Fygenson (2006) and Harrison et al. (1997) have been studied in their researches the effectiveness of TPB extensively.

TPB focus on the behavioural intention, it can be defined as the plan and its strength to perform any behaviour (Harrison et al., 1997). According to Zeithaml et al. (1996), the planned behaviour and its intention can be measure by actions like repurchase, consistency in decision making and loyalty. The experiences of customer help to generate behavioural intentions Zhang and Prybutok (2005). Udo et al. (2010) asserted that if the customer is satisfied with their experience there are more changes in the reuse of product, service or technology. Literature shows that the success rate of any system or technology depends on the behaviour of customer (Rai et al., 2002; Udo et al., 2010; Venkatesh et al., 2003). Researchers like (Fakhoury & Aubert, 2015; Rana & Dwivedi, 2015; Chen et al., 2015) has studied the several factors that influence the adoption of e-government services.

A research has been conducted in India by Rana and Dwivedi (2015) to investigate the relationship researcher use factors like anxiety and social influence.

The result shows a positive impact of social influence and negative impact of anxiety to adopt the e-tax filing in India.

TPB defines the subjective norm as the expected social pressure on the individual to perform the behaviour or to abort the behaviour or perception of a person for another perform either they approve the behaviour or not (Ajzen 1991). He further added that the value to measure the subjective norm in anticipated intention is not stationary rather it depends on the situation and behaviour Ajzen (1991). Recent literature regarding the application of internet has focused on the behavioural intention and how its influence by the subjective norms but it remains unclear. As per Tan and Teo (2000), there is an insignificant impact of SN on the intention of an individual user to adopt the banking service via the internet. On the other hand, Bhattacharjee (2000) claim that to predict the intention of the user to use the service of electronic breakage is highly influenced by subjective norms. Moreover, Conner and Armitage (1998) highlighted the fact that failure to address all the factors of social influence is the major reason to have mixed results.

Subjective norm is divided into two forms of influence by Bhattacharjee (2000), external and interpersonal. External influence includes expert opinions, reports of mass media and consideration of non-personal information by the individual while performing a certain behaviour. Whereas, interpersonal influence includes the influence of the colleagues, friends, superiors, family and individual that have experience (Bhattacharjee 2000).

Kinds of attitude have been described by Ajzen (1987) i.e. attitudes towards

behaviours (for instance individual assume that he or she using e-tax failing system greatly) and attitude towards objects (for instance the overall system of online tax failing is grate). Ajzen (1991) explain the attitude toward a behaviour as the intensity of individual being unfavourable or favourable or behavioural appraisal. According to the researcher, an attitude has a significant impact on performing certain behaviour (Shih, 2004; Hossein & Pahlavanya 2015).

PBC (Perceived behavioural control) can be explained as a perception of an individual regarding the level of difficulty and ease to perform a behaviour, it is usually based on the experience and availability of the resources such as time, money, skill and collaboration of others and expected opportunities (Ajzen 1991). In another study of Ajzen (2002), he establishes a model of two-level hierarchy in which the first order is PBC and it has two elements i.e. controllability and self-efficacy. Controllability is describing as the control of an individual over the belief or behaviour about the performance to be the actor's behaviour. Whereas, Self-efficacy refers to the level of difficulty and ease to perform a behaviour or the individual confidence to perform a certain action (Ajzen 2002).

Conceptual framework and hypotheses development

In the research of transportation adoption of intention, the researcher analyses TPB in detailed. The study compress of an option of travelling mode (Hsiao and Yang 2010; Chen and Chao, 2011), the intention of speed (Horvath et al, 2012; Cristea et al, 2013), attitude towards exhausting seat belt (Okamura et al, 2012), an attitude of drive and drive (Moan, 2013). In the research, the author focuses on the model of TPB and proposed the conceptual framework that determines the E-tax adoption in Iraq. There are three factors of TPB i.e. belief regarding the behavioural result (Behavioral Beliefs); the

belief of the normative requests from other individuals (Normative belief) and belief on the other factors that influence the behavioural efficiency (Control belief) (Ajzen, 1991). In general, the behavioural belief established negative or positive attitude, normative belief generates SN and PBC is increased by control belief. There are mainly three components of behavioural intention such as SN, attitude and PBC. According to Ajzen (1991), the model of TPB can involve other variables as the addition of variable help to increase the effectiveness of a perceived model of behaviour.

Literature shows that while investigating the model of TPB for behavioural intention, the results of intention and actual behaviour are same because we can measure the most appropriate behaviour by predicting the behavioural intention (Davis et al, 1989). Another researcher added to this that behavioural intention is the fastest way to analyse the behaviour in actual but it must incorporate accurate and appropriate variable to achieve sufficient results (Ajzen, 1991). It has been empirically proven by Schuitema et al, (2013) that it is a difficult task to analyse the actual behaviour in the adoption by the individual. Prior researchers claim that using e-tax failing is still new to the customer and they are at the initial level of awareness due to this reason they face a higher level of struggle to adopt the e-tax system. The current study focuses more on the adoption of intention than measure the actual adoption.

In the TPB model, attitude is referred to as the charge of behaviour by an individual (Kim and Han, 2010). While measuring the user attitude about e-tax adoption, attitude is considered either favourable or unfavourable charge in behavioural adoption. Prior study shows that the most important variable to measure the behaviour intention is attitude (Dickinger and Kleijnen, 2008). It has been observed if the customer having the positive

intentional behaviour than he or she would have positive and effective behaviour (Beck and Ajzen, 1991). perception of an individual about the social norms that help to establish an attitude and allow an individual to perform differently are considered as subjective norms (Ajzen, 1991).

Numerous researcher stated that subjective norms influence the behavioural intention positively (Abou Zeid and Ben Akiva, 2011; Castanier et al, 2013; Han et al, 2010; Axsen and Kurani, 2012). It has been observed in the past studies that if individual conduct some action due to the pressure from the society is more likely to be repeated in near future. To analyse the intention by using the model of TPB is known as perceived behaviour control. The perceived behaviour control refers to the level of difficulty or simplicity an individual bear to execute a behaviour (Ajzen, 1991). In the current study, perceived behavioural control can denote by the level of understanding of individual regarding the technology advancement and ability to accept the behaviour. It is considered effective to include behaviour intention because the customer has higher control over these factors (Axsen and Kurani, 2013). Hence the study claims the following hypothetical statements.

H1 There is a positive and significant impact of Attitude toward adopting e-tax on adoption intention.

H2 There is a positive and significant impact of Subjective norm on adoption intention of e-tax.

H3 There is a positive and significant impact of Perceived behavioural control on adoption intention of electric e-tax.

Methodology

The current study uses the close-ended questionnaire to conduct the survey and to collect the responses from the contributors. The total number of a questionnaire that **was supposed to be filled by the**

participant was 193. All the construct uses a five-point Likert scale. The objective of the current study is to analyse the adoption of e-tax failing by the consumer in Iraq based on TPB (theory of planned behaviour). Iraqi customers were considered the sample for the study and they filled the questionnaire willingly.

The current study incorporated following statistical tool to generate the result such as demographic analysis, descriptive statistics and to test the hypothesis current study run the test of multiple regression. To carry out these statistical test on the collected data SPSS 22.0 has been used. The relationship of perceived behavioural control, subjective norm and attitude with the e-tax adoption been analysed by multiple regression techniques.

In order to achieve the reliability and validity of the scale, the current study adopted from the questionnaire from the previous study that has the same or relevant topic. Measurement of attitude for the current study is based on the four items, whereas Subjective norm includes 3 items and measurement of Perceived behavioural control was done by 3 items while three items were used to measure the adoption intention of e-tax (Wang et al., 2016). Five-point Likert scale that follows from strongly disagree to strongly agree has been used in the current research to measure Perceived behavioural control, Subjective norm, Attitude and Intention to adopt e-tax.

Data analysis and findings

		Gender			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	127	65.8	65.8	65.8
	Female	66	34.2	34.2	100.0
	Total	193	100.0	100.0	

The above table shows the statistic for the gender, the total sample for the study is 193 from which 65.8% are male and the remaining 34.2% are female.

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 20	27	14.0	14.0	14.0
	21-30	156	80.8	80.8	94.8
	31-40	6	3.1	3.1	97.9
	Above 40	4	2.1	2.1	100.0
	Total	193	100.0	100.0	

Above table demonstrates the statistic for Age. It has been divided into four groups. The table shows that 14% of the total participant are under 20, whereas

80% of the data are from age 21 to 30. 3% of the sample belong to the age group of 31-40 and only 2% of the data are above 40.

Education level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bachelor	9	4.7	4.7	4.7
	Master	176	91.2	91.2	95.9
	PHD	8	4.1	4.1	100.0
	Total	193	100.0	100.0	

Above table demonstrate the education level of the respondent. it shows that 4.7% of the total sample are Bachelor whereas

91.2% belongs to the Master level education and the remaining 4.1% are PHD participants.

Income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 1000 USD	179	92.7	92.7	92.7
	Above 1000 USD	14	7.3	7.3	100.0
	Total	193	100.0	100.0	

Above table shows the Income statistic of 193 respondent, it has been divided into two groups, 92.7% of the sample belongs

to the 1st group i.e. less than 1000USD whereas, only 7.3% of the data is fall in 2nd group i.e. above 1000 USD.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
SN1	193	1.0	5.0	3.497	1.0998
SN2	193	1.0	5.0	3.446	1.1449
SN3	193	1.0	5.0	3.544	1.0989
ATT1	193	1.0	5.0	3.435	1.2021
ATT2	193	1.0	5.0	3.415	1.1656
ATT3	193	1.0	5.0	3.772	1.0704
ATT4	193	1.0	5.0	3.860	1.0237
BC1	193	1.0	5.0	3.684	1.0986
BC2	193	1.0	5.0	3.606	1.0755
BC3	193	1.0	5.0	3.632	1.0628

INNT1	193	1.0	5.0	3.642	.9956
INNT2	193	1.0	5.0	3.622	1.0036
INNT3	193	1.0	5.0	3.642	.9637
Valid N (listwise)	193				

The above table of descriptive statistics shows the minimum, maximum, mean and standard deviation of the items included in the model. The table shows that the minimum and maximum values for all items are 1 and 5 respectively while the mean values for all the items are above 3

which shows that on average the perception of the participants is towards the agree side. The standard deviation of the items also look suitable none of the standard deviation is either very high or low.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.816 ^a	.666	.660	1.59810

a. Predictors: (Constant), BC, SN, ATT

The above table of the model summary shows the model fit. The value of the r-square is around 67% which indicates that around 67% of the variation in the

dependent variable is due to the independent variables included in the model.

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	961.631	3	320.544	125.511	.000 ^b
	Residual	482.690	189	2.554		
	Total	1444.321	192			

a. Dependent Variable: INN

b. Predictors: (Constant), BC, SN, ATT

The above table of anova indicates the overall significance of the model. If we look at the sig value of the model it shows

0.000 which is less than the threshold value of 0.05 hence the model is significant.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.773	.506		3.501	.001
	ATT	.210	.050	.305	4.206	.000
	SN	.146	.042	.164	3.514	.001
	BC	.418	.063	.465	6.580	.000

a. Dependent Variable: INN

All variables of TPB are regressed with adoption intention to analyse whether TPB variables have any significant impact on adoption intention or not. Attitude (ATT)

shows a significant and positive impact on the dependent variable with a p-value of 0.000, second variable i.e. subjective norms (SN) shows a significant and

positive relationship with adoption intention as the significance value of t-statistics is 0.000. Whereas, the last variable Perceived behavioural control (BC) also has a significant and positive relationship with the dependent variable as the value of t-statistics is 0.000. Thus we can conclude that H1, H2 and H3 of the current study are accepted.

Discussion

The first explanatory variable Attitude (ATT) shows a positive and significant impact on adoption intention Therefore, H1: “Attitude toward adopting e-tax is positively related to the adoption intention” is not rejected. From the perspective of the Theory of Planned Behavior, we can state that attitude help to measure the intention that influence to conduct certain behaviour. This result is consisting with the previous researches of Shih, (2004); Mathieson (1991); Hossein & Pahlavanya (2015); Ajzen (1991); Taylor and Todd (1995); Chau and Hu (2002); Ajzen (2001); Liao et al. (1999); Chau and Hu (2001); Bhattacharjee (2000).

The second explanatory variable Subjective norm (SN) shows a positive and significant impact on adoption intention of e-tax failing, Therefore, H2: “Subjective norm is positively related to the adoption intention of e-tax” is not rejected. Hung et al. (2006) claim that TPB has the most effective framework that helps to predict the behaviour of customer adoption of new technology. This result is consisting of the previous research of Bhattacharjee (2000) he claims that to forecast the intention of the consumer to use the e-service of breakage is influence by subjective norms. There are many other researchers like Ajzen (1991); Taylor and Todd (1995); Ajzen (2001); Chau and Hu (2002); Bhattacharjee (2000); Liao et al. (1999); Mathieson (1991); Chau and Hu (2001); that shows supported relationship between subjective norms and adoption intention.

The last explanatory variable perceived behavioural control (BC) shows a positive

and significant impact on adoption intention of e-tax failing, Therefore, H3: “Perceived behavioural control is positively related to the adoption intention of electric e-tax” is not rejected. Perceived behavioural control act as an important factor to analyse the intention to adopt consumer behaviour. The result of the current study consists with the previous researchers of Ajzen (1991); Taylor and Todd (1995); Ajzen (2001); Chau and Hu (2002); Bhattacharjee (2000); Liao et al. (1999); Mathieson (1991); Chau and Hu (2001).

Future studies and limitations

The current study focuses on the behavioural intention of taxpayer to adopt the e-tax failing based on the Theory of Planned Behaviour (Ajzen, 1991, 1985). A study conducted in India to research about the background of e-tax filing, that study was exploratory and focus on the factors of adopting e-tax. Our comprehensive study enables us to discuss various variable under a single umbrella. We believe that the finding of the current study would help the Iraqi government to aware the citizen of Iraq about the technology and make it easy for them to adopt it. This study also assists the government to make policy that helps in the implementation of e-services. There is still a need to create awareness among the people regarding the effectiveness of the e-filing and individual must need to get trained.

Even though the finding of the current study is helpful, but it has limitations. The finding of a study cannot be generalized to all the e-services. The time constraint also acts as a limitation for the study. The study only focuses on the Iraqi consumer thus the results can not apply for the other citizen. It does not focus on the cross-cultural issue. According to Pavlou and Chai (2002) the effect of perceived behavioural control, societal norm and attitude on behavioural intention were specific to the culture and the impact of social influence was cross-cultural. The study only focuses on the impact of

perceived behavioural control, subjective norm and attitude on behavioural intention however, these variable has an impact on each other as well. Lastly, the data is cross-sectional, longitudinal data can also be used to capture the dynamic of initial adoption.

A future researcher should examine the other factors that may influence the e-tax adoption. This study is limited to the Iraqi context, other nation's dimension must also be analysed. A future researcher should also examine the culture-specific and cross-culture factors in their researchers. Future study should also focus on the relationship among the component so that they can achieve higher explanation power and lastly, a researcher should also examine the variation in the subjective norms, attitude and control behaviour across primary adoption and extension stages. Conclusions

Use of electronic devices to conduct the governance activities are considered as the E-governance, it helps to provide a speedy, efficient, effective and transparent procedure of information distribution to the public, different agencies and also facilitate government activities. The concept of e-tax filing is introduced by the e-government that motivates the use of ICT. The advancement of IT helps e-tax filing to reach a developed level, to delivery of and entrance to information of government and provide facilities and services to the employees, entities, citizens, agencies, business partners (United Nations, 2016; Rose, Persson, Heeager, & Irani, 2015).

The TPB has earned the interest of the researchers and been studied thoroughly by scholar, they mainly focus on the factors of TPB such as subjective norm, attitude and perceived behavioural control), these factors help to measure the intention that influence to conduct certain behaviour. Research conducted by numerous researchers such as DeLone & McLean (1992), Davis (1989), Ajzen (1985) and Ajzen (1991) to understand the adoption

intention.s The total number of a questionnaire that was supposed to be filled by the participant was 193. All the construct uses a five-point Likert scale. The objective of the current study is to analyse the adoption of e-tax failing by the consumer in Iraq based on TPB (theory of planned behaviour).

- The first hypothesis for the current study shows a positive and significant impact on adoption intention Therefore, H1: "Attitude toward adopting e-tax is positively related to the adoption intention" is not rejected.
- The second hypothesis for the current study variable Subjective norm (SN) shows a positive and significant impact on adoption intention of e-tax failing, Therefore, H2: "Subjective norm is positively related to the adoption intention of e-tax" is not rejected.
- Finally the last hypothesis i.e. "Perceived behavioural control is positively related to the adoption intention of e-tax" is not rejected.
- Our comprehensive study discussed various variable under a single umbrella.

Recommendations

We believe that the finding of the current study would help the Iraqi government to aware the citizen of Iraq about the technology and make it easy for them to adopt it. Hence following recommendations are to be suggested:

- It is important to provide the awareness in the citizens for using modern technology i.e. internet.
- Provide special trainings to the individual so that they can understand the systems.
- They should be told the benefits of adopting e-tax so that they think it is for their benefits such as time saving, transparency, availability of the records etc.

References

1. رعد حسين علي, & أ. م. د احمد صبيح عطيه. (2020). The developed Objectives of Tax Reform in Iraq and Role of The International Financial institutions and Its effectiveness. *Al Kut Journal of Economic and Administrative Sciences*. 48-36 ,(36)12,
2. Abou-Zeid, M., & Ben-Akiva, M. (2011). The effect of social comparisons on commute well-being. *Transportation Research Part A: Policy and Practice*, 45(4), 345-361.
3. Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In *Action control* (pp. 11-39). Springer, Berlin, Heidelberg. Book.
4. Ajzen, I. (2002). Residual effects of past on later behavior: Habituation and reasoned action perspectives. *Personality and social psychology review*, 6(2), 107-122.
5. Akram, M. S., Malik, A., Shareef, M. A., & Goraya, M. A. S. (2019). Exploring the interrelationships between technological predictors and behavioral mediators in online tax filing: The moderating role of perceived risk. *Government Information Quarterly*, 36(2), 237-251.
6. Al-Hujran, O., Al-Debei, M. M., Chatfield, A., & Migdadi, M. (2015). The imperative of influencing citizen attitude toward e-government adoption and use. *Computers in Human Behavior*, 53, 189-203.
7. Axsen, J., & Kurani, K. S. (2012). Social influence, consumer behavior, and low-carbon energy transitions. *Annual Review of Environment and Resources*, 37, 311-340.
8. Azmi, A. A. C., & Kamarulzaman, Y. (2010). Adoption of tax e-filing: A conceptual paper. *African Journal of Business Management*, 4(5), 599-603.
9. Beck, L., & Ajzen, I. (1991). Predicting dishonest actions using the theory of planned behavior. *Journal of research in personality*, 25(3), 285-301.
10. Bhattacharjee, A. (2000). Acceptance of e-commerce services: the case of electronic brokerages. *IEEE Transactions on systems, man, and cybernetics-Part A: Systems and humans*, 30(4), 411-420.
11. Bhuasiri, W., Zo, H., Lee, H., & Ciganek, A. P. (2016). User Acceptance of e-government Services: Examining an e-tax Filing and Payment System in Thailand. *Information Technology for Development*, 22(4), 672-695.
12. Castanier, C., Deroche, T., & Woodman, T. (2013). Theory of planned behaviour and road violations: The moderating influence of perceived behavioural control. *Transportation Research Part F: Traffic Psychology and Behaviour*, 18, 148-158.
13. Chau, P. Y., & Hu, P. J. H. (2002). Investigating healthcare professionals' decisions to accept telemedicine technology: an empirical test of competing theories. *Information & management*, 39(4), 297-311.
14. Chen, C. F., & Chao, W. H. (2011). Habitual or reasoned? Using the theory of planned behavior, technology acceptance model, and habit to examine switching intentions toward public transit. *Transportation research part F: traffic psychology and behaviour*, 14(2), 128-137.
15. Chen, J. V., Jubilado, R. J. M., Capistrano, E. P. S., & Yen, D. C. (2015). Factors affecting online tax filing—An application of the IS Success Model and trust theory. *Computers in Human Behavior*, 43, 251-262.
16. Chester, M., & Horvath, A. (2012). High-speed rail with emerging automobiles and aircraft can reduce environmental impacts in California's future. *Environmental research letters*, 7(3), 034012.
17. Conner, M., & Armitage, C. J. (1998). Extending the theory of planned behavior: A review and avenues for

- further research. *Journal of applied social psychology*, 28(15), 1429-1464.
18. Cristea, M., Paran, F., & Delhomme, P. (2013). Extending the theory of planned behavior: The role of behavioral options and additional factors in predicting speed behavior. *Transportation research part F: traffic psychology and behaviour*, 21, 122-132.
 19. Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS quarterly*, 319-340.
 20. DeLone, W. H., & McLean, E. R. (1992). Information systems success: The quest for the dependent variable. *Information systems research*, 3(1), 60-95.
 21. Dickinger, A., & Kleijnen, M. (2008). Coupons going wireless: Determinants of consumer intentions to redeem mobile coupons. *Journal of interactive marketing*, 22(3), 23-39.
 22. Endo, S., Suzuki, Y., Takahashi, G., Shozushima, T., Ishikura, H., Murai, A., ... & Fukui, Y. (2012). Usefulness of presepsin in the diagnosis of sepsis in a multicenter prospective study. *Journal of infection and chemotherapy*, 18(6), 891-897.
 23. Faaeq, M. K. (2014). Factors affecting continued usage intention of electronic government among public servants in Iraq (Doctoral dissertation, Universiti Utara Malaysia).
 24. Fakhoury, R., & Aubert, B. (2015). Citizenship, trust, and behavioural intentions to use public e-services: The case of Lebanon. *International Journal of Information Management*, 35(3), 346-351.
 25. Gupta, K. P., Singh, S., & Bhaskar, P. (2016). Citizen adoption of e-government: a literature review and conceptual framework. *Electronic Government, an International Journal*, 12(2), 160-185.
 26. Han, H., & Kim, Y. (2010). An investigation of green hotel customers' decision formation: Developing an extended model of the theory of planned behavior. *International journal of hospitality management*, 29(4), 659-668.
 27. Han, P., Niu, C. Y., Lei, C. L., Cui, J. J., & Desneux, N. (2010). Use of an innovative T-tube maze assay and the proboscis extension response assay to assess sublethal effects of GM products and pesticides on learning capacity of the honey bee *Apis mellifera* L. *Ecotoxicology*, 19(8), 1612-1619.
 28. Hartwick, J., & Barki, H. (1994). Explaining the role of user participation in information system use. *Management science*, 40(4), 440-465.
 29. Hsu, S. P., Chiang, C. K., Chien, C. T., & Hung, K. Y. (2006). Plasma prohepcidin positively correlates with hematocrit in chronic hemodialysis patients. *Blood purification*, 24(3), 311-316.
 30. Lallmahomed, M. Z., Lallmahomed, N., & Lallmahomed, G. M. (2017). Factors influencing the adoption of e-Government services in Mauritius. *Telematics and Informatics*, 34(4), 57-72.
 31. Lan, Y. K., Yang, C. H., & Yang, H. C. (2010). Theoretical investigations of electronic structure and charge transport properties in polythiophene-based organic field-effect transistors. *Polymer International*, 59(1), 16-21.
 32. Liao, S., Shao, Y. P., Wang, H., & Chen, A. (1999). The adoption of virtual banking: an empirical study. *International journal of information management*, 19(1), 63-74.
 33. Naess, A., & Moan, T. (2013). *Stochastic dynamics of marine structures*. Cambridge University Press.
 34. Nations, U. (2016). United Nations e-government survey 2016: e-government in support of sustainable development. United Nations Department of economic and social affairs.

35. Pavlou, P. A., & Fygenson, M. (2006). Understanding and predicting electronic commerce adoption: An extension of the theory of planned behavior. *MIS quarterly*, 115-143.
36. Rai, A., Lang, S. S., & Welker, R. B. (2002). Assessing the validity of IS success models: An empirical test and theoretical analysis. *Information systems research*, 13(1), 50-69.
37. Rana, N. P., & Dwivedi, Y. K. (2015). Citizen's adoption of an e-government system: Validating extended social cognitive theory (SCT). *Government Information Quarterly*, 32(2), 172-181.
38. Rose, J., Persson, J. S., Heeager, L. T., & Irani, Z. (2015). Managing e-Government: value positions and relationships. *Information Systems Journal*, 25(5), 531-571.
39. Schuitema, G., Anable, J., Skippon, S., & Kinnear, N. (2013). The role of instrumental, hedonic and symbolic attributes in the intention to adopt electric vehicles. *Transportation Research Part A: Policy and Practice*, 48, 39-49.
40. Shih, Y. Y., & Fang, K. (2004). The use of a decomposed theory of planned behavior to study Internet banking in Taiwan. *Internet research*.
41. Stefanovic, D., Marjanovic, U., Delić, M., Culibrk, D., & Lalic, B. (2016). Assessing the success of e-government systems: An employee perspective. *Information & Management*, 53(6), 717-726.
42. Tan, M., & Teo, T. S. (2000). Factors influencing the adoption of Internet banking. *Journal of the Association for information Systems*, 1(1), 5.
43. Taylor, S., & Todd, P. (1995). Decomposition and crossover effects in the theory of planned behavior: A study of consumer adoption intentions. *International journal of research in marketing*, 12(2), 137-155.
44. Udo, J. P., & Fels, D. I. (2010). Universal design on stage: live audio description for theatrical performances. *Perspectives: Studies in Translatology*, 18(3), 189-203.
45. Veeramootoo, N., Nunkoo, R., & Dwivedi, Y. K. (2018). What determines success of an e-government service? Validation of an integrative model of e-filing continuance usage. *Government Information Quarterly*, 35(2), 161-174. 4.
46. 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.
47. Venkatesh, V., Sykes, T. A., & Venkatraman, S. (2014). Understanding e-Government portal use in rural India: role of demographic and personality characteristics. *Information Systems Journal*, 24(3), 249-269.
48. Wyer, S. J., Earll, L., Joseph, S., Harrison, J., Giles, M., & Johnston, M. (1997). Increasing attendance at a cardiac rehabilitation programme: an intervention study using the Theory of Planned Behaviour. *Coronary health care*, 5(3), 154-159.
49. Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (1996). The behavioral consequences of service quality. *Journal of marketing*, 60(2), 31-46.
50. Zhang, X., & Prybutok, V. R. (2005). A consumer perspective of e-service quality. *IEEE transactions on Engineering Management*, 52(4), 461-477