Determinants and Extent of Tax Compliance among SMEs in Arusha City Council, Tanzania

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ABSTRACT

Taxes have been a nourishing commodity in generating revenues liable for financing governments' budgets all over the world. This being the fact, this study examined the determinants and extent of tax compliance in SMEs in Arusha City Council which was the specific objective of this study. This was a cross-sectional study which employed a double Hurdle regression model to analyze primary data collected from a sample of 100 SMEs' owners obtained by simple random sampling to represent the entire population of SMEs owners via questionnaire and analyzed with STATA software version 17. Using the economic deterrence theory to guide the analysis of this study, the analysis found that Male entrepreneurs dominate the SME sector, SME owners understand tax regulations and undergo frequent tax audits. Further, the findings revealed that privately owned SMEs, primarily ran by persons in their mid-30s are flexible with an average workforce of nine employees. Furthermore, SMEs were found to generate feasible profits and fulfill tax compulsions by paying an average tax rate. Moreover, the double hurdle regression model shown that age and profits have negative effect on tax payments, and higher household size of SMEs owners are associated with higher tax payments. Additionally, publicly owned enterprises positively comply with tax. Therefore, given these findings, this study recommends to policymakers to streamline tax procedures and develop a platform to discuss tax rates with tax payers before implementing the planned tax obligations.

Keywords: Double Hurdle Model, SMEs, Tax Compliance, Tax Payments, Tanzania

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I. INTRODUCTION

Tax revenues have emerged as a critical component of tax policy in developing countries, enabling governments to bolster their financial reserves (Dudine & Jalles, 2018). Particularly in times of global economic sluggishness, such domestic resources are essential to promote sustainable development, diminish unemployment and poverty disparities, provide superior public commodities and services, and invest in capital infrastructure to expedite growth (Gangl & Torgler, 2020). By relying on tax revenues, developing countries can consolidate their fiscal positions and enhance their capacity to meet the evolving needs of their citizens (Matarirano et al., 2019).

In the world context development of the states depend on responsible and the successful strong tax collection systems (Giesi & Bishagazi, 2022). In developed economies such as that of Europe and America suggests that, the good plans between the government and the local business firms provides good force for the development of the economies which lead to attainment of the goals of financial as well as fulfilling residential requirements (Giesi & Bishagazi, 2022). Globally the small and medium businesses are the ones which drives economies which account about the 90 % of the business entities as well as employs more than 60% of the people (Gamage et al., 2020).

In Africa, taxation has been the important tool in rising revenue to support the growing public sectors development (Mashauri, 2021). Local business firms is one among the biggest contributors to the economies of developing countries through tax payments (Matarirano et al., 2019). Yet, the tax system in the majority of developing nations, like Tanzania, are unable to generate enough revenue to finance their budgets, which in turn causes incurring debt and run deficits as a result of borrowing (Jalles, 2017).

Tanzania's primarily source of revenues comes from taxes, which generate a steady stream of income to fund projects like infrastructure improvements, health care, water services and education (Omary & Pastory, 2022). The Tanzanian government imposes taxes with the goal of maintaining the social welfare of its residents through the country's economic development, as well as to effect consumption, production, and distribution (Sifuni, 2017). In fulfilling the revenue function, a well-designed tax system should be efficient in minimizing the distortionary impact on resource allocation to different groups in the society (Mashauri, 2021).

Tanzania Revenue Authority (TRA) is responsible for collecting the taxes from various sources including local businesses (Kimata & Churk, 2020). According to URT (2022), business firms with annual turnover above 40

million TZS are registered for Value Added Tax (VAT) purpose while those with annual turnover of bellow 40 million are also subjected to taxation (presumptive approach of taxation) system. The TRA is responsible for setting out tax systems and policies that ensure that local businesses comply to tax payments (Sifuni, 2017). Small and medium business firms in Tanzania evade taxes heavily especially the business done through cash transactions (Dudine & Jalles, 2018). This is the result of corrupt systems, poor management, social and economic reasons (Marandu et al., 2015). Introduction of the advanced technologies by TRA to capture the local business transactions has yet failed to ensure all revenues are collected (Aladejebi, 2018). Customers fail to demand for the receipt after transactions as well as the business owners fail to provide them. This led to low tax collection and problems in financing budgets (Gangl & Torgler, 2020).

1.1 Statement of the Problem

It is undeniable that taxes are the primary source of income for developing nations (Jalles, 2017). Developing countries like Tanzania faces a major problem of low tax revenues from business firms. Keraro (2017)claims that the main factor contributing to tax authorities' inability to collect enough revenue from businesses in developing nations is failure to comply with tax laws. Wadesango et al. (2020) pinpointed that difficult filling procedure, high rate of taxes, lack of awareness and multiple taxation are some of the reasons for local firms to fail to comply with taxes.

Various initiatives have been put forward to ensure that small and medium business firms pay their taxes. One of the methods was introduction of the Electronic Fiscal Devices (EFD) (Giesi & Bishagazi, 2022). This shows the advancement in tax collection but yet local businesses fail to comply with the tax rules and also the local authorities fail to track non-tax payers (Gangl & Torgler, 2020). Also, other firms do not use those machines at all while other firms created a strong opposition on the use of tax machines (Kyule & Wang, 2024).

Most studies have examined the factors to why local firms fail to comply with tax. Some of these studies include but not limited to Giesi and Bishagazi (2022); Kimata and Churk (2020); Keraro (2017); Matarirano et al. (2019) and Okpeyo et al. (2019)). However, the scholarly eye has been so narrow to further examine the extent of tax payments after tax compliance. This signifies that there is a gap in literature concerning the factors affecting the extent of tax payments after tax compliance. Therefore, this study examined the determinants and extent of SMEs in Arusha to Pay taxes to local authorities which is significant to responsible authorities to restructure tax system and payment procedures.

1.2 Specific Objective

This study aimed to specifically study the determinants and extent of tax compliance among SMEs in Arusha City Council, Tanzania.

1.3 Research Hypotheses

Ho: SMEs in Arusha City Council are not complying with tax
H_1: SMEs in Arusha City Council are complying with tax.

II. LITERATURE REVIEW

2.1 Theoretical Foundations

This study is based on the Economic Deterrence Theory, developed by Allingham and Sandmo in 1972 (Allingham & Sandmo, 1972). The theory was developed specifically to give an understanding on the tax payers' compliance behavior. The theory assumes that the tax payer is economically rational (Kimata & Churk, 2020) whereby the choice to pay taxes is influenced by several factors. First and foremost, the decision of complying with the tax rules involves some levels of risk, therefore the higher the risk the more the chances of not complying with the tax rules. The tax payer has to analyze the costs and benefits of compliance action. Secondly, tax payers need to be well equipped with knowledge concerning the taxation regime and system (Hasseldine & Bebbington, 1991).

Rate of taxation as well as the possibility of being detected after failure to comply with the tax rules is among the aspects that influence tax compliance (Omary & Pastory, 2022). The theory implies that, tax evasion tends to increase when audit chances are minimal and fines are severe, but it tends to decrease if audit possibilities are high and punishments are severe (Kimata & Churk, 2020). Therefore, this means that the presence of strictly laws, penalties and high rate of auditing reduce the chances of people to fail to comply with tax rules (tax evasion).

The theory also in other point of view includes the individual factors of the tax payer. This means that the process of making rational decision involves thinking and making choices based on the tax payers characteristics (Omary & Pastory, 2022). The theory of economic deterrence is applicable to this study because it assumes the individual tax payer as a rational human being who can make choices of whether to comply with tax rules or not basing on the assessment of the cost and benefits of such act (Hasseldine & Bebbington, 1991). This study is guided

by the objective of examining the key main factors influencing the tax compliance among small and medium businesses therefore from that point of view and based on the literature applying this theory to this study is suitable as it provides the socioeconomic factors that affect tax payers' compliance. The factors are tax rates, enough knowledge of the tax system, chances of audits and compliance costs.

2.2 Empirical Review

Nguyen et al. (2020) conducted a study to examine the key factors that influence firms in complying with tax rules and regulations. Both qualitative and quantitative methods were used. Total of 200 respondents who were business owners provided the data for the analysis through interview. The study's findings indicate that the three variables which are audit likelihood, company image, and firm ownership, directly influence the willingness to pay taxes. The likelihood of an audit and the intensity of the penalties possess the greatest effects on tax compliance. As a result, the responsible authorities are recommended to increase frequency of tax inspection as well as appropriate handling of the tax matters.

Inasius (2019) conducted a study to investigate the factors that influence small and medium business to comply with tax rules. The study used the survey study design and data were collected through well-structured questionnaires from a total of 328 small businesses eligible to pay taxes. The study applied multiple regression model in making analysis and the following results were revealed that tax knowledge, referral group, probability of auditing and perception had the high influence of the tax compliance. Furthermore, the study suggests that policy makers and the responsible authorities should focus on improving the tax systems.

The study done by Marandu et al. (2015), on the factors influencing the tax compliance revealed that subjective, normative, and attitudinal control variables were generally effective determinants of tax compliance. The study used the data from 18 empirical published studies across the world. The study suggested that a moderate approach to tax enforcement that will also encourage voluntary compliance through changes in attitudes and norms is advocated for tax policy makers instead of solely using the traditional coercive means typically employed to force tax compliance.

According to the study conducted by Inasius (2015), on the tax compliance of small and medium businesses, a total of four variables of tax compliance were investigated which were rate of taxation, likelihood of auditing, referral group as well as education on the tax procedures. The results of 319 individual business firms that responded to the survey reveal that tax compliance is favorably connected with tax knowledge, referral networks, and audit likelihood while negatively associated with income rate of taxation. The influence of tax knowledge on individual tax compliance is greater, however.

Aladejebi (2018) investigated how well small and medium business owners in Nigeria adhered to tax laws. The Nigerian economy is largely dependent on small businesses. 250 people were included in the sample size for the study, and 223 Small business owners answered to the questionnaire that was sent out. The data gathered were examined using a quantitative approach. Results indicated that female small business owners are much more complying with tax laws than their compared to men. SME owners need to be educated on taxes. There are several taxes. Tax amnesty may boost tax compliance levels.

Mwangi (2014) aimed to pinpoint the factors determining tax compliance in Kenya. A descriptive survey was used in the study. A sample size of 150 was chosen. Self-administered questionnaires and an interviewing guide were used to gather the data. The study's findings showed that the majority of respondents said that Kenya's high tax rates and variety of tax heads hindered small and medium businesses' degree of compliance with laws and regulations. A significant portion of non-compliance was caused by the lack of easily accessible information regarding tax matters. Another instance of non-compliance, the taxpayers' failure to accurately compute the taxes due was a result of the information gap. The SMEs believe that more information would substantially encourage them to be compliant if it were made available to them in the form of tax seminars and books.

In Tanzania, and more especially the Ilala municipality, Omary and Pastory (2022) did a study on the factors influencing small and medium enterprises' tax compliance. The current study employed a descriptive cross-sectional survey design and a quantitative research strategy. Total of 5324 Small and Medium Businesses from the Ilala Municipality made up the study's sample population, from which 98 respondents were chosen at random. Data was gathered via structured questionnaires, and the Multiple Linear Regression was utilized to evaluate it. The regression analysis shows that the willingness of taxpayers to comply with tax laws is influenced by taxpayer, economic, and institutional factors. As a result of the study Tax morality can aid in boosting the nation's rate of voluntarily filed taxes by ensuring that the general public has a favorable opinion of government expenditure. Taxpayers' bound to comply can be encouraged by sustaining equitable taxation, enforcing reasonable and reasonable levels of punishment, and minimizing tax rates. Fairness in the application of tax laws should be institutionalized, and strict controls should be put in place to prevent revenue fraud.

Kimata and Churk (2020) conducted a study to investigate the factors that influence wholesalers' compliance to tax laws in Dodoma. The study used cross-sectional study design and data were collected from 95 business owners through a well-structured questionnaire. Tax rates and actual income have statistical significance and influence on the tax compliance. Furthermore, the policy should also be implemented and modified to be more advantageous to the present economic situation in order to assure tax compliance. Also, the business owners should engage in giving out suggestions and ways so as to avoid failure to comply.

Elly (2015) investigated main factors for small and medium business tax compliance. The study used survey methodology and 158 respondents were involved for giving out data. Economic factors, such as audit frequency, compliance and non-compliance costs, punishments for non-compliance/severity of penalty, difficulty of the tax structure, possibility of being discovered, and tax rate levels, were found to have an impact on small and medium tax compliance.

III. METHODOLOGY

3.1 Research Design

In this study, a cross-sectional research design was applied. This was because the study focused on small and medium business owners at one point in time and data was collected once because of limited resources such as time. In addition, compared to other study designs like longitudinal research design, cross sectional research design was excellent for identifying the relationship between the variables and collecting data for a number of variables at once (Utouh, 2024).

3.2 The Area of Study

The study was conducted at Arusha City, specifically Sakina ward. After the division of Elelai and Ngarenaro wards, the new Sakina ward was formed, and it now has a population of 21,988 (11,572 women and 10,416 men). Arusha DC forms the northern boundary, Sombetini ward and Ostabay streets form the southern boundary, Ngarenaro ward forms the eastern boundary, and Eleraikwa ward forms the western boundary. The district covers an area of 267 km2 (103 square meters) and has an average elevation of 1,331 m (4,367 feet). The latitude of Arusha, Tanzania is -3.386925, and the longitude is 36.682995. Arusha, Tanzania. Arusha shares borders with Kajiado and Narok counties to the north, Kilimanjaro region to the east, Manyara and Singida regions to the south, and Mara and Simiyu regions to the west.
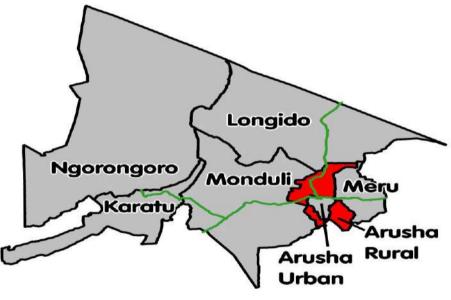

Figure 1
Map of Arusha Region
Source: URT (2023)

This study area was chosen because it has a significant number of SMEs accounting to 21,988 as reported by National Bureau of Statistics (NBS, 2023). Also, the location was easier to get to, closer to the researcher. Access to the majority of respondents was made possible by this, which provided the necessary data to meet the goals and objectives of the research.

3.3 Sample Size

The formula created by Yamane in 1967, which determines the sample size from the target population (Mazhar, 2021), was used to compute sample size for this investigation.

$$n = \frac{N}{1 + N(e)^2}.$$

Whereby:

n = sample size
N = Targeted population is 21,988
e = sampling error percentage assumed at 10%

$$n = \frac{21,988}{1 + 21,988\,(0.1^2)}$$

$$n = \frac{21,988}{220.88}$$

$$n = 99.5944726548 \approx 100$$

Therefore, the data analysis for this study was based on information from a sample of 100 respondents.

3.4 Data Collection and Analysis Method

This study used questionnaire as the method of obtaining data from the small and medium firms concerning tax activities. This data collection strategy was chosen because it is the most effective in getting data for quantitative studies, particularly cross-sectional studies (Creswell, 2014). This study was quantitative in nature therefore descriptive analysis and econometrics analysis was used.

3.5 Empirical Model
3.5.1 The Double-Hurdle Model Regression Model
First Hurdle (SMEs Tax Compliance)

The probability that SMEs comply to tax was assumed to be determined by an underlying response variable that explains the water user's demographic, institutional and socio-economic characteristics (Tibamanya et al., 2022), thus can be illustrated as:

$$D_i^* = x_i'\beta + \varepsilon_i \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots (3.1)$$

Where D_i^* is a latent variable that shows whether SMEs comply to tax or not, β denotes the vector of unobserved served parameters to be estimated, x_i' denote the vector of observed independent covariates explaining the event, lastly ε_i denotes unobserved error term capturing other factors and was assumed to be independent and normally distributed (Tibamanya et al., 2022). That is μ_i

N~ (0, 1), and $D_i = 1 \; if \; D_i^* > 0$

$$D_i = 1 \; if \; D_i^* \leq 0$$

The variable D_i present the value of 1 if the SMEs comply to tax and the marginal utility over compliance is greater than non-compliance and zero (0) otherwise (Tibamanya et al., 2022). The binary variable of SMEs compliance or non-compliance D_i was assumed to be a probit model and is specified as:

$$Pr(D_i = 1/x_i)' = \phi(x\beta) + \varepsilon_i \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots (3.2)$$

Where Pr presents the probability of SME to comply: D_i is the binary variable of SMEs to comply: ϕ denotes the cumulative normal distribution: x is the vector of a SMEs demographic, socio-economic and institutional characteristics denote the coefficient to be estimated and ε_i denote the random error term distributed normally with zero mean and constant variance (Andrew et al., 2022).

The Second Hurdle (The Extent of Tax Compliance)

The extent to which SMEs comply to tax D^* is assumed to be truncated normal distribution with parameters to be different from the Probit model that can be estimated as follows (Tibamanya et al., 2022):

$$D^* = x_i'\alpha + \mu_i \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots (3.3)$$

Where D^* is the observed extent of tax compliance, x_i indicate the vector of covariates that explain the extent, α is a vector of unobserved parameters to be estimated and ε_i is a random variable that denotes all other factors apart from X. Since the assumption of independence of the two error terms, later, it was suggested that the hurdles can be estimated by the maximum likelihood method of Probit and truncated regressions (Tibamanya et al., 2022). The analysis of the model was performed by STATA software version 17.0 by considering the assumption that the two error terms are normally distributed and uncorrelated.

In this Model the estimation is as follows:

$$P(y = 1/x) = \beta_0 + \beta_1 Ag + \beta_2 Gender + \beta_3 Mstt + \beta_4 SMEsize + \beta_5 Txrate + \beta_6 Knowledge + \beta_7 Audits + \beta_8 Ownership + \beta_9 Workers + \beta_{10} Profits + \beta_{11} Corruption + \beta_{12} Penalties + \beta_{13} Taxsystem + \beta_{14} Trust + \beta_{15} Hsize + \beta_{16} Educ + \mu \dots\dots\dots\dots\dots\dots (3.4)$$

3.6 Variable Measurements and Descriptions

Table 1
Variable Measurement and Description

Variable	Measurement	Category	Expected Sign
Dependent variable			
Tax amount paid by SME	TZS	Continuous	
Independent variables			
Age of SME owner	Years of living SME owner	Continuous	+/-ve
Gender of SMEs owner	1 if a male 0 otherwise	Dummy	+/-ve
Marital status of SME owner	1 if married 0 otherwise	Dummy	+/-ve
Household size	Number of people in a household	Continuous	-ve
Education level of SME owner	1 if SME owner has primary education 0 otherwise	Dummy	+/- ve
SME capital	Amount of money invested in business	continuous	+/ve
Business ownership	1 if private owned 0 otherwise	Dummy	+/-ve
Possibility of audits	1 if there are chances of being audited 0 otherwise	Dummy	-ve
Tax rates	Amount of tax to business firm per month	Continuous	+/- ve
Number of workers	Number of workers	Continuous	+/-ve
SMEs profits	Amount of money in TZS of monthly profits earned by SME	Continuous	+ve
Corruption	1 if presence 0 otherwise	Dummy	-ve
Penalties	1if penalties are present 0 otherwise	Dummy	+ve
Government trust	1 if SMEs trust the government 0 otherwise	Dummy	+ve

Table 1 shows various factors influencing the tax amounts paid by SMEs. The dependent variable is the tax amount paid by SMEs, measured in Tanzanian Shillings (TZS) and categorized as continuous. Independent variables are the age of the SME owner (years of living, continuous, expected sign +/-ve), gender (1 if male, 0 otherwise, dummy, +/-ve), marital status (1 if married, 0 otherwise, dummy, +/-ve), household size (number of people, continuous, -ve), education level (1 if primary education, 0 otherwise, dummy, +/-ve), SME capital (amount invested, continuous, +ve), business ownership (1 if privately owned, 0 otherwise, dummy, +/-ve), possibility of audits (1 if chances of being audited, 0 otherwise, dummy, -ve), tax rates (amount per month, continuous, +/-ve), number of workers (continuous, -ve), SMEs profits (amount of monthly profits in TZS, continuous, +ve), corruption (1 if present, 0 otherwise, dummy, -ve), penalties (1 if present, 0 otherwise, dummy, +ve), and government trust (1 if SMEs trust the government, 0 otherwise, dummy, +ve). Each variable is categorized as either continuous or dummy, with expected signs indicating the hypothesized relationships.

IV. FINDINGS & DISCUSSIONS

4.1 Findings

Table 2

Descriptive Analysis for Discrete Variables

Variable (n = 100)	Frequency (percentage)
Sex	Male = 73(73%)
	Female = 27(27%)
Marital status	Married = 14 (14%)
	Widowed = 10 (10%)
	Separated = 20(20%)
	Single = 56 (56%)
Tax education	Knowledgeable = 68 (68%)
	Not knowledgeable = 32(32%)
Tax audits	No = 26(26%)
	Yes = 74(74%)
Business ownership	Private = 68(68%)
	Public = 32(32%)

The descriptive analysis of the sample (n=100) presented in Table 2 reveals that 73% of SMEs owners are male, and 27% are female. Regarding marital status, 14% are married, 10% are widowed, 20% are separated, and 56% are single. Concerning the receiving of tax education, 68% are knowledgeable meaning that they have acquired tax education, while 32% have not acquired tax education. When it comes to tax audits, 74% have undergone tax audits in the previous year, whereas 26% have not. Additionally, 68% of the SMEs are privately owned business while 32% are public owned enterprises. Descriptive analysis for continuous variables is shown in table 3

Table 3

Descriptive Analysis for Continuous Variables

Variable	Observation	Mean	Standard deviation	Minimum value	Maximum value
Age (years)	100	32.80189	12.46207	19	66
Number of workers	100	9	2.658337	1	17
SMEs profits (TZS)	100	512000	221540.1	100000	9,000,000
Tax rate (TZS)	100	50,000.41	6000.142	20,000	1,500,000

Table 3 presents a descriptive analysis of continuous variables from 100 SMEs, revealing that the average age of SMEs owners is approximately 32.8 years, with a standard deviation of 12.46 years, whose minimum and maximum years are ranging from 19 to 66 years. Businesses have an average of 9 workers, with a standard deviation of 2.66, whose minimum and maximum values are ranging from 1 to 17 workers. The average profit for SMEs is TZS 512,000, with a standard deviation of TZS 221,540.1, and profits range from TZS 100,000 to TZS 9,000,000 showing minimum and maximum profits respectively. The average tax rate is TZS 50,000.41, with a standard deviation of TZS 6,000.142, and tax rates vary between TZS 20,000 and TZS 1,500,000.

Table 4

Double Hurdle Results on the Determinants and Extent of Tax Compliance

TAX COMPLIENCE				TAX PAID			
Variable	Coefficient	St. Error	p-value	Coefficient	St. Error	p-values	Marginal Effect
Age	0.02271	0.014864	0.127	-0.049752	0.02732	0.069*	0.02088388
Sex	0.149643	0.357512	0.676	-0.2004895	0.780335	0.797	0.2478574
Household size	2.76E-02	9.55E-02	0.773	0.4651407	0.230071	0.043**	0.4285954
Marital	-0.22897	0.201859	0.257	4.88E-01	4.53E-01	0.282	-0.2205357
Edu_level	0.081661	0.168336	0.628	-0.0369065	0.40769	0.928	0.1839072
Income	8.99E-07	7.27E-07	0.216	4.02E-08	1.74E-06	0.982	2.37E-06
Profits	-0.24031	0.369951	0.516	-1.645067	0.777428	0.034**	-1.908007
Government trust	0.057672	0.319137	0.857	0.6878952	0.721645	0.34	0.6784657
Penalties	0.558526	0.391718	0.154	0.5220551	0.835888	0.532	1.852204

Corruption	-0.30304	0.200159	0.130	0.0580259	0.446855	0.897	-0.7430541
Tax rate	-1.00604	0.542444	0.064*	0.5736294	0.492982	0.245	-1.9203
Business ownership	0.717829	0.359448	0.046**	0.9196113	0.849255	0.279	2.653333
Workers	-0.01725	0.025958	0.506	-0.0369381	0.069231	0.594	-0.0731904

***p< 0.01, ** p<0.05, *p<0.1

4.1.1 Age of SMES Owner

Age was negatively associated with tax paid, the relationship was statistically significant at 0.1 significance level (p = 0.069). The coefficient of -0.0497529 suggested that on average younger individuals on average have lower tax payments. However, in tier one age was found to do not have a statistically significant relationship with the tax compliance (p = 0.127). The coefficient of 0.0227099 indicates a positive association between age and the likelihood of tax compliance, although the effect size is small. The marginal effects of 0.02088388 indicated that older SMEs owners comply with tax by 0.02088388 more compared to younger SMEs owners. However, since the coefficient is not statistically significant, it suggests that age alone may not be a significant factor in determining the likelihood of compliance.

4.1.2 Household Size

In tier one, the variable Household size was found to be statistically insignificant relationship with tax compliance (p = 0.773). Household size shown a statistically significant positive relationship with tax paid (p = 0.043). The coefficient of 0.4651407 suggested that larger household sizes were associated with higher tax payments. Marginal effects indicated that more household size increases amount of tax paid.

4.1.3 SME Profits

Profits had no statistically significant relationship with the tax compliance. However, Profits had a statistically significant negative relationship with tax paid (p = 0.034). The coefficient of -1.645067 whose marginal effects of -1.908007 suggested that higher profits are associated with lower tax payments. This indicated that individuals or businesses with higher profits tend to have lower tax liabilities.

4.1.4 Tax Rates

Tax rate had a statistically significant negative relationship with the tax rates (p = 0.064). The coefficient of -1.00604 suggests that a higher tax rate was associated with a lower likelihood of paying tax. This implied that individuals or entities subjected to higher tax rates are less likely to pay tax. The marginal effects of -1.9203 signified that higher tax rates are accompanied with less likelihood to comply with tax.

4.1.5 Business Ownership

Business ownership was positive and statistically significant (p = 0.046) at 5% significance level. The coefficient of 0.7178294 suggests that a public owned SMEs was associated with a higher likelihood of tax compliance. A marginal effect of 2.653333 indicated that on average public owned SMEs comply with tax by 2.653333 higher compared to their counterparts.

4.2 Discussions

This study aimed to investigate the factors and extent of tax compliance among SMEs in Arusha City Council. The study findings revealed that the age of SME owners had a negative relationship with tax payments, which was statistically significant at a 0.1 significance level (p=0.069). Younger SMEs owners tended to have lower tax payments, but in tier one, age did not have a significant nexus with tax compliance (p=0.127). Furthermore, the SMEs owners' household size had no significant relationship with tax compliance in tier one (p=0.773), but it had a positive relationship with tax paid in tier two (p=0.043). SMEs owners with larger households had higher tax payments. SME profits did not have a statistically significant relationship with tax compliance, but they had a negative relationship with tax paid (p=0.034). Higher profits were associated with lower tax payments, indicating that entities with higher profits had lower tax liabilities. Tax rates had a negative relationship with tax compliance (p=0.064), where higher tax rates meant a lower likelihood of paying taxes. Lastly, business ownership had a positive and statistically significant relationship with tax compliance (p=0.046). Public-owned SMEs had a higher likelihood of tax compliance than their counterparts.

The findings of this study are in alignment with the findings of earlier studies conducted by Nguyen et al. (2020) in Vietnam and Mwangi (2014) in Kenya, both of which found that firm ownership and tax rates as pivotal determinants influencing tax compliance among SMEs. Specifically, these studies suggest that the public owned

SMEs and the level of tax rates to be paid play a significant part in determining whether SMEs adhere to tax regulations.

However, the current study's results go antagonistically from the findings of several other studies. For instance, Inasius (2019) found that gender, specifically if an owner is a female, plays a significant role in tax compliance among SMEs. Inasius (2019) added that this is due to the several social and economic gravities faced by female business owners, who rank compliance higher to avoid lawful concerns that could unreasonably impact them. Aladejebi (2018) emphasized the position of taxpayer ethics, suggesting that individual ethical standards and the alleged lawfulness of the tax system meaningfully impact compliance behavior. Omary and Pastory (2022) highlighted the protagonist of economic circumstances, remarking that SMEs are more likely to comply with tax responsibilities during epochs of economic steadiness when their returns are more foreseeable. Kimata and Churk (2020) explored the effectiveness of tax audits as a deterrent to non-compliance, suggesting that consistent and systematic audits increase the perceived risk of evasion.

Elly (2015) also emphasized the importance of tax education, fair implementation, and institutional factors, arguing that when SME owners are well-informed about tax laws and perceive the implementation process as fair and transparent, they are more likely to comply with tax regulations. Moreover, this study offers an exceptional contribution to the literature by classifying the aspects that impact tax payments among SMEs that are already compliant with tax obligations. The findings indicate that once SMEs have decided to comply, the amount of tax they pay is negatively triggered by the age of SME owner and profitability of the SMEs. This finding proposes that older businesses, possibly with more established financial streams and greater access to tax planning resources, find ways to lawfully decrease their tax burden. Similarly, more profitable SMEs participate in more erudite tax minimization plans, applying available deductions and credits more effectively to lower their overall tax responsibility.

On the other hand, the study finds that the household size of SME owners has a positive influence on tax payments. This result advocates that larger household sizes are allied with a superior sense of financial responsibility.

V. CONCLUSION & RECOMMENDATIONS

5.1 Conclusions

The study examined determinants and extent of tax compliance among SMEs in Arusha City Council using a sample of 100 SMEs. The analysis of small and medium enterprises (SMEs) in Arusha City Council has provided important details into tax compliance and the extent of tax payment. Male entrepreneurs dominate the SME sector. SME owners exhibit a strong understanding of tax regulations and undergo frequent audits associated with tax education, showing their pledge to compliance. Privately owned SMEs, chiefly ran by individuals in their mid-30s, and are flexible with an average workforce of nine employees. Notably, SMEs generate viable profits and fulfill tax obligations by paying an average tax rate. Age negatively links with tax payments, while household size shows a positive relationship. Although SME profits do not significantly impact compliance, higher profits are associated with lower tax payments. Higher tax rates are linked to a decreased likelihood of tax payment, and public ownership is positively correlated with compliance.

5.2. Recommendations

The analysis on SMEs in Arusha City Council reveals the need for policy interventions to provide tax education and support, simplify tax procedures, support record-keeping and financial management, offer targeted assistance to financially constrained SMEs, and foster collaboration between tax authorities and SMEs to improve tax compliance and payments. Policymakers should develop a conducive platform to discuss tax rates between tax payers and tax authorities. These measures aim to create a supportive environment, enhance tax compliance, and facilitate the growth of SMEs in Arusha City Council.

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