

Factors For Acceptance of Electronic Fiscal Devices by Small and Medium Enterprises in Tanzania


Deogratias Bulali Daffi*

Department of Accountancy
College of Business Education
Dar es Salaam

Email: deogratius.dafi@cbe.ac.tz
Tanzania

Felix Joseph Chille

Department of Marketing
College of Business Education
Dar es Salaam
Tanzania

ARTICLE INFO	ABSTRACT
<p>Article History:</p> <p>Received : 1 June 2023</p> <p>Revised : 15 June 2023</p> <p>Accepted : 29 June 2023</p> <p>Publication : June 30, 2023</p> <p>DOI : 10.47742/ijbssr.v4n6p2</p> <p> https://creativecommons.org/licenses/by/4.0/</p> <p>ISSN: 2709-2143</p>	<p><i>The study aimed to assess factors for the acceptance of Electronic Fiscal Devices by small and medium enterprises in Tanzania. The UTAUT model without moderating factors, such as gender, age, and factors, guided this study. The constructs of perceived trust were added as a theoretical contribution to the study. The study employed the Survey strategy in data collection by administering the questionnaires. A sample of 400 respondents was drawn from the population under the study. Quantitative data were analyzed based on descriptive statistical analysis and multiple linear regression Analysis. The survey strategy was employed, and questionnaires were administered to collect data. The sample consisted of 400 respondents selected from the target population. Quantitative data was collected and analyzed using a multiple linear regression model. The study's findings revealed that performance expectancy and effort expectancy significantly acceptance of electronic Fiscal devices (EFD) among business owners in Tanzania. However, perceived trust was found to not influence acceptance of Electronic Fiscal devices (EFD) among business owners in Tanzania. These results validate the UTAUT model and highlight the significance of performance expectancy and effort expectancy in influencing the acceptance of electronic Fiscal devices (EFD) among business owners in Tanzania. Additionally, the inclusion of perceived trust as a construct in the study model, suggests that tax authorities in Tanzania should explore other determining factors beyond perceived trust to enhance acceptance of electronic Fiscal devices (EFD) among business owners in Tanzania.</i></p> <p>KEYWORDS: EFD, Effort Acceptance, Performance Expectancy, Perceived Trust, UTAUT</p>

1.0 INTRODUCTION

Tax administration reforms have been carried out by many governments around the world in a bid to improve revenue collection, these reforms have been coupled with technological advancement (Night & Bananuka, 2019). Most of the successful initiatives regarding tax compliance and administration have been achieved in developed countries (Hanum, Hadibuan, 2019; Mukhlis and Simanjuntak, 2016). However, there is little achievement in developing countries, particularly in Africa (Casey and Castro, 2015). In East Africa, Kenya was the first country to implement the use of EFD in 2005, then Tanzania followed in 2010, and thereafter Rwanda followed in 2014 (Casey and Castro, 2015). Despite these initiatives, tax avoidance and the lower acceptance of EFD technology is the rampant problem in Tanzania (URT, 2018). The introduction of the EFD system in Tanzania was carried out in two phases. The first phase took

place in the year 2010 and the second phase in 2013 (URT, 2013, URT, 2014, URT, 2015).

In General, UTAUT has shown a better explanation of the use of the technology by combining several constraints from other theories to explain individual behavior in using the technology (Morris *et al.*, 2003).

Thus, compared to other theories, the use of UTAUT to explain the use and acceptance of EFD by taxpayers is more relevant (Mandari, Klosemi, and Nguridada, 2017). Therefore, the Unified Theory of Acceptance and Use of Technological (UTAUT) to assess the factors for acceptance of Electronic Fiscal Devices by traders in Tanzania guided this study.

Previous studies done by (Ikasu, 2014; Mboma, 2012; Elly, 2015, Chege *et al* 2015, Kira 2016; Mandari *et al.*, (2017) conducted in Tanzania indicated that, despite the introduction of EFDs, traders are still reluctant to the EFDs usage. This resistance and reluctancy seen in traders, bring up some questions



as to what are the causes, this can be caused either by the cost to maintain the EFD or trust in the system of the TRA on the operations of tax collections. However, there are disparities in the findings from previous researchers on the factors influencing acceptance of technology, in both developed and developing countries. For example, some researchers argue that perceived trust has effects on consumer’s technology acceptance (Gana and koce,2016; Hoffmann and Birnbrich,2012), while others have indicated that trust does not influence consumer’s technology acceptance Kabanda and Brown,2015, Jayawardhena *et al.*,2009). There are also differences in interpretations found on the effects of performance expectancy, social influence, effort expectancy, and facilitating conditions with acceptance of technology (Chao, 2019; Venkatesh and Morris,2000). Theoretically, these disparities make the need for further research in Tanzania. Since there these differences in the interpretation of acceptance of technology, further study is needed in filling the gap. Therefore, this study aims to assess the factors that contribute to the acceptance of the use of electronic fiscal devices by small and medium enterprises in Tanzania. To meet this objective, the researcher intends to adopt the UTAUT theory by adding two variables namely perceived cost and perceived trust (Mandari *et al.*, 2017; Mansoori *et al.*, 2018; Shafinah *et al.*, 2013; Sobti, 2019) to assess the acceptance of EFDs by traders in the Tanzania context.

In the case of theoretical contribution, this study has integrated the UTAUT model with perceived trust and perceived cost constructs in predicting acceptance of EFD technology by small and medium enterprise traders in Tanzania. The added constructs will contribute knowledge to future researchers and academicians about the factors influencing the acceptance of EFD technology.

Since in most studies, the UTAUT model was originally used with some moderating factors, such as gender, age,

experience, and voluntariness, in this study the researcher uses the UTAUT constructs of effort expectancy and performance expectancy without any moderating factors. We have excluded the moderating variable as the use of EFD in the direction of the tax laws. A construct of perceived trust has been added as a theoretical contribution. The integrated UTAUT model with trust construct has made a parsimonious contribution, thus indicating that the study will be more useful to the user of the theory in the future and theory development as well.

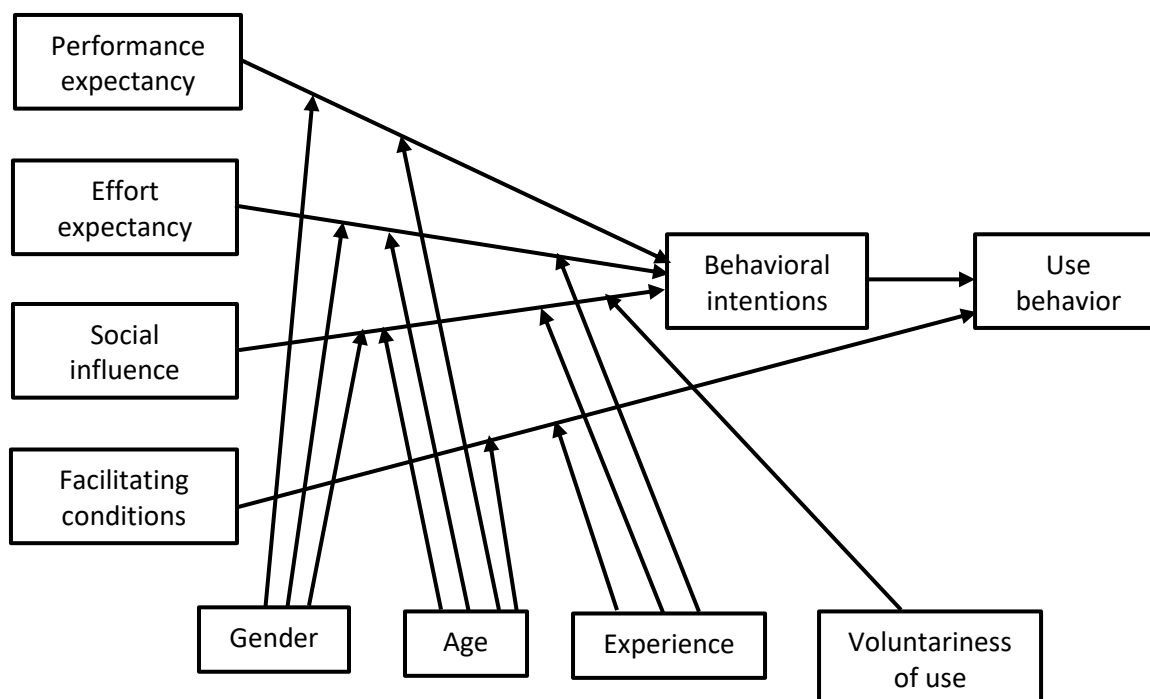
2.0 LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Theoretical Review

The UTAUT integrates and refines eight user acceptance models and theories, these previous models and theories are the Theory of Reasoned Action (TRA), The Technology Acceptance Model (TAM), the Theory of Planned Behavior (TPB), the Motivational Theory (MM), the Combined Theory of Planned Behavior/Technology Acceptance Model, the Model of Personal Computer Use, Diffusion of Innovation Theory (IDT) and Social Cognitive theory. (Venkatesh & Davis, 2000).

According to UTAUT Model, the behavioral intentions of an individual in the use of technology are facilitated by the three constructs. These constructs are performance expectancy, effort expectancy, and social influence. The use of technology is determined by behavioral intention (Dwivedi *et al.*, 2019). The theory postulates that the relationship between the dependent and independent variables is moderated by factors, which are age, gender, experience, and voluntariness of use. UTAUT theory has indicated high explanatory power in assessing the factors influencing technology acceptance in both developed and developing countries and it has been used in many studies (Chao, 2019). The following figure depicts the UTAUT model as indicated in Figure 2.1 to bring up a desired synergy.

Figure1.0: UTAUT Model





Among individual characteristics indicated in previous studies includes the perceived cost and perceived trust, perceived enjoyment, perceived security, and attitude (Chao, 2019; Venkatesh et al., 2003)

Notwithstanding that, the model has indicated weaknesses in assessing the individual characteristics of acceptance of technology (Chao, 2019; Dwivedi et al., 2019). Where there are also differences in interpretations of the effects of performance expectancy, social influence, effort expectancy, and facilitating conditions with acceptance of technology (Hong, S; Kang, 2011; Venkatesh et al., 2003a).

The use of UTAUT in most studies has used the theory to its originality (Giovanis, Assimakopoulos, & Sarmaniotis, 2018; Sobti, 2019; Venkatesh et al., 2003; Venkatesh, Morris, Davis, & Davis, 2019) with its moderating factors. This study will use the theory without the moderating factors as EFD usage is mandatory for all traders who qualify. The study also excluded the behavior intention construct since previous studies indicated that behavior intention and actual technology acceptance may not always be related, as a person may intend to do something but it may happen that he might not perform the behavior (Ajibade, 2019).

Since Comprehensiveness ensures that all relevant constructs are included in a theory, whereas parsimonious ensures that constructs that are of small significance are deleted (Venkatesh and Bala, 2008). Therefore, this study will fill the gap that the theory can be used without including or using the moderating factor and the behavioral intention.

Similarly, there is an empirical gap in the previous studies. There are few studies on the effects of acceptance of EFD among studies, which have been done in Africa (Chege et al 2015, Kira 2016; Mandari et al, 2017). However, the available studies that have been done in both developed and developing countries have mixed results, that there are differences in interpretations found on the effects of performance expectancy with acceptance of technology. Some studies have indicated positive relationships (Chao, 2019; Chong, Ooi, and Lin, 2011; Wang, Wu, and Wang, 2009).

Most studies have little covered the contextualized gap in the effects of EFD on taxpayers in Tanzania for developing countries (Eilu, 2018; Wadesango et al., 2018). As for the case of the Tanzanian context, most studies in acceptance of EFD have little covered on the effects of Performance expectancy, effort expectancy, social influence, facilitating conditions, perceived cost, and perceived trust. Therefore, to fill the gap. Therefore, there is a need of studying the effect of EFD acceptance among taxpayers in Tanzania, as there are scanty studies that had been done in developed countries context, especially in Tanzania.

2.2.1 Hypothesis Formulation

2.2.1.1 Performance Expectance on the Use of the Technology (EFD)

Performance expectancy is the belief that the use of technology is confident that the system or technology will give out the expected results or perform the tax expected by the user. Many studies have shown that the behavior intention to use a given technology has been influenced by the performance

expectance of the user (Badan & Igeria, 2018; Venkatesh & Davis, 2000; Wu & Wu, 2019). Therefore the following Hypothesis was tested.

H1. *Performance expectancy has a positive effect on the acceptance and use of EFD*

2.2.1.2 Effort Expectancy on the Use of the Technology (EFD)

This is how simply an individual can use the technology that is the degree of simplicity in technology usage (Venkatesh et al., 2012) It has been shown that effort expectancy has great significance on the behavior intention in the use of technology (Venkatesh et al., 2003; Soong et al., 2019). In this study, it is expected that the acceptance to use technology (EFD) will be influenced by performance expectancy. Therefore, the following Hypothesis was tested.

H2 *Effort expectancy has a positive influence on the acceptance and uses accept EFD.*

2.2.1.3 Individual Trust in the Usage of Technology (EFD).

The behavior intention of the user of the technology is greater influenced by the trust in the internet and trust in the technological device itself. This makes the user increase the frequency and the use of the device more confidently (Hsu et al., 2016; Mansoori et al., 2018). Trust is basic and offers most factors for the user of a certain technology it is the altitude the user of technology to use it after being developed trustworthy it (Giovanis et al, 2019; Mandari et al., 2017). Therefore, the following Hypothesis will be tested.

H3. *Trust in the technology by the user has a positive effect on the acceptance and use of EFD*

3.0 METHODOLOGY

3.1 Research Approach

This research adopted the deductive approach. This is due to the reason the study started with the theory which had been already developed from the literature review and then design the research strategy to test the theory (Saunders et al., 2012; Kothari and Garg 2014). The deductive approach is suitable for a research problem that seeks to explain the causal relationship between two variables or concepts. This study adopted a survey strategy, the survey helps or assists to collect a huge amount of data using questionnaires administered to a population sample to enable the researcher to test the study hypothesis (Saunders et al 2012).

3.1.1 Study Population and Sample

The population of this study was A total of 400 traders doing business in Dar es Salaam. Dar es Salaam City, the city has been selected because it is a commercial city with a large number of businesses. For the years 2016, 2017 and 2018, 2019, and 2020 the city Collected the tax of more than 55% of the total tax collected which is Direct taxes and indirect taxes of the total collection for the entire country with the exclusion of customs and port collections (URT, 2021).

Dar es Salaam city is the study area with traders which are scattered across the municipality and in a City, the study adopted multi-stage sampling Cluster Sampling (Saunders et al 2012). The study examined the relationship between how the Tax Primary data were collected using a structured questionnaire,



where 400 questionnaires were distributed and a total of 396 questionnaires from the respondent were returned. For better data collection and to ensure the instruments collect what was intended to be collected, the pilot study was conducted before the questionnaires were distributed for data collection (Kothari, C.R & Carg 2014). The pilot study involved 25 respondents for questionnaire improvements, as it is explained that the pilot can involve 20 to 30 respondents (Johanson & Brook, 2010). Then after the improvement, the questionnaire was distributed to the respective respondent.

Seven-point Likert scale was used to measure the variables that mean from 1 strongly disagree and 7 strongly

agree. Acceptance of Fiscal devices (AF) was scaled by 5 items adopted from Inasuiu F (2019); Performance Expectancy was scaled by 5 items adopted from Gilligan & Richardson, (2005) and Ya’u et al., (2020); Effort Expectancy was scaled by 4 items adopted from Wenzel, (2004); Ya’u et al., (2020) and Perceived trust was scaled by 4 items adopted from Bornman & Ramutumba (2019).

4.0 DATA ANALYSIS

4.1 Respondent's Demographic Profile

The Study sample used respondents from the population of business traders in Dar es Salaam where the result was 236 were Male equal to 60% and female were 160 equals to 40%.

Table 1.0: Distribution of Participant Demographic Characteristics

Variable	Frequency (Percentage)
Age	
18-28	12(3%)
29-38	153(38.3%)
39-48	213(53.4%)
49-60	14(3.5%)
61-80	4(1%)
Sex	
Female	236(60 %)
Male	160(40%)
Municipality	
Kinondoni	110(27%)
Ilala	80(20%)
Kigamboni	70(18%)
Ubungo	85(21%)
Temeke	51(13%)
Level of education	
Primary	31(7.8%)
secondary level	288(72.2%)
University	51(12.8%)
Others	28(8.5%)

Source: Field data, (2023)

4.1.1 Reliability test of the result

The reliability of the scale of each variable was tested by Cronbach’s 5saalalpha to measure the internal consistency. The result was Values of $\alpha = 0.7$ or above will indicate the items in the questionnaire are reliable, hence the minimum value of alpha will be 0.7. (Saunders, Lewis, and Thornhill 2012). In this case, Cronbach’s alpha coefficient was used in measuring the reliability of the measurement scale. Results indicated that Cronbach’s alpha ranged from 0.836 to 0.849 which was greater than 0.7 the allowable minimum cut-off point; suggesting that

the measurement scale was reliable in measuring the constructs (Saunders *et al.*, 2012).

In assessing if the items were measuring the same construct, exploratory factor analysis (EFA) was done. In testing the adequacy of the sample, Kaiser Mayer Olkin (KMO) and Bartlett’s Test for Sphericity (BTS) results were tested. Normally KMO should be greater than 0.6, and BTS values should be significant to indicate that the dataset is suitable for factor analysis (Basto and Pereira, 2012). Since BTS had a significant value of 0.001 and KMO had a value above 0.6, therefore the dataset was appropriate for factor analysis.

Table 2.0 Reliability, Kaiser Mayer Olkin, and Sample Adequacy

Construct	Reliability Cronbach.s Alpha	No of items	KMO	BTS (P- Value)
Acceptance of Fiscal Devices (AF)	0.836	05	0.801	0.000
Performance Acceptance (PA)	0.837	04		
Effort Acceptance (EA)	0.849	04		
Perceived Trust (PT)				

Source: Field data, (2023)



4.1.2 Explanatory Factor Analysis Findings

Exploratory analysis was done to identify if all variables in each category which are Acceptance of Fiscal Devices (AF), Performance Acceptance (PA), Effort Acceptance (EA), and Perceived Trust(PT) category represent the latent variable of PA, EA, and PT. Considering the extraction and rotation methods done and the intercorrelation between variables as well as eigenvalues and factor loadings, the analysis realized that Only one component was extracted per each construct from its related variables.

The solution was not rotated (No rotated component matrix) as only one component was formed. According to Basto

and Pereira (2012), for items that measure similar outcomes to have similarities, factor loading should have a cutoff point of above 0.3. That the item with a factor loading above 0.3 was retained for analysis. As indicated in Table 3.0, factor loading had a value above 0.3 which is the cut-off point, suggesting that the items were reliable for the studied phenome no.

Extraction Method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalization

Only one component was extracted per each construct from its related variables.

The solution was not rotated (No rotated component matrix)

Table 3.0: Factor loading for AF, PA, EA, and PT

AF Variable sum of the square loadings Total		PA Variable sum of the square loadings Total		EA Variable sum of the square loadings Total	
Variable	Factor Loadings	Variable	Factor Loadings	Variable	Factor Loadings
AF1	0.804	PA1	0.765	EA2	0.633
AF2	0.772	PA3	0.696	EA3	0.617
AF5	0.537	PA2	0.732	EA1	0.637
AF4	0.638	PA4	0.581	EA4	0.586
AF3	0.717	PA1	0.765		
PT Variable sum of the square loadings Total					
Variable	Factor Loadings				
PT 4	0.695				
PT 3	0.604				
PT 1	0.73				
PT 2	0.601				

Source; Field work (2023)

5.0 Results from Correlation Analysis

Correlation analysis was done to understand the strength of the association between independent and dependent variables. The correlation in Table 4.0 shows that the correlation between

independent variables and dependent variables ranges from $r = -0.006$ to $r = 0.383$ at $p < 0.05$, which suggests all independent variables have a significant relationship with the Acceptance of Fiscal Devices (AF) as the dependent variable.

Table 4.0 Inter Correlation among variables

		AF	TR	PD	TK
Pearson Correlation	AF	1.000	.375	.383	.209
	PA	.375	1.000	-.006	.352
	EA	.383	-.006	1.000	.061
	PT	.209	.352	.061	1.000
Sig. (1-tailed)	AF	.	.000	.000	.000
	PA	.000	.	.452	.000
	EA	.000	.452	.	.113
	PT	.000	.000	.113	.
N	AF	396	396	396	396
	PA	396	396	396	396
	EA	396	396	396	396
	PT	396	396	396	396

Correlation is significant at 0.05; Source; Field work (2023)



5.1 Results from Multiple Linear Regression Analysis

Multiple linear regression analysis was done to assess the objectives of the studies about the hypothesis made under this study. As indicated in Table 8.0, the fitness of the model indicated an F-statistic value of 53.848 which was significant at $p < 0.001$. This is an indication that the model fitted the studied

dataset as all variables explained the tax compliance in Tanzania. The coefficient of determination (R squared) was 0.292, and the adjusted R squared was 0.286, which implies that the independent variables included in the study were responsible for about 29% of the variance in the dependent variable i.e the tax compliance.

Table 5.0: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.540 ^a	.292	.286	3.20539	.292	53.848	3	392	.000

a. Predictors: (Constant), PA, EA, PT

Table 6.0 Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error				Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
	(Constant)	3.631	1.157				3.139	.002	1.357	5.904		
PA	.392	.050	.356	7.833	.000	.294	.491	.375	.368	.333	.876	1.142
EA	.522	.058	.381	8.945	.000	.407	.636	.383	.412	.380	.995	1.005
PT	.058	.043	.061	1.334	.183	-.027	.143	.209	.067	.057	.872	1.146

Source; Fieldwork (2023)

5.1.1 Effect of Performance Expectancy on Acceptance of Fiscal Devices

The findings have indicated that a unit measure increase in Performance Acceptance (PA) has a 0.356 (95% CI; 0.294, 0.491) increase in acceptance of electronic fiscal devices in Tanzania (AF) at $P < 0.000$. Therefore, Performance Acceptance (PA) has positive and significant effects on Tax compliance (TC). The alternative hypothesis that describes that Performance Acceptance has a significant influence the tax compliance is supported and the null hypothesis is rejected.

5.1.2 Effect Effort Expectancy on Tax Compliance

The findings indicate that a unit increase in Effort Acceptance (EA) has 0.381(95% CI; 0.407, 0.636) at $p = 0.001$.

6.0 DISCUSSION

The findings suggest that Performance Acceptance have a significant positive impact on the acceptance of electronic fiscal devices in Tanzania. That implies that the alternative hypothesis is supported that, there is a positive relationship between Performance acceptance of electronic fiscal devices in Tanzania and the null hypothesis is rejected.

This aligns with the UTAUT model, which posits that individuals are more likely to acceptance of technology when the performance of the products or services, outweighs the potential benefits of efforts made by an individual (Gemmell 2016).

The findings have similar to the studies conducted by Fjeldstad et al., (2020); Saka et al., 2019; Ya' u et al., 2020) which indicated that performance Acceptance has a significant positive impact on the acceptance of electronic fiscal devices.

This implies that as the performance of the tax services or products increases, acceptance of technology increases too. This implies that business owners in Tanzania are ready to accept technology provided they affirm their efforts in line with the

Therefore, Effort Acceptance (EA) has a positive and significant influence on the acceptance of electronic fiscal devices in Tanzania (AF) hence the alternative hypothesis is supported, while the null hypothesis is rejected.

5.1.3 Effect of Perceived Trust on Tax Compliance

The findings indicate that a unit increase in Perceived Trust (PT) has 0.061(95% CI; -0.27, 0.143) at $p = 0.183$. Since the P value is greater than 0.005 Therefore, Perceived Trust (PT) has no significant influence on the acceptance of electronic fiscal devices in Tanzania (AF)hence the alternative hypothesis is rejected, while the null hypothesis is accepted.

usefulness of technology (Chille et al. 2021). These findings are not in line with the findings of the study done by Mas'ud et al., (2014) which indicated that performance expectancy does not correlate with acceptance of technology.

However, findings suggest also that effort expectancy has significant positive impacts on the acceptance of electronic fiscal devices in Tanzania. That implies that the alternative hypothesis is supported that, there is a positive relationship between effort expectancy and acceptance of electronic fiscal devices in Tanzania, and the null hypothesis is rejected. However, these findings are consistent with the study done by Ya'u et al., (2019) in effort expectancy has significant positive impacts on the acceptance of technology. The findings are also consistent with the study done by Jayawardane (2017) in Sri Lanka which indicated that effort expectancy influences the use of technology.

This aligns with the predictions of the UTAUT model, which posits that individuals are more likely to comply with the

use of technology provided the efforts and performance of technology can be determined.

The findings have indicated that perceived trust is not the determining significant factor acceptance of electronic fiscal devices in Tanzania, that the alternative hypothesis there is no relationship between perceived trust by traders and acceptance of electronic fiscal devices in Tanzania is not supported, and the null hypothesis is supported. These findings are in support the fact that in developing countries despite some rules and sanctions, trust in technology acceptance is still a major problem that hinders technological acceptance specifically acceptance of electronic fiscal devices technology (Chille et al., 2021)

However, the weak positive impact of perceived trust on the acceptance of electronic fiscal devices in Tanzania suggests that in this context, trust alone may not be a strong driver of technological acceptance. Other factors not considered in the analysis, such as facilitating conditions, behavior intention, and usage behavior of the technology acceptance, might also influence the acceptance of electronic fiscal devices in Tanzania

Overall, the findings indicate that policymakers in Tanzania should consider a combination of the performance of the technology towards the acceptance of electronic fiscal devices (EFD) and the effort of the individuals towards the acceptance of electronic fiscal devices to enhance the acceptance of technology. Additionally, efforts to persuade taxpayers through good governance and accountability by tax authorities' taxpayers can further bring trust and understanding of the taxpayer's acceptance of electronic fiscal devices to enhance much acceptance of technology

7.0 CONCLUSION

The study found that performance expectance has a significant positive impact on the acceptance of electronic fiscal devices to enhance the acceptance of technology, supporting the alternative hypothesis and rejecting the null hypothesis. It also indicated a positive relationship between the effort expectancy acceptance of electronic fiscal devices to enhance acceptance of technology, while perceived trust was not found to be a

significant determining factor. These findings align with the predictions of the UTAUT model regarding the acceptance of technology, In summary, the study concludes that higher performances and increased effort expectancy can contribute to more technological acceptance and much economic growth in a country. Therefore, Policymakers should consider these findings and incorporate them into their strategies to promote more acceptance of technology among business owners in Tanzania

8.0 RESEARCH IMPLICATIONS

The findings of the study have validated the UTAUT model on tax acceptance of electronic fiscal devices in Tanzania to enhance acceptance of technology and indicated that performance expectancy and effort expectancy has a significant influence on the acceptance of electronic fiscal devices to enhance much acceptance of technology (Chille et al., 2021). However, the additional construct of perceived trust in the study model does not influence the acceptance of electronic fiscal devices to enhance much acceptance of technology. Tax authorities in Tanzania should find out other determining factors other than the perceived trust for influencing technology acceptance among business owners in Tanzania.

While perceived trust was not found to be a significant factor in this study, it is important to note that improving technology trust can still influence more acceptance of technology (Chille et al, 2021). Efforts should be made to ensure ta authorities are trustworthy in their duties and the awareness of the latest technology to the business owners, hopefully, will enhance acceptance of technology.

The study highlights the importance of considering additional factors beyond performance expectance and effort expectance factors such as behavior intention, user characteristics, and cost of technology, which may also play a role in the acceptance of technology in

Tanzania. Policymakers should take these factors into account when designing effective strategies to promote the acceptance of electronic fiscal devices in Tanzania.

REFERENCE

- Adu, K. O., & Amponsah, S. (2020). Correlates of tax registration compliance among self-employed in Denkyira corridor of Ghana. *International Journal of Law and Management*, 62(4), 365–379. <https://doi.org/10.1108/IJLMA-07-2018-0137>
- Ali, Merima, Fjeldstad Odd-Hedge, S. I. H. (2013). Factors affecting tax compliance attitude in Africa: Evidence from Kenya, Tanzania, Uganda and South Africa Paper prepared for Centre for the Study of African Economies 2013 Conference Oxford, 17-19 March 2013 1 Introduction. *Chr. Michelsen Institute*, 1–26.
- Allingham, M.G. and Sandmo, A. (1972). No Title Income tax evasion: a theoretical analysis. *Journal of Public Economics*, 1(3/4), 323–338.
- Azlan Annuar, H., Isa, K., Ibrahim, S. A., & Solarin, S. A. (2018). Malaysian corporate tax rate and revenue: the application of Ibn Khaldun tax theory. *ISRA International Journal of Islamic Finance*, 10(2), 251–262. <https://doi.org/10.1108/IJIF-07-2017-0011>
- Bank, W., & Surveys, E. (2015). *www.econstor.eu*.
- Bello, K. B., & D, I. D. P. (2014). Sains Humanika Review of Models / Theories Explaining Tax Compliance Behavior. *SAAPAM Limpopo Chapter 5th Annual Conference Proceedingsains Humanika*, 3(2014), 35–38.
- Bornman, M., & Ramutumbu, P. (2019). A conceptual framework of tax knowledge. *Meditari Accountancy Research*, 27(6), 823–839. <https://doi.org/10.1108/MEDAR-09-2018-0379>

- Casey, P., & Castro, P. (2015). Electronic Fiscal Devices (EFDs) An Empirical Study of their Impact on Taxpayer Compliance and Administrative Efficiency. *IMF Working Paper, WP/15/73*, 1–56.
- Chalu, H., & Mzee, H. (2018). Determinants of tax audit effectiveness in Tanzania. *Managerial Auditing Journal*, 33(1), 35–63. <https://doi.org/10.1108/MAJ-06-2016-1390>
- Chauke Tirhani Group, K., & Sebola, U. M. (2016). Reflection on the Deterrence Theory of Taxation in the Context of Revenue Collection by Municipalities and the South African Revenue Service. *SAAPAM Limpopo Chapter 5th Annual Conference Proceedings*, 83–88.
- Che Azmi, A. A., Zainuddin, S., Mustapha, M. Z., & Nawi, Y. (2016). The Mediating Effect of Tax Fairness on the Relationship Between Knowledge, Complexity and Voluntary Tax Compliance. *Asian Journal of Accounting Perspectives*, 9(1), 1–12. <https://doi.org/10.22452/ajap.vol9no1.1>
- Chege, A., Kiragu, N., Lagat, C., & Muthoni, G. (2015). Effect of Electronic Fiscal Devices on VAT Collection in Tanzania: A Case of Tanzania Revenue Authority. *European Journal of Business and Management Online*, 7(33), 2222–2839.
- Chille, F., Shayo, F., & Kara, N. (2021a). The effects of perceived trust and ease of use on the adoption of mobile marketing in the telecommunication industry of Tanzania. *American Scientific Research Journal for Engineering, Technology, and Sciences (ASRJETS)*, 76, (1), 155-168
- Chille, F. J., Shayo, F. A., & Kara, N. S. (2021b). Adoption of mobile marketing in the telecommunication industry of Tanzania: The effects of perceived usefulness, ease of use, and customer's knowledge. *European Scientific Journal, ESJ*, 17(12), 160 - 180
- Chong, K. R., Yusri, Y., Selamat, A. I., & Ong, T. S. (2019). Tax climate manipulation on individual tax behavioural intentions. *Journal of Applied Accounting Research*, 20(3), 230–242. <https://doi.org/10.1108/JAAR-01-2019-0001>
- Clifford Machogu, D. G., & Jairus Amayi, D. B. (2013). The Effect of Taxpayer Education on Voluntary Tax Compliance, Among SMES in Mwanza City-Tanzania. *International Journal of Marketing, Financial Services & Management Research*, 2(8), 12–23. www.indianresearchjournals.com
- Colliver, J. A. (2002). Constructivism: The View of Knowledge That Ended Philosophy or a Theory of Learning and Instruction? *Teaching and Learning in Medicine*, 14(1), 49–51. https://doi.org/10.1207/S15328015TLM1401_11
- Creswell, J. W. (2014). A. C. I. to M. M. R. (4th ed.). C. S. P. (2014). *A Concise Introduction to Mixed Methods Research* (4th ed.). Sage Publications.
- Devos, K. (2007). Measuring and analysing deterrence in taxpayer compliance research. *Journal of Australian Taxation*, 10(2), 182–219.
- Eilu, E. (2018). Adoption of Electronic Fiscal Devices (EFDs) for Value-Added Tax (VAT) Collection in Kenya and Tanzania: A Systematic Review. *The African Journal of Information and Communication (AJIC)*, 22, 111–134.
- Eliamini, P. (2018). *Factors Influencing Tax Compliance Attitude in Small and Medium Enterprises (SMEs) in Tanzania*.
- Elly, T. (2015). Attitude Towards Tax Compliance among SMES in Tanzania. *ORSEA Journal*, 5(1), 54–75.
- Fjeldstad, O.-H., Schulz-Herzenberg, C., & Sjurson, H. I. (2012). Peoples' views of taxation in Africa: Theories, evidence and an agenda for future research." *ICTD Working Paper*, 1–46.
- Fjeldstad, O. H., Kagoma, C., Mdee, E., Sjurson, I. H., & Somville, V. (2020). The customer is king: Evidence on VAT compliance in Tanzania. *World Development*, 128, 104841. <https://doi.org/10.1016/j.worlddev.2019.104841>
- Gangl, K., Hofmann, E., & Kirchler, E. (2015). Tax authorities' interaction with taxpayers: A conception of compliance in social dilemmas by power and trust. *New Ideas in Psychology*, 37, 13–23. <https://doi.org/10.1016/j.newideapsych.2014.12.001>
- Gilligan, G., & Richardson, G. (2005). Perceptions of tax fairness and tax compliance in Australia and Hong Kong - a preliminary study. *Journal of Financial Crime*, 12(4), 331–343. <https://doi.org/10.1108/13590790510624783>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis* (7 ed.). Pearson Printice Hall.
- Heale, R., & Twycross, A. (2015). Validity and reliability in quantitative research Validity and reliability in quantitative studies. *Evidence-Based Nursing, January*, 1–4.
- Ikasu, E. (2014). Assessment of Challenges Facing the Implementation of Electronic Fiscal Devices (EFDs) in Revenue Collection in Tanzania. *International Journal of Research in Business and Technology*, 5. <https://doi.org/10.17722/ijrbt.v5i3.349>
- Inasius, F. (2019). Voluntary and Enforced Tax Compliance: Evidence from Small and Medium-sized Enterprises in Indonesia. *Advances in Taxation*, 26, 99–111. <https://doi.org/10.1108/s1058-749720190000026006>
- Jimenez, P., & Iyer, G. S. (2016). Tax compliance in a social setting: The influence of social norms, trust in government, and perceived fairness on taxpayer compliance. *Advances in Accounting*, 34, 17–26. <https://doi.org/10.1016/j.adiac.2016.07.001>

- Kalita, U., & Barua, N. A. (2019). Determining a carbon tax rate for India in the context of global climate change. *International Journal of Recent Technology and Engineering*, 8(3), 8185–8191. <https://doi.org/10.35940/ijrte.C6655.098319>
- Kannan, S. Somasundaram, K. (2017). Autoregressive-based outlier algorithm to detect money laundering activities. *Journal of Money Laundering Control*, 20(2), pp.190-202. <https://doi.org/10.1108/JMLC-07-2016-0031>
- Kibiwott, M. M. (2015). Determinants of Tax Compliance among Small and Medium. *Government Information Quarterly*, 27(11), 87–93.
- Kira, A. R. (2016). The Perceptions of Taxpayers on the Adoption of Electronic Fiscal Devices (EFDs) in Revenue Collection in Tanzania: The Case of Dodoma. *International Journal of Academic Research in Business and Social Sciences*, 6(12), 39–55. <https://doi.org/10.6007/IJARBS/v6-i12/2468>
- Kirchler, E., Muehlbacher, S., Kastlunger, B., & Wahl, I. (2010). Why pay taxes?: A review of tax compliance decisions. *Developing Alternative Frameworks for Explaining Tax Compliance*, 9780203851(December), 15–31. <https://doi.org/10.4324/9780203851616>
- Kogler, C., Muehlbacher, S., & Kirchler, E. (2015). Testing the “slippery slope framework” among self-employed taxpayers. *Economics of Governance*, 16(2), 125–142. <https://doi.org/10.1007/s10101-015-0158-9>
- Kothari, C.R & Carg, G. (2014). *Research Methodology, Methods and Techniques(3rd ed)*. New Delhi. New Age International(P) Ltd.
- Levin, J., & Widell, L. M. (2014). Tax evasion in Kenya and Tanzania: Evidence from missing imports. *Economic Modelling*, 39, 151–162. <https://doi.org/10.1016/j.econmod.2014.02.021>
- Lois, P., Drogalas, G., Karagiorgos, A., & Chlorou, A. (2019). Tax compliance during fiscal depression periods: the case of Greece. *EuroMed Journal of Business*, 14(3), 274–291. <https://doi.org/10.1108/EMJB-02-2019-0028>
- Lwoga, E. T., & Komba, M. (2015). Antecedents of continued usage intentions of web-based learning management system in Tanzania. *Education + Training*, 57(7), 738–756. <https://doi.org/10.1108/ET-02-2014-0014>
- Macdonald, Z., & Pyle, D. (2018). Illicit activity: The economics of crime, drugs and tax fraud. *Illicit Activity: The Economics of Crime, Drugs and Tax Fraud*, 1, 1–289. <https://doi.org/10.4324/9781315185194>
- Mboma, D. (2012). Challenges to Electronic Fiscal Devices adoption in Tanzania. In *Saarbrücken: Lambert Academic Publishing*.
- Muzakkir; Indrijawati, A. syamsuddin. (2019). The Determinant Effect of Theory of Planned Behavior and Tax Knowledge on Taxpayer Compliance. *International Journal of Innovative Science and Research Technology*, 4(11), 31–41.
- Night, S., & Bananuka, J. (2019). The mediating role of adoption of an electronic tax system in the relationship between attitude towards electronic tax system and tax compliance. *Journal of Economics, Finance and Administrative Science*, 25(49), 73–88. <https://doi.org/10.1108/JEFAS-07-2018-0066>
- Nkundabanyanga, S. K., Mvura, P., Nyamuyonjo, D., Opiso, J., & Nakabuye, Z. (2017). Tax compliance in a developing country: Understanding taxpayers’ compliance decision by their perceptions. *Journal of Economic Studies*, 44(6), 931–957. <https://doi.org/10.1108/JES-03-2016-0061>
- Odd-Helge, F., Merima, A., & Lucas, K. (2019). Policy implementation under stress: Central-local government relations in property tax administration in Tanzania. *Journal of Financial Management of Property and Construction*, 24(2), 129–147. <https://doi.org/10.1108/JFMPC-10-2018-0057>
- Ozili, P. K. (2020). Tax evasion and financial instability. *Journal of Financial Crime*, 27(2), 531–539. <https://doi.org/10.1108/JFC-04-2019-0051>
- Rao, S. (2014). *Tax Reform: Topic Guide*, Birmingham. UK: GSDRC, University of Birmingham.
- Réthi, G. (2012). Relation between tax evasion and Hofstede’s 4 + 2 model. *European Journal of Management*, 12(3), 61–72.
- Saka, C., Oshika, T., & Jimichi, M. (2019). Visualization of tax avoidance and tax rate convergence: Exploratory analysis of world-scale accounting data. *Meditari Accountancy Research*, 27(5), 695–724. <https://doi.org/10.1108/MEDAR-02-2018-0298>
- Saunders, M., Lewis, P., & Thornhill, A. (2012). *SIXTH EDITION METHODS FOR BUSINESS STUDENTS Research Methods for Business Students Sixth edition*.
- Sharma, S. K., Govindaluri, S. M., & Gattoufi, S. (2015). Understanding and predicting the quality determinants of e-government services. *Journal of Modelling in Management*, 10(3), 325–340. <https://doi.org/10.1108/JM2-12-2013-0069>
- Sondhi, N., & Chawla, D. (2016). *Research Methodology- Concepts and Cases*, ”. Vikas Publications.
- Steenbergen, V. (2017). *Reaping the benefits of Electronic Billing VAT compliance*. May.

- Thomas, A., Menon, A., Boruff, J., Rodriguez, A. M., & Ahmed, S. (2014). Applications of social constructivist learning theories in knowledge translation for healthcare professionals: A scoping review. *Implementation Science*, 9(1), 1–20. <https://doi.org/10.1186/1748-5908-9-54>
- Torgler, B. (2003). Tax Morale: Theory and Empirical Analysis of Tax Compliance. *PhD Thesis*, 1–668.
- Finance Act 2010, *Gazette of The United Republic of Tanzania*, (2010) (testimony of URT).
- URT. (2013). Finance Act 2013, *Gazette of The United Republic of Tanzania*. 4, 1–42.
- Finance Act 2014, *Gazette of The United Republic of Tanzania*, (2014) (testimony of URT).
- Finance Act 2015, *Gazette of The United Republic of Tanzania*, (2015) (testimony of URT).
- Venkataraman, V., Usmanulla, S., Sonnappa, A., Sadashiv, P., Mohammed, S. S., & Narayanan, S. S. (2019). Wavelet and multiple linear regression analysis for identifying factors affecting particulate matter PM_{2.5} in. *International Journal of Quality & Reliability Management*, 36(2017), 1750–1783. <https://doi.org/10.1108/IJQRM-06-2018-0150>
- von Glasersfeld, E. (1984). An Introduction to Radical Constructivism. *The Invented Reality*, 13, 17–40. <http://www.vonglasersfeld.com/070.1>
- Wadesango, N.; Mutema, A.; Mhaka, C.; and Wadesango, V. . (2018). Tax Compliance Of Small And Medium Enterprises Through The Self-Assessment System: Issues And Challenges. *Academy of Accounting and Financial Studies Journal*, 22(3), 1–15.
- Wang, W., Chen, P., & Li, S. (2020). Generalized expected discounted penalty function at general drawdown for Lévy risk processes. *Insurance: Mathematics and Economics*, 91, 12–25. <https://doi.org/10.1016/j.insmatheco.2019.12.002>
- Wenzel, M. (2004). The social side of sanctions: Personal and social norms as moderators of deterrence. *Law and Human Behavior*, 28(5), 547–567. <https://doi.org/10.1023/B:LAHU.0000046433.57588.71>
- Ya'u, A., Saad, N., & Mas'ud, A. (2020). Effects of economic deterrence variables and royalty rates on petroleum profit tax compliance in Nigeria: an empirical analysis. *International Journal of Energy Sector Management*, 14(6), 1275–1296. <https://doi.org/10.1108/IJESM-12-2019-0011>
- Water Integrity Network (WIN), Tax Compliance, <https://www.waterintegritynetwork.net/2015/12/04/tax-compliance/> Retrieved on 17th October, 2019.
- Yamane, T (1967); Statistics. *An Introduction Analysis*, 2nd Ed., New York; Hamper and Row