

Assessment of Socio-Demographic Factors Influencing Usage of EFDs to Small Taxpayer Traders in Moshi Municipality, Tanzania

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Abstract

The objective of this paper was to assess the socio-demographic factors influencing small trader taxpayers on the use of EFDs. The Technological Acceptance Model (TAM) was used to inform the study. Six factors identified from the literature were tested to respondents to include age, gender, education level, experience in business, business types and awareness of respondents on the use of EFDs. A concurrent research design was used where both quantitative and qualitative data was collected from a sample of 227 small trader taxpayers obtained systematically from a list of taxpayers from the Tanzania Revenue Authority. Validity was ensured through the literature while reliability was tested through a Chronbach alpha coefficient. Data was analysed using descriptive statistics then chi-square and a one way ANOVA to test the categorical relationship between the demographic variables and EFD usage. Qualitative data were analysed using content analysis where themes were developed basing on the opinion of the respondents. Findings indicated that, among the six demographic variables tested, five of them influence usage of EFDs among small trader taxpayers (age, education level, experience in business, type of business and awareness). The study concludes that, socio-demographic factors should be considered in the whole process of revenue collection using EFDs by the tax authority. It is recommended that, TRA should use awareness campaigns and penalties to taxpayer who fails to comply as findings has proved that tax payers in this category understand the usage of EFDs.

Key words: Socio- demographic factors, EFDs, small taxpayer traders, Moshi Municipality

1. Introduction

Economists and specialists in taxation acknowledge that, every single person would like to pay as less tax as possible to ease the burden attached their income and wealth to the state in taxes and bills (Malima, 2020; Aghata, 2019). On the other hand any government needs increasing public financial resources from one year to another to meet the goals and, at least sometimes, try to cover the real tax burden through various non-transparent public financial techniques and decisions. In this context, researchers has been in line with the fiscal illusion theory of Puvianifrom 1903 who said that, the individual will perceive the tax burden as being lower than that effectively supported. Thus, government normally depends on various sources of incometo generate funds, one of which is taxation (Shakbutova et al., 2020).

According to the World Bank Africa Region (2021), taxation forms 12 percent of the total gross domestic product (GDP) in Tanzania. While some taxes such as value added tax are indirectly collected from tax payers, some taxes such as income tax are directly imposed on the citizens (Malima, 2020; Ngeni, 2016). Generally, the government has designed diverse means of collection which can accommodate for each taxation need, as appropriate in the differing environment of businesses (Aghata, 2019). For example, VAT is charged per benefits acquired, while taxes on small businesses are based on turnover (Magese, 2020).

Electronic Fiscal Device (EFD) means a machine designed for use in business for efficient management controls in areas of sales analysis and stock control system, which conforms to the requirements specified by the laws(Tanzania Revenue Authority, 2020). The device is used by computerized retail outlets. It is connected to a computer network and stores every sale transactions or details made in its fiscal memory. In mainland Tanzania, the term EFD refers to devices used by TRA to monitor business-to-consumer and business-to-business transactions that create tax obligations to businesses (Fjeldstad, 2019).

Historically, EFDs were first used in the 1980s, in Japan and several countries in Europe. Later on in contemporary years, there has been faster deployment of EFDs in Sub-Saharan Africa (Magese, 2020). In 2005, Kenya became the first East African country to implement EFDs, followed by Tanzania in 2010 and Rwanda in 2014 (Eilu, 2018). The dispositions of EFDs in Kenya and Tanzania have met substantial challenges. Thedifficulties to factors such as lack of effective compliance-monitoring, lack of effective follow-up strategy, and absence of enforcement measureshas been among others (Eilu, 2018).

On the 1st July 2010, the Government of Tanzania through the Tanzania Revenue Authority (TRA) introduced the requirement and use of EFDs (TRA, 2020). The key objectives of improving VAT collection through eliminating non-issuance of receipts, eliminating under-invoicing of sales transactions, improving filing process of VAT returns, and assisting traders in keeping proper business records,lessen tax collection costs and boost taxpayer compliance (Kapera, 2017). The necessities were directed towards all VAT registered traders, of which, the purpose was to ensure proper output tax record among the VAT registered traders, thus, an increase in Government revenue. Subsequently, improvements in the tax revenue collection, it was decided to extend the requirements to use EFDs to all traders. Delphine (2017) in a survey covering 19 tax administrations across the world, including Kenya and Tanzania mainland

showed an increased reporting of sales, better filing rates and enlarged registration of those which were formerly outside the system. On the other hand, the results of the survey indicated that EFDs application was part of a comprehensive compliance improving strategies. These strategies produced positive results, both in terms of additional revenue and improved taxpayer behaviour (Delphine, 2017). The positive results therefore are not attributed to the use of EFDs as a separate measure

Apparently, the deployment of a new element to anything comes with its challenges; in this case the introduction of EFDs is not exceptional. Several tax authorities across Sub-Saharan Africa have deployed electronic fiscal devices although with criticisms all along (Eilu, 2018). In Kenya for example, EFDs were mandated by Gazette Notice No. 47 of 22 October 2004. During the initial implementation stages, beginning in 2005, there was wide skepticism regarding the value of EFDs, which has persisted with no sustained tax revenue increase, suggesting that the introduction of EFDs has not brought any substantial gains (Ghambi, 2020). There is evidence that the initial EFD deployment was undermined in Tanzania by compliance challenges and lack of effective follow-up and enforcement (Ghambi, 2020; Amary, 2020). According to Steenbergen (2017) in reference to the EFD deployment in Rwanda, the overall effect of EFDs on tax yields has been disappointing since its inception in March 2014.

There have been a number of issues when describing small taxpayers on the use of EFDs. Eilu (2018) put forward that, countries can reduce tax non-compliance through different ways. Without making a considerable use of information and communication technology (ICT), it is difficult to comprehend of an efficient and effective tax administration system that can perform tasks well. Small taxpayers have less ability to invest in technology taking in consideration of their capabilities. In Tanzania, some traders especially those regarded as small taxpayers refuse to purchase a fiscal device because they feel it burdens them with unnecessary expenses imposed on their capitals (Lubua, 2014). On the other hand, some of those who possess EFDs refuse to issue receipts per every transaction to their clients (Geetha&Sekar, 2012). Moreover, it is even noted that other taxpayers conspire with their customers and issue false receipts which do not represent the true value of the goods purchased (Murphy, 2008). At this point, the government is obliged to re-enforce compliance through its laws, with fines, imprisonment and penalties being the methods used for this (Tanzania Revenue Authority, 2018).

Domestic revenue increment is a priority to the Tanzanian government. The mobilisation of strategies revenue in revenue collection is a way for the government to create a fiscal space, provide essential public service and reduce foreign aid by relying on single resource dependence (URT, 2019). Knowing of that importance, the Tanzanian government through TRA has been implementing various tax reforms aimed towards broadening the tax bases, enhancing compliance and improving other aspects of tax revenue administration, and even improving the quality of services it provides to its stakeholders (TRA, 2017). This study intend to reveal the perception of current small traders taxpayers which will help to identify perceived weaknesses of the tax system on adoption of new technology in revenue collection, as well as to enable tax authorities to direct attention on efficiently high-risk categories of taxpayers.

The EFDs introduced in revenue collection in Tanzania includes Electronic Tax Register (ETR), Electronic Fiscal Printer (EFP); Electronic Signature Device (ESD) and Electronic Fuel Pump Printer. These devices are called fiscal device due to their intention to trace the economic activities of every business organization for tax purposes and report to TRA electronically, thus ensuring accurate approximation of tax returns (Magese, 2021). With this action in place, Tanzania was at this point in time joining other countries with special laws which make it mandatory for suppliers of goods or services to use approved cash registers with special security features that enable the tax authorities to check tax payable by the merchant (Agatha, 2018). The ETR are appropriate and commonly used by retail businesses that issue receipts manually while the EFP are used by computerized retail outlets and are mostly suitable for business group such as supermarkets and petrol stations among others. The ESDs are used by computerized businesses that issue receipts or invoices via special accounting software; easily can be used by manufacturers and wholesalers (Magese, 2021).

To the other hand, the EFDs was introduced to VAT registered traders under the "The Value Added Tax (Electronic Fiscal Device) Regulation, 2010" - Subsidiary Legislation, Government Notice No. 192 published on May 28, 2010, and enshrined in the Finance Act, 2010 with the main aim of enhancing VAT compliance in Tanzania. TRA's new EFD system became effective on July 1, 2010 (Finance Act, 2010). Introduction of EFDs in July, 2010 marked the first phase during which more than 17,000 traders registered under the Value Added Tax (VAT), were seen using the devices countrywide (Pillay et al., 2021). TRA started to implement the second phase of EFD in 2013 with the aim of boosting revenue collections and simplify tax administration. TRA introduces the use of EFDs for issuing receipts and invoices for every sale made. The Second Phase was intended to cover non VAT registered traders but targeted to cover 200,000 traders countrywide.

Implementation of the second phase of EFD include the following groups; Traders who are not VAT registered with a turnover ranging from TZS 14 million and above per year, traders trading in the region's prime areas, identified on the basis of rent payable and traders dealing with selected business sectors such as Spare Parts, Hardware, Mini Supermarkets, Petrol stations, Mobile phone shops, Sub wholesale shops, Bar and Restaurants, Pharmaceutical Stores; and Electronic Shops (Agatha, 2018). TRA launched the second phase of EFDs on May 15, 2013, in order to better cover tax collection from non-VAT registered traders. It is the first revenue authority to implement such a technologically advanced solution with GPRS based Fiscal machines providing two way communications between very advanced Server Software called EFDs and Fiscal Cash Registers.

1.2 Statement if the Problems

It is acknowledged that, the TRA introduced the use of EFDs with the purpose of increasing revenue collection from the small business owners in the country. EFDs were thought to increase the transparency of information between the revenue authority and the taxpayer (Eilu, 2018). During the implementation of the usage of EFDs, it was noticed that, small taxpayer traders are much more many (over 70%) than their counter parts medium and big trader taxpayers who accounts to only about 30%. However, the revenue collection from the two groups indicated an inverse relationship i.e more revenues from the medium and big traders (Tanzania Revenue

Authority, 2018). The contribution by small business owners toward tax collection is far smaller than their number. For that matter, the introduction and usage of EFDs is directed at increasing revenue collection among businesses of this group (Mnyawi et al., 2022; Shao and Dida, 2020). Nevertheless, the action is met with complications from owners of the small businesses. There could be a lot of reasons as to why oppositions are happening including inadequate awareness, economic variables that are external and internal to the businesses, demographic factors and perception of small trader tax payers on the use of EFDs as found by (Mnyawi et al., 2022; Shao and Dida, 2020; Magese and Chindengwike, 2021). This study was sought to assess the socio-demographic factors influencing usage of EFDs for small trader taxpayers in Moshi Municipality.

1.4.1 Research Objective

The objective of the study is to investigate the socio-demographic factors influencing usage of EDFs for small trader taxpayers in Moshi Municipality.

1.4.2 Research Hypothesis

The following hypotheses were tested for the study on the influence of social demographic characteristics on the usage of EFDs.

H1 – there is no significant influence of gender on usage of EFD among small trader taxpayers

H2 – there is no significant influence of age on usage of EFD among small trader taxpayers

H3 – there is no significant influence of education level on usage of EFD among small trader taxpayers

H4 – there is no significant influence of experience in business on usage of EFD among small trader taxpayers

H5 – there is no significant influence of types of business on usage of EFD among small trader taxpayers

H6 – there is no significant influence of awareness on usage of EFD among small trader taxpayers

2. Theoretical Framework

The Technology Acceptance Model (TAM), introduced by Davis (1985) and being modified in 1986, is one of the most widely used models to explain user acceptance behavior. This model is grounded in social psychology theory in general and the Theory of Reasoned Action (TRA) in particular (Fishbein, & Azjen, 1975). TAM asserts that beliefs influence attitudes, which lead to intentions and therefore generate behavior. Correspondingly, Davis (1986, 1989) introduced the constructs in the original TAM to include perceived usefulness (PU), perceived ease of use (PEOU), attitude and behavioral intention to use. Among the constructs, PU and PEOU form an end-user's beliefs on a technology and therefore predict one's attitude toward the technology, which in turn predicts acceptance. Davis (1989) conducted numerous experiments to validate

TAM by using PEOU and PU as two independent variables and system usage as the dependent variable. He found that PU was significantly correlated with both self-reported current usage and self-predicted future usage. PEOU was also significantly correlated with current usage and future usage. Overall, he found that PU had a significantly greater correlation with system usage than did PEOU. Further regression analysis suggested that PEOU might be an antecedent of PU rather than a direct determinant of system usage. That is, PEOU affects technology acceptance (TA) indirectly through PU.

Other researchers also has extended TAM by including additional predictors such as gender, culture, experience, and self-efficacy. Overall, researchers tend to suggest that TAM is valid, parsimonious, and robust (Venkatesh & Davis, 2000). Davis (1989) developed and validated the scales for PEOU and PU and found six highly reliable items for each construct with a Cronbach's alpha of .98 for PU and .94 for PEOU respectively. In succeeding studies, the measurement items for these constructs varied from researcher to researcher (Adams et al., 1992). As a result, the cumulative number of items for measuring PU has increased from the original six to currently about 50, and that for PEOU has increased from six to 38. However, the essential definitions of the constructs to be measured are still the same. The relevance of the TAMs theory in this study is that, more predictors can be tested through the model for small trader taxpayers to include the demographic variables as stated later by researchers and the need to an understanding of the technology behind the use of EFDs.

3. Empirical Literature Review

Demographic variables are said to associate with different behaviours of people specifically with decision making aspects (Pillay et al., 2020). Yildiz et al. (2020) in their study they acknowledge that in taxation, demographic factors are perceived to influence the behavioural decision taken by each taxpayer towards voluntary compliance. In technology adoption, this behaviour is also known as the rate of using the technology. While the next part of the empirical literature review presents the behaviour (perception) of respondents (as the rate of EFD use) in relation to the fear of punishment imposed for taxpayers to comply, this part emphasizes on demographic variables and the fear of punishment. The literature identified several demographic factors such as age, level of education and experience in business as the most discussed in the subject of taxation. Hofmann et al. (2017) submitted that seniors are more fearful of punishment due to non-compliance. This argument is influenced by their own experience on the impact of non-compliance and the fear of ruining their reputation in business (Yildiz et al., 2020).

Moreover, females especially in Africa are considered as more fearful of punishment, which drives many of them to tax compliance (Malembeka, 2019; Hofmann et al., 2017). Other studies put forth the aggressiveness and physical tolerance of men as a factor toward their fearlessness attitude (Ghambi, 2021; Curiel & Bishop, 2018). In this regard, the two groups would need different approaches in enforcing their compliance (Gwaro et al., 2016). In addition, the study by Curiel and Bishop (2018) cited education to be an important determinant of compliance, where those with college education are more inclined to comply, than their counterparts. With the information on demographic variables, the study developed hypotheses to test their categorical relationship to the fear of punishment and hence how they comply with tax payment.

Moreover, behavioural sciences focus on the consensual aspects, termed ‘tax morale’, in an attempt to explain the positive motivations for compliance (Malima et al., 2019). Ghambi (2021) argue that citizens and the state appear to develop their fiscal relationships according to a psychological ‘tax contract’ that establishes fiscal exchange between taxpayers and tax authorities. This relationship, however, reaches beyond pure exchanges, and involves relationships and loyalties between the ‘contract partners’. This has laid the foundation for compliance models that include factors such as: people’s sense of moral obligation to pay; their perception of the tax system’s fairness and, in particular, the perception that other taxpayers are also paying; and the extent to which taxpayers believe that the government spends their tax money wisely, and/or spend it on public goods that will benefit the taxpayer (Pillay et al., 2020). Accordingly, the factors affecting compliance behaviour are an intersection of individual values and norms, societal values and norms, the belief in the fairness of the system, the ease of compliance, the speed and accuracy of detection of non-compliance (i.e. the likelihood of getting caught), the speed and accuracy of corrective measures and the severity or impact of the deterrent measures.

More specifically, factors that determine whether and to which extent taxpayers comply with their tax obligations include: the magnitude of the tax burden; the costs of being tax-compliant, e.g. the time required to register for taxation or to fill out tax forms; taxpayer knowledge, i.e. skills that allow the taxpayer to pay taxes, including an understanding of why paying tax; Sticks, i.e. the probability of being detected and punished for non-compliance carrots, i.e. the direct benefits that taxpayer registration entails, for instance in providing access to specific services such as passport, driver license etc. norms, i.e. the intrinsic factors that induce the taxpayer to pay taxes ‘voluntarily’ ‘Voluntary’ compliance is promoted by fair and transparent treatment of taxpayers by the tax administration, and by the way tax revenues are spent (Yildiz, 2020).

Most of the factors listed above are interconnected (Dablaet *al.*, 2020). For example, low compliance costs are not sufficient if taxpayer knowledge or is lacking. Even if compliance costs are low and if taxpayers have developed a sufficient understanding of taxation, tax compliance also requires sticks and carrots. Factorsthat motivate taxpayers to become ‘voluntary’ compliant or a combination of anumber of factors. Furthermore, changes in tax policy and tax administration may affect tax compliance. This implies that a combination of policy and administrative measures is likely to be required to enhance taxpayer compliance depending on the specific constraints in place. For instance, if taxpayers have sufficient knowledge of the tax system, including laws and regulations, furthering taxpayer education may have little impact on tax compliance (Dablaet *al.*, 2020). The need for taxpayer education, however, is likely to differ substantially between different segments of taxpayers, and may be more acute for smaller taxpayers than for larger corporations. Thus, measures to enhance tax compliance and build a taxpaying culture need to be tailor-made for different segments of taxpayers and the specific constraints they face.

4. Methodology

This study adopted a concurrentresearch design with a mixed research approachwhere quantitative and qualitative data were collected through a survey of the small trader taxpayers with quantitative approach at the core of the study complemented by the qualitative approach.

Knowledge of the study objective was objectively attained through hypotheses testing as the approach allows other scholars to verify the application of findings obtained (Makombe, 2017). likewise, the approach allows the study to make generalisations to other situations with similar characteristics.

Moshi Municipality was selected as an area to operationalize the study because it is among the top regions in tax contribution, but with mixed businesses to include the small trader taxpayers (Tanzania Revenue Authority, 2018). Additionally, the study focused on the small trader taxpayers in Moshi Municipality as the total number of small businesses under the study category comprises about 2/3 of the whole businesses in the study area (Tanzania Revenue Authority, 2020). Obtaining the sample size for the study, first the population for the study included only small trader businesses categorised under the small trader taxpayers a list of which was obtained from the TRA, Kilimanjaro region. The qualification for one to be a respondent for the study needs also to own an Electronic Fiscal Device. The population target is 526 small trader taxpayers from Moshi Municipality (TRA, 2021). A sample of 227 respondents was used obtained by the use of the Yamane (1964) for small population and known population.

Thereafter, a systematic sampling technique was used by using names of respondents from the taxpayers register from TRA by December 2021. According to Xu and Goodacre (2018), systematic sampling supports well the quantitative research approach. A structured questionnaire was used for the data collection. Structured questionnaires require a lower cognitive load on the respondents; they reduce the amount of thinking that a respondent needs to undertake to complete the task. This generally leads to higher response and more accurate data. Equally important, they are easier for the researcher to code and analyse. Some qualitative data also was also collected from 5 key informants from the TRA officials to supplement the quantitative data. Validity was ensured through the literature review and reliability was tested through a Chronbach alpha coefficient. Data was analysed using descriptive statistics to determine the socio-demographic variables influencing of small trader taxpayer on the use of EFDs. The demographic variables then were confirmed by the use of Chi-square and a one way ANOVA testing. Content analysis was used to analyse qualitative data where themes was developed to give back-up to the quantitative data.

5. Findings and Discussion

5.1 Socio-Demographic Characteristics of Respondents

Demographic characteristics of respondents of small trade taxpayers are presented in Table 1 below.

Table 1: Socio-demographic Characteristics Distribution of Respondents

Variable	Description	Frequency	Percentage
Age	18 -20 years	09	3.96
	21 – 30 years	39	17.18
	31 – 40 years	53	23.35
	41 – 50 years	77	33.93
	51 and above years	49	21.58

Gender	Male	149	65.64
	Female	78	34.36
Education level	No formal Education	00	00.00
	Secondary education	42	18.50
	Certificate	17	07.48
	Diploma	53	23.36
	Advanced Diploma	37	16.29
	University Degree	51	22.48
Traders awareness	Master Degree	27	11.89
	Aware	186	81.94
Experience	Not aware	41	18.06
	in 3 – 5 years	83	36.56
Business	6 – 10 years	81	35.68
	Above 10 years	63	27.76
Type of Business	Influence use of EFD	166	73.13
	Does not influence use of EFD	61	26.87

Source: Field Data (2022)

The findings of the study presented comprised of 227 respondents whom are small trader taxpayers using EFDs in Moshi Municipality. The demographic factors assessed were six among whom 149 (65.64%) were males and 78 (34.36%) were females. The findings indicate two things at the same time. One is that most of the businesses under this category are owned by men than their women counterparts. Furthermore, most businesses owned by men are at the same time automatically most of the EFDs are owned by men business owned. The explanation could be that, for women owned business they might not be registered as mostly are involved in vending kind of business as found by Malima (2020) in the study of effectiveness of Electronic Fiscal Devices in ensuring tax compliance among small business owners of Arusha, Tanzania. So, the explanation for variation might be from that perspective.

Results from the study further indicate that, age distribution of the small trader taxpayers ranged from 18 to above 51 years with the majority of respondents 77 (33.93%) having ages between 41 and 50 years. The next age category was 53 (23.34%) of whom were having age between 31 and 40 years followed with the age group of 51 and above years of age whom were 49 (21.58%). The next age category was between 21 and 30 years of age, whom were 39 (17.18) and the smallest group of was that of 9 (3.96%) with the age between 18 and 20 years. With this age distribution, the findings indicate that, small trader taxpayers in the study area are dominated by mature people compared to their youth counterparts. Furthermore, the findings are supported by that of Mulhall et al, (2018) and that of Yildiz et al, (2020) who both at different times found that, the more mature taxpayers mostly do conform to tax laws and regulations. When it comes to EDF usage, the study by Yildiz et al, (2020) categorically confirms that, more aged small trader taxpayers comply to usage of EFDs as they are not ready to be harassed tax authorities over tax compliance and tarnish their business image.

Likewise, education level was among the socio-demographic characteristic which indicated that 53 (23.36%) had Diploma education followed by those who had University Degree who were 51

(22.48%). Those with secondary school education were 42 (18.50%) while those with Advanced Diplomas were 37 (16.29%). Among the respondents, 27 (11.89%) had Master degrees while 17 (7.48%) had certificates and non among the respondents had no formal education. The findings indicate that, small trader taxpayers most small business operators are educated enough to understand the usage of EFDs which results into compliance for tax payments. Evidence from the literature suggest that, the more a trader is educated, the more compliance to usage of EDFs (Malima, 2019; Swai, 2018). There are however, in some studies contradicting finding that, whenever traders especially in the developing economies, with advancement in their education levels, they tend to evade through non-usage of the devices or collude with clients on the proper application of the EFDs (Cornelius, 2019; Malima, 2020).

Furthermore, findings show that, with regard to awareness of small trader taxpayers on the use of EFDs in their daily business transactions, findings of the study indicates that, 186 (81.94%) of the respondents are aware of the usage of EFDs in their businesses while the rest 41 (18.06%) were not aware if they were required to use EFDs. These findings indicate that, the small trader taxpayers have no problem with awareness of the usage of EFDs. This could be attributed by education campaigns on the usage by the tax authority or penalties associated by non-compliance on usage. The findings of the study is similar to that of Mnyawiet *al*, (2022) who found that among the challenges facing the implementation of electronic fiscal device (EFD) use in tax revenue collection in Dodoma City, Tanzania among others is awareness of the small trader tax payers. The notion they have is that their businesses are small and then they have a burden of EFD usage. Likewise, Alinda (2020) found that, effectiveness of the Law on enhancing tax compliance through the use of EFDs enhances awareness of small trader taxpayers and impact on revenue collection positively.

Findings also show that, majority of the small traders taxpayers 166 (73.13%) rated that the type of business that one does has an influence on the use of EFDs. This means that there are types of businesses that makes easy for the taxpayers to use the devices while some they are not. Likewise, 61 (26.87%) of the respondents were of the opinion that the types of business does influence the usage of the devices. This implies that, to them, any type of business is able to use the machine provided the business falls under the category in question (under the study). Accordingly, there are different findings by other scholars of whom some they support while other they do not. For instance, the studies by Shao and Dida (2020) and that of Swai (2018) supports the notion that types of businesses support the use of EFDs while studies by Magees (2020) and that of Pillay (2020) found no relationship between the types of business and the use of EFDs

Regarding the experience of small trader taxpayers in the business, majority of them 83 (36.56) had an experience between 3 to 5 years in the businesses they were doing followed by those with experience between 6 to 10 years of whom were 81 (35.68). Furthermore, those with experience more than 10 years were 63 (27.76%). The findings indicated that, most of small trader taxpayers have a good experience in the business they do. However some key trends can be observed from the findings that, those are the majority being within the lowest experience category might be attributed to the fact than they are still at the earlier stages (3- 5 years) and their businesses could have not graduated to medium or big business. Likewise, the next category which is between 6 to 10 years could mean these are the ones that mostly could have graduated from the earlier ages of

existence to the next but not in terms of size i.e medium or big businesses. Those which are above 10 years and they are still small they could be survivalists which comprises the lowest number of small trader taxpayers in this study.

4.2 Chi Square and ANOVA Testing for Demographic Characteristics on Usage of EFDs

The study went further to analyse the definite relationship between demographic variables and the usage of EFDs for small trader taxpayers in Moshi Municipality. Results of the chi-square and the one-way ANOVA model are presented in Table 2 below.

Table 2: Categorical Relationship Testing

Variable	Output variable	P-value	Analytical model
Gender	Usage of EFD	0.391	Chi – Square Test
Age	Usage of EFD	0.031	One – Way ANOVA
Education level	Usage of EFD	0.029	One – Way ANOVA
Experience in Business	Usage of EFD	0.041	One – Way ANOVA
Type of business	Usage of EFD	0.011	One – Way ANOVA
Awareness	Usage of EFD	0.023	One – Way ANOVA

Source: Field Data (2022)

In this part, the study tested the null hypothesis that there was no significant influence of small taxpayer traders' gender and their usage of EFDs. The analysis used the chi-squared model to test the relationship because the gender of respondents is a dichotomous variable. Findings indicated that, observed p-value was 0.391. According to the findings, it is confirmed that there is no significant categorical relationship between the gender of respondents and the usage of EFDs. In that case therefore, the usage of EFDs between male and female small trader taxpayers is nearly the same. This might be attributed to the taxpayer's education continuously given by the revenue authority to this category of taxpayers or the fear of being punished to non-compliance. This situation is different from the belief among Africans that females are more responsive and compliant compared to their counter parts males (Kaisi, 2019).

Likewise, it was prudent for the study to use the one-way ANOVA to test the null hypothesis that there is no significant categorical relationship between the age of small trader taxpayers and the usage of EFDs. Findings indicated that, the p-value is 0.031, which is smaller than the threshold p-value of 0.05. This indicates a significant categorical relationship between the age of small trader taxpayers and the usage of EFDs. Therefore, the age of the respondent is a determinant of the usage of EFD and compliance to requirement of tax collection in the study area. The findings are in agreement with that of Magese and Chindengwike (2021) who found that age groups perceive differently in the usage of EFDs. This study concluded that, senior citizens are more compliant to usage of EFDs than the younger generation. The reason could be the differences on the level of awareness and fearfulness across age groups of taxpayers.

Similarly, findings of the study for the null hypothesis that the level of education does not have a significant categorical relationship with the usage of EFDs indicated a result of the one-way ANOVA to be 0.041 which is greater than the threshold of 0.05. The findings indicated a significant categorical relationship between the level of education for small trader taxpayers and

the usage of EFDs. The findings suggest that, those who have gone through formal education at a certain level are able to use EFDs conveniently than those who have no or lower level of formal education. Furthermore, there is a great possibility that differences in understanding tax issues may separate the two groups from those who have a higher level of education with the one having a lower level of education. In this case, the knowledge of respondents was different across the small trader taxpayers resulting into differences in the usage of EFDs and hence compliance to tax payments.

Furthermore, the study tested a null hypothesis there is no categorical significant influence of experience in business on the usage of EFDs among smallholder taxpayers. Findings indicated that, the p-value is 0.031, which is smaller than the threshold p-value of 0.05. The finding of the study for this variable indicates a significant categorical relationship between experience in business and the usage of EFDs. The findings therefore suggest that, the more a small trader taxpayer is experienced in business the more the usage of the EFDs. The findings of this study are in agreement with that of Amary (2020) who found that experienced business operators differs in their EFD usage than their counter parts non-experienced in Ilala district. Findings also were in agreement with the key informants that,

‘Small trader taxpayers who experienced in the usage of EFDs are more compliant than non-experienced. This may be due to the fact that, the non-experienced lack the skills to trouble shooting on small issues regarding usage of the EFDs in their business operations’.

The study also tested a null hypothesis that there is no significant influence of awareness on usage of EFDs by small trader taxpayers. Findings show that, a one-way ANOVA indicated that, there is a significant influence of awareness by small trader taxpayers on the usage of EFDs by a p-value 0.023 above the threshold of 0.05. The findings imply that, taxpayers need to be aware of the actions they are required to do for them to comply to the usage of EFD. The findings is in line with that of Zachariah (2020) who found that, awareness to small trader taxpayers is significant for them to use EFDs.

6. Conclusions and Recommendations

6.1 Conclusion

The objective of this study was to assess the influence of demographic characteristics of small trader taxpayers on the usage of EFDs. Six categorical variables were included in the analysis for the study which was gender, age, the level of education, experience in business, type of business and awareness of small trader tax payers in the use of EFDs. Based on the findings of the study, it is concluded that there is a significant influence of age, level of education, experience in business, type of business and awareness on the usage of EFDs among small trader tax payers in Moshi Municipality.

6.2 Recommendations

From the study findings, it is recommended that in order to increase the usage of EFDs in revenue collection, it is important to consider factors that influence small trader taxpayers on the use of the devices. It is recommended that, all the transactions done should be done through EFDs

so long as their businesses are registered in the tax category. As the findings in this study indicated, some policy implications can be suggested that. Also, more campaigns and training on the use and importance of EFDs to small trader taxpayers is important to be regularly undertaken by the TRA. The tax authority should not take for granted that the taxpayers in this category understand what they are supposed to do. Likewise, as also the confirmation from other scholarly works indicated, carrot and stick is among the motivations for taxpayers to abide to the laws. The group that is not abiding to the use should be punished to see that they use the device accordingly.

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