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## Article

### The influence of facilitating conditions, perceived benefits, and perceived risk on intention to adopt e-filing in Tanzania

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## THE INFLUENCE OF FACILITATING CONDITIONS, PERCEIVED BENEFITS, AND PERCEIVED RISK ON INTENTION TO ADOPT E-FILING IN TANZANIA

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### ABSTRACT

*Most tax authorities adopt electronic filing (e-filing) to derive its benefits. Through e-filing, compliance to tax payments is enhanced and tax administration costs are reduced. Despite such e-filing benefits, intention to adopt e-filing for Tanzanian taxpayers is very little. This study therefore, aimed at assessing the facilitating conditions, perceived benefits and perceived risk on intention to adopt e-filing. A survey was conducted covering Coast, DaresSalaam and Mwanza regions to assess the influence of such conditions. A structured questionnaire was administered to a sample of 226 individuals to collect data from tax practitioners. Data on perceived risk (security and confidentiality of information), perceived benefits (saving costs and speed of returns), and facilitating conditions (support and access to computers) was gathered. This data was analysed statistically using factor analysis in order to extract common factors. The developed hypotheses were tested using regression analysis. The results indicate that perceived risk was negatively related to intention to adopt e-filing as proposed by the study, but this was statistically insignificant. Similar to the underlying theory, perceived benefits were positively and significantly related to intention to adopt e-filing and thus the research recommended that tax authorities should put more emphasis on enhancing taxpayers' perceived benefits by providing e-filing education and creating awareness to improve taxpayers' intention to adopt e-filing. In contrast to previous studies, the results showed that facilitating conditions were negative and insignificantly related to e-filing adoption. It was observed further that the model explained 18.8% of variation in intention to adopt e-filing as the study examined only three factors. These findings are acceptable to social science studies; however, the remaining 81.2% were due to other factors that could be researched.*

**Keywords:** e-filing, facilitating conditions, intention to adopt e-filing, perceived risk, perceived benefits.

### INTRODUCTION

Electronic filing (e-filing) of tax returns is an essential application that automates tax-related processes to improve efficiency in collecting and assessing tax data. Despite the benefits derived from automated processes and electronic services in taxation, taxpayers' intention to adopt e-filing has been a problem; for instance, there has been resistance in using Electronic Fiscal Devices– EFDs ,one of such e-filing facilities (Yonazi, 2013).It is argued that the success of implementing electronic services (e-services) like e-filing depends on how users adopt these electronic tax services after knowing the their benefits (Bhuasiri, Zo, Lee, & Ciganek, 2016).

E-filing is one of the important government e-services which have attained an advanced level in most governments (Rajeswari & Susai, 2014).Moreover, e-filing is among the most crucial and advanced e-government services in any country as it allows taxpayers to conveniently assess and consequently pay their taxes. Through e-filing, taxpayers are able to send tax returns from tax software via the internet to tax authorities. Promoters of e-services in governments admit that electronic operations help to improve efficiency,

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promote transparency and reduce operating charges since taxpayers are not obliged to follow tax services (Bhuasiri, Zo, Lee, & Ciganek, 2016; United Nations, 2014; Laudon & Laudon, 2006). Other e-filing benefits include efficiency in information searching, minimisation of processing errors, speedy filing, fast and direct deposit of refunds, elimination of delays in tax filing and returns through postal mail (Hanefah, 2007). By using electronic services, tax related processes such as taxpayers' assessment and payments are simplified. E-filing helps to improve tax filing services and consequently reduce costs to both taxpayers and tax collecting organisations (Fu, Farn, & Chao, 2006). Accordingly, e-filing contributes in increasing tax compliance from taxpayers' point of view, and on the other hand, achieving governments' objective of insuring voluntary tax compliance.

Despite e-filing benefits, governments face challenges in its implementation. The main challenge might be, first, to overcome the inherent obstacle to human kind of negative attitude in adopting changes. Adoption of e-services involves, among other things, transformation from manual to electronic documentation, of which acceptability varies corresponding to different users, thus, there is a need to consider all levels associated with tax administrations (Blume & Bott, 2015). Different groups including academicians have had a concern about e-services including e-filing (Yang & Rho, 2007). Thus, adoption factors must be communicated to all stakeholders and especially totax practitioners who are involved in operations. Moreover, both developed and developing countries face problems in adoption of electronic services. Further explanation is found in studies by Akkaya *et al.* (2013), a case of Germany; and Bhuasiri *et al.* (2016) a case of Thailand. Several literature sources point out adoption views to include facilitating conditions, trust, perceived benefits and ease of use (Moorthy, Samsuri, & Hussin, 2014; Yonazi, 2013; Venkatesh, Thong, & Xu, 2012; Chiu & Wang, 2008).

Tanzania, like other nations, has considered the benefits and convenience brought about by the adoption of electronic activities. The Government of Tanzania through the Tanzania Revenue Authority decided to phase out manual submission of Value Added Tax (VAT) returns to e-filing since the year 2010. For implementation purposes, a person who is permitted to file tax returns electronically is provided with electronic Filing Identification Number (e-FIN) (Tax Administration (General) Regulations, 2016). E-filing implementation was introduced by the government to allow taxpayers to submit their tax returns on-line. Despite e-filing potentials, the implementation of e-filing of VAT returns as it is for other e-services is not a straight forward process (Rumanyika & Mashenene, 2014).

The implementation of e-services (including e-filing) in any government is time consuming, complex and challenging (Blume & Bott, 2015; Ambali, 2009). In most cases, in an environment that is more electronic ready, people are generally comfortable with the introduction of new technologies and thus e-filing initiatives can be easily adopted. Unfortunately, this background is lacking in Tanzania (Rumanyika & Mashenene, 2014). Studies by Yonazi (2013) and Sefue (2014) indicate that Tanzania faces challenges in implementing e-services including issues of infrastructure, users' technological knowhow and the willingness to use electronic services. Since its inception in 2010, e-filing has been facing limitations, and the reasons behind such limitations are not clearly known. Therefore, this study addresses constructs of e-filing in Tanzania, and consequently fills the gap by analysing facilitating conditions, users' perceived trust and perceived benefits to determine their influence on intention to adopt e-filing. Hence, the study contributes to the available literature and the results will help in giving valuable information to the tax practitioners as well as policy makers, to facilitate smooth transformation and implementation of e-filing. In addition, the information gathered has important implications for promoting an effective e-filing system.

## LITERATURE REVIEW

### *Theoretical Framework*

Two theoretical perceptions have been used to explain the variables influencing intention to adopt e-filing. These perceptions are the Theory of Planned Behaviour (TPB), as well as the Unified Theory of Acceptance and Use of Technology (UTAUT). TPB, which was developed by Ajzen in 1991 links attitudes and behaviour (Ajzen, 1991). This notion is an extension of the Theory of Reasoned Action (TRA) that was essential to address the original model's limitations in dealing with behaviours over which people have incomplete behavioural control. TPB states that attitude towards a certain behaviour, subjective norms and perceived behavioural control, shape an individual's behavioural intentions (Lu, Huang, & Lo, 2010); while behavioural intention is an indication of the individual's readiness to perform a given behaviour. TPB indicates further that intentions are major determinants of real performance. It is proposed therefore that a taxpayer's readiness to file electronically is influenced by the attitude towards using e-filing. Although users are affected by other factors

like security problems, there was a need to examine their perception (such as trust mapped in perceived risk) in relation to intention to use e-filing for adoption (Horst, Kuttschreuter, & Gutteling, 2007). Other issues of technology adoption are further explained using the UTAUT.

UTAUT states that an individual's behavioural intention to use a technology is influenced by performance expectancy, effort expectancy, facilitating conditions and social influence. UTAUT was developed by Venkatesh *et al.* (2003) through examining eight competing models of technology acceptance, to formulate a unified model that mixes elements from the models. These models are the Theory of Reasoned Action (TRA), Technology Acceptance Model (TAM), Theory of Planned Behaviour (TPB), TAM/TPB combined, Motivation Model, Personal Computer (PC) Utilisation Model, Innovation Diffusion Theory and Social Cognitive Theory (Venkatesh, Morris, Davis, & Davis, 2003). UTAUT was developed to address problems of using multiple models and counter their limitations. UTAUT has been used in e-government research such as e-filing to examine adoption of new technologies (AlAwadhi & Morris, 2008). Variables suggested in UTAUT are used either partly or comprehensively. Schaupp and Carter (2009) adopted UTAUT and used suggested variables to test e-filing adoption in Malaysia.

In relation to the above contexts, UTAUT and TPB best suit this study since there was a need to investigate the intention usage of technology for adoption of e-filing. Facilitating conditions, perceived risk (from users' attitude) and performance expectancy (perceived benefits) were examined to see how they impact e-filing adoption.

### *Empirical Studies*

Empirical works on intention to adopt e-filing have been reviewed in relation to users' perceived benefits, perceived risk and facilitating conditions necessary for electronic tax operations.

### *Perceived Benefit*

Perceived benefit is the degree to which taxpayers believe that using e-filing systems will provide benefits to them (Venkatesh, Thong, & Xu, 2012; Davis, 1989). In some cases, perceived benefit may encompass several terms like 'perceived usefulness', 'relative advantage' and 'performance expectancy'. Literature shows that e-filers can easily adopt new systems if they are beneficial (Chaouali, Yahia, Charfeddine, & Triki, 2016; Moorthy, Samsuri, & Hussin, 2014; Bhuasiri, Zo, Lee, & Ciganek, 2016; Ambali, 2009). According to the findings by Bhuasiri *et al.* (2016), perceived benefits' construct was the most significant factor found to influence intention to adopt e-filing in Thailand. Moorthy *et al.* (2014) studied e-filing behaviour among academics in Perak State, Malaysia. The authors used a questionnaire instrument to collect information from three public institutions and two private institutions of higher learning. The findings indicated that perceived ease of use, perceived security, perceived usefulness, and perceived credibility influence e-filing adoption intention. Besides, Fu *et al.* (2006) integrated TAM and TBP, to study the factors affecting taxpayers' intention to adopt e-filing. Empirical data was gathered from a large-scale nationwide survey. The findings showed that taxpayers tend to concentrate on usefulness of a tax-filing method and may develop general attitudes towards using tax systems. Azmi and Kamarulzaman (2009) opined that the success of e-filing, one of e-government services depends on the importance that citizen's accord to factors like convenience of such operations. Other scholars show that perceived benefit influences behavioural intention to use electronic services like web-based training, e-commerce, online shopping, electronic banking, and e-government services including e-filing (Akkaya, Wolf, & Krcmar, 2013; Ambali, 2009). A study in Germany by Akkaya *et al.* (2013) found that relative advantage had positive influence on intention to adopt e-filing because citizens would prefer to use on-line services if they provide more benefits than using paper work. Interestingly, a study by Chang *et al.* (2005) found that perceived benefit had no direct impact on behaviour intention. However, their study shows significant relationship on attitude, accordingly influencing intention to use the system. Hence, because of such contradicting results, and since in the Tanzanian context, e-filing is considered a new phenomenon, this study sought to examine perceived benefits on intention to adopt e-filing. Thus, the following hypothesis was developed:

H<sub>1</sub>: Perceived benefit has a positive influence on intention to adopt e-filing.

### Perceived Risk

Different authors define perceived risk differently since on-line transactions continue to become popular. Fu, Farn and Chao (2006) define perceived risk as the taxpayer's perception of the uncertainty and adverse consequence of a desired outcome. Perceived risk can also be explained as fear of losing personal information as well as fear of being monitored on the internet (Kumar, Mukerji, Irfan, & Ajax, 2007). Besides, perceived risk has two facets: privacy risk and performance risk. Privacy risk refers to the safeguard of the data while performance risk is the possibility of system failure. In addition, perceived risk is indirectly related with trust of electronic services; for instance, increase in trust of internet used in filing tax returns, decreases perceived risk (Akkaya, Wolf, & Krcmar, 2013). Trust of government website may provide positive and significant effect on behavioural intention to adopt electronic services (Chaouali, Yahia, Charfeddine, & Triki, 2016). A structural equation modelling conducted by Akkaya *et al.* (2013) using 1,000 users from households in Germany revealed that perceived risk had a negative effect on intention to use e-filing. Likewise, Lai *et al.* (2004) examined the intention to use e-filing, attitudes, perceptions and tax compliance of 600 Malaysian tax practitioners. The results indicated that the respondents had strong intention to use e-filing; nevertheless, they were wary of the security of e-filing system. The uncertainties (perceived risk) may negatively influence adoption of electronic systems. Besides, Rotchanakitumnuai (2007) stresses other elements of perceived risk in examining performance risk, privacy risk and the financial audit risk on the electronic tax (e-tax) system in Thailand. The results showed that only performance risk and financial audit risk were influencing adoption of the electronic systems in Thailand. However, a study by Azmi *et al.* (2012) indicates unexpected results that perceived risk have a positive and significant relationship with intention to adopt e-filing. Bhuasiri *et al.* (2016) show that perceived risk is not a significant factor on intention to adopt e-filing when taxpayers choose a method of filing their tax returns. Besides, since there are two main issues of reporting and payment of taxation to which taxpayers should abide, users perceive less risk on reporting than on-line payment where the level of perceived risk can be higher resulting to less intention to use the system (Hussein *et al.*, 2010). Fu *et al.* (2006) show that although adopters of electronic tax service perceive higher risk than non-adopters, perceived risk may not be a significant factor that positively influences taxpayers' choice of tax e-filing method. Hung *et al.* (2006) posit that trust (mapped indirectly in perceived risk) is an important determinant of user acceptance of electronic tax filing and payment system. Other studies on trust include Ha and Stoel (2009), Kim *et al.* (2009). As discussed earlier, studies indicate an indirect relationship of users' perceived risk and intention to adopt e-filing. In relation to the trend on studied literature, this study examined users' trust by assessing perceived risk in using e-filing for adoption in Tanzania. The study's assumption was that:

H<sub>2</sub>: Perceived risk has a negative influence on intention to adopt e-filing.

### Facilitating Conditions

Venkatesh *et al.* (2012) define facilitating conditions as the degree to which an individual believes that an organisation and infrastructure exist to support the use of the system. Facilitating conditions are external components and objective conditions in the environment of the users which make the behaviour easy or difficult to implement (Kidwell & Jewel, 2003; Triandis, 1977). According to Taylor and Todd (1995), facilitating conditions are made up of two aspects; these are technological facilitating conditions and resource facilitating conditions. This study considers facilitating conditions to encompass computer facilities and technical support on using e-filing system.

Facilitating conditions determine citizens' use of electronic government services like e-filing (Al-Shafi & Weerakkody, 2010). Chaouali *et al.* (2016) as well as Charfeddine and Nasri (2013) also consider the importance of this construct. Studies by Ambali (2009) and Bhuasiri *et al.* (2016) found that facilitating conditions were significantly influencing intention to adopt e-filing. Fu *et al.* (2006) explained that the absence of facilitating resources becomes a barrier to use e-services which may hinder usage. In the absence of computer facilities accompanied with low technical support, a taxpayer may be unwilling to accept e-filing. Jiang *et al.* (2000) empirically supported the fact that facilitating conditions influence perceived ease of use and perceived usefulness. Furthermore, Lu *et al.* (2005) in their study about wireless mobile internet service adoption found that there was a strong direct relationship between wireless trust and facilitating conditions.

Schaup and Carter (2009) suggest that when performance expectancy and effort expectancy variables are present in the model, facilitating conditions construct appears to be a non-significant factor in predicting usage intention. Gupta *et al.* (2008) observed that facilitating conditions have statistically a lower level of significance in electronic services' operations, while Al-Gahtani *et al.* (2007) found there was a negative relationship.

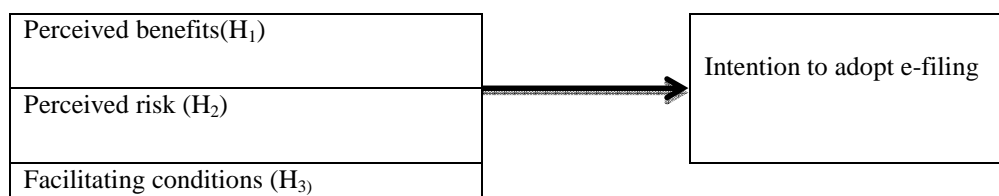
Moreover, Venkatesh *et al.* (2003) assert that the construct of facilitating conditions has a direct effect on actual system usage and not behavioural intention. Due to different perceptions and because the construct of facilitating conditions in relation to e-filing adoption has not been widely researched, this study saw the importance of examining it to check its effect on users' intention to adopt e-filing in Tanzania. It was predicted that:

H<sub>3</sub>: Facilitating conditions have a positive influence on intention to adopt e-filing.

### Conceptual Framework

Based on the review of literature, this study developed a conceptual framework (see Figure 1) suggesting that users' perception on benefits of using e-filing and facilitating conditions have a direct relationship with intention to adopt e-filing, while perceived risk has negative relationship with intention to adopt e-filing.

Figure 1: Conceptual Framework



## RESEARCH METHODOLOGY

This study preferred a quantitative research approach because the study was deductive in nature. It sought to test the causal effects by narrowing the scope for generalisation purposes (Gill & Johnson, 2010). Questionnaires were used to collect primary data and respondents' demographic information. Primary data was collected as the research sought to gather information with regard to individual perceptions. Measures included users' perception in terms of perceived benefits, facilitating conditions, perceived risk and intention to adopt e-filing (see scale items on Table 2 together with a section for validity and reliability of the dependent variable). Besides, items in the questionnaire instrument were adapted from Schaupp and Carter (2009) as well as Ramayah *et al.* (2009). Developed questions on a five-point Likert type scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree) were used. Field areas included Coast, Mwanza and Dar es Salaam regions representing areas which are least and most active in business activities in Tanzania Mainland. The target population for this study involved tax practitioners. Since the population of taxpayers is multifaceted, the sample was stratified and the respondents were chosen from each stratum (for example, age groups, different tax payments and so forth) using simple random sampling. A sample included tax officials, taxpayers, and tax consultants as they are all involved in using tax systems. These were taken as units of analysis, and were asked to fill in questionnaires distributed to them by researchers. Researchers assisted respondents to clarify any of the questions that were unclear. A sample of 226 respondents was identified; which was sufficient to enable the utilisation of quantitative techniques.

Data was coded and subjected to Statistical Package for Social Sciences (SPSS) Version 20 for analysis. The analysis involved data cleaning by excluding incomplete responses. A descriptive analysis was undertaken showing respondents' characteristics as well as their responses on the study's constructs. The study variables were obtained after conducting factor analysis which ensured observed variables fell in common constructs. Through principal component analysis, the study tested validity of data. As suggested by Saunders *et al.* (2012), data was tested further for reliability (using Cronbach alpha measure). Validity and reliability tests were employed to reduce measurement errors (Hair, Black, Babin, & Anderson, 2010). The final analysis was hypotheses testing, which was conducted using multiple regression analysis as the research had three independent variables and one dependent variable (Field, 2009).

## STUDY FINDINGS

### Sample Characteristics

The characteristics of the sample are depicted in Table 1. The study gathered data on respondents' sex, age, marital status, education and annual tax payments to ensure a sample represented participants from different characteristics. This information was relevant for generalisation of the results since different groups in selected characteristics might portray different perceptions (Ilias *et al.*, 2009). The results on descriptive statistics show that a sample was dominated by males who were more than two thirds. About two thirds of the respondents fell between 30 and 55 age group. With regard to marital status, the majority (above 70%) of the respondents were married. The sample consisted more than 60% of respondents with tertiary education followed by those with secondary education. However, when the level of tax payments was tested, results indicated that over 34% of the respondents paid annual taxes ranging from 1 to 5 million; few respondents were in the categories of annual tax payments below 577,000 and above 5 million. Respondents with different characteristic were also involved.

**Table 1: Sample Characteristics**

Category	Dimension, frequency and percentage				
Sex	Male		Female		
	172 (76.1%)		54 (23.9%)		
Age	Below 18 Years		18-29	30-55	Above 55
	1 (0.4%)		55 (24.3%)	150 (66.4%)	19 (8.4%)
Marital status	Single		Married		Others
	40 (17.7%)		174 (77%)		8 (3.5%)
Education	Primary		Secondary		Tertiary
	27 (9.7%)		58 (25.7%)		143 (63.3%)
Annual tax (000)	100 to 576	577 to 1000	1000.001-5000	5000.001-10000	> 10000
	43 (19%)	42 (18.6%)	78 (34.5%)	26 (11.5%)	25 (11.1%)

Source: Research data (2014)

### Data Validity and Reliability of Independent Variables

The study performed factor analysis to test data validity (see Table 2). Because some items were cross loading, two items were removed: one from perceived risk variable - "I feel uneasy psychologically if I use internet tax-filing methods", and the other from perceived benefits - "e-filing will be of no benefit to me". Results indicate that items had factor loadings more than 0.4, above the recommended minimum threshold. Besides, the reliability test indicated that all variables were reliable on testing intention to use e-filing as the Cronbach alpha measures were greater than 0.7. Furthermore, a cumulative variance was 65.6%, above the recommended standard of 50%. The study applied standards suggested by Tabachnick and Fidell(2014).

**Table 2: Variance, Factor Loadings and Cronbach alpha of Independent Items**

Scale items	Dimension		
	Perceived risk	Perceived benefit	Facilitating conditions
Privacy not maintained	.849		
Unauthorised parties could monitor	.819		
Confidentiality not maintained	.814		
Information may be stolen	.762		
Logged by unauthorised parties	.759		
It is risky	.729		
Not safe	.696		
More risky	.689		
Speed the process		.835	
More advantageous 2		.794	
Overall advantageous		.782	
Overall advantage 2		.766	
Speed the return process		.730	
More advantageous		.491	

Easy to get support		.470	
Inappropriate computer			.818
Too expensive			.785
Inadequate computers			.767
<b>Cronbach's alpha</b>	<b>0.93</b>	<b>0.856</b>	<b>0.771</b>
<b>Cumulative variance 65.553</b>			
<b>Kaiser-Meyer-Olkin measure of sampling adequacy = 0.907</b>			
<b>Bartlett's test of sphericity: P= 0.000</b>			

#### *Validity and Reliability of Dependent Variables*

The questionnaire had eight questions testing the dependent variable - intention to adopt e-filing. In conducting the validity test, 5 items were dropped since they were loading into two dimensions. Consequently, one component was extracted. The component had three items with good factor loadings, above 0.7 (I predict to use in future, 0.813; I will do e-filing, 0.795 and I intend to use e-filing, 0.707). Intention to adopt the e-filing construct had a Cronbach's alpha value of 0.657 approaching 0.7, and a cumulative variance of 59.748% which is above 50%.

#### *Hypotheses Testing*

Multiple regression analysis was performed to test the study hypotheses. The results are presented in Table 3. The Durbin-Watson value (2.041) was around 2 indicating that the independent variables were not significantly correlated, which allowed further analysis using a regression tool (Field, 2009). The average scores of perceived risk variables, facilitating conditions and perceived benefits were regressed on intention to adopt e-filing. Results show that the variables relate to each other for 43.4% ( $R$ ), and the independent variables contribute towards intention to adopt e-filing significantly for more than 18% ( $R^2$ ). However, when the independent variables are subjected to the population they may influence the intention to adopt e-filing by more than 17% (Adjusted  $R^2$ ). These results are acceptable for social science studies (Gaur & Gaur, 2009).

Generally, the results indicate that the overall model on intention to adopt e-filing was significant ( $p < 0.01$ ) with F value of 15.145. Nevertheless, when the results are considered separately, only the construct of perceived benefits has a positive and significant contribution to the intention to adopt e-filing ( $p < 0.01$ ) with a coefficient of 0.383. Perceived risk and facilitating conditions variables have a negative relationship with intention to adopt e-filing, and the results are statistically insignificant at 5% significance level. Thus,  $H_1$  is supported (perceived benefit has a positive influence on intention to adopt e-filing;  $H_2$  is also supported (perceived risk has a negative influence on intention to adopt e-filing, but the results are not significant); and  $H_3$  is not supported (facilitating conditions have a positive influence on intention to adopt e-filing).

**Table 3: Hypotheses Testing**

<b>Variables</b>	<b>Unstandardised Coefficients</b>	<b>Std. Error</b>	<b>t</b>	<b>Sig.</b>
(Constant)	2.286	.452	5.058	.000
Average perceived risk	-.041	.073	-.567	.571
Average facilitating factors	-.087	.065	-1.329	.186
Average perceived benefit	.383	.082	4.663	.000
F value 15.145 (.000)				
Durbin-Watson = 2.041				
R=0.434 R-square ( $R^2$ ) = 0.188 Adjusted $R^2$ = 0.176				

## **DISCUSSION AND CONCLUSION**

This study aimed at examining perceived benefits, perceived risk and facilitating conditions used in tax electronic services and assess their influence in intention to adopt e-filing. The results indicate that perceived benefits had positive significant relationship with intention to adopt e-filing of tax returns. Results on perceived



benefits support findings from previous studies (Chaouali, Yahia, Charfeddine, & Triki, 2016; Moorthy, Samsuri, & Hussin, 2014; Ambali, 2009). The results imply that taxpayers would be willing to adopt e-filing if they perceive that it is helpful (such as saving cost and enhancing speed of operations). For instance, Fu *et al.* (2006) show that taxpayers concentrate on the usefulness of a tax-filing method and develop general attitudes towards using e-filing in tax systems. Bhuasiri *et al.* (2016) assert that the construct of perceived benefits is the most significant factor influencing intention to adopt e-filing. The study under review found perceived risk to have negative impact on intention to adopt e-filing, implying that taxpayers will be less willing to adopt if there is a possibility of high risk of using e-filing. In terms of negative relationship, the results were in congruence with previous studies like those of Akkaya *et al.* (2013), Fu *et al.* (2006), as well as Chaouali *et al.* (2016). Fu *et al.* (2006) indicate that taxpayers may not adopt a system if they perceive that the e-filing system is lacking security features. Unfortunately, perceived risk in this study was statistically insignificant, which may be due to the fact that these operations are new in Tanzania implying that taxpayers' risk awareness on electronic services might also be little. Besides, these results on perceived risk may be due to taxpayers' trust (mapped in perceived risk) on the government authority which collects tax revenue (Bhuasiri *et al.*, 2016; Ambali, 2009; Fu *et al.*, 2006; Schaupp and Carter, 2009). In contrast to previous studies, such as Bhuasiri *et al.* (2016) and Ambali (2009), this study found out that facilitating conditions on e-filing operations were negatively related to intention to adopt e-filing of tax returns. Perhaps this was caused by the type of participants who had already started to file their tax returns electronically and thus, to them, issues of computer and support services seemed to be not so important.

Theoretically, this study expands the knowledge on intention to adopt e-filing of tax returns. For instance, perceived benefits were found to be significantly important for e-filing adoption, confirming previous studies (such as Akkaya *et al.*, 2013), and thus this relationship is being taken on a broader consideration. Moreover, the research proposed a theoretical model that applied variables from UTAUT and TPB to understand well the facilitating conditions, perceived benefits and perceived risk on intention to adopt e-filing of tax returns. The studied constructs have been well evaluated in a more focused manner compared to previous studies; for example, instead of examining how taxpayers trust the government for adoption (Hung, Chang, & Yu, 2006), this study examined the perceived risk (in terms of security of data and confidentiality) to address taxpayers' perception on intention to adopt e-filing. In addition, it was found that facilitating conditions were not supportive to the study for Tanzanian taxpayers; this might be due to the level of development the country has achieved compared to developed countries. For instance, a study by Bhuasiri *et al.* (2016) in Germany found a direct relationship between facilitating conditions and intention to adopt e-filing. This is not the case with Tanzanian taxpayers who seem to put more attention on whether e-filing system could be more useful to them than other reviewed factors. Remarkably, the results resemble those of Al-Gahran *et al.* (2007) which may be due to the use of similar scale items (computer and management support facilities) used in both studies. To that account, the relationship has been signified and the study suggests further investigation to confirm the relevance of the construct (recommended by UTAUT) in different contexts of electronic services adoption intention. Besides, this study has used scale items which are reliable and which have high factor loadings signifying that they are also valid. Other authors can apply these scale items in performing studies that are similar.

The study provides valuable information to tax practitioners and policy makers while dealing with e-filing operations. This research has indicated the importance of perceived benefits on e-filing operations. The valuable insights acquired suggest a need to taking proper precautions in promoting e-filing of tax returns countrywide. Thus, governments have to create awareness on e-filing operations to enhance intention to adopt it. Taxpayers need to be trained on filing benefits to help them understand how electronic operations are advantageous and speed tax operations. Furthermore, there was a negative relationship between perceived risk and intention to adopt e-filing, indicating that the items on privacy and security of data (as depicted by factor loadings) require appropriate consideration. However, the results on perceived risk showed insignificant relationship probably because Tanzania taxpayers' awareness on risk issues associated with electronic services is low as the e-filing phenomenon is also new.

Although this research provides valuable contribution to the area of e-filing operations, it is not without some limitations. The study was cross-sectional in nature inferring that what is observed now might be different in the future; besides, IT changes with time. In terms of timeframe, the results of this study should be interpreted with caution. Surprisingly and in contrast to previous studies, the results showed that facilitating conditions were negative and insignificantly related to the intention to adopt e-filing. These shortcomings could be addressed by future researches. Moreover, by examining three factors (perceived risk, perceived benefits and facilitating conditions), the model was only able to explain only 18.8% of the variation in intention to adopt e-filing. The study suggests that other factors should be identified and researched by other authors as the remaining 81.2% is due to such other factors.

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