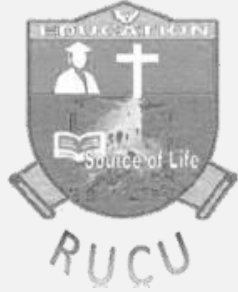


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Editorial Note

Dear authors and readers of the Ruaha Business, Economics and Management Sciences Journal. It is with great pleasure that I welcome you to the special issue 1 of November 2023 of Ruaha Journal of Business, Economics, and Management Sciences for which I have been appointed as the Chief Editor

Our goal is to provide worldwide scholars with comparative research papers on recent business, economics, and management sciences advancements in Tanzania and elsewhere. This journal is the brainchild of the Faculty of Business and Management Sciences and is intended to bridge the gap between the business, economics, and management academic tradition and the international arena. Our goal is also to improve access by other scholars and ensure the journal gains global recognition.

Second, we are very flexible in our editorial policies and thus welcome articles from other countries. It is our vision that the Ruaha Journal of Business, Economics, and Management Sciences transitions to a platform of international comparative discussions on various business, economics, and management sciences themes. Our scope is limitless and thus accommodates a wide range of interdisciplinary fields.

Finally, I would like to thank all prominent members of our Editorial Board for joining us in this new fascinating, and promising academic project. I thank all contributors to our journal.

Chief Editor

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Crypto-Currency for Socio-Economic Transformation in Tanzania

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Abstract

The purpose of this study is to investigate the impact of crypto currency technology on socio-economic transformation. This research was motivated by the need for a secure currency that cannot be counterfeited and concerns about the safety and security of hard cash transactions. The study utilized an explanatory research design conducted in Dodoma City Council. The participants included individuals and business firms, bankers, officials from various government agencies, and Dodoma City Council officials, resulting in 104 respondents. Data were collected primarily through questionnaires and secondarily through the review of journals and published report from BoT. The collected data were analyzed using the Non-Normalized Fit Index (NNFI), the goodness of fit index (GFI), and the discriminant analysis tool. The analysis results indicate that crypto currency technology positively impacts socio-economic transformation by creating stable monetary systems, reducing transaction costs, and stabilizing market efficiency. However, the technology was not adopted due to non-formalization issues, lack of reliable database for all Tanzanian residents, and unstable internet subscription, telecommunication network and electrical energy supply. Therefore, the study recommends that policymakers address these issues to realise crypto currency technology's expected impacts on socio-economic transformation.

Keywords: *Crypto-currency, Stable monetary systems, Cashless transactions, Market efficiency, socio-economic transformation*

1. Introduction

Crypto currency is becoming the means of financial transaction to many governments in the World. Crypto currency is the digital or virtual currency that discards hard cash financial transactions (Maurya, 2019). Crypto currency uses crypto graphy technology for checking the originality regarding the security features over the actual bit coin currency should have. Thus, with the crypto currency system, counterfeit currency is easily identified through cryptography (Lee, 2019). Usually, the Central Bank controls crypto currency, and the controls, safety and security are decentralized (Jagtiani, Papaioannou, &Tsetsekos, 2019).

Crypto currency technology contributes towards stable monetary systems because it is subjected to the maintenance of the same quantity of currency supplied or printed by the Central Bank (Caton, 2019). This indeed sustains the currency equilibrium condition over money market equilibrium (LM) which in turn balances the commodity market equilibrium (IS) i.e. the aggregate demand (I) and aggregate supply(s) (Sanches, 2016).

Crypto currency technology sustains cashless transactions (Kaur, 2019). This then helps maintain the currency's durability remain as e-money without tear and wear, thus retaining its value for a long period. Crypto currency overcomes the problem of counterfeiting and making copies of original currency in circulation (Naskar, 2019). Moreover, effective crypto currency technology adoption and use prevent money laundering (Mangate, 2020).

Crypto currency offers economic stabilization, thorough assurance over productivity and distribution efficiency (Mita, Ito, Ohsawa& Tanaka, 2019). The excessive money supply, which could result from counterfeiting, money laundering, and illegal printing/making copies, is discarded (Kang & Lee, 2019). This helps ensure combating stagflation in the economy (Hand field & Nair, 2019).

The sustainability over money market equilibrium achieved due to steady money supply, quantity and velocity of currency in circulation has been revealed to be brought by acceptance and use of bit-coin-crypto currency (Rzayeva, 2019). The enhancement of cashless transactions has been revealed to disrupt the traditional means of individuals/firms holding huge amounts of money in their pockets (Helbing, 2019). The curbed counterfeit and money laundering cases following the invention of crypto currency have been the reason for the stabilized economy and market efficiency (Nasir, Huynh, Nguyen & Duong, 2019).

Eriksson and Sandhill (2019), advocates that a significant proportion of hard cash transactions, specifically 71% are not secured and stable enough to maintain a consistent velocity of currency in circulation. This raises concerns about the sustainability of hard cash transactions compared to cash-less mechanisms, particularly in light of the increasing adoption of crypto currencies. It is therefore imperative that measures are taken to address the security and stability issues associated with hard cash transactions in order to ensure the continued viability of this mode of exchange. Manual financial systems favour individuals/firms who hold a large amount of money in their pocket, thus creating leakage to the economy not with cashless systems as with crypto currency revealed by Sukarno (2020) in Malaysia. Holding huge amounts of money in hand or at home has been a major source of creation over currency reserve for over >54% as reported by Kandpal and Mehrotra (2019) in India.

Cash transaction is the source of volatility over domestic currency, accounting for about 81% (Arvidsson, 2019). Increasingly counterfeit cases over domestic currency, such as in the Republic of Central Africa, because of the use of hard cash transactions. Contrarily to crypto currency, the use of cash transactions in most cases with low-income families in African countries has been revealed as a source of increase in fraudulent dealings and difficult administration over tax policies and laws overtax revenue collections accounting for 74% (Yalaman & Yildirim, 2019). Difficulties in administrating the tax due to the use of analogue non-complicated systems are the reason for

little collections amounting to 45% revealed to be the source of the government budget deficit for most developing countries (Sidorenkon & Lykov, 2019).

The instability observed in the economies of developing countries, such as Tanzania, can be attributed to a combination of factors, including inflation and high exchange rate floatation. According to Georgiou (2020), the absence of crypto currency platforms exacerbates this instability. Furthermore, Kim and Chung (2019) note that the inefficient distribution of national income, goods, services, and resources accounts for a significant portion (up to 64%) of the challenges faced by developing countries due to the lack of digital systems, such as crypto currency. As a result, families in these countries often experience unequal and inefficient distribution of income, which perpetuates poverty despite the abundance of natural resources available.

The field study conducted on the Tanzanian domestic currency has revealed a significant discrepancy in the floatation of the currency used for transactions. This is primarily due to the absence of crypto currency technology, which has exposed the currency to external sources and add-ons, leading to hyperinflation. The non-use of crypto currency has also made it difficult to administer indirect tax, property tax, VAT, and another fees collection by TRA. The manual systems requiring face-to-face meetings with customers have resulted in fraudulent dealings and stiff administration.

However, the adoption of block chain technology and effective fostering of crypto currency could address these issues. With the integration of crypto currency, a correct and reliable contribution or charge could be automatically deducted from customers' or business firms' accounts. This would enable reliable and fair VAT deductions from business returns or sales, thereby eliminating unfair tax deductions that were found to be prevalent in the field area. The automation and connection of business firms to TRA systems through crypto currency would also enhance the administration of taxes and reduce fraudulent activities.

In conclusion, the adoption of crypto currency and block chain technology would be a significant step towards addressing the challenges faced by the Tanzanian domestic currency. It would lead to a fair and transparent taxation system and enhance the administration of taxes, thereby promoting economic growth and stability.

From the field area, the same as it has shown over less tax and fees collected by the government accounting to only 27% of national income from the public was also shown with non-performing loans financial institutions are incurring. From the field, it was revealed that the non-use of block chain technology had enabled loan applicants to operate distinctly or remotely from financial institutions. It was found that loan applicants were not scattered, identified, not formalized, and no single database for all resident Tanzanians (database of loan applicants). Crypto currency technology was found to be not fostered by most financial institutions to properly identify their clients, not commit adverse selection and ensure an optimal collection of repayments. For ease of identification of the clients, establishing a single database to be held, said the National Identification Authority in Tanzania, could help financial institutions tally the information provided by the credit applicant and those held in the database system of the authority.

Remote controlling of the domestic currency by the Bank of Tanzania is a centralized system in which money laundering and counterfeiting cases normally reported cannot be avoided by not adopting crypto currency. That is why this cross-sectional survey has been conducted. Though from the field, it was revealed that crypto currency might become enhancers of money laundering but being a recommendation of this study under discussion is that to avoid this prospective disaster from occurring then, decentralized crypto graph systems should be effective, safe, and secured. This study's discussion has explicitly uncovered the new policies the central Bank has to develop to achieve the said effectiveness.

2. Literature Review

This study adopted the Innovation diffusion technology and acceptance model. The Model postulates on economic contribution brought through adopting and using Crypto currency (Ashoor& Sandhu, 2019). Moreover, Bhosale and Mavale (2018) reported that cryptocurrency leads to increasing velocity of currency in circulation and retains the quantity of money in circulation. Furthermore, Adu, Buabeng, Asamoah, and Damoah (2020) pose that government revenue collection is maximised through cryptocurrency technology. Crypto currency, as commented by Liu and Tsyvinski (2018), contributed to curbing stagflation in the economy.

The theory either failed to dictate the innovative disruption the crypto currency technology has brought, i.e. socio-economic transformation, the issue which has been addressed by this study under discussion. The problems demonstrated socio-economic change brought by crypto currency found from the research area were over decentralised control, which led to stable monetary systems, and effective administration over the receipt and payment transactions because of the cash-less disruptive technology adopted. Moreover, the decentralized control mechanisms executed following the acceptance and adoption of crypto currency revealed to create market efficiency, the other issue not said by the Model thus explicitly addressed by this study under discussion.

According to Díaz, de-Córdobab, and Puchc (2019), the adoption and use of cryptocurrency were revealed to reduce inflation to <1% in China. Moreover, following the adoption of cryptocurrency technology, foreign exchange floatation was reported to come to a <2% in England (Deshwal, Kaurav& Thakur, 2019). Crypto currency has more over found to speed up payment and receipts transactions (Howell & Potgieter, 2019).

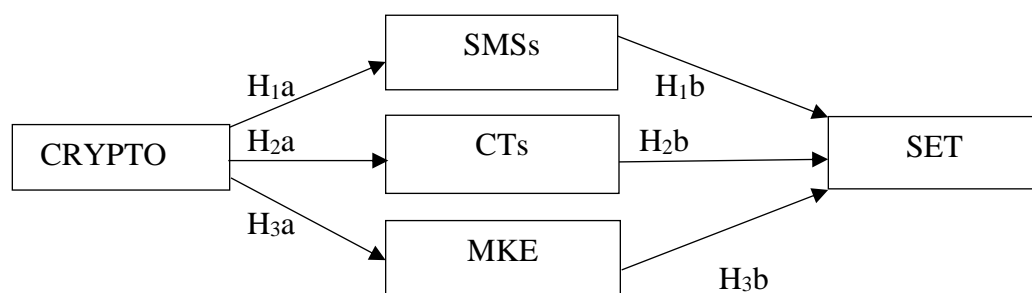
In Rwanda, the adoption of crypto currency was reported to be maximising government collection by 54% from 28% before the invention of the technology (Kesa&Mahoro, 2019). In South Africa, crypto-currency was revealed to curb the counterfeit dealings of Rand (Rs) to <12%, which is different from what it was before when the fake cases reported were acute to >80% (Mutambara, 2019). In Indonesia (from Jakarta provincial government), the adoption of crypto currency was revealed to maximise government tax revenue collection by 67% (Wang & Sari, 2019).

Crypto currency has been found to increase the efficient over-allocation and distribution of financial resources (Yanagawa& Yamaoka, 2019). The marginal productivity and outputs have been reported to stabilise by >75% following inventions over the crypto-currency (Zhang & Yang,

2019). Crypto currency has been revealed to sustain money market equilibrium (Mita, Ito, Ohsawa, & Tanaka, 2019).

Financial discipline and budgeting have been the attitudes individuals and firms have adopted following inventions over crypto currency technology (Nabilou, 2019). The behavior of holding large amounts of money for transactions was discarded with the invention of Crypto currency in Tanzania (Limba, Stankevičius&Andrulevičius, 2019). Crypto currency has been found to facilitate steady cashless transactions by 70% (Corbet, Larkin, Lucey, Meegan &Yarovaya, 2020). The studies shown above have revealed the positive influence of crypto currency on the economy. However, how explicitly socially and economically the transformation has been achieved has not been stipulated, which has been the area of focus of this study under discussion. The disruption addressed by this study underhand came following inventions of crypto currency technology revealed to be rooted in decentralized control through the use of secured and safe cryptography. The use of decentralized cryptography secured system has created a stable money system, effective e-money transactions, and market efficiency. Moreover, the other difference between the studies reviewed above and this one under discussion was over the surveyed area population. Indeed while other studies revealed to be used mostly to be case studies and descriptive research designs, this one underhand employed survey research design. While other studies reviewed above indicated to be used for thematic data analysis being presented using simple percentages and graphs, this study under discussion used structural equation modelling

Operationalisation of variables as it has been reviewed under theoretical and empirical literature reviews above were guided by the conceptual framework shown as Figure 1 below:



Note: CRYPTO= crypto currency; SMSs = stabilization of monetary systems; CTs = Cash less transactions; MKE= Market efficiency; SET = socio-economic transformation

Source: Ashoor& Sandhu (2019); Bhosale &Mavale (2018); Liu &Tsyvinski (2018).

3. Methodology

The study was conducted in Dodoma City Council. This area was chosen as the surveyed population was accessible and reachable. Dodoma City Council is the area metallurgical found with the institutions responsible for transformation over inventing on crypto currency. Because crypto currency is subjected to decentralized control, most of the controlling and regulatory authorities' head offices responsible for thorough transformation, such as NIDA, BoT, BRELA, and ot Crypto currency is becoming the means of financial transaction many governments in the World are adopting and used to. Crypto currency is the digital or virtual currency that discards

hard cash financial transactions (Maurya, 2019). Crypto currency uses crypto grapy technology for checking the originality regarding the security features over the actual bit coin currency should have. Thus with the crypto currency system, counterfeit currency is easily identified through cryptography (Lee, 2019). Usually, the Central Bank controls crypto currency, and the control, safety and security are decentralized (Jagtiani, Papaioannou, &Tsetsekos, 2019).

Moreover, the study applied the cross-sectional survey design. Either simple random sampling was used to derive 104 respondents from 480,000 surveyed population. Using a calculator 130 (+) random numbers were created but only 104 were used to make a sample frame. This sample frame was chosen from 4 columns with 25 simple random numbers. The 104 sample size derived from 130(+) to a total of 480,000 population employed a confidence level of 10% (Mudge&Houlahan, 2019). The distributive unit of inquiry chosen was as shown in Table 1 below: -

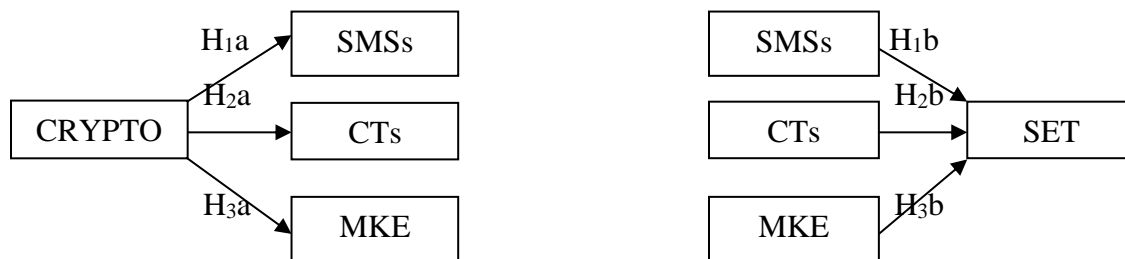
Table 1: Deduction of sample size

Surveyed population	Sample frame	Sample size
NIDA officials	50	5
BoT officials	500	10
BRELA officials	150	5
DodomaCityCouncil officials	150	10
TRA officials	150	14
Bankers	4,000	10
Individuals/ firms	475,000	50
TOTAL	480,000	104

Source: Pilot Survey (2020)

Data from a sample frame shown in Table 1 were gathered primarily through a questionnaire. Data were collected by reviewing the literature, journals, and publications. The collected and processed data were analysed using inferential statistical tools, including the non-normalised fit index (NNFI), goodness of fit index (GFI) and discriminant analysis. The non-normalised and goodness of fit indices were applied to confirm for variables model fitting while decriminant analysis was conducted aiming to the determine regression effect. Factors loading was sustained by employing partial least square structural equation modeling (PLS-SEM) using a Smart PLS3 software.

The structural models guiding the inferential statistical analysis are shown in path analysis model 2 below. The structural models were appropriate because the recommended level for variables is between 10- 20 and the indictors is to be in the size of ≥ 10 from which each factor (variable) has to retain 3 indicators (Scherer, Siddiq &Tondeur, 2019).



1st Cross Loadings

2nd Cross Loadings

Figure 2: Path Analytic Models

From the data analysis models and hypothesis testing tools to reveal that the variable fit the Model or the relationship between variables is statistically significant the following assumptions presented in Table 2 hold: -

Table 2: Data Analysis Models' Assumptions

Analysis Model Assumptions

1. NNFI >The variable is said to fit the Model if NNFI>0.95 for 1st cross loading
 >The variable is said to fit the Model if NNFI>0.47 for 2nd cross loading
 >The P<0.01 capture for errors

Source: Mirkin (2019).

2. GFI >The variable is assumed to fit the Model for GFI<0.08 for 1st cross loading
 >The variable is assumed to fit the Model for GFI<0.04 for 2nd cross loading
 >The figure P<0.01 is for errors capturing

Source: Schepsmeier (2019)

3. Discriminant analysis >The variable is said to fit the Model if $\lambda > 0.9$ for 1st cross loading
 >The variable is said to fit the Model if $\lambda > 0.45$ for 2nd cross loading
 > The standardized $\lambda < 0.9 = \lambda < 0.45$ is for normality testing
 >The figure 'standard error' (<0.05 = <0.025) is for capturing errors

Source: Linden (2020)

4. i) H_{1a} —————> For $\chi^2 \geq 0.05$ accept the hypothesis otherwise reject <**The cryptocurrency positively and significantly contribute to stabilized monetary systems**>
 ii) H_{1b} —————> For $\chi^2 \geq 0.025$ accept the hypothesis otherwise reject (**The stabilized monetary systems influence positively and significantly towards socio-economic transformation**>

Source: Visvalingam (2020)

5. i)H_{1a} —————>For $\chi^2 \geq 0.05$ accept the hypothesis otherwise reject <**The cryptocurrency positively and significantly influence cashless financial transactions**>
 ii) H_{1b} —————>For $\chi^2 \geq 0.025$, accept the hypothesis; otherwise, reject <**Cash less financial transactions positively and significantly lead to socio-economic transformation**>

Source: Tian & Pho (2019)

6. i) H_{1a} —————> For $\chi^2 = 0.05$ accept the hypothesis otherwise reject <**crypto currency technology influence the market efficiency positively and significantly**>

ii) $H_{1b} \longrightarrow$ For $\chi^2=0.025$ accept the hypothesis otherwise reject **<market efficiency influence socio-economic transformation positively and significantly>**

Source: Shankar (2019)

Results & Discussion

4. Results analysis

Non-normalised fit index Analysis test

This analysis revealed the strength of the association between crypto currency (independent variable) and stabilization in monetary systems (mediating variable) in the 1st cross-loadings. Indeed, the same tool was applied to test the strength of the relationship between the mediating variable, stabilized monetary systems (SMSs), and socio-economic Transformation (SET-dependent variable) for the 2nd cross-loadings. The results from the field were presented in Figure 2, Table 2 and 5.

Table 2: Crypto currency, stabilisation of monetary systems and socio-economic transformation

S/N	Value		
	1 st canonical loading	2 nd canonical loading	p.value
1. Money supply	0.95	0.47	0.003
2. Demand for money	0.96	0.48	0.001
3. Velocity of currency in circulation	0.95	0.48	0.002
4. Quantity of money in circulation	0.97	0.49	0.001
5. Storage of value of domestic currency	0.95	0.47	0.004

Source: Researchers' computations (2020)

With NNFI values ≥ 0.95 for 1st ≥ 0.47 for 2nd canonical loadings revealed over crypto currency to positively lead to stable monetary systems and socio-economic transformation. This was proven over the NNFI regarding money supply = 0.95; demand for money = 0.96; velocity of money in circulation = 0.95; quantity of money = 0.97; storage of value of domestic currency = 0.95. These results were ≥ 0.95 equals ≥ 0.47 (the accepted 1st and 2nd cross-loadings), showing the variable to fit the Model. Consistently the results were over the statistical significance revealed between the inventions over cryptocurrency technology and stability of monetary systems, which later give rise to socio-economic transformation with $\chi^2 \geq 0.05$ equals to $\chi^2 \geq 0.025$ for the 1st and 2nd canonical loadings (Refer Table 5 and Figure 2)

The goodness of fit index analysis test

The analysis was conducted to reveal the strength of the association between the crypto currency (independent variable) and cashless transactions (mediating variables) in the 1st cross-loadings. The same tool was applied to test the strength of the relationship between the mediating variable, cash-less transactions (CTs), and socio-economic Transformation (SET), the dependent variable for the 2nd cross-loadings. The results from the field are shown in Figures Table 3 and 5.

Table 3: Crypto currency, cash-less transactions, and Socio-economic Transformation

S/N		Value		
		1 st canonical loading	2 nd canonical loading	Sig.
1.	Maximization of revenue collection	0.07	0.035	0.000
2.	Counterfeit proceedings reduction	0.07	0.035	0.000
3.	Durability of currency in circulation	0.06	0.030	0.001
4.	Fraudulent practices	0.06	0.030	0.002
5.	Risks of holding huge amounts of money	0.07	0.035	0.000

Source: Researchers' computations (2020)

The GFI for all five sub-constructs to bear its values ≤ 0.08 equals to $GFI \leq 0.035$ for 1st and 2nd canonical loadings, respectively, showing the variable cashless financial transactions to fit the Model. It is a proven fact that the adoption and use of cryptocurrency positively impact the socio-economic transformation mediated by cash-less transactions. The cash-less transactions to be facilitated was over increasingly in revenue collections, $GFI = 0.07$; reduction in counterfeit cases $= 0.07$; durability of the currency in circulation retention $= 0.06$; fraudulent practices cases curbed $= 0.06$ and reduction in risks of holding large amounts of money $= 0.07$. Despite the positive results shown through running the goodness of fit index, the statistical significance was shown to be sustained with the revealed $\chi^2 \geq 0.05$ equals $\chi^2 \geq 0.025$ for 1st and 2nd canonical loadings, respectively (See Table 5 and Figure 2).

Discriminant analysis test

The analysis revealed the strength of the association between the crypto currency (independent variable) and cashless transaction (mediating variable) in the 1st cross-loadings. Indeed, the same tool was applied to test the strength of the relationship between the mediating variable, cashless transaction (MKE), and socio-economic Transformation (SET)-the dependent variable for the 2nd cross-loadings. The results from the field are presented in Figures 2, Table 4, and 5.

Table 4: Crypto currency, market efficiency, and socio-economic Transformation

	1 st Canonical loading	Wilks' lambda	Unstandardised	Standard	Standardised
		λ	λ	error	λ
1.	Allocative efficiency	0.92	0.03	0.03	0.84
2.	Distributive efficiency	0.94	0.03	0.04	0.76
3.	Stabilisation in economy	0.91	0.01	0.02	0.63

2 nd Canonical loadings					
1.	Allocative efficiency	0.46	0.006	0.015	0.42
2.	Distribution efficiency	0.42	0.008	0.020	0.38
3.	Stabilisation of Economy	0.45	0.003	0.010	0.31

Source: Researchers' own computations (2020)

Given the Wilks' lambda, λ values > 0.9 equal to $\lambda > 0.5$ for 1st and 2nd canonical loadings, respectively, shows that market efficiency is the output over sustainable adoption and acceptance of the crypto currency. These facts indicate that crypto currency technology adoption is the

function of socio-economic transformation brought by significant allocative efficiency, $\lambda=0.92$; distribution efficiency = 0.94, and economic stability =0.91. Moreover, with $\chi^2=0.3$, statistical significance exists between crypto currency technology and market efficiency and later between the market efficiency and socio-economic transformation.

Table 5: Chi2 Test Analysis

Variables	Value			
	1 st canonical loading	2 nd canonical loading	d.f	P-value
SMSs	2.50	1.25	(5, 99)	0.000
CTs	2.50	1.25	(5, 99)	0.001
MKE	0.90	0.45	(3,101)	0.000

Null hypothesis: CRYPTO= SMSs (**H1a**); CRYPTO=CTs (**H2a**); CRYPTO =MKE (**H3a**)/ SET=SMSs (**H1b**); SET=CTs (**H2b**); SET = MKE (**H3b**)

Discussions of Findings

Crypto currency and stable monetary systems for Socio-economic Transformation

Crypto currency technology has been revealed to stabilize monetary systems. The stable economic system said is due to the sustained money supply. It is because of the absence of negative externalities or external sources, which are the source of the creation of currency reserves over the currency circulation. Retention of the same quantity of money supply is because of curbing smuggling and illegal business; for now, registration is the priority for organizations/businesses/individuals included in the system. It was found that the cause of excessive money supply is the changes in the forces of demand and supply and not because of external illegal activities, indeed money laundering.

Crypto currency has been revealed to maintain the demand for money. This is because the trade-off between the money required for business transactions, investment, and consumption balances with the money supply. Crypto currency technology has been found to discourage jobless as receipts and income is generated by someone involved in the business, say of selling products or offering services. With crypto currency technology, a steady circular of income is attained, which is consistent with that of Fujiwara and Islam (2020). A firm's production becomes a source of wages that defines the limit of someone's expenditure. Crypto currency, therefore, requires individuals/firms to be smart in executing financial discipline, planning, and budgeting by regarding the income in e-money form. It is contrarily revealed that a demand for money might be sustained if the tax charged on a firm/business on a product is not fair, which causes the production or operating expenses to exceed the income in virtual e-money systems.

Moreover, as shown in Table 2, the positive relationship between crypto currency and a stable monetary system is over the steady velocity of currency in circulation, the same facts reported by (Duffie, 2019). It is either through credit/credit cards/mobile phones where float money is used to settle obligations. This either has a caution to be taken by individuals/firms to be transformed in

mind that e-money is the effective and complicated contingency to catalyze business transactions. This also revealed a dilemma from the research area as they have used the system in the past now and then. The problem of hard cash transaction in relation to lowering the speed of currency in circulation is that pocket money favors none or slow moving due to excessive savings, which might happen when the individual or firm does not transact and invest.

With crypto currency technology, the amount of the printed domestic currency maintains its size for a long time before a central Bank re-prints new money to replace the revealed worn and torn money or as new money is re-printed as a stimulus package. This maintained quantity of currency in circulation has been revealed to sustain business transactions. Moreover, the price of commodities; resources are retained not to cause excessive money supply due to persistent price increases. The crypto currency and its impacts on the stability of cost, the fact is consistent with that of classical theory by King Fisher (1952) ($MV = PT$); ($M = 1/V PT$) where M = quantity of money in circulation; V = velocity of currency in circulation held constant transaction. The constant transaction from the equation model above is a fact that proves that King Fisher's theory of quantity of money, as it is with crypto currency technology, maintains the purchasing power and value of domestic currency.

Crypto currency and Cashless Transactions for socio-economic transformation

It is the over-adoption of e-money transactions that derive money from individuals'/firms' pockets and hands (Fabris, 2019). The cashless transactions following inventions over crypto currency technology as the positivism (See Table 3) and statistical significance (See Table 5) revealed the maximization of revenue collection. The increase in revenue collections is because of reduced illegal bargaining transactions. Maximization over revenue collection was revealed to be caused by the curbed tendency of the business money to be invested in non-business entities called personal withdrawals. Normally money from the business held in the pocket is easily misallocated and invested non-productively if not the business entity's money ends up consumed. None-invested or non-productively allocated money to the business becomes a leakage to the economy.

The cashless transaction brought through crypto currency technology was revealed to curb the counterfeit proceedings cases (Thommandru & Chakka, 2022). This is true, but only if the decentralized control is subjected to furnished and effective crypto graph technology. It is a fact that if crypto currency is not secured, then, it might be a root cause of money laundering. This then was the same as what was revealed from the field in which individuals and business firms that if the crypto graph is ineffective, then much of the receipts might be laundering money which might become a disaster and cries to most businesses.

From the research field, it was revealed that crypto currency technology limit individual/firm hold money in their pockets and hands, which then the discrepancy of wear and tear become not part of the system. None torn and worn currency retains its value for a determinable long time: durability. With this crypto currency technology, notes and coins lose their security features in several cases and are therefore subjected to rejection or non-acceptance by society for transactions (Hazlett & Luther, 2020).

Crypto currency technology from the field revealed to eliminate the problem of fraudulent practices. Crypto currency was revealed to curb corruption, taxpayers' bribes, and bill settlers not to pay the required and receptive obligations (Rahman & Jin, 2023). That is why and indeed, as it has also been noted above is that it is from reduced corruption and fraud in which the government receives its correct amount of tax and other allowances or incentives. It is e-money transactions enabled that do not allow non-business bargaining and therefore allow for transparency and effective administration such as tax collections. In Rwanda, adopting crypto currency technology has been found to create economic tax collections which are the major sources of government revenue. Indeed in Sweden, Crypto currency was found to discard illegal bargaining between business firms/investors and provincial officials during the collection of fees, penalties, and duties (Arvidsson, 2019). Here what is important to foster collection is just used to identity card numbers, the code number supplied by the owner/business firms/individuals. This is why it requires consistency to what was revealed from the research area in which it was reported that for effective crypto currency technology, there should be a single database for individuals/business firms. This has been revealed to foster encryption, but again, the regulatory authorities have one or single point of accessing the information of individuals/business firms as it is to NIDA in Tanzania. That means having one database system, for instance, in Tanzania revealed to increase the ease of retrieval of information about individuals or firms by BRELA (the business firm registration government organ); financial institutions (the profile of the credit/loan applicants); TRA (the tax collectors). Crypto currency technology was effective in the environment of networked systems fostered through block chain technology.

The cash-less transaction fostered through crypto currency technology found to secure individuals/firms who hold huge amounts of money in their pockets. It is from the same case curbed, which has revealed retaining the crypto currency to be secured and safe financial transaction systems. The robbery and thieves cases revealed to be curbed as someone to access e-money transactions just a code number, ID number, PIN, Debit card, Credit card, and pass-port revealed important. From the field, it was pinpointed that the systems/infrastructures over steady internet subscription, telecommunication network, and electricity should be sustained to implement crypto currency effectively. With a stable internet system to be maintained, Tanzania must be supplied with wireless internet. Moreover, for remote rural individuals/firms in Tanzania where the use of smartphones of which crypto currency is to be enabled through mobile apps (app store, play store), crypto currency is to be enabled just in simple non-internet enabled hand phones. This does not require using a control number for payment because just through the use of an ID number then, the money is withdrawn from the owners' account to the recipient (payee).

Crypto currency and market efficiency for socio-economic Transformation

Crypto currency's allocative efficiency was revealed to be sustained (See Tables 4 and 5). This is because even what is to be consumed should have its income regeneration to sustain a circular flow of income. Either allocative efficiency over financial resources to the productive sector is from the financial descriptive the individuals/ business firms must have to remain in the systems. With crypto currency, there is no way the household /individuals/ factor owner/firm may consume more than the revenue/receipt (Zhang, Chan, Ch & Sulieman, 2020). This means if the financial resources in e-money form are not allocated productively, then the individual/ firm cannot transact,

and by default, the system will eliminate that individual/firm. This will either make the user of the system become off of the system, which is then a leakage to the economy. Crypto currency and through allocative efficiency over business transactions (T) and investment, crypto currency is an economic injection.

Since crypto currency technology require details of every resident citizen regardless of geographical locality (i.e. rural and urban), gender (male and female), and small and large scale firms, then this ensures distribution over national income. The efficient distribution of goods and services was revealed to be sustained due to the curbed pull and push demand inflation (See Tables 4 and 5). Normally inventions over crypto currency run in line with changes in forces of demand and supply. It is because of retained money market equilibrium that allows for sustainability in distribution efficiency (Mniwasa, 2019).

Economic stability was revealed to be attained through the invention of crypto currency technology. This was rooted in the combated counterfeit, excessive money supply resulting from illegal printing or making copies of domestic currency, maximum tax collection, efficient allocation of resources, and efficient distribution of goods and services. The economic additions called injections following the productive allocation of financial resources create a steady circular flow of income which curb stagflation in the economy, which comply with what was also reported by Manahov (2023).

5. Conclusion & Recommendations

Conclusion

Crypto currency is the technology that uses a crypto graph as a secure and safe currency in circulation. The cryptograph is a decentralized, secured system. The central Bank takes control of it. Crypto currency technology is used to e-money for enhancing different business transactions and thoughts of investments. From the field, it was found that crypto currency contributes positively towards stabilized monetary systems, cashless financial transactions and market efficiency. This then revealed to change in the way individuals/firms were usually used by being used to hard cash transactions, which required them to hold large amounts of money in their pockets which then found to be unsafe and unsecured financial systems. Indeed a transformation was revealed over the efficient administration of the government revenue collections that curbed counterfeit and money laundering problems. Despite crypto currency's positivistic and statistical significance on socio-economic transformation, the technology was often not effectively adopted from the surveyed area. This was revealed to be caused by most business firms and individuals not formalised; the absence of a single identifiable database for all individuals/firms from which other regulatory authorities such as BRELA and TRA could easily retrieve information of interest from either customer/individual/firm from that system indeed since crypto currency is effectively enhanced in the environment of block chain technology, non-steady subscription of internet, telecommunication network and inadequate supply of electricity found to be another dilemma for crypto currency to be ineffective as revealed from the field.

Recommendations for action

The dilemma found from the surveyed area for crypto currency not effectively fostered, thus, the study recommends the following to the target population: -individuals/firms should be prepared minds for transformation, and individuals/firms are to register their businesses. To financial institutions/BRELA and TRA recommends that: -creating the enabling environment for crypto currency disruption technology; the senior managers have to be prepared to support the change; the infrastructures, hardware and programs which are to facilitate change have to be made available in place; and the whole change process towards in adopting and accepting crypto currency technology should be planned. Regarding the Central Bank, the current study suggests that the vitalisation of policies for effective implementation of cryptography and the Central Bank has to ensure that the decentralized cryptographic control is to be effective. Either the current recommends the following to the government that it has to call for MKURABITA so that individuals/firms get registered; the government has to ensure a single database to be held, say, by NIDA for all resident Tanzanians, and the government has to ensure steady internet subscription, telecommunication networks and electrical energy supply

Recommendations for further studies

With relevance to this study underhand, other scholars may research in the future called further studies, including: -the crypto currency and stability in monetary systems; the crypto currency and enhancement of cash-less transactions; the crypto currency and sustainability of market efficiency. Moreover, other researchers may investigate crypto currency and economic stability, the impacts of stabilized monetary systems, effective government revenue collection administrations, market efficiency brought through crypto currency technology and socio-economic transformation.

References

- Adu, E. P., Buabeng, T., Asamoah, K., & Damoah, C. M. (2020). Digitization of local revenue collection in Ghana: An evaluation of Accra Metropolitan Assembly (AMA). *The Electronic Journal of Information Systems in Developing Countries*, 86(1), e12112. <https://doi.org/10.1002/isd2.12112>
- Arvidsson, N. (2019). The Story of Cash and the Route Toward a Cashless Society: The Case of Sweden. In *Building a Cashless Society* (pp. 27-39). Springer, Cham. https://doi.org/10.1007/978-3-030-04191-5_3
- Ashoor, A., & Sandhu, K. (2019). Framework and Model for Cryptocurrency Innovation and its Impact on Economic Transformation. *International Journal of Innovation in the Digital Economy (IJIDE)*, 10(4), 33-43. <https://doi.org/10.4018/IJIDE.2019100103>
- Bhosale, J., & Mavale, S. (2018). The volatility of select crypto-currencies: A comparison of Bitcoin, Ethereum, and Litecoin. *Studies*, 132. <https://doi.org/10.1108/S2050-206020180000132007>
- Caton, J. L. (2019). Crypto liquidity: the block chain and monetary stability. *Journal of Entrepreneurship and Public Policy*. <https://doi.org/10.1108/JEPP-03-2019-0022>
- Corbet, S., Larkin, C., Lucey, B., Meegan, A., & Yarovaya, L. (2020). Cryptocurrency reaction to fomic announcements: Evidence of heterogeneity based on blockchain stack position. *Journal of Financial Stability*, 46, 100706. <https://doi.org/10.1016/j.jfs.2019.100706>

- Deshwal, M., Kaurav, R. P. S., & Thakur, K. S. (2019). Cryptocurrency technology: Prospects in the success of different organisations. Available at SSRN 3323865. <https://doi.org/10.2139/ssrn.3323865>
- Díaz, A., de-Córdobab, G. F., & Puchc, L. A. (2019). Money Supply for a Utility Crypto currency. Duffie, D. (2019). Digital currencies and fast payment systems: Disruption is coming. In Asian Monetary Forum, May, mimeo.
- Eriksson, B., & Sandhill, U. (2019). 14 Cashless. Digital Transformation and Public Services, 235. <https://doi.org/10.4337/9781788977352.00023>
- Fabris, N. (2019). Cashless Society–The Future of Money or a Utopia?. Journal of Central Banking Theory and Practice, 8(1), 53-66. <https://doi.org/10.2478/jcbtp-2019-0004>
- Fujiwara, Y., & Islam, R. (2020). Hodge decomposition of bitcoin money flow. *Advanced Studies of Financial Technologies and Cryptocurrencies Markets* (2020):117-17.
- Georgiou, G. C. (2020). Cryptocurrency Challenges Sovereign Currency. World Economics, 21(1), 117-142. <https://doi.org/10.1016/j.worlddev.2019.05.014>
- Handfield, R. B., & Nair, A. (2019). Counterfeiting in the Supply Chain: Identification, Containment & Prevention by Adopting a Multi-Pronged Approach1. <https://doi.org/10.1108/978-1-78973-128-520191007>
- Hazlet, P.K& Luther, W.J. (2020). Is bitcoin money? And what that means. The Quartely review of Economics and Finance, 77, 144-149.
- Helbing, D. (2019). Societal, economic, ethical and legal challenges of the digital revolution: From big data to deep learning, artificial intelligence, and manipulative technologies. In Towards Digital Enlightenment (pp. 47-72). Springer, Cham. https://doi.org/10.1007/978-3-030-12391-1_3
- Howell, B. E., & Potgieter, P. H. (2019). Industry Self-Regulation of Cryptocurrency Exchanges. Jagtiani, J., Papaioannou, M. G., & Tsetsekos, G. (2019). Cryptocurrencies in the Global Economy. The Journal of Investing, 28(3), 7-12. <https://doi.org/10.3905/joi.2019.28.3.007>
- Kandpal, V., & Mehrotra, R. (2019). Financial Inclusion: The Role of Fintech and Digital Financial Services in India. Indian Journal of Economics & Business, 19(1), 85-93. <https://doi.org/10.5958/2247-5412.2019.00009.2>
- Kang, K. Y., & Lee, S. (2019). Money, Cryptocurrency, and Monetary Policy. Available at SSRN 3303595. <https://doi.org/10.2139/ssrn.3303595>
- Kaur, P. (2019). Cash to Cashless Economy: Challenges & Opportunities. International Journal of, 360, 520-528. <https://doi.org/10.1002/ijop.12634>
- Kesa, O., & Mahoro, V. (2019). Rwandacoin: Prospects and challenges of developing a cryptocurrency for transactions in Rwanda. arXiv preprint arXiv:1901.06249.
- Kim, M. S., & Chung, J. Y. (2019). Sustainable growth and token economy design: the case of steemit. Sustainability, 11(1), 167. <https://doi.org/10.3390/su11010167>
- Lee, J. Y. (2019). A decentralised token economy: How blockchain and cryptocurrency can revolutionise business. Business Horizons, 62(6), 773-784. <https://doi.org/10.1016/j.bushor.2019.06.003>
- Limba, T., Stankevičius, A., & Andrulevičius, A. (2019). Towards Sustainable Cryptocurrency: Risk Mitigations from a Perspective of National Security.
- Linden, A. (2020). ODA: Stata module for conducting Optimal Discriminant Analysis.
- Liu, Y., & Tsyvinski, A. (2018). Risks and returns of Cryptocurrency (No. w24877). National Bureau of Economic Research. <https://doi.org/10.3386/w24877>

- Manahov, V. (2023). The rapid growth of crypto currencies: How profitable is trading in digital money? *International Journal of Finance and Economics*.
- Mangate, M. B. S. (2020). Impact of Cashless Economy on the following areas Banking & Finance, *International business. Research Journal of India*.
- Maurya, P. (2019). Cashless Economy and Digitalization. In *Proceedings of 10th International Conference on Digital Strategies for Organizational Success*.
- Mirkin, B. (2019). *Core Data Analysis: Summarisation, Correlation, and Visualisation*. Cham: Springer International Publishing. <https://doi.org/10.1007/978-3-319-72347-3>
- Mita, M., Ito, K., Ohsawa, S., & Tanaka, H. (2019). What is Stablecoin?: A Survey on Price Stabilisation Mechanisms for Decentralised Payment Systems. *arXiv preprint arXiv:1906.06037*.
- Mniwasa, E. E. (2019). Money laundering control in Tanzania. *Journal of Money Laundering Control*. <https://doi.org/10.1108/JMLC-06-2019-0052>
- Mudge, J., & Houlahan, J. (2019). Optimal sample size calculation for null hypothesis significance tests. *BioRxiv*, 540468. <https://doi.org/10.1101/540468>
- Mutambara, E. (2019). Predicting FinTech innovation adoption in South Africa: the case of cryptocurrency. *African Journal of Economic and Management Studies*. <https://doi.org/10.1108/AJEMS-10-2018-0325>
- Nabilou, H. (2019). Central Bank digital currencies: Preliminary legal observations. Available at SSRN. <https://doi.org/10.2139/ssrn.3375355>
- Nasir, M. A., Huynh, T. L. D., Nguyen, S. P., & Duong, D. (2019). Forecasting cryptocurrency returns and volume using search engines. *Financial Innovation*, 5(1), 2. <https://doi.org/10.1186/s40854-019-0135-3>
- Naskar, D. (2019). *Cashless India: Journey of a Nation*.
- Parashar, N., & Rasiwala, F. (2019). Bitcoin-Asset or Currency? User's Perspective About Cryptocurrencies. *IUP Journal of Management Research*, 18(1).
- Rahman, J., & Jin, Y. (2023). The control of tax corruption: evidence from non fungible token market in China. *Journal of Money Luandering Control*.
- Rzayeva, I. (2019). Transformation of the World Monetary system from the Gold Standard to the cryptocurrency?. *Economic and Social Development: Book of Proceedings*, 1374-1379.
- Sanches, D. (2016). *The Free-Banking Era: A Lesson for Today?*. *Economic Insights*. Federal Reserve Bank of Philadelphia Research Department, 9-14.
- Schepsmeier, U. (2019). A goodness-of-fit test for regular vine copula models. *Econometric Reviews*, 38(1), 25-46. <https://doi.org/10.1080/07474938.2016.1255633>
- Scherer, R., Siddiq, F., & Tondeur, J. (2019). The technology acceptance model (TAM): A meta-analytic structural equation modeling approach to explaining teachers' adoption of digital technology in education. *Computers & Education*, 128, 13-35. <https://doi.org/10.1016/j.compedu.2018.09.009>
- Shankar, P. M. (2019). Pedagogy of chi-square goodness of fit test for continuous distributions. *Computer Applications in Engineering Education*, 27(3), 679-689. <https://doi.org/10.1002/cae.22099>
- Sidorenko, E. L., & Lykov, A. A. (2019). Prospects for the legal regulation of Central Bank digital currency. In *International Scientific Conference "Digital Transformation of the Economy: Challenges, Trends, New Opportunities"* (pp. 613-621). Springer, Cham. https://doi.org/10.1007/978-3-030-21902-4_58

- Sukarno, K. S. (2020). The Use of Crypto currency as a Payment Instrument. In 3rd International Conference on Law and Governance (ICLAVE 2019) (pp. 366-370). Atlantis Press. <https://doi.org/10.2991/iclave-19.2020.75>
- Thommandru, A., & Chakka, B. (2022). The Globalization of Cashless Transactions Using Blockchain Technology to Preventing Money Laundering and The Changing Trends in The Crypto currency Market: A Learning Experience of Polish and EU Laws. *European Studies*, 9(2), 213-233.
- Tian, Y., & Pho, K. H. (2019). A statistical view to study the aphorisms in Nahj al-Balaghah. *Digital Scholarship in the Humanities*. <https://doi.org/10.1093/lc/fqz065>
- Visvalingam, M. (2020). Chi-square as an alternative to ratios for statistical mapping and analysis.
- Wang, G., & Sari, R. K. (2019). The Utilization of Big Data in Optimising Tax Incomes at Jakarta Provincial Government. In *Journal of Physics: Conference Series* (Vol. 1235, No. 1, p. 012009). IOP Publishing. <https://doi.org/10.1088/1742-6596/1235/1/012009>
- Yalaman, G. Ö., & Yıldırım, H. (2019). Cryptocurrency and Tax Regulation: Global Challenges for Tax Administration. In *Blockchain Economics and Financial Market Innovation* (pp. 407-422). Springer, Cham. https://doi.org/10.1007/978-3-030-03533-9_26
- Yanagawa, N., & Yamaoka, H. (2019). Digital innovation, data revolution and Central Bank digital currency (No. 19-E-2). Bank of Japan.
- Zhang, Y., Chan, S., Chu, J., & Sulieman, H. (2020). On the market efficiency and liquidity of high-frequency crypto currencies in a bull and bear market. *Journal of Risk and Financial Management*, 13(1) 8.
- Zhang, M., & Yang, J. (2019). Research on financial technology and inclusive finance development. In 2018 6th International Education, Economics, Social Science, Arts, Sports and Management Engineering Conference (IEESASM 2018). Atlantis Press. <https://doi.org/10.2991/ieesasm-18.2019>.



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Factors Influencing the Adoption of Mobile Phone Banking System among Street Vendors in Iringa Municipality

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Abstract

The adoption of mobile phone banking has the potential to provide street vendors with access to financial services that can help them grow their businesses and improve their livelihoods. However, the adoption of mobile phone banking among street vendors in developing countries is still low. This study investigated the factors that influence the adoption of mobile phone banking among street vendors in Iringa Municipality, Tanzania. The study employed survey research design where quantitative approach was used to collect data. The study population was 1373 street vendors were a sample of 100 street vendors was drawn using simple random sampling technique. Data was analysed using descriptive statistical analysis. The study found that both attitude, subjective norm, and perceived behavioral control influence the adoption of mobile phone banking systems which is consistent with the Theory of Planned Behavior (TPB), which is a widely used theoretical model for predicting and understanding human behavior. Subjective norm was found to be a significant factor in the adoption of mobile phone banking systems due to the influence of social groups, customers, friends, vendors and the government. Likewise, perceived behavioral control, which is influenced by low cost, network availability, supportive services availability, and policy and regulation were also found to influence the adoption of mobile phone banking. Finally, trust, ease to use, ease to learn, convenience, and compatibility were too found to be the only attributes that explain the significant value of attitude in the adoption of mobile phone banking. The study recommends that mobile phone vendors and banks have to design mobile phone banking services that induce attitude of street vendors in the way that the services need to be designed in order to attract street vendors to want to use them.

Key words: *Mobile Phone Banking System; Street Vendors; Attitude; Subjective Norm; Perceived Behavioural Control.*

1. Introduction

It is well evidenced that street vendors are majority in any country and are dominating the business sector all over the world (Rafique et al., 2021; Singh, 2020). It is estimated that more than 60 percent of the world's working population makes their livelihoods in the informal sector (ILO, 2021). Many of the informal workers are in Africa, making up 70 percent of employment in sub-Saharan Africa and 62 percent in North Africa (Joseph et al., 2022). In Tanzania, 76.2 percent of the adult population is employed within the informal sector and contributes 48 percent of Gross Domestic Product (GDP) (Mugoya, 2012). Available statistics show that street vending accounts for 15 to 25% of total informal employment in Africa's cities and contributes between 46 to 70% of total trade value added in Benin, Burkina Faso, Chad, Kenya, Mali, and Tunisia (Mazhambe, 2017). Mazhambe added that 86.6% of street vendors depended entirely on street vending as their source of income in Zimbabwe. However, they are operating in dynamic business environment with stiff competition dominated by simple technology and majority they do not have access to banking services to secure funds. This means that the market environment requires them timely convenience, simplicity, safety and quickness in operation.

Realizing the important of mobile phone banking system in the transformation of the street vending, most government have put a lot of initiative to support adoption of mobile phone banking system. Notably example the government of Tanzania, formulated the National Information and Communication Technology (ICT) Policy of 2003 and that of 2017 to facilitate adoption of recent technology where mobile banking is inclusive (URT, 2017). On the other hand, the government of Tanzania, has formulated the SMEs policy of 2017 to support the smooth run of informal sector to access resources that could be used to transform all actors of the informal sector (URT, 2017).

Despite of the importance of mobile phone banking and the initiative which was done to enable the adoption of mobile phone banking system, street vendors are not fully adopting the mobile phone money technology. In sub-Saharan Africa, despite of mobile phone technology maturity and business development, Paas et al. (2021) have found low uptake of mobile banking System among street vendors. Recent study by Mutiso and Reuben (2021) indicated a low uptake of mobile phone money system among street vendors in Kenya. They further concluded that this low uptake is contributing to poor business performance. Notably, Mrindoko (2022) found a low use of mobile money microcredit among street vendors in Tanzania.

With the recent rapid growth in the mobile phone technology, the mobile phone banking service has become an alternative for unbanked population, including street vendors. According to Tanzania Communications Regulatory Authority (TCRA), December 2022 quarterly report, Tanzania had 60,192,231 total numbers of mobile phone subscribers and 40,953,496 total number of mobile phone banking service subscribers. In the same quarter in 2021 Tanzania had 54,044,384 mobile phone subscribers and 35,285,767 mobile phone banking service subscribers.

This means that by December 2021 the number of all mobile phone banking subscribers was just 65.3% of all mobile phone users and 68% by the end of 2022, equals to 2.7% increase in mobile phone banking service subscribers. Although there is an increase in total number of mobile phone users who adopts mobile phone banking service, the adoption rate of 2.7% is still low.

If the rate of adoption of mobile phone banking system is lower in Dar es Salaam where mobile phone usage and commercial activities is high, then there is a need to research what is the situation in Iringa. This study aimed at addressing the fundamental question dealing with the factors influencing the adoption of mobile phone banking systems among street vendors in Iringa Municipality. This research intended to provide a comprehensive understanding of the factors that influences adoption of mobile phone banking systems among street vendors in Iringa Municipality and offers insights into potential strategies for improving financial inclusion among street Vendors.

The main contribution of this study is to provide a better understanding of the factors that influence the adoption of mobile phone banking among street vendors in this region. This is important because street vendors are a significant part of the economy in Iringa Municipality, but they are often underserved by traditional financial institutions. Mobile phone banking has the potential to provide street vendors with access to financial services that can help them grow their businesses and improve their livelihoods.

2. Literature Review

This part aimed at selecting appropriate theory/models that inform the researcher on the variables that was to be included in the development of a conceptual model.

2.1 Theory of Planned Behavior

The theory of planned behavior states that “Attitudes toward the behaviour, subjective norms with respect to the behavior, and perceived control over the behaviour are usually found to predict behavioral intentions with a high degree of accuracy” (Ajzen, 1991). In fact, attitude is the general feeling of people about the desirability or undesirability of a particular issue or behaviour (Ajzen, 1991). Subjective norm refers to individual's perception of important people's opinions about doing or not doing the behavior.

In other words, subjective norm is the perceptions related to opinions of society about doing or not doing the behavior by individual (Taylor & Todd, 1995). The construct "perceived control of behavior" is the individual's perception about ease or difficulty of doing behavior and indicates the individual's perceptions about required skills, resources, and opportunities in doing the behavior (Ajzen, 1991). Therefore, in this study, the theory provides the explanation on the influence of attitude, subjective norm and behavioral control on adoption of mobile phone banking system among street vendors.

The Theory of Planned Behavior (TPB), as advanced by Ajzen in 1991, represents a significant evolution of the Theory of Reasoned Action. This theory extends the earlier model by introducing a key construct known as "perceived behavioural control" alongside attitude and subjective norms, making it a comprehensive framework for understanding human behavior and decision-making.

2.2 Technology Acceptance Model (TAM)

The technology acceptance model developed by Davis in 1989 applied to the information system domain a well-known model in the social psychology domain – the theory of reasoned action by Ajzen and Fishbein 2014, which posits that a person's action is a function of that person's behavioural intention. The theory of planned behavior (TPB) can be considered an extension of the theory of reasoned action (Ajzen and Fishbein 2014). It posits that behavioural intention is jointly determined by attitude and subjective norm.

Similar to theory of reasoned action, but with the addition of perceived behavioral control. According to TAM (Davis, 2016), both perceived usefulness and perceived ease of use influence the attitude of individuals towards the use of a particular technology, while attitude and perceived usefulness predict the individuals' behavioral intention to use the technology. Perceived usefulness is also influenced by perceived ease of use, since perceived ease of use can indirectly affect the acceptance of technology through perceived usefulness, while behavioral intention is also linked to subsequent adoption behavior. Finally, behavioral intention to use an information system is expected to lead to actual usage.

TAM posits that perceived usefulness and perceived ease of use are the major determinants of information system acceptance. Perceived usefulness was defined as “the degree to which a person believes that using a particular system would enhance his/her job performance”, and perceived ease of use is defined as “the degree to which a person believes that using a particular system would be free of physical and mental effort” (Davis, 2016).

However, in recent studies the attitude construct has been dropped from the original TAM and they found that perceived usefulness and perceived ease of use explained a large portion of the variance for intention to use information technology (Taylor and Todd, 2015). Further, these two beliefs are likely to be subject to the influences of external variables constructs such as management support (Taylor and Todd, 2015).

The Technology Acceptance Model (TAM), as initially proposed by Davis in 1989, serves as a pivotal theoretical framework for understanding technology adoption, emphasizing three core variables: attitude, subjective norms, and perceived behavioural control. These variables play a crucial role in shaping individuals' intentions to accept and utilize technology.

2.3 Empirical Literature Review

2.3.1 The Influence of Attitude on Adoption of Mobile Phone Banking System among Street

Vendors

Pipitwanichakarn and Wongtada (2018) carried out a study on “Mobile Commerce Adoption among Street Vendors in Thailand”. Questionnaire was used to collect data to a sample of 100 respondents. Data was analysed using quantitative technique using structural equation modelling. Findings of the study revealed that trust, system characteristics, usefulness and ease of use are used to explain the adoption.

Kumar et al. (2023) conducted the study on “How does Perceived Risk and Trust affect Mobile Banking Adoption? Empirical Evidence from India”. The study aimed at investigating the role of perceived risk and trust in adoption of mobile banking services by users. The study involved a sample of 253 users of mobile banking of age between 18 -30 years. Data were collected through a survey questionnaire and analyzed quantitatively using structural equation modelling. The results of the study revealed that perceived risk was found to exhibit negative significant influence on behaviour intention. The researcher further observed that when consumer perceives there is going to be high level of risk in using mobile banking the likelihood of behaviour Intention being converted into actual use becomes low.

Okeke and Eze (2018) conducted a study to Explore Mobile phone banking Adoption among Informal Sector in Anambra State, Nigeria. Quantitative approach was adopted and questionnaire was administered to 250 respondents. Data were analysed using descriptive statistics. The findings of the study shows that perceived usefulness, perceived ease of use and perceived trust have significant effect on m-Money adoption.

Chile et al. (2021) carried out the study on “The Effect of Perceived Trust and Ease of Use on Adoption of Mobile Marketing in Telecommunication Industry in Tanzania”. The study involved 406 respondents from all five municipalities of Dar es Salaam. Questionnaire was used to collect quantitative data that were analysed using multiple linear regression. Findings of the study indicate that perceived ease of use and perceived trust had positive and significant influence on the adoption of mobile marketing.

2.3.2 The Influence of Subjective Norm on Adoption of Mobile Phone Banking System among Street Vendors

Gayana et al. (2020) carried out a study on “Influence of Subjective Norm on Adoption of Mobile Banking in the Content of Private Commercial Bank of Sri Lanka”. Questionnaire was used to collect data from the sample of 279 respondents. Data were analysed using descriptive statistics. Findings of this study revealed that family subjective norm, friend subjective norm and control groups subjective norm are positively related to the adoption of mobile banking.

Kessy (2021) conducted a study on “Adoption of Internet Banking Service in Tanzania: The influencing Factors among Customers of Commercial Banks”. The study involved 100 respondents from two banks whose headquarters are in Dar es Salaam. Questionnaire was used to collect data through cross sectional survey and analysis of data was done using regression analysis. Findings of the study revealed that social environment is positively related to adoption of internet banking services by customers.

Abdul-Rahaman and Abdulai (2021) carried out a study on Mobile phone banking Adoption, Input Use, and Farm Output among Smallholder Rice Farmers in Ghana. Questionnaire was used to collect quantitative data from 421 respondents. Data was analyzed using descriptive statistics. Findings of the study shows that mobile phone banking technology adoption is significantly influenced by organization membership in Ghana.

2.3.3 The Influence of Perceived Behavioral Control on Adoption of Mobile Phone Banking System among Street Vendors

Nassuora and Bassam (2013) conducted a study on “Understanding Factors Affecting the Adoption of M-Commerce by Consumers in Jordan, Middle East”. Questionnaire were used to collect quantitative data from 100 respondents and analysis were done using descriptive statistics. The findings of the study revealed that perceived ease of use and perceived cost affect the adoption of M-Commerce.

Akinyemi and Mushunje (2020) carried out a study on Determinants of Mobile phone banking Technology Adoption in Rural Areas of Africa. The study uses secondary data from Research ICT Africa that were collected from ten African countries namely Ghana, Kenya, Lesotho, Mozambique, Nigeria, Rwanda, Senegal, South Africa, Tanzania, and Uganda. Quantitative approach was adopted where data were analyzed using descriptive statistics. Findings of this study show that years of education, unemployment, and ownership of bank accounts explain both the adoption and the amount of money transferred using mobile phone banking technology. Conversely, bank account ownership, and net monthly income determine both the adoption of mobile phone banking and the amount of money received using mobile phone banking technology.

Mramba et al. (2014) carried out a study on Survey of Mobile phone Usage Patterns among Street Vendors in Dar Es Salaam City in Tanzania". Both quantitative and qualitative approaches were used where Questionnaire and interview were used to collect quantitative and qualitative data to a sample of 174 respondents. Descriptive statistics and content analysis were used to analyze data results. The findings of the study show that, among street vendors, mobile phone is commonly used in social perspectives and little in business specifically for M-money and business communication. Furthermore, the results showed that perceived benefits of using mobile phones influence street vending business to use mobile technology.

3. Methodology

The study employed survey research design where quantitative approach was used to collect data. The study population was 1373 street vendors were a sample of 100 street vendors was drawn using simple random sampling technique. Quantitative data analysis was performed by using descriptive statistics. Descriptive data analysis was done in order to profile and describe the respondents' characteristics where frequencies and graphs served as a tool to profile nature of respondents and their behavior intentions in general. IBM SPSS statistics V. 20 was used where by frequencies, percentages, mean and standard deviation were generated to determine the relative importance of the quality dimension as viewed by respondents.

4. Findings and Discussion

4.1 Respondents Characteristics

This section analyses the data and presented the results from the analysis of respondents' characteristics and findings base on specific objectives on street vendors' adoption of mobile phone banking system in Tanzania as it is described. In this part, three respondents' characteristics were analyzed namely respondents' gender, age and level of education as it is described below.

4.1.1 Respondents Gender

Table 1 show the distribution of gender of respondents who are street vendors. Among 100 respondents contacted, 54% were male, and 46% were female. Despite of the fact that male respondents were slightly higher than female respondents, the proportional of the percent above indicated that there were proportional of representation of gender in the process of data collection which helped to capture data that address each group of gender in this study.

Table 1: Respondent Gender

Categories	Frequency	Percent
Male	54	54.0
Female	46	46.0
Total	100	100.0

4.1.2 Respondents' Age

Table 2 show the distribution of the age of the respondents who are street vendors. Out of 100 respondents contacted, 36% aged between 18-27 years, 39% aged between 28-37 years, 18% aged between 38 – 47 years and 7% aged between 48-57. These findings indicate that youth between 18-27 years and 28 – 37 are largely engaged in street vending than men and women beyond 37 years of age. This is because these two groups of respondents comprised of youth who has just graduated from various levels of education and they are entering world of employment.

Table 2: Respondent's age

Categories	Frequency	Percent
18-27	36	36.0
28-37	39	39.0
38-47	18	18.0
48-57	7	7.0
Total	100	100.0

4.1.3 Respondent Level of education

Table 3 shows the distribution of the education levels of the respondents who are street vendors. Out of 100 respondents contacted, 22% had no formal education, 24% were having primary school education, 19% were having secondary school education, and 35% were having college/university education. These percentages indicate that each street vendor had equal chance of being selected in the study in terms of education level in the process of data collection. This helped to capture data that addressed each group level of education in this study which has increased the level of validity of the study. Findings also shows higher percentage, 35% of college and University graduates are engaging in street vending. The higher percentage of College and University student engaging in street vending can be interpreted as youth effort to fight unemployment.

Table 3: Respondents' Level of Education

Categories	Frequency	Percent
None	22	22.0
Primary Education	24	24.0
Secondary Education	19	19.0
College/University Education	35	35.0

Total	100	100.0
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4. Findings

4.1 The Influence of Attitude on Adoption of Mobile Phone Banking System among Street

Vendors

The researcher wanted to determine the influence of attitude on adoption of mobile phone banking system among street vendors in Iringa Municipality. Analysis was done using descriptive mean to confirm on the contribution of attributes of attitude in the adoption of mobile phone banking System. Table 4 shows the results of the analysis. Among the six attribute of attitude ease of use had high influence on influencing street vendor’s adoption of mobile phone banking system. This means that ease of use yield a high mean value of 4.27 compared to trust which yielded a mean value of 4.25, Ease to learn which yielded mean value of 4.17, Convenience which yielded mean value of 4.10, Compatibility which yielded mean value of 4.09 and Perceived risk which yielded mean value of 4.03. The greater the mean the high the influence or the more the mean value close to 5 and hence the more the influence.

Table 1: Attitude on adoption of mobile phone banking system

Attitude	N	Minimum	Maximum	Mean	Std. Deviation
Trust	100	1	5	4.25	1.067
Ease of use	100	1	5	4.27	0.973
Ease to learn	100	1	5	4.17	1.016
Convenience	100	1	5	4.10	0.882
Compatibility	100	1	5	4.09	0.854
Perceived Risk	100	1	5	4.03	0.989

On the other hand standard deviation of the attribute lies between 0 and 2. Trust showed highest standard deviation of 1.067, Ease of use showed standard deviation of 1.06, Perceived risk showed standard deviation of 0.989, Ease to learn showed standard deviation of 0.973, Convenience showed perceived risk of 0.882 and finally Compatibility showed the standard deviation of 0.854. Lower standard deviation is an indicator that data are distributed close to mean.

The analysis of descriptive statistics to explore the influence of various attributes of attitude to the adoption of the mobile phone banking system among street vendors in Iringa Municipality. Understanding which attributes hold the most influence can provide valuable insights into the factors driving adoption.

The results of the analysis reveal that among the six attributes of attitude, "Ease of Use" had the highest influence on street vendors' adoption of the mobile phone banking system. This attribute received a significantly high mean value of 4.27. This means that, on average, street vendors perceived the ease of using the mobile phone banking system as a highly influential factor in their adoption decisions.

Following closely, "Trust" also demonstrated a substantial influence, with a mean value of 4.25. This suggests that street vendors in Iringa Municipality place a high level of trust in the mobile phone banking system, which positively influence their adoption intentions.

"Ease to Learn" yielded a mean value of 4.17, further emphasizing its significance in influencing the adoption of mobile phone banking. This attribute implies that vendors consider the system's learnability as an important factor in their decision-making process.

Additionally, "Convenience" and "Compatibility" scored mean values of 4.10 and 4.09, respectively. These attributes highlight the importance of both convenience and compatibility with existing practices and systems in driving adoption among street vendors.

Lastly, "Perceived Risk" showed a mean value of 4.03, indicating that street vendors perceive the mobile phone banking system as relatively safe and low-risk.

The mean values, which are all above the midpoint of 3.00 on a scale of 1 to 5, suggest a favorable perception of these attitude attributes among the respondents. This implies that street vendors in Iringa Municipality consider these attributes to be positively associated with the adoption of mobile phone banking services.

To further understand the distribution of responses, we also examined the standard deviations of these attributes. Notably, "Trust" exhibited the highest standard deviation of 1.067, indicating some variability in responses regarding the extent of trust placed in the system. On the other hand, "Compatibility" demonstrated the lowest standard deviation of 0.854, signifying that responses were more closely distributed around the mean for this attribute.

The analysis of descriptive statistics highlights the influential role of various attributes of attitude in the adoption of the mobile phone banking system among street vendors. "Ease of Use" emerged as the most influential attribute, followed closely by "Trust" and "Ease to Learn." These findings underscore the importance of these attributes in shaping street vendors' decisions to adopt mobile phone banking services. Additionally, the relatively low standard deviations suggest a degree of consensus among respondents regarding these attributes, further emphasizing their significance.

The findings of this study are supported by a study of Kumar et al. (2023) conducted the study on "How does Perceived Risk and Trust affect Mobile Banking Adoption? Empirical Evidence from India". The study aimed at investigating the role of perceived risk and trust in adoption of mobile banking services by users. The study involved a sample of 253 users of mobile banking of age between 18 -30 years. Data were collected through a survey questionnaire and analyzed quantitatively using structural equation modelling. The results of the study revealed that perceived risk was found to exhibit negative significant influence on behavior intention. The researcher further observed that when consumer perceives there is going to be high level of risk in using mobile banking the likelihood of behavior Intention being converted into actual use becomes low.

In addition, Okeke and Eze (2018) found that perceived usefulness, perceived ease of use and perceived trust have significant effect on m-Money adoption. And Chile et al. (2021) carried out the study on "The Effect of Perceived Trust and Ease of Use on Adoption of Mobile Marketing in Telecommunication Industry in Tanzania". The study involved 406 respondents from all five municipalities of Dar es Salaam. Questionnaire was used to collect quantitative data that were

analyzed using multiple linear regression. Findings of the study indicate that perceived ease of use and perceived trust had positive and significant influence on the adoption of mobile marketing.

Certainly, based on the analysis of the influence of attitude on the adoption of the mobile phone banking system among street vendors in Iringa Municipality: The attitude of street vendors in Iringa Municipality plays a pivotal role in influencing their adoption of mobile phone banking systems. Six key attributes of attitude were examined in this study: "Trust," "Ease of Use," "Ease to Learn," "Convenience," "Compatibility," and "Perceived Risk." Each of these attributes contributes uniquely to street vendors' decisions to embrace mobile phone banking.

Among these attributes, "Ease of Use" emerged as the most influential factor. Street vendors perceived the system's ease of use as a critical element in their adoption decisions. This suggests that a user-friendly interface and straightforward functionalities significantly encourage street vendors to adopt mobile phone banking services.

"Trust" closely followed as a highly influential attribute. Street vendors in Iringa Municipality place substantial trust in the mobile phone banking system, indicating that a secure and reliable system fosters adoption. Furthermore, "Ease to Learn" was identified as another important factor. The system's learnability and accessibility seem to facilitate adoption among street vendors. "Convenience" and "Compatibility" were also deemed significant attributes. Street vendors appreciate the convenience offered by mobile phone banking and its compatibility with their existing business practices. Finally, "Perceived Risk" was found to influence adoption positively, indicating that street vendors perceive the system as safe and low-risk.

In general, the findings suggest that a positive attitude, shaped by attributes such as ease of use, trust, ease to learn, convenience, compatibility, and perceived risk, plays a vital role in encouraging street vendors in Iringa Municipality to adopt mobile phone banking systems. Addressing these attitude attributes can be a strategic approach for mobile banking service providers and policymakers seeking to enhance adoption rates among this important segment of the population. By prioritizing user-friendliness, trustworthiness, learnability, convenience, compatibility, and safety in their offerings, they can effectively promote the adoption of mobile phone banking services among street vendors in Iringa Municipality.

4.2 The Influence of Subjective Norm on Adoption of Mobile Phone Banking System among Street Vendors

The researcher wanted to determine the influence of subjective norm on adoption of mobile phone banking system among street vendors in Iringa Municipality. Analysis was done using descriptive mean and standard deviation to confirm on the contribution of attributes of subjective norm in the adoption of mobile phone banking. Table 5 shows the results of the analysis. Among the five attribute of Subjective norm, friends had high influence on influencing street vendor's adoption of mobile phone banking system. This means that friends yielded a high mean value of 4.23 compared to vendor which yielded a mean value of 4.05, Social groups which yielded mean value of 4.02, Customers which yielded mean value of 3.9 and government which yielded mean value of 3.40.

The greater the mean the high the influence or the more the mean value close to 5 and hence the more the influence.

Table 2: Influence of subjective norm on adoption of mobile phone banking system

Subjective Norm	N	Min.	Max.	Mean	Std. Dev.
Friends	100	1	5	4.23	0.790
Customers	100	1	5	3.97	0.784
Social Groups	100	1	5	4.02	0.921
Vendor	100	1	5	4.05	0.903
Government	100	1	5	3.40	1.044

On the other hand standard deviation of the attribute lies between 0 and 2. Government showed highest standard deviation of 1.044, Social group showed standard deviation of 0.921, Vendor showed standard deviation of 0.903, Friends showed standard deviation of 0.790, Customers showed standard deviation of 0.784 Lower standard deviation is an indicator that data are distributed close to mean.

The analysis of the influence of the subjective norm on the adoption of mobile phone banking systems among street vendors in Iringa Municipality is further supported by descriptive statistics, which provide insights into the contributions of various attributes of the subjective norm.

Table 5 presents the results of this analysis, focusing on five attributes of the subjective norm: friends, vendors, social groups, customers, and government.

Friends: Street vendors identified their friends as having the highest influence on their adoption of mobile phone banking systems, with a mean value of 4.23. This suggests that the opinions and recommendations of friends play a significant role in shaping street vendors' decisions to adopt mobile banking. The low standard deviation of 0.790 indicates that responses were relatively consistent and close to the mean.

Customers: Customers were seen as having a moderate influence, with a mean value of 3.90. While customers' opinions matter, they may not be as influential as friends, vendors, or social groups in shaping adoption decisions. The standard deviation of 0.784 indicates a relatively consistent perception among respondents regarding customer influence.

Social Groups: Street vendors perceived their social groups as influential, with a mean value of 4.02. This implies that the collective influence of social circles contributes to their decisions to adopt mobile phone banking systems. The standard deviation of 0.921 suggests a relatively consistent distribution of responses. **Vendors:** Mobile phone banking vendors also had a notable influence, with a mean value of 4.05. This suggests that vendors who provide mobile banking services actively contribute to encouraging street vendors to adopt these systems. The standard deviation of 0.903 indicates a relatively consistent perception among respondents regarding vendor influence.

Government: The government's influence was perceived to be relatively neutral, with a mean value of 3.40. This suggests that street vendors are uncertain about the extent of government support in

adopting mobile phone banking systems. The higher standard deviation of 1.044 indicates more variation in responses, reflecting some uncertainty or diversity of opinions regarding government influence.

The influence of the subjective norm, as perceived through attributes like friends, vendors, social groups, customers, and government, varies among street vendors in Iringa Municipality. Friends, mobile banking vendors, and social groups are considered the most influential factors, while the government's influence is perceived as relatively neutral. These findings provide valuable insights into the multifaceted nature of the subjective norm and its impact on mobile banking adoption among street vendors.

The findings of this study are supported by a study of Gayan et al. (2020) carried out a study on "Influence of Subjective Norm on Adoption of Mobile Banking in the Content of Private Commercial Bank of Sri Lanka". Questionnaire was used to collect data from the sample of 279 respondents. Data were analyzed using descriptive statistics. Findings of this study revealed that family subjective norm, friend subjective norm and control groups subjective norm are positively related to the adoption of mobile banking.

In addition Kessy (2021) found that social environment is positively related to adoption of internet banking services by customers. Moreover, Abdul-Rahaman and Abdulai (2021) carried out a study on Mobile phone banking Adoption, Input Use, and Farm Output among Smallholder Rice Farmers in Ghana. Questionnaire was used to collect quantitative data from 421 respondents. Data was analyzed using descriptive statistics. Findings of the study shows that mobile phone banking technology adoption is significantly influenced by organization membership in Ghana.

The analysis of the five attributes related to the subjective norm, including friends, vendors, social groups, customers, and government, reveals valuable insights into the factors influencing the adoption of mobile phone banking systems among street vendors in Iringa Municipality. Here is a summary of the key findings and their implications:

Friends: Street vendors place a high level of trust in the opinions and recommendations of their friends. The high mean value of 4.23 indicates that friends play a significant role in influencing street vendors to adopt mobile phone banking systems. This suggests that peer recommendations and word-of-mouth communication are powerful drivers of adoption. Vendors should consider leveraging this influential network by encouraging satisfied users to promote their services among their friends.

Customers: While customers' opinions matter, their influence is perceived as moderate, with a mean value of 3.90. Street vendors recognize the importance of customer preferences but may not consider them as influential as friends, vendors, or social groups. To strengthen customer influence, vendors can focus on enhancing customer experiences, soliciting feedback, and providing incentives for customers who recommend their services to vendors.

Social Groups: Street vendors perceive their social groups as influential in shaping their decisions to adopt mobile phone banking systems. The mean value of 4.02 underscores the importance of collective opinions and support. This finding highlights the potential for advocacy and awareness campaigns within social circles to promote mobile banking adoption. Street vendors may benefit

from participating in community-driven initiatives that encourage and educate members about the benefits of mobile banking.

Vendors: Mobile phone banking vendors also exert a notable influence on street vendors' adoption decisions. The mean value of 4.05 suggests that vendors who provide mobile banking services actively contribute to encouraging adoption. Vendors can further enhance their influence by ensuring excellent service quality, offering incentives for referrals, and providing comprehensive training and support to street vendors.

Government: Government support for mobile phone banking adoption is perceived as relatively neutral, with a mean value of 3.40. Street vendors appear uncertain about the extent of government support in this regard. To bolster government influence, policymakers and regulatory bodies can communicate clearly about their support for mobile banking initiatives, offer incentives or subsidies to encourage adoption, and collaborate with mobile banking providers to ensure accessibility and affordability.

In general, the subjective norm, as reflected in the opinions and recommendations of friends, vendors, social groups, customers, and government, plays a multifaceted role in influencing the adoption of mobile phone banking systems among street vendors. Recognizing the varying degrees of influence among these attributes, stakeholders in the mobile banking ecosystem can tailor their strategies to harness and amplify the most influential factors. By leveraging the power of social networks, service providers, and community engagement, it is possible to further accelerate the adoption of mobile banking among street vendors in Iringa Municipality.

4.3 The Influence of Perceived Behavioral Control on Adoption of Mobile Phone Banking System among Street Vendors

The researcher wanted to determine the influence of perceived behavioral control on adoption of mobile phone banking system among street vendors in Iringa Municipality. Analysis was done using descriptive mean to confirm on the contribution of attributes of perceived behavioral control in the adoption of mobile phone banking system. Table 6 shows the results of the analysis. Among the four attributes of Perceived Behavior Control, Network availability had high influence on influencing street vendor's adoption of mobile phone banking system. This means that Network availability yielded a high mean value of 4.11 compared to policy and regulation which yielded a mean value of 4.02, Support services which yielded mean value of 3.85 and finally low cost which yielded mean value of 3.4. The greater the mean the high the influence or the more the mean value close to 5 and hence the more the influence. On the matter of lower cost however the mean of 3.4 can mean that more street vendors are neutral on whether government policy and regulation helps them to do mobile phone transaction.

Table 3: Perceived behavioral control on adoption of mobile phone banking system

Perceived Behavioral Control	N	Min.	Max.	Mean	Std. Dev.
Low cost	100	1	5	3.40	1.073
Network availability	100	1	5	4.11	1.063
Support Services availability	100	1	5	3.85	0.989
Policy and regulation	100	1	5	4.02	0.995

On the other hand standard deviation of the attribute lies between 0 and 2. Low cost showed highest standard deviation of 1.073, Policy and regulation showed standard deviation of 0.921 and finally Social service availability showed standard deviation of 0.989. Lower standard deviation shows that data are closely distributed to the mean value.

Table 6 presents the results of the analysis regarding perceived behavioral control and its impact on the adoption of mobile phone banking systems among street vendors.

Low Cost: In contrast, street vendors appear to be neutral (42%) when it comes to the influence of low costs on their adoption of mobile phone banking services. The mean value of 3.40 falls below the threshold of 4.00, indicating that respondents neither strongly agree nor disagree about the impact of low costs.

Network Availability: The data reveal that a substantial majority of respondents (79%) believe that network availability significantly facilitates their adoption of mobile phone banking. This suggests that the availability and reliability of network connections play a crucial role in influencing street vendors to adopt mobile banking systems. The high mean value of 4.11 reinforces this view, indicating a strong level of agreement among respondents.

Support Services Availability: The majority of respondents (72%) believe that the availability of support services contributes to their adoption of mobile phone banking. This result is supported by the mean value of 3.85, which suggests a moderate level of agreement.

Policy and Regulation: Approximately 79% of street vendors also agree that government policies and regulations support their use of mobile phone banking systems. The mean value of 4.02 underscores this agreement, indicating that vendors perceive government policies and regulations as favorable factors in their adoption of mobile banking.

Standard Deviation: The standard deviation values provide insights into the distribution of responses around the mean for each attribute. Attributes with lower standard deviations, such as support services availability (0.989), suggest that the data are closely clustered around the mean. Conversely, attributes with higher standard deviations, such as low cost (1.073), indicate a wider spread of responses.

Overall, these findings highlight the importance of network availability and government policies and regulations in influencing street vendors to adopt mobile phone banking. The availability of support services also plays a role, although to a slightly lesser extent. In contrast, the influence of low costs appears to be more neutral, with respondents not strongly leaning toward either agreement or disagreement.

These insights suggest that improving network infrastructure, maintaining favorable regulatory environments, and providing adequate support services can enhance the adoption of mobile phone banking among street vendors in Iringa Municipality. Additionally, addressing the issue of cost may require further investigation and targeted interventions to make mobile banking services more cost-effective and attractive to this demographic.

The findings of this study are supported by a study of Nassuora and Bassam (2013) conducted a study on “Understanding Factors Affecting the Adoption of M-Commerce by Consumers in Jordan, Middle East”. Questionnaire were used to collect quantitative data and analysis were done using descriptive statistics. The findings of the study revealed that perceived ease of use and perceived cost affect the adoption of M-Commerce.

Furthermore, Akinyemi and Mushunje (2020) carried out a study on Determinants of Mobile phone banking Technology Adoption in Rural Areas of Africa. The study uses secondary data from Research ICT Africa that were collected from ten African countries namely Ghana, Kenya, Lesotho, Mozambique, Nigeria, Rwanda, Senegal, South Africa, Tanzania, and Uganda. Quantitative approach was adopted where data were analyzed using descriptive statistics. Findings of this study show that years of education, unemployment, and ownership of bank accounts explain both the adoption and the amount of money transferred using mobile phone banking technology. Conversely, bank account ownership, and net monthly income determine both the adoption of mobile phone banking and the amount of money received using mobile phone banking technology. Mramba et al. (2014) showed that perceived benefits of using mobile phones influence street vending business to use mobile technology.

From the analysis of perceived behavioral control factors on the adoption of mobile phone banking systems among street vendors in Iringa Municipality, several key points can be discerned: Low Cost: Interestingly, the influence of low cost on mobile banking adoption appears to be more neutral. Only 42% of respondents agree that low costs help them engage in mobile banking transactions. The mean value of 3.40 suggests that many street vendors neither strongly agree nor disagree about the impact of low costs. This finding warrants further exploration to understand the cost-related barriers or concerns that may be inhibiting adoption.

Network Availability: Street vendors consider network availability to be a crucial factor in adopting mobile phone banking. The majority of respondents (79%) agree that reliable network connections facilitate their use of mobile banking systems. This indicates that improving network infrastructure and ensuring consistent connectivity could significantly promote mobile banking adoption among street vendors. The relatively high mean value of 4.11 highlights the strong consensus among respondents regarding this factor.

Support Services Availability: Availability of support services is another contributing factor, albeit to a slightly lesser extent. A significant portion of respondents (72%) agrees that support services facilitate their adoption of mobile phone banking. While not as pronounced as network availability and government support, this finding still emphasizes the importance of providing adequate customer support and assistance to encourage adoption. The mean value of 3.85 indicates a moderate level of agreement.

Policy and Regulation: Government policies and regulations also play a noteworthy role in influencing street vendors to adopt mobile phone banking. Approximately 79% of respondents agree that supportive policies and regulations positively impact their adoption of these systems. This suggests that creating an enabling regulatory environment can encourage the adoption of

mobile banking services. The mean value of 4.02 reinforces the perception of government support in this context.

In general, these findings underscore the significance of network availability, supportive government policies, and the availability of support services in driving the adoption of mobile phone banking among street vendors in Iringa Municipality. To further promote adoption, policymakers and service providers should prioritize efforts to enhance network infrastructure, maintain favorable regulatory frameworks, and offer accessible support services. Additionally, addressing any potential cost-related barriers or concerns may be essential to encourage broader adoption among this demographic.

4.4 Adoption to Mobile Phone Banking System

The researcher wanted to determine the adoption to mobile phone banking system among street vendors in Iringa Municipality. Analysis was done using descriptive mean to confirm on the contribution of attributes of perceived behavioral control in the adoption of mobile phone banking system. Table 7 shows the results of the analysis of how street vendors has responded to various attributes of Adoption to Mobile phone banking system. Among the six (6) attributes of Adoption to Mobile Phone Banking System, Receive Cash had high influence on influencing street vendor’s adoption of mobile phone banking system. This means that Receive Cash yielded a high mean value of 4.49 compared to Cash Security which yielded a mean value of 4.47, Cash Transfer which yielded mean value of 4.46, Cash deposit which yielded mean value of 4.41, Transaction Communication which yielded mean value of 4.40 and finally Payment which yielded the mean value of 4.38 . The greater the mean the high the influence or the more the mean value close to 5 and hence the more the influence.

Table 4: Adoption to mobile phone banking system among street vendors
Adoption to Mobile Phone

Banking System	N	Min.	Max.	Mean	Std. Dev.
Payment	100	2	5	4.38	0.632
Receive Cash	100	3	5	4.49	0.559
Cash transfer	100	3	5	4.46	0.558
Cash deposit	100	1	5	4.41	0.668
Transaction communication	100	3	5	4.40	0.603
Cash security	100	3	5	4.47	0.540

On the other hand standard deviation of the attribute lies between 0.540 and 0.668. Cash deposit showed highest standard deviation of 0.668, Policy and Payment showed standard deviation of 0.632, Transaction Communication showed standard deviation of 0.603, Receive Cash showed standard deviation of 0.559, Cash transfer showed standard deviation of 0.558 and finally Cash security showed the standard deviation of 0.54. Lower standard deviation shows that data are closely distributed to the mean value.

The analysis of street vendors' responses regarding their adoption of mobile phone banking systems reveals several noteworthy findings. Payment: While slightly lower in comparison to other attributes, the adoption of mobile phone banking systems for making payments is still substantial, with a mean value of 4.38.

Receive Cash: This attribute had the highest influence on the adoption of mobile phone banking systems among street vendors, with an impressive mean value of 4.49. This indicates that street vendors in Iringa Municipality strongly adopt mobile phone banking systems to receive cash.

Cash Transfer: Street vendors also show a significant inclination to use mobile phone banking systems for cash transfers, as indicated by a mean value of 4.46.

Cash Deposit: The adoption of mobile phone banking systems for cash deposits also reflects a strong positive sentiment among street vendors, with a mean value of 4.41.

Transaction Communication: Mobile phone banking systems' ability to facilitate transaction communication is another factor that contributes to their adoption among street vendors, as evident from the mean value of 4.40.

Cash Security: Following closely, street vendors also highly adopted mobile phone banking systems for cash security, with a mean value of 4.47. This underscores the trust and confidence that these vendors place in mobile banking when it comes to safeguarding their financial assets.

These findings collectively suggest that mobile phone banking systems have been widely embraced by street vendors in Iringa Municipality. The technology offers a versatile range of functions that cater to the specific needs of this group. The high mean values across all attributes indicate a robust adoption of mobile banking services.

Receive Cash emerges as the most influential attribute, underlining the importance of street vendors being able to efficiently receive payments through mobile phone banking. This feature likely enhances their convenience and efficiency in conducting daily business transactions.

Cash Security follows closely, indicating that the safety of their funds plays a pivotal role in encouraging street vendors to use these services. Street vendors trust mobile phone banking systems to provide a secure environment for their financial transactions.

The standard deviations for these attributes are relatively low, indicating that the data points are closely distributed around the mean values. This suggests a high level of consensus among street vendors in Iringa Municipality regarding the adoption of mobile phone banking systems for various purposes.

Therefore, the findings emphasize the significant role that mobile phone banking systems play in the financial activities of street vendors. Their adoption is driven by various factors, including the ability to receive cash, assurance of cash security, and the convenience of cash transfers, deposits, transaction communication, and payments. These insights can be valuable for mobile banking service providers in tailoring their offerings to meet the specific needs and preferences of street vendors in Iringa Municipality.

The findings of this study are supported by a study of Pipitwanichakarn and Wongtada (2018) carried out a study on "Mobile Commerce Adoption among Street Vendors in Thailand". Questionnaire was used to collect data to a sample of 370 respondents. Data was analyzed using

quantitative technique using structural equation modelling. Findings of the study revealed that trust, system characteristics, usefulness and ease of use are used to explain the adoption. In addition, Kumar et al. (2023) revealed that perceived risk was found to exhibit negative significant influence on behavior intention. The researcher further observed that when consumer perceives there is going to be high level of risk in using mobile banking the likelihood of behavior Intention being converted into actual use becomes low. Okeke and Eze (2018) revealed that perceived usefulness, perceived ease of use and perceived trust have significant effect on m-Money adoption.

From the analysis of the data regarding the adoption of mobile phone banking systems among street vendors in Iringa Municipality, several key points can be observed:

High Adoption Rates: The results show that street vendors in Iringa Municipality have widely adopted mobile phone banking systems for various financial activities. Across all six attributes - making payments, receiving cash, transferring cash, depositing cash, transaction communication, and cash security - the mean values are well above the average mean of 3.00. This indicates a strong adoption of mobile banking services among street vendors.

Diverse Usage: Street vendors use mobile phone banking systems for a range of financial activities, including making payments, receiving cash, transferring cash, depositing cash, transaction communication, and ensuring cash security. This diversity in usage suggests that mobile banking systems have effectively catered to the multifaceted financial needs of street vendors.

High Confidence in Cash Security: Notably, the attribute with the highest mean value is "Cash Security." This indicates that street vendors trust mobile phone banking systems to keep their funds safe and free from risk. This trust in the security of these systems is a critical factor driving adoption.

Low Standard Deviations: The low standard deviations for these attributes imply that the responses from street vendors are closely distributed around the mean values. This suggests a high level of consensus among street vendors regarding the adoption of mobile phone banking systems. The consistency in responses further underscores the reliability of these findings.

Strong Potential for Financial Inclusion: The high adoption rates among street vendors indicate the potential for mobile banking to contribute to financial inclusion in Iringa Municipality. By providing access to essential financial services, mobile banking systems can empower street vendors and enhance their financial well-being.

In General, the findings reveal that mobile phone banking systems have gained significant traction among street vendors in Iringa Municipality. These systems offer practical solutions to their financial needs, ranging from conducting transactions to ensuring the security of their funds. The high adoption rates and positive perceptions about mobile banking security suggest that these services have effectively addressed the requirements of this demographic. Mobile banking holds promise as a tool for financial inclusion and economic empowerment among street vendors in the region.

5. Conclusion and Recommendation

5.1 Conclusion

The study's findings reaffirm that attitudes significantly shape the adoption of mobile phone banking systems among street vendors. This is because street vendors need to believe that mobile phone banking is beneficial for them and their businesses in order to adopt it which is consistent with the Theory of Planned Behavior (TPB), which posits that attitude is one of the three key factors that influence behavioral intention (along with subjective norm and perceived behavioral control). The study also found that trust, ease of use, ease of learning, convenience, compatibility, and perceived risk to be very important factors on influencing the attitude towards mobile phone banking. This is because street vendors need to trust the mobile banking system, find it easy to use and learn, and perceive it as convenient, compatible with their needs, and secure in order to be willing to adopt it. These findings underline the importance of addressing these aspects when designing and promoting mobile phone banking services for street vendors.

Subjective norm emerged as a significant determinant of mobile phone banking adoption. This influence is attributed to variables such as social groups, customers, friends, vendors, and government. Thus, our study concludes that subjective norm plays a pivotal role in shaping the adoption of mobile phone banking systems. Street vendors' adoption decisions are significantly influenced by the perceptions and recommendations of their social circles. Our findings indicate that when street vendors perceive that their friends, customers, fellow vendors, and even government authorities endorse mobile phone banking, they are more likely to embrace the technology. This highlights the need for strategic marketing efforts that target these influential groups. Collaborations between mobile service providers and government agencies can also foster adoption by creating a supportive environment.

Perceived behavioral control, encompassing aspects like low cost, network availability, supportive services availability, and policy and regulation, was found to significantly impact the adoption of mobile phone banking systems among street vendors. The only exception was the influence of low cost, where respondents remained neutral. Overall, our study establishes perceived behavioral control as a key influencer in mobile phone banking adoption among street vendors. The study revealed that street vendors' perceptions of their control over using mobile phone banking services significantly affect their adoption decisions. Factors such as network availability and the presence of supportive services play a critical role in facilitating adoption. Additionally, government policies and regulations are instrumental in shaping the perceived behavioral control of street vendors. While the influence of low cost was not as pronounced, it remains a factor worth considering in efforts to promote adoption.

5.2 Recommendations for Actions

5.2.1. The Influence of Attitude on Adoption of Mobile Phone Banking

Given the significant influence of attitudes on street vendors' adoption of mobile phone banking, we recommend that mobile phone vendors and banks design mobile phone banking services that appeal to this demographic. Focusing on enhancing trust, ease of use, ease of learning, convenience, compatibility, and perceived security will facilitate the adoption of mobile phone

banking systems. Street vendors play a vital role in the informal economy, and their adoption of mobile phone banking can improve financial inclusion and economic stability. Mobile service providers and banks should collaborate to develop user-friendly mobile banking platforms tailored to the specific needs and preferences of street vendors. This can involve simplifying user interfaces, providing clear and accessible training, and emphasizing the security features of the system. By addressing these aspects, service providers can enhance trust and ease of use, ultimately driving adoption.

5.2.2 The Influence of Subjective Norm on Adoption of Mobile Phone Banking Services

To expedite the adoption of mobile phone banking services among street vendors, we recommend that mobile service providers proactively engage social groups, customers, friends, vendors, and government entities. Increasing their involvement in mobile phone banking will create adoption pressure within the street vendor market. Street vendors are closely connected to their social networks, and their adoption decisions are influenced by the perceptions and recommendations of these networks. Mobile service providers can harness this influence by collaborating with influential groups such as customers, vendors, and local government authorities. Awareness campaigns and educational initiatives can be organized to highlight the benefits of mobile phone banking and dispel any misconceptions. By fostering a positive subjective norm, service providers can accelerate the adoption process.

5.2.3 The Influence of Perceived Behavioral Control on Adoption of Mobile Phone Services

In this study, perceived behavioral control is influencing adoption of mobile phone banking system among street vendors. It is therefore recommended that mobile phone vendors create conducive facilities which include low cost, network availability, supportive services availability, policy and regulation, which will enable the adoption of mobile phone banking phone services among street vendors in Tanzania. Perceived behavioral control is a critical factor that influences street vendors' decisions to adopt mobile phone banking. To enhance perceived control, mobile service providers should focus on improving network availability and ensuring that supportive services, such as customer support and training, are readily accessible. Additionally, they should collaborate with government agencies to streamline policies and regulations related to mobile banking. Addressing these factors will empower street vendors with the confidence and capabilities needed for successful adoption.

5.2.4 Recommendation for the Government and Policy Makers

Supportive Policy Framework: Government and policy makers should continue to develop and implement supportive policies and regulations that foster the growth of mobile phone banking services. Streamlining regulations and ensuring that they are conducive to the needs of street vendors can significantly boost adoption. **Financial Inclusion Initiatives:** Collaborate with financial institutions and mobile service providers to launch financial inclusion initiatives specifically tailored to street vendors. These initiatives can include low-cost banking options, simplified registration processes, and financial literacy programs. **Promote Digital Literacy:** Invest in digital literacy programs targeted at street vendors. These programs should focus on teaching them how to use mobile phone banking systems effectively and securely. Empowering street vendors with digital skills can enhance their confidence in adopting these technologies.

Advocate for Awareness Campaigns: Launch public awareness campaigns to inform street vendors about the benefits and safety of mobile phone banking. These campaigns should emphasize the ease of use, convenience, and security aspects of these systems. Government support in funding such campaigns can amplify their impact. **Research and Data Collection:** Continue to invest in research and data collection on the adoption of mobile phone banking among street vendors. This ongoing research can provide valuable insights into evolving trends and areas where intervention is needed.

5.2.5 Recommendation for Financial Vendors

Tailored Services: Financial vendors should tailor their mobile phone banking services to the unique needs and preferences of street vendors. This customization can involve simplifying interfaces, offering multilingual support, and creating transaction limits that suit the typical financial activities of street vendors. **Accessible Training:** Provide easily accessible training and support services to street vendors. Offering training sessions, both in-person and online, can equip street vendors with the knowledge and skills necessary to use mobile phone banking systems confidently. **Affordable Services:** Consider offering low-cost or no-cost mobile phone banking options for street vendors. Affordability is a significant factor for this demographic, and competitive pricing can be a compelling incentive for adoption.

Community Engagement: Collaborate with local communities and influential groups, such as customers, vendors, and government agencies, to build trust and endorsement for mobile phone banking services among street vendors. Engage these stakeholders to promote adoption and provide testimonials of successful users. **Continuous Improvement:** Continuously assess and improve the user experience of mobile phone banking systems. Solicit feedback from street vendors and incorporate their suggestions to enhance the services. An intuitive and user-friendly interface is crucial for adoption.

5.2.6 Recommendation for the General Public

Support Street Vendors: Encourage the use of mobile phone banking services among street vendors by supporting their businesses when possible. Opt for cashless transactions when making purchases from street vendors who offer mobile banking options. **Spread Awareness:** Act as advocates for mobile phone banking adoption by spreading awareness among social circles. Inform friends, family, and colleagues about the benefits of mobile banking, especially when interacting with street vendors. **Promote Trust:** Share positive experiences and success stories related to mobile phone banking. Building trust is vital, and personal testimonials can go a long way in alleviating concerns about security and reliability. **Educate Others:** Educate those less familiar with mobile banking on its ease of use and convenience. Many may be hesitant due to lack of knowledge, so providing basic information can encourage them to give it a try.

Advocate for Inclusivity: Encourage financial institutions and service providers to prioritize financial inclusion. Advocate for affordable and accessible mobile banking options that cater to the needs of street vendors and other underserved populations. **Support Government Initiatives:** Support government initiatives aimed at promoting financial inclusion and mobile banking adoption. These initiatives benefit not only street vendors but also contribute to broader economic development and financial stability. By actively supporting and promoting mobile phone banking

adoption among street vendors, the general public can play a significant role in facilitating financial inclusion and enhancing the livelihoods of this vital segment of the economy.

References

- Abdul-Rahaman, A. and Abdulai, A. (2021) Mobile phone banking adoption among smallholder in Ghana. *International Journal of Agriculturer*. 38:236–255. DOI: 10.1002/agr.21721
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
- Akinyemi, B.E. & Mushunje, A. (2020) Determinants of mobile phone banking technology adoption in rural areas of Africa. *Cogent Social Sciences*, 6:1, 1815963, DOI: 10.1080/23311886.2020.1815963
- Chile, Felix; Shayo, France and Kara, Nasra (2021). The effect of Perceived Trust and Ease of Use on Adoption of Mobile Marketing in Telecommunication in Industry of Tanzania. *American Journal of Engineering technologies and sciences*.
- Davis, D. (2016). *Technology Acceptance Model*. *Organizational Behavior and Human Decision Processes*, 4(2), 45-57.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley
- Gayan, D., Nayanajith, D. A. & Damunupola, K. A. (2020). Influence Of Subjective Norm on Adoption Of Mobile Banking In the Context Of Private Commercial Banks of Sri Lanka. ILO. (2021). *World Employment and Social Outlook – Trends 2021*. Geneva: ILO
- Joseph, T., Nevo, C., & Nwolisa, C. (2022). Informal Economy and Gender Inequality in Africa. *African Economic and Management Review*, 2(1), 1-12
- Kessy, Severine S.A (2021). Adoption of Interate Banking Services in Tanzania: The influencing Factors among Customers of Commercial Banks. *University of Dar es Salaam Library Journal*. Vol 16, No.1, pp 8 – 97. ISSN: 0856 – 1818
- Kumar, R.; Singh, R.; Kumar, K.; Khan, S.; Corvello, V. (2023). *How Does Perceived Risk and Trust Affect Mobile Banking Adoption? Empirical Evidence from India*. Sustainability MDPI. <https://doi.org/10.3390/su15054053>
- Mazhambe, A.K. (2017) Determination of the Contribution of Street Vending to the Zimbabwe Economy. A Case of Street Vendors in Harare CBD. *IOSR Journal of Business and Management*. 19(9), 91-100
- Mramba, N., Sutinen, E., Haule, M. and Msami, P. (2014) Survey Of Mobile Phone Usage Patterns Among Street Vendors In Dar Es Salaam City- Tanzania. *International Journal of Information Technology and Business Management*. 28(1), 1–10.
- Mrindoko, A.E. (2022) Influence Of Mobile phone banking Microcredit On Financial Performance Of Small Business In Iringa Municipality, Tanzania. *African Journal of Applied Research*. 8(1) 15-38 <http://doi.org/10.26437/ajar.03.2022.2>
- Mugoya, P. (2012). The informal retail trade sub-sector in Tanzania: Size, Tax Potential and Poverty Reduction. In T. L.
- Mutiso, M.G. and Reuben, M.J. (2021) Mobile Payment And Mobile phone banking Transfer On Performance Of Micro, Small And Medium Enterprises In Kenya. *International Journal of Research Publications*. 84(1), 23-46; doi: 10.47119/IJRP100841920212221

- Nassuora, Ayman Bassam (2013). Understandin Factors Affecting the Adoption of M-Commerce by Consumers. *Journal of Applied Sciences*. Volume 13, Issue 6, Pg.913 – 918.
- Okeke, T.C. and Eze, G.A. (2018). Exploring mobile phone banking adoption among the informal sector in Anambra State-Nigeria.*International Journal of Development and Sustainability*, 7(12),2927–2942.
- Paas, L.J., Eijdenberg E.L. and Masurel, E. (2021) Adoption of services and apps on mobile phones by microentrepreneurs in Sub-Saharan Africa. *International Journal of Market Research* 63(1), 27–42. DOI: 10.1177/1470785320938293
- Pipitwanichakarn,T. and Wongtada,N. (2018) "Mobile commerce adoption among the bottom of the pyramid: a case of street vendors in Thailand", *Journal of Science and Technology Policy Management*, <https://doi.org/10.1108/JSTPM-12-2017-0074>
- Rafique,S.,Asim, M. and Siddiq,R. (2021)Intergrating street vendors as economic influencers in the planning of metropolitan cities-Lessons from the study of street vendors in Lahore, *Pakistan.Journal of research in architecture and planning*.31(2),50-58,
- Singh, S.N. (2020)Role Of Street Vending In Urban Livelihood In Case Of Mettu Town.*Socio Economic Challenges*, 4(1),82-110. [https://doi.org/10.21272/sec.4\(1\).82-101.2020](https://doi.org/10.21272/sec.4(1).82-101.2020).
- Taylor, S. and Todd, P. (1995) ‘Decomposition and crossover effects in the theory of planned behavior: A study of consumer adoption intentions’, *International Journal of Research in Marketing*, Vol. 12, pp. 137–155.
- TCRA (2023), COMMUNICATION STATISTICS: Quarter ending December 2022. www.tcra.go.tz
- TCRA(2022), COMMUNICATION STATISTICS: Quarter ending December 2021. www.tcra.go.tz
- Tengeh, R. K. and Talom, F.S.G.(2020) Mobile phone banking as a Sustainable Alternative for SMEs in Less Developed Financial Markets. *Journal of Open Innovation: Technology, Market and Complexity*. 6(163),1-20, doi:10.3390/joitmc6040163
- URT(2003)United Republic of Tanzania National ICT Policy
- URT(2017)United Republic of Tanzania National ICT Policy
- URT(2017)United Republic of Tanzania SME Policy



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The Contribution of Financial Institutions on Small and Medium Enterprises Development in Tanzania

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Abstract

The purpose of this study was to determine the contribution of financial institution on small and medium enterprises development in Tanzania: A case study of SIFA SACCOS in Iringa Municipality. Specifically: to determine whether entrepreneurial skills provided by financial institutions contribute the development of SME's, to determine whether management skills provided by the financial institutions contribute the development of SMEs and to determine whether proper financial records keeping contribute the development of SMEs. The study adopted a quantitative research approach and descriptive research design with a sample of 99 respondents. Data was collected using questionnaire and the data was analyzed using regression analysis and descriptive statistics. The research findings showed that the entrepreneurial skills, management skills and proper financial record keeping had a positive relationship with the development of small and medium enterprises (SMEs). It was established that entrepreneurial skills accounted for 22.22% of the development of SMEs, and management skills accounted for 33.33% of the development of SMEs and lastly proper financial record keeping accounted for 77.77% for the development of SMEs. The study therefore concluded that the contribution of financial institutions on SMEs development as supported by a significance value of 0.637 for proper financial record keeping, 0.790 for management skills and 0.680 for entrepreneurial skills. The study recommended that services offered by financial institutions to SMEs should be monitored and controlled as to avoid undesired effect in case either of the side has bad mission to other, this is due to the truth that one side (SMEs) is full of un educated personnel. The study also recommends that financial institutions should take relevant measures to ensure sustainability of the services they provide to SMEs.

Key Words: *Financial Institutions, SMEs Development, SIFA SACCOS*

1. Introduction

Small and Medium Enterprises (SMEs) need to develop to later become large enterprises. In order to do that, finances are necessary to engage enterprises. In Tanzania especially in Iringa various financial institutions contribute to the development of SMEs. The aim of this study is to determine these contributions. Financial institutions are fundamental to economic growth and development. According to (UNCTAD, 2009) , financial institutions play a major role in supporting the Small and Medium Entrepreneurship development. Many of the Small and Medium Enterprises get access to loans which support the growth and expansion of their business. Some institutions acquire funds and make them available to users. Still others invest (manage) funds as agents for their clients. The key categories of financial institutions are the following: deposit taking; finance and insurance; and investment, pension, and risk management.

Financial institution are fundamental to economic growth and development .Banking, saving and investment, insurance, and debit, equity financing help citizens to save money, build credit and enabling business to start up or expands and increase the efficiency of the business (UNCTAD, 2009) the various financial institutions generally act as an intermediary between the capital market and debt market. But the service provided by a particular institution depends on its type. The financial institutions are also responsible to transfer funds from investors to the companies (ibid). According to (UNCTAD, 2009) finance has been identified in many business surveys as the most important factor determining the survival and development of small and medium –sized enterprises in both developing and developed countries. Access to finance allows SMEs to undertake productive investments to expand their businesses and to acquire the latest technologies, thus ensuring their development and that of the nation as a whole. Poorly functioning financial institutions can seriously undermine the microeconomic fundamentals of a country, resulting in lower growth in income and employment. Despite their dominant numbers and importance in job creation, SMEs traditionally are faced difficulty in obtaining formal credit or equity.

Also experience has shown that entrepreneurs do not foresee and realize the importance of having systematic and complete financial management. Financial management is a critical element of the management of a business (Chirwa Mathew, 2015). A study conducted by Bank Negara Malaysia in 2003 on the SMEs concluded that financial management is one of the key success factors for SMEs development (Emmanuel, 2017).

Financial institutions in developing countries provide finance to those sectors of the economy to which commercial banks do not provide finance (Emmanuel, 2017). These institutions handle the problem of providing long-term finances at affordable rates (Mason, 2000) A majority of SMEs rely on long-term funding made available by banks, financial institutions or venture capitalists,(Manigart, 2006) The cost of survival or growth strategies in these firms depends, on the availability of external sources of finance.

The experience has shown that most of SME achieve their goal of increasing the economy of the country by getting loans from financial institution. SMEs are important to almost all economies in the world, but especially to those in developing countries and, within that broad category, especially to those with major employment and income distribution challenges. On what we may call the “static” front, SMEs contribute to output and to the creation of decent jobs (Palma, 2205) SMEs in Ghana have been noted to provide about 85% of manufacturing employment of Ghana. They are also believed to contribute about 70% to Ghana GDP and account for about 92% of businesses in Ghana (Fayon, 2010). In the Republic of South Africa, it is estimated that 91% of the formal business entities are SMEs. They also contribute between 52% to 57% to GDP and provide about 61% to employment (Palma, 2205).

In Tanzania according to (UNCTAD, 2009) the objective of the financial Institutions is to improve access by small savers, and micro entrepreneurs, within a sound, and competitive financial environment. Banks are the most significant source of external finance to SMEs, and can exert considerable influence on them. Majority of SMEs have a banking relationship. Financial institutions are the major sources of information for companies, particularly SMEs, and there is potential for financial institutions to act as conduit of information in environment area. The role of finance has been viewed as a critical element for the development of SMEs (Tanzania, 2010). In most industrially developed and developing economies, a growing number of SMEs need access to a wide range of sources of finance.

According to (Tanzania, 2010). Small and Medium Entrepreneurship sector has been recognized as a significant sector in employment creation, income generation, and poverty alleviation and as a base for industrial development. The sector is estimated to generate about a third of GDP, employs about 20% of the Tanzanian labor force and has greatest potential for further employment generation. However, Tanzania has never had a specific policy focusing at the development of SME sector. The different policies have various uncoordinated programs and interventions aimed at supporting the sector with limited impact. This has resulted in a number of gaps leading to inability to address the core constraints inhibiting the growth of the sector. This has made it difficult to exploit the existing potentials for acceleration of SME development and limits its ability to exploit the exciting potential of SMEs to accelerate growth. Small and Medium Scale Enterprises (SMEs) are considered to be one of the principle driving forces in economic development (URT, 2002) Moreover, a healthy and growing SME sector is perceived to be crucial for sustainable competitive advantage and economic development at local, regional and national levels (URT, 2002). There are a lot of problems facing SMEs sectors, these includes lack of education and training, insufficient capital, lack entrepreneurship skills, lack of prior planning and poor management. According to (Gallear, 2002), lack of knowledge and training results in highly failure rate of SMEs in South Africa.

According to (Wan, 2010), despite the facts that SMEs are confronted with a lot of problems which hinder them to access loans from Financial Institution, SME in Iringa region are confronted with unique problem which is poor management of finance which hinders them to access loans from financial institutions. Poor financial management of finance is the major obstacle for SMEs development. Usually entrepreneurs need to utilize personal financial sources to start up their business and to expand the operations, since the internal financial sources are normally insufficient. Despite the importance of the SME sector in economic development, it faces with many problems which leads to difficultness of getting recent and reliable knowledge on how to run and operates the business. Due to that many SME`s they achieve targets without any monthly or annual estimation of expenditure, income and the expected profits. The lack of financial knowledge creates problems related to the management of the enterprises. Since the major source of income for many entrepreneurs is the enterprise, they spend money out of the business on their private matters (APO, 2001).

According to (Goedhuys, 2002) , Many entrepreneurs have faced crises due to the use of money without proper calculation of profits, further, most of the SMEs in the study area do not maintain systematic book keeping procedures. Those who maintained books are also very unsystematic. Some of SMEs does not maintain accounts. Some of entrepreneurs do not calculate loss or profit; the entrepreneurs have encountered different problems due to not having accounts and having careless maintenance of accounts. They mainly do not know the exact amounts of loss and profits; many SMEs have faced financial constrains due to the non-availability of proper financial management systems.

There are a number of factors for non-availability of financial management in SME, such as the lack of knowledge of systematic book keeping, not having trained employees for book keeping, not knowing the benefits of maintaining accounts, ability of keeping mental records due to a few numbers of customers turning up, and not having a time schedule for business (Weiss, 2010).

In Iringa region there is availability of Banks such as CRDB Bank, Akiba Bank, The Tanzania Postal Bank, The CBA Bank and National Microfinance Bank, Stanbic Bank have shown their willingness and interest in this market by offering loans Services and products for the purpose of SMEs development. These enable financial institutions to be a critical element of an effective SMEs development strategy. Efficient provision of savings, credit, and insurance facilities in particular can enable the poor people in Tanzania to smooth their consumption, manage their risks better, gradually build their asset base, develop their micro enterprises, enhance their income earning capacity, and enjoy an improved quality of life and hence SMEs development (Tanzania, 2010).

Despite the existence of many financial institutions to support small and Medium Enterprises, there is need to find out the contribution of Financial Institution on Small and Medium Enterprises development in Tanzania taking Iringa region as the case study. No adequate research effort has been made in Iringa town to address this. Therefore, it is necessary to determine whether

contributions that are provided by financial institutions if they really help SMEs to growth and development.

2. Literature Review

2.1 Theoretical Literature Review

The establishment of financial institutions, technological and commercial relations with the other factors of the network makes it possible to the small and medium enterprises sized firm to extend their connections and to gradually widen up their activities apart from their own territories until becoming international.

Entrepreneurship Theory and International New Ventures

Oviatt, (2013), proposed International Entrepreneurship Theory. It argues that SME's internationalization mostly attributes to entrepreneur's international vision and international experience, their internationalization development is either proactive or *reactive* (Oviatt, 2013), define general international entrepreneurship as "a set of behaviors conducted by commercial organization in order to accomplish the goal of organization value creation, including creativity, initiative and risk taking moves" Scholars often combine Entrepreneurship theory and International New Ventures together to explain the internationalization behaviors of the younger and smaller companies. According to (Oviatt, 2013), while other competitors start internationalization long after establishment, few new ventures follow the conventional market entry procedures. Thus, new ventures could utilize learning abilities to achieve rapid growth in host countries. (Oviatt, 2013), mentioned that most new ventures are founded by entrepreneurs with international experience and international market prospective. Their education background, work experience and personal thoughts play a decisive role in the company's internationalization development. Knight concludes that better enterprises have stronger tendency to change marketing strategies when entering new markets, and in SMEs, entrepreneurship have more profound influence on enterprise's globalization process.

2.2 Empirical Literature Review

An empirical literature review is the review of the prior or previous studies which are relevant to the topic. It is divided into two parts, empirical literature review on studies done internationally or abroad and empirical literature review on studies done within the country (Saunders, 2009).

2.2.1 Entrepreneurial Skills Contribution to Development of SME's

The objective of the Financial Institutions is to improve access of SMEs in competitive financial system environment by providing entrepreneurial skills. Entrepreneurial skills refer, to skills that an entrepreneur need so that he or she can be able to excess finance from financial institutions and

implement them to his or her development. There are some components that financial institutions need to consider in providing entrepreneurial skills to SMEs are:

- i. The restructuring, and privatization of major banks, will provide considerable management expertise support in banking operations, treasury, and micro-finance. Staff training, management information systems, research, and development funding for the micro-finance pilots, will be institutions provided. Through these financial institutions can now be able to provide entrepreneurial skills to small and medium entrepreneurs through training on how to manage and proper utilization of their capitals or funds.
- ii. The financial infrastructure strengthening, will upgrade the technical skills of the banking supervision within the Bank of Tanzania, namely, strengthening the financial data integrity, through improved analytical skills, and, accounting standards. In addition, the payments system, Credit Reference Bureau and the Capital Markets and Securities Authority, will continue to be supported, through operational financing.
- iii. Funding will be provided for the establishment, and management on a pilot basis.

Public financial institutions have played important roles in lending to SMEs. In particular they have served to guarantee the availability of medium and long term resources for investment by devising financial instruments and by financing segment in which the private sector has not been particularly active (Palma, Four sources of De-industrialization and a new concept of the dutch disease, 2005) .

Also (Palma, Four sources of De-industrialization and a new concept of the dutch disease, 2005) added that, public financial institution implement finance policies for different types of programmers, furthermore helping SMEs by providing them entrepreneurship skills, financial management skills, Business development skills, Proper record keeping, and time to schedule the business. These ways were impacted to make loans cheaper and provision of guarantee. Recently, a burst of new instruments seeks to reduce the information barriers between banks and businesses and/or target specific SMEs demands.

2.2.2 Management Skills Contribution to Development of SME`s

According to (Gallear, 2002) Management skills does not mean the process of making things work, But is a understanding firms own strengths, weaknesses, needs and wants, Ability to identify relevant opportunities, Accessing career information, Ability to plan and take career-related decisions, Ability to network and build relationships. It is suggested that people engaged in business at list need to have knowledge of business and how to operate, it will help them control the business.

Management skills are an important key for any type of enterprise. But Lack of proper financial management may create problems of various types in business. One major weakness with regard

to financial management in SMEs is not planning the future finance. They achieve targets without any monthly or annual estimation of expenditure, income and the expected profits. The future plans of finance are almost invisible in SMEs. One major weakness of SME is not having plans for future financial management. The lack of financial management creates problems related to the management of the enterprises. Since the major source of income for many entrepreneurs is the enterprise, they spend money out of the business on their private matters. Many entrepreneurs have faced crises due to the use of money without proper calculation of profits. Most of the SMEs in the study area do not maintain systematic book keeping procedures and those who maintained books are also very unsystematic. Some of SMEs does not maintain accounts and some of entrepreneurs do not calculate loss or profit. The entrepreneurs have encountered different problems due to not having accounts and having careless maintenance of accounts. They mainly do not know the exact amounts of loss and profits. Many SMEs have faced financial constrains due to the non-availability of proper financial management systems.

Therefore, for the SMEs to grow or to develop they need to be trained on how to manage their business accounts, record properly their daily transactions according to the accounting principles through that they can be able to influence financial institutions and other microfinance to finance them.

2.2.3 Proper Financial Records Keeping Contribution to Development of SME`s

How do you tell if your business is making a profit or a loss if you are not keeping any records? Most of our small business owners unfortunately perhaps take recordkeeping for granted, but it can make the difference between success and failure in business.

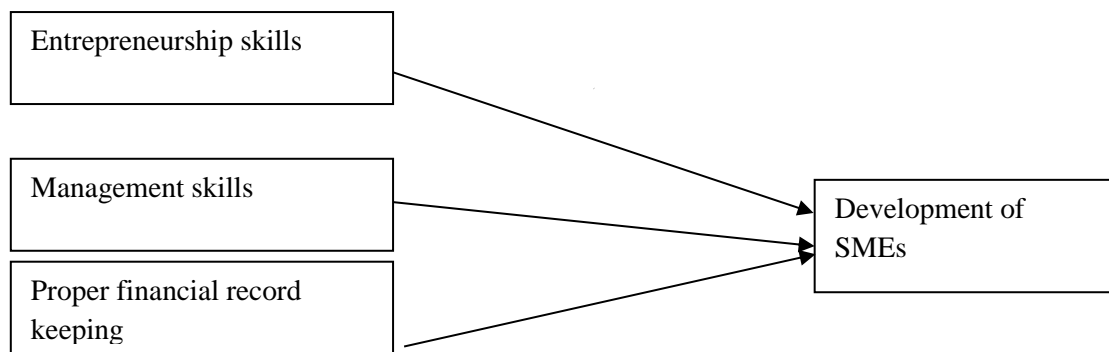
According to (Tinotenda, 2015), SME business owners need to develop the discipline of keeping track of all the sales, cash proceeds, and overall turnover of their business as well as other vital business records such as bank account statements, and so on.

One of the many reasons why smallest businesses sometimes collapse is because the owners fail to keep these basic business records. The most common reason why small businesses do not keep records is usually the belief that it is expensive or very complicated to do so. Maybe, but, but this may not be so actually, whilst additional diligence and effort by the proprietor or manager of a business is required, it certainly will not cost the SME enterprise a lot of money. Another myth is that recordkeeping requires specialized accounting skills. Oftentimes, it requires just business common sense and the basic ability to read and write and of course the commitment of the business owner.

2.3 Conceptual Framework

A conceptual framework is used in research to outline possible courses of action or to present a preferred approach to an idea or thought.

Figure 2.1 Conceptual Framework for the Determination of Contributions of Financial Institutions on the development of SME`s.



Source; Researcher, 2023

This study was be guided by the following hypothesis.

- i. There is significant relationship between entrepreneurial skills and SMEs development.
- ii. There is significant relationship between management skills and the development of SME`s?
- iii. There is significant relationship between proper financial records keeping and development of SME`s?

3. Methodology

The quantitative approach was employed to determine the causal relationship between entrepreneurial skills, management skills, proper financial record keeping and SMEs development. The descriptive research design was used to profile respondents' characteristics relevant to the study. Data was collected in Iringa using a survey questionnaire from a sample of 99 participants. Quantitative data analysis was performed using regression analysis to determine the extent to which the variables contribute to the development of SMEs. The study was carried out in Iringa Municipality in Tanzania.

4.0 Findings

Data was collected from 99 respondents. The analysis was directed at answering the main research questions. Do entrepreneurial skills provided by financial institutions contribute to the development of SME's? Do management skills provided by the financial institutions contribute to the development of SME's? and does proper financial records keeping contribute to the development of SME's? These questions were intended to capture the useful information and knowledge on the contribution of financial institutions on small and medium enterprises development in Tanzania. Documentary reviews and questionnaires constituted the main sources of information for the data collected.

4.1. Demographic Information.

Findings show that of the 99 respondents in the study 67 were male and 32 were female. Out of 99 respondents 18% were single 78% were married, 4% were widow/Widowers and 0% were Divorced. Positions of the respondents in the organizations were: 60 were Accountant Officers, 20 were Procurement Staff, and 19 were other Employee and 0 Auditors. Regarding the education level 45% of respondents had advanced diploma, 33% had ordinary diploma, 22% had degree none has postgraduate, masters or PhD. As for the duration of employment within the organization, 70% worked Below 3 years, 20% worked 4-9 years, 6% worked 10-16 years and 0% has a working experience of above 17 years.

4.2 Tests of Reliability and Validity

4.2.1 Reliability

In this study reliability test was done using Cronbach alpha, which was 0.980, the coefficient is significant indicating internal consistency "reliability".

4.2.2 Validity

Factor analysis was done using Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity so as to determine the level of adequacy of factor analysis. The KMO measure of sampling adequacy reflects score of (0.750), which is well above the recommended 0.50 level as suggested by (Khan, 2010) and the Bartlett's test of sphericity is significant at 0.000 ($p \leq 0.000-0.05$) levels. This indicates that how the data suited for Factor Analysis. The test measured sampling adequacy for each variable in the model and for the complete model. The statistic is a measure of the proportion of variance among variables that might be common variance.

Table 4.2: KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.753
Bartlett's Test of Sphericity	Approx. Chi-Square	198.531
	Df	4
	Sig.	.021

4.3 Finding in relation to Objectives

This study had three specific objectives and the aim of the findings is to show if the objectives were met.

4.3.1 Effect of entrepreneurial skills provided by financial institutions towards Development of SMEs.

The objective was to determine how entrepreneurial skills provided by financial institutions affect the development of SME`s. Table 4.3 shows the findings. The findings from the 99 respondents show that the entrepreneurial skills provided by financial institution does in-fact affect the development of SME`s. Entrepreneurial skills in broad spectrum that is offered by different financial institutions show effect on SME`s development but 22.22% of respondent disagreed that these skills have led them in solving business problems. 33.33% of respondents responded that they are not sure whether SME`s efficiency has improved due to skills acquired from financial institution this could be the result of lack of the capacity of accessing the performance of the firm. Field observations concerning the matter are: (1) Most of Business owners are not aware of the kind of capacitating/Skills they receive from expertise from Financial Institutions e.g. on the question on easiness of accessing the products as a result of acquiring skills from financial institutions needed a lot of elaboration that led to 22.22% of respondents to disagreeing that easiness of accessing products has no impact of skills acquired from financial institution, (2) Poor Assessment of the growth/performance of the firm is another field observation. A large number of respondents were not able to note the changes of business growth/performance before and after entrepreneurial skills from financial institutions as a result 33.33% respondents were neutral when responding to the statement “The SMEs efficiency have improved due to the effect of the entrepreneurial skills given”.

Table 4:3 Effect of entrepreneurial skills provided by financial institutions towards

Development of SME`s.

	Entrepreneurship skills and SMEs development	Weighted Mean
C1	The entrepreneurial skills provided by financial institution have a positive effect on SMEs development	4.11

C2	The entrepreneurial skills especially in innovation have developed the positive changes on the SMEs business	4.33
C3	The business problems are always been solved due to the impact of entrepreneurial skills provided by financial institution	4.11
C4	The SME's have now experienced easy access of product due to the skills and knowledge provided by financial institutions	3.67
C5	The SME's efficiency have improved due to the effect of the entrepreneurial skills given	3.89
C6	The entrepreneur`s skills mostly help urban entrepreneur other than those from rural areas	3.79
C7	The entrepreneurial skills provided to SME`s make them easy to conduct the business	4.33

Source: Field Data, 2020

Effect of Entrepreneurship skills on SMEs development		Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		F	%	F	%	F	%	F	%	F	%
C1	The entrepreneurial skills provided by financial institution have a positive effect on SMEs development	0	0	0	0	22	22.22	44	44.44	33	33.33
C2	The entrepreneurial skills especially in innovation have developed the positive changes on the SMEs business	0	0	0	0	22	22.22	22	22.22	55	55.56
C3	The business problems are always been solved due to the impact of entrepreneurial skills provided by financial institution	0	0	11	11.11	0	0	55	55.56	33	33.33
C4	The SMEs have now experienced easy access of product due to the skills and knowledge provided by financial institutions	0	0	22	22.22	33	33.33	0	0	44	44.44
C5	The SMEs efficiency have improved due to the effect of the entrepreneurial skills given	0	0	0	0	33	33.33	44	44.44	22	22.22
C6	The entrepreneur`s skills mostly help urban entrepreneur other than those from rural areas	0	0	0	0	55	55.56	11	11.11	33	33.33
C7	The entrepreneurial skills provided to SME`s make them easy to conduct the business	0	0	0	0	11	11.11	44	44.44	44	44.44

Source: Field Data, 2020

4.3.2 Effect of management skills provided by the financial institutions towards the Development of SME`s

This section intended to excavate the detailed information on the impact of managerial skills provided by financial institution on development of SME`s. Managerial skills that this study needed to find out include: Adhering to all firm`s legal issues e.g. Certificates etc., delegation of responsibilities within the firm, Performance appraisal of workers, Participation on problem solving and decision making. 100% of respondents agreed to apply the general managerial skills that were provided by financial institutions. Furthermore, the applications of Managerial skills they received led to good decision making for the betterment of the business e.g. Decision on having the balanced number of workers that can perform efficiently but with very low cost so as to increase the profit, proper allocation of resources (money).

One of the questions that respondents were required to respond needed to know if there is a specialist in the firm who teaches the managerial skills to SMEs for betterment of their business. Only 33.33% of respondents agreed to have such specialists but the majority disagreed to have who were 66.66% of all respondents. It is unfortunate that 11.11% of all respondents were not aware if the managerial skills provided by financial institutions especially decisional skills applied by management have a greater impact to the development of SME`s.

Table 4:3: Effect of Management Skills on SME`s development

	QN: Effect of Management Skills on SME`s development	Weighted mean
B1	The enterprises often applying the general managerial skills in developing the SMEs business	4.78
B2	The interpersonal skills is always applied by your management for the development of SME`s	4.56
B3	Informational skills applied by the management create awareness to the SMEs on how to operate business in profit margin	4.56
B4	The decisional skills applied by management have a greater impact to the development of SMEs	4.44
B5	The enterprises has a specialist to teach the managerial skills to SMEs for betterment of their business	2.67
B7	The managerial skills help the management to make a good decision business matters	4.78

Source: Field Data, 2020

QN: Effect of Management Skills on SME's development		Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		F	%	F	%	F	%	F	%	F	%
B1	The enterprises often applying the general managerial skills in developing the SMEs business	0	0	0	0	0	0	22	22.22	77	77.78
B2	The interpersonal skills is always applied by your management for the development of SMEs	0	0	0	0	0	0	44	44.44	55	55.56
B3	Informational skills applied by the management create awareness to the SMEs on how to operate business in profit margin	0	0	0	0	0	0	44	44.44	55	55.56
B4	The decisional skills applied by management have a greater impact to the development of SMEs	0	0	0	0	11	11.11	33	33.33	55	55.56
B5	The enterprises has a specialist to teach the managerial skills to SMEs for betterment of their business	0	0	66	66.77	0	0	33	33.33	0	0
B7	The managerial skills help the management to make a good decision business matters	0	0	0	0	0	0	22	22.22	77	77.78

Source: Field Data, 2020

4.3.3 Effect of proper records keeping towards the development of SME's

Proper records keeping are the key drive for any business. In study, the researcher needed to explore how far is these skills that delivered by financial institution impact the development of the business. Apart from asking question a researcher witnessed the record keeping tools that are used by SME's staff. The observation wasn't pleasant since most of Firms used normal text books kept on dirty and careless environments, records within the text books were not well organized in a sense that it needed more explanation in order to understand. Despite of the early mentioned scenario, it was observed that proper records keeping skills were delivered to SME's by financial

institution and have been applied and helped the firms in making an easy track of the business (77.77% of respondents agreed), also the proper records has helped in management programs performance, measure training, record schedules and permanent records transfer where 89.89% agreed on the mentioned sentence.

One main shortcoming observed from the field is most SME's do not have special persons who are responsible for coordinating and overseeing the implementation of records management program where 50.50% of respondents agreed on the mentioned sense above.

Table 4.4: Effect of proper financial records keeping towards SMEs development

	QN: Effect of proper financial records keeping towards SMEs development	Weighted mean
A1	The firm has a tendency of keeping records so as to make a good track of the business	4.56
A2	There is a special person in your institution who is responsible for coordinating and overseeing the implementation of records management program	3.26
A3	The records keeping process help to facilitate easy track of business development projects	4.32
A4	The enterprise provide record management education to its members for better performance of the organization	4.44
A5	The enterprise applies records keeping policies and records schedules for better developments of the organization	4.57
A6	The records management programs performance measure training, record schedules and permanent records transfer used effectively in your organization	4.34
A7	The firm has no stock deficit due to good record keeping	4.35

QN: Effect of proper financial records keeping towards SMEs development		Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		F	%	F	%	F	%	F	%	F	%
A1	The firm has a tendency of keeping records so as to make a good truck of the business	0	0	0	0	0	0	44	44.44	55	55.56
A 2	There is a special person in your institution who is responsible for coordinating and overseeing the implementation of records management program	0	0	50	50.50	0	0	22	22.22	27	27.27
A 3	The records keeping process help to facilitate easy track of business development projects	0	0	13	13.13	9	9.09	10	10.10	67	67.67
A4	The enterprise provide record management education to its members for better performance of the organization	0	0	0	0	11	11.11	33	33.33	55	55.56
A5	The enterprise applies records keeping policies and records schedules for better developments of the organization	0	0	0	0	0	0	44	44.44	55	55.56
A6	The records management programs performance measure training, record schedules and permanent records transfer used effectively in your organization	0	0	0	0	11	11.11	33	33.33	55	55.56
A7	The firm has no stock deficit due to good record keeping	0	0	11	11.11	11	11.11	11	11.11	33	33.33

4.4: Hypothesis of the Study

This study was guided by the following hypothesis.

- i. There is significant relationship between entrepreneurial skills and SMEs development.
- ii. There is significant relationship between management skills and the development of SME`s?
- iii. There is significant relationship between proper financial records keeping and development of SME`s?

4.5.1 Correlation Analysis

Table 4.5: Correlations

		Correlations			
		Proper record keeping and SME`s development	Informational Management skills and development of SMEs	Entrepreneurial skills and SME development	SME`s development
Proper record keeping and SME`s development	Pearson Correlation	1	.875**	.956**	.6378*
	Sig. (2-tailed)		.000	.000	.034
	N	99	99	99	
Management skills and development of SMEs	Pearson Correlation	-.873**	1	.868**	.790**
	Sig. (2-tailed)	.000		.000	.000
	N	99	99	99	
Entrepreneurial skills and SME development	Pearson Correlation	.956**	.868**	1	.860*
	Sig. (2-tailed)	.000	.000		.012
	N	99	99	99	

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Findings shown in Table 4.5 indicate that Proper record keeping has a positive moderate significant relationship with SME`s development with a coefficient of 0.637. Regarding hypothesis 2, Management skills has a positive moderate significant relationship with SME`s development with a coefficient of 0.790. The third hypothesis, Information entrepreneurial skills also has a positive moderate significant relationship with SME`s development with a coefficient of 0.680. The correlations are significant at the 0.01 level. The above results imply that all independent variables have a positive significant relationship with Development of SME.

4.5.2 Regression Analysis

In order for these hypotheses to be tested, three assumptions were considered.

First assumption: Coefficient of determination in the modal summary should explain the independent variables above 50%.

Second assumption: At 5% level of significant and 95% confident level, the significant value (P value) in the ANOVA and coefficient regression should be $P < 0.000-0.05$.

Third assumption: At 5% level of significant and 95% confident level, the value of predictions or independent variables should be $P \leq 0.000 - 0.05$. After analysing dependent variables and independent variables on SPSS version .22, the mentioned three assumptions were tested so as to know if the hypotheses hold or not. First, variables were tested so as to check if coefficient of determination in the modal summary would explain the independent variables above 50%. After testing them on SPSS version .22 the results were presented on the table 4.6 below

Table 4.6: Model Summary

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change statistics				
					R Squire change	F Change	df1	df2	Sig. F Change
1	.628 ^a	.394	.370	3.02789	.394	16.496	3	76	.000

a. Predictors: (Constant): Proper record keeping, management skills and entrepreneurial skills.

Source: Field Data,

From the first assumption which holds in a model that if R value ≥ 0.5 then variables in the hypothesis have strong relationship that means a model summary from the field which have a value R =0.628^a have shown there is a strong relationship between dependent and independent variables

Table 4.7: ANOVA^a

ANOVA					
Modal	Sum of Squares	df	Mean Squire	F	Sig
Regression	453.709	3	151.236	16.496	.000 ^b
Residual	696.779	76	9.168		
Total	1150.488	79			

a. Dependent Variable: SME's development

b. Predictors: (Constant): Proper record keeping, managerial skills and entrepreneurial skills.

Source: Field Data, 2018

From the second assumption at 5% level of significant, the significant value (P value) in the ANOVA and coefficient regression should be $P \leq 0.000-0.05$. Therefore, From ANOVA table, the second assumption is held due to the fact that, significant value (P value) is 0.000.

Table 4.8: Coefficients'

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig
		B	Std Error	Beta		
1	(Constant)	4.925	2.158	-.933	2.282	.025
	Proper record keeping	-.856	.291	1.165	-2.940	.004
	Managerial skills	0.478	.239	.160	6.186	.001
	entrepreneurial skills	.202	.395		.512	.010

a. Dependent Variable: Revenue Collection

Source: Field Data, 2018

The regression equation ($Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \alpha$) was;

$$Y = 4.925 + -.856X_1 + 0.478X_2 + 0.202X_3 + \alpha$$

Where by Y = Revenue Collection

X1= Proper record keeping

X2 = Managerial skills

X3= Entrepreneurial skills

The coefficient table implies that there is a significant relationship between Proper record keeping and SME's development as it shows value is 0.004 which is between $P \beta 0.000 - 0.05$ and there is a significant relationship between Managerial skills and SME's development as it shows value is 0.001 which is between $P \beta 0.00 - 0.05$. Also there is a significant relationship between entrepreneurial skills and SME's development as it shows value is 0.010 which is between $P \beta 0.00 - 0.05$.

Discussion of the Findings

The research revealed that financial institution played a great role on SME's development by providing the critical services like managerial skills, entrepreneurial skills and proper recordkeeping skills. Policies that cementing this bond is not well understood among stakeholders due to lack of information, minimal interest on making a follow up on legal matters etc. Further, the research revealed poor/minimal follow up of the implementation made by financial institution that led to lack of seriousness on putting to practice for the side of SME's. This research revealed that Proper record keeping had created opportunities for organizations (SME's) to amplify their

productivity and effectiveness while improving quality and cutting costs of production in the long run by having a reference of past events that used as a road map.

5. Implication of Findings

5.1 The Government

Through the findings of this study the government of Tanzania will be able to form guidelines, formulate appropriate laws and policies that would seal the good partnership between financial institutions and SME's that will eradicate hindrances to efficient and effective partnership.

5.2 Financial Institution

The study will enable the financial institution to know about how potential they are on SME's development hence planning best and convenient strategies to strengthen the partnership that will allow both side to benefit.

5.3 SME's

Through this study, the SME's and their managements have come into the sense of knowing how important the partnership with financial institution on development is if they will take seriously the financial skills provided.

5.4 Researchers

The study will generate more interest for further work by researchers. Other researchers will use the report as literature review in order to explore more and give out further recommendations that will lead to the mutual benefits between financial institutions and SME's.

5.0 Conclusion and Recommendation

5.1 Conclusion

The study concludes that proper financial records keeping, entrepreneurial skills, management skills that are provided by financial institutions play a very big role on SME's development. SME's have been able to develop different programs for income generation, capacitating problems solving and decisions making, innovative on operating businesses, access products that are crucial for running the business, accessing information from different sources that boost the development of the business.

5.2 Recommendation

In respect of the research findings, the study recommends that: Services offered by financial Institutions to SME's should be monitored and controlled so as to avoid undesired effect in case either side has bad mission to the other, this is due to the truth that one side (SME's) is full of un educated personnel. This study also recommends that financial institutions should take relevant measures to ensure sustainability of the service they provide to SME's.

References

- Bajpai, N. (2011). *Business Research Methods*. New Dehli: Person Education.
- Berger, A. (2002). Small business credit scoring and credit availability. *Journal of New York* , 89-108.
- Chirwa Mathew, R. (2015). Management and delivery of Financial Services to the poor. *FINCA Village Bank approach in Malawi* , 23(1)-28(3).
- Emmanuel, A. O. (2017). *The roles of Government and Financial Institutions towards the development of SME`s*. Chicago: Chicago press publisher.
- Fayon, A. (2010). *Innovation approach to SME financing in Ghana*. Acra: Ghana University.
- Gallear, D. (2002). Total quality management in SMEs. *International Journal of management sciences* , 50-65.
- Ghosham. (2002). *The determining factors for a enterprises growth and availability of resources to the firm*. Canada: University of Canada.
- Haggblade, L. (2013). Small enterprises and economic development. *The journal of dynamic of micro and small enterprises* , 98-125.
- Hitchens. (2001). Alternative theories of small firm growth. *A critical review,environment and planning* , 79-113.
- Johnson. (2009). *Entrepreneurial skills*. New York: University of New York.
- Kombo. (2006). *Literature review*. New York: University of New York.
- Kuzilwa. (2002). *Role of credit in generating entrepreneurship activities*. Tanzania: URT Publisher.
- Lucky. (2012). *The micro,small and medium enterprises or business*. Canada: University of Canada.
- Manigart. (2006). *The efficiency of non bank financial institution;empirical evidence from Malaysia*. Malaysia: International research journal of finance and economic ISSN 1450-2887 .
- Mason. (2000). The institutions handle the problem of providing long term finances at affordable rate. *Effectiveness of non financial institution:empirical evidence froom Malaysia* , 1450-2550.
- Obamuyi. (2007). An exploratory study of loan delinquency among small and medium enterprises

- in Ondo state of Nigeria. *Labour and Management in development Journal* vol 8 , 195-250.
- Obamuyi, T. (2008). An empirical analysis of factors associated with the profitability of small and Medium enterprises in Nigeria. *African Journal of Business Management Vol 2. , pp 195-200.*
- Obli. (2011). *Effects of Financial Institutions on the growth of Small and Medium Entrepreneurship*. Ghana: Accra Ghana.
- Oviatt. (2013). *Internatinal Entrepreneurship Theory*. New York: The American Behavioural Scientist.
- Palma, G. (2205). *Four sources of De-industrilization and a new concept of the dutch disease*. Stanford: Standord University.
- Priyanath, H. (2006). definition of financial instittions. *Roles of financial institutions , 116-200.*
- Saunders, M. (2009). *Research Methods for Business students (5th ed)*. Harlow: Person Education Limited.
- Stevenson. (2013). *Entrepreneurship skills*. New Dehli: India.
- Suberu. (2011). *Impact of financial institutions on the growth of small and medium entrepreneurship*. Nigeria: University of Nigeria.
- United Republic of Tanzania (2010). *Issues in SMEs Development in Tanzania*. Dar es salaam: Fema Tanzania.
- Tinotenda. (2015). Theoretical milestones in international business.The journey to network approach. *Strategies in global competition.Croom Helm,London , pp 90-105.*
- UNCTAD. (2009). *Providing sustainable Financial and Non Financial services to SME`s development*. Geneva: United Nations.
- URT. (2002). *Problems facing SMEs sector*. Dar es salaam: University of Dar es salaam.
- Wan, S. (2010). *Factors influencing financial institutions on lending technologies*. Malaysia: University Malaysia Perlis.



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Factors Contributing to Manufacturing Firm Profitability in Tanzania

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Abstract

The study assessed factors contributing to manufacturing firm profitability in Iringa Municipality in Tanzania. Specifically, the study determined the contribution of macroeconomic factors, industry specific factors and firm specific factors on firm profitability. The study employed positivism paradigm and quantitative research approach. Explanatory cross-sectional design used to explain the causal effects relationship between variables. Population of the study was 150 employees with managerial positions and the sample size was 109. Data was collected using structured questionnaire and analyzed using descriptive statistics namely frequencies, percentage, mean and inferential statistics Multiple Linear Regression Model. The results show that firm specific factors, macroeconomic factors and industry specific factors have positive significant relationship with firm profitability.

Keywords: *Firm specific factors, Industry specific factors, Macroeconomic factors and Firm profitability*

1. Introduction

Profitability is the ratio which measures the performance of the company. The profitability of the manufacturing company shows a company's ability to generate earnings for a certain period at a rate of sales, assets and a certain amount of capital stock. Profitability is a measurement of efficiency and ultimately the success or failure of a company (Bhutta and Hassan, 2013). A business can produce a return on an investment based on its resources in comparison with an alternative investment. Profitability is a commonly used indicator of firm performance. Consequently, it is in the best interest of every organization to maximize its return rate to satisfy shareholders, attract new capital and ensure continued operations (Msami and Wangwe, 2016).

Worldwide, profitability is viewed as one of the elements of performance evaluation, showing the proportion of profit in comparison with asset investment, equity or sales (Avdalovic, 2018). Improving profitability is one of the key tasks for enterprises, especially in the context of manufacturing firms. This is due to the fact that, only a stable economy with high profitability can provide enough financial resources for sustainable development, and attract attention and investment from internal and international investors (Muzahem, 2021). Not only being a reliable basis for evaluating business performance, profitability also is a useful tool for forecasting the performance of businesses in the future. Profitability reflects shareholders' wealth, and accordingly, appeals to investors. This is the reason why identifying different factors contributing to firm profitability (Avdalovic, 2018).

In Tanzania, manufacturing sector is ranked as the third most important to Tanzania's economy after agriculture and tourism. It plays a great role in the national economy by contributing 29% to the country's Gross Domestic Product (GDP), creating employment for skilled and unskilled people, producing goods which are used internally and others are exported (Nyamu, 2016; Bhutta and Hassan, 2013; Mbilinyi, 2018). Investing in manufacturing companies requires heavy finances on a long-term basis to strengthen profit making, however, the sector is still facing a problem of profit-making and most of the companies are operating at a loss and some are able just to cover the operational costs because they do not generate enough profit from their businesses.

Previous scholars on factors contributing to firm profitability have come up with factors like firm specific-factors (firm size, asset growth, asset tangibility, financial leverage, debt equity, age of the firm and number of stocks as pointed out by Dahmash et al 2021; Bhutta and Hassan, 2013; Avdalovic 2018); others have mentioned macroeconomic factors such as inflation, unemployment, GDP, exchange rates and lending rates as revealed by Dew et al 2019; Cheong and Hoang 2021; Nyamu, 2016 and Industry specific factors (growth rates, market share, market concentration and intensity of research and development) were mentioned by Zamparaet *al.*, (2017), Kant, 2018, and Raza *et al.*, 2017). Furthermore, previous scholars reported that the high cost of capital and energy, taxation issues and other legal aspects affected firm profitability. The persistent issue of profit generation failure among the majority of manufacturing firms in Tanzania remains inadequately examined by previous scholarly investigations. This has necessitated the need for this study to explore the extent to which these factors contribute to firm profitability. In this regard, the current study intends to investigate factors contributing to firm profitability by focusing on manufacturing firms in Iringa Municipality in Tanzania.

2.0 Literature Review

2.1 Theoretical Framework

Signaling theory is the theory developed by Michael Spence (1973) which explains factors that affect the firm profit, both internal and external factors. The internal factors affecting firm profitability are firm and industry specific factor while the external factors are the macroeconomic factors. These factors can directly or indirectly affect the firm profitability. However, this research will group these factors based on three factors namely firm specific factors, macroeconomic factors and industry specific factors. The rationale for this grouping is to enable the researcher to capture all main factors as pointed by previous scholars instead of only studying some. The signaling theory relates to the current study as factors pointed out in this theory was used as the key factors contributing to firm profitability in Iringa Municipality.

In addition, the signaling theory is one of the theories, which have a clarification for the association between profitability and capital structure (Alkhazaleh&Almsafir, 2014). This theory presupposes that a superior capital structure is an optimistic signal to the market worth of the organization (Adeusi, Kolapo& Aluko, 2014). The signaling theory further postulates that majority of the profitable firms signal their competitive power by communicating new and important information to the market. Thus, information is disclosed using specific indicators or ratios which, very often, measure specific conditions on which to enter into or renew the agency contract (Bini, Dainelli& Giunta, 2011). According to the signaling theory, the management of banks signals good future expectations by increasing capital. This indicates that, less debt ratio necessarily means those manufacturing firms perform better than their identical (Alkhazaleh & Almsafir, 2014).

In addition, the theory argues that managers who strongly believe that their firms can outperform other banks in the industry will want to relay such information to various stakeholders to attract additional investments. Thus, the signaling theory affirms that when a firm performance is excellent, directors signal the manufacturing profitability to its stakeholders and market by making various disclosures that poor performing firms cannot make. By enhancing more disclosure most managers will wish to receive high benefits and a good reputation which may increase the value of the firm and profitability (Muzahem, 2021). This study stipulates factors contributing to firm profitability in terms of internal factors and external factors which categorized into firm specific factors, macroeconomic factors and industry specific factors, hence specific objectives of the study were drawn from here.

2.2 Empirical Literature Review

Zampara, Giannopoulos and Koufopoulo (2017) conducted a study titled “Macroeconomic and Industry specific Determinants of Greek Bank Profitability” where they specifically grouped construct based on the growth rates, unemployment rates, banks’ market shares, market total assets and total deposits. Multiple linear regressions were used to analyze data. The study found that unemployment rates had a negative impact on bank profitability; whereas gross domestic product had a positive impact. The industry- related factors such as industry rate of growth deposits, bank deposits and bank assets market share have a positive impact on firm profitability. However, the rate of growth of the industry assets and the bank’s deposit market share harms bank’s profitability.

A potential gap in this study could be the absence of other industry- specific factors that could be relevant to the Greek banking industry, and that could be addressed in future research.

Dewi, Intanie, Soei, Catharina, Surjoko and Oriana (2019) conducted a study on the “Impact of Macroeconomic factors on Firm Profitability in Niger”. The purpose of the study was to determine the influence of macroeconomic factors such as inflation rate, unemployment level, Gross domestic product and exchange rates on firm profitability which is reflected by the return on Assets. The study used Return on asset as a dependent variable and the independent variables were macroeconomic factors. A Multiple Linear Regression was used to analyze data and it was found that all independent variables influence Return on Assets (firm profitability). However, a partial t-test showed that only Gross Domestic Product (GDP) level has a significant influence on firm profitability, while the other three macroeconomic factors have no significant influence. A potential gap in this study could be the absence of any consideration for other factors that could influence firm profitability in Niger, and that could be addressed in future research.

Chinaemerem (2019) conducted a study entitled Determinants of industry specific factors affecting banks profitability in Nigeria’s banking industry: Panel Auto- Regressive Distributive Lag (ARDL) approach, profitability indicators such as Return on Asset (ROA), Return on Equity (ROE), and Net Interest Margin (NIM) were used in the study. The Pool Mean Group (PMG) was used to investigate the effects of industry- specific factors such as market concentration based on the result of the Hausmann test. According to the findings, banking sector development has a statistically significant impact on bank profitability. Market concentration, on the other hand, is not a significant driver of bank profitability.

Amariati (2013) in her study entitled financial factors that affect the profitability of manufacturing companies listed in the NSE in Kenya. This study was a descriptive research survey and it covered a period of the past 36 months. The finance and procurement staffs of 9 NSE-listed manufacturing firms were the target population. There was no sampling because the population was small and variable. A sample size of 9 respondents was chosen from a population of manufacturing firms. This study made use of both primary and secondary data. According to the study, Kenyan manufacturing firms face a volatile business environment, high product market competition, ineffective government policies, and uncertainty and volatility of key macroeconomic factors, all of which reduce profit margins and make future planning difficult or impossible. The study concludes that financial factors such as exchange rates, tax regime, interest rates and inflation rates have an impact on the profitability of Kenyan manufacturing firms.

Bhutta and Hassan (2020) in the study of the impact of Firm Specific Factors on the Profitability of Firms in food sectors in Pakistan specifically focused on debt- equity, tangibility, growth and size and macroeconomic factors including inflation. The study found significant negative relationships between size and profitability. However, tangibility, growth of the firm and food inflation were found to be insignificantly positively related to profitability. Empirical results provide evidence that the profitability of the food sector is shaped by firm specific factors and not macroeconomic factors. However, the limitation of the study is that it just focused on one macroeconomic factor, inflation.

Avdalovic' (2018) in his study Impact of firm-specific factors on the profitability of industry grinding companies in Belgrade Stock Exchange, a sample of 62 companies was taken from 2008 to 2014. Return on equity considered as a measure of profitability was a dependent variable whereas firm sizes, leverage, years of firm existence, and number of stocks per share were considered as dependent variables. The study found leverage, number of stocks and book per value share were statistically significant with profitability for selected grinding companies in Serbia. Size and age were indicating an insignificant relationship with profitability.

In summary, the preceding studies primarily focused on exploring the factors that influence profitability. While these factors are recognized, their specific contribution to profitability, particularly within the context of manufacturing firms, remains unknown. Hence, the present study is warranted to address this knowledge gap.

2.4 Conceptual Framework

This conceptual framework shows the relationship between the independent variables and dependent variables (Saunders *et al.*, 2006). In this study, the independent variables are firm specific factors, macroeconomic factors and industry specific factors and the dependent variable Firm's Profitability.

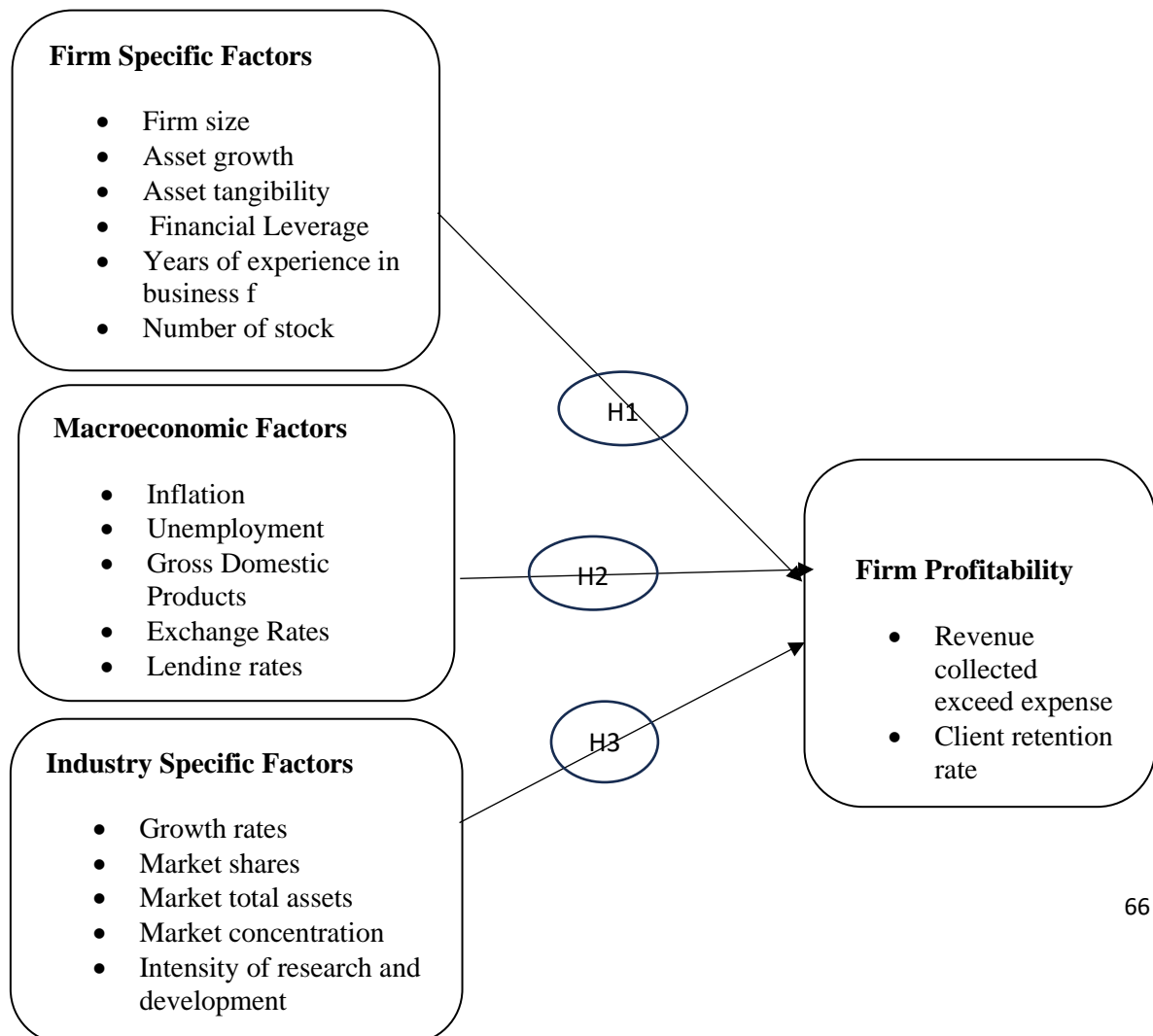


Figure 1: Conceptual Framework

3.0 Methodology

This study was guided by the positivism paradigm owing to the adoption of cross-sectional survey to explain the causal effect relationship between macroeconomic factors, firm specific factors and industry specific factors on firm profitability. The study adopted quantitative research approach with explanatory cross-sectional design. This study is explanatory because it explains the causal effects relationship between macroeconomic, industry and firm specific factors and firm profitability. Also, the study is cross-sectional research design since data collection, analysis, and interpretation were conducted at a single point in time, thus, the cross-sectional survey was obtained and processed in a single phase. Population of the study was 150 employees with managerial positions and the sample size was 109. Data was collected using structured questionnaire and analysed using descriptive statistics namely frequencies, percentage, mean and inferential statistics Multiple Linear Regression Model.

4.0 Findings

4.1 Macroeconomic Factors and Firm Profitability

Results in Table 1 show that, 87(80.0 %) respondents believed that inflation had an impact on business profitability. This means that inflation can help businesses raise their profit margins by granting them pricing power. If profit margins are increasing, it suggests that the prices that manufacturers charge for their products are rising faster than production expenses.

Table 1: Macroeconomic Factors

Macroeconomic Factors	Agree	Neutral	Disagree
Inflation	87(80.0%)	17(15.5%)	5(4.5%)
Unemployment	58(53.2%)	28(25.7%)	23(21.1%)
Gross Domestic Product	59(54.1%)	48(44.0%)	2(1.8%)
Exchange rates	82(75.2%)	25(22.9%)	2(1.8%)
Lending rates	64(58.7%)	36(33.0%)	9(8.3%)

Source: Field data (2023)

Furthermore, 58(53.2%) respondents declared that unemployment is linked to a company's profitability because high unemployment benefits put upward pressure on wages, reducing the profitability of hiring labor and worsening unemployment. In addition, increasing unemployment

will result in lower income for the majority. For many manufacturing companies, this will mean decreased sales as individuals will spend less, resulting in lower profit margins. However, in other cases, when unemployment is high, demand for certain items and services will rise. Further, 59(54.1%) respondents stated that profitability had an impact on macroeconomic performance as well as on the Gross Domestic Product. This implies that as the economy grows, more jobs will be created, and workers are more likely to benefit from compensation increments. When GDP depreciates, however, the economy shrinks, which is devastating for both individuals and businesses. Nyamu (2016) discovered a non-significant positive association between unemployment and financial performance in terms of exchange rates, money supply, and lending rates in Kenya, which contradicts current study findings.

The findings are consistent with those of Cheong and Hoang (2021) in Hong Kong, who discovered that previous profitability, business size, inflation, and leveraging all had strong associations with profitability. Similar results were also obtained by Zampara, Giannopoulos and Koufopoulo (2017) inflation can provide businesses with pricing power and increase their profit margins. If profit margins are rising, it means the prices that companies charge for their products are increasing at a faster rate than increases in production costs.

Macroeconomic factors such as exchange rates affected the profitability of manufacturing enterprises in 82 (75.2 %) cases. This could be explained by the fact that an increase in the variance of the permanent (transitory) component of the exchange rate process leads to greater (or lesser) variability in the firm's profit growth rate, demonstrating that the source of exchange rate volatility matters when analyzing its effects. Christian et al. (2018) identified a positive significant association between exchange rate and profitability in Nigeria.

Furthermore, 64 (58.7%) respondents agree that loan rates have an impact on firm profitability. This is because manufacturing firms are more inclined to borrow because debt repayment is easier. When interest rates are high, however, manufacturing firms will be hesitant to borrow since loan repayment costs more and, if not cautiously managed, can eat into profits. These findings are consistent with those of Dewi et al. (2019), in an Indonesian study that revealed that the level of GDP, lending rates, and credit procedures have all had a substantial impact on company profitability.

4.2 Industry Specific Factors and their influence on Firm Profitability

Results in Table 2 show that, 107(98.6%) of manufacturing organizations stated that their growth rate had an impact on their profitability, because growth for a manufacturing firm is essentially an expansion, making the company bigger, expanding its market, and eventually making it more profitable. These findings are consistent with those of Yoo and Kim (2015), who discovered that companies invest based on current financial performance rather than the present value of predicted future earnings over an infinite time since they cannot reliably predict expected future profit. From a resource-based perspective, however, company growth does not improve future profitability, but rather the economic growth inherent in the manufacturing firm's features. Although economic development provides organizations with temporary incentives to expand, companies that have grown quickly face higher operating costs than those lagging in growth.

Table 2: Industry Specific Factors

Industry Factors	Disagree	Neutral	Agree
Growth rates	107(98.6%)	0(0.0%)	2(1.4%)
Market share	64(58.7%)	9(8.3%)	36(33.0%)
Market total assets	81(74.3%)	23(21.4%)	5(4.3%)
Market Concentration	97(89.0%)	5(4.6%)	7(6.4%)
Intensity of research	99(90.8%)	5(4.3%)	5(4.3%)
Company Reputation	96(88.1%)	8(7.3%)	5(4.6%)

Source: Field data (2023)

According to the study's findings, 64 (58.7%) of the respondents stated that market share influences profitability because a business with a higher profit margin has a declining purchase-to-sales ratio. A decline in marketing costs as a percentage of sales, higher quality, and higher-priced products is more likely to have a higher profit margin. Furthermore, a declining purchase-to-sales ratio, a decline in marketing costs as a percentage of sales, and higher quality and higher-priced products have a higher profit margin. Market share is imperative because it causes network effects, which push competition out of the market and open the door to monopolistic rents. Profit is the sole fuel that can stimulate innovation; hence profit share is prime. These findings are consistent with a study conducted in Alabama, USA, by Bhattacharya, et al. (2021), who discovered that many businesses use market share to set marketing goals and track success and that marketing share is the result of a company's attempts to compete in a production market.

The finding of the study further revealed that, 97 (89.0%) respondents believed market total concentration has an impact on manufacturing business profitability. The sum of the market share percentages owned by the biggest defined number of enterprises in an industry is known as market total concentration. Furthermore, 99(90.8%) respondents revealed that overall expenditure on research and development had an impact on profitability. In the high-tech industry, research and development investments boost performance in the same period and continue to influence it for several periods afterward, suggesting the presence of positive and lagged benefits of Research and innovation. Finally, on firm reputation, 96 (88.1%) respondents believed that it has an impact on profitability. Reputation may make it easier to attract and retain top talent, resulting in increased profitability. as similarly discovered by Maniatis (2016) in Netherlands. Market concentration is important because it demonstrates the market structure and its ability to operate under free competition. Market concentration can be measured using a variety of indices such as percentages of sales, earnings, asset volume, or fixed capital.

4.3 Firm Specific Factors

In reference to firm-specific characteristics, Results in Table 3 show that, 100(91.4%) respondents agreed that larger firms are more profitable. This could be explained by the fact that the size of a company can signal that it is growing and expanding, causing the market to react favourably. This means that the size or scale of a manufacturing firm is proportional to its total assets and sales.

Table 3 Firm Specific Factors

Firm-Specific factors	Disagree	Neutral	Agree
Firm Size	100(91.4%)	9(8.6%)	0(0.0%)
Asset Growth	107(98.6%)	0(0.0%)	2(1.4%)
Asset tangibility	97(88.9%)	8(7.3%)	4(3.7%)
Financial leverage	83(75.7%)	20(18.6%)	6(5.7%)
Firm experience	81(74.3%)	23(21.4%)	5(4.3%)
Number of stocks	87(80.0%)	8(7.1%)	14(12.8%)
Employee productivity level	100(91.4%)	4(4.3%)	5(4.3%)

Source: Field data (2023)

This finding was supported by Dogan (2013) in Turkey, who discovered a favourable relationship between business size indices and profitability. Large manufacturing enterprises, on the other hand, have better access to funding and internal resources, allowing them to boost profit margins in comparison to their smaller counterparts.

Asset growth determines the firm's profitability, according to 107 (98.6%) respondents. This is because an asset is a resource with the economic worth that a person or company possesses or controls with the prospect of receiving a benefit in the future. An asset growth combines all three types of financing. The book of equity of a company grows as a result of both equity issuance and growth in retained earnings. These findings contradict those of a Jordanian study by Dahmash et al. (2021), who found no significant association between asset expansion and profitability, but a significant impact on business size and profit-making.

Regarding asset tangibility, 97 (88.6%) respondents believe it has an impact on a manufacturing firm's profitability. An asset with tangibility has a finite monetary value and, in most cases, a physical form. Liquidity varies across markets, but tangible assets can typically transact for some monetary value. These findings are consistent with those of a study conducted in Kenya by Irungu et al. (2018), and Matimbwa and Ochumbo (2018) whose discovered a positive significant association between asset tangibility and financial performance of listed companies on the Nairobi Securities Exchange.

Financial leverage has an impact on business profitability, according to 83 (75.7 percent) respondents. This is because companies use debt to buy additional assets, which increases equity. Excessive financial leverage, on the other hand, raises the risk of failure. Similarly, 81(74.3 %) and 87(80.0 %) respondents stated that business experience and the number of stocks increase the firm's profitability. Firm experience boosts profitability because it allows companies to understand how to effectively address competition's unique challenges. Furthermore, stock numbers reflect a variety of potential gains and losses for a business, beginning with direct revenue from inventory sales. Overbuying and carrying excess inventory, on the other hand, can result in overstocked inventory approaching the end of its product life cycle, causing companies to incur losses.

Employees' productivity levels were evaluated to determine whether they have an impact on manufacturing profitability, with 100 (91.4%) respondents agreeing that they did. This could be explained by the fact that highly productive employees either do more work in less time or take fewer hours to complete tasks. This aids in the reduction of operating costs. As a result, fewer workers are needed to generate the same amount of output, thus increasing profitability.

The model summary table 5 shows the strength of the relationship between the model and firm profitability. R, the multiple correlation coefficients is the linear correlation between the observed and model predicted values of the dependent variable (firm profitability). The Regression (R) square of 84.5% indicates that there is a good model fit since the R square is greater than 50%. This implies that the specified model places firm profitability at 84.5%.

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.919 ^a	.845	.840	.51676

a. Predictors: (Constant), FSF, MACF, ISF

Furthermore, the use of p value in the ANOVA output determined whether the differences between some of the means are statistically significant. P value has been used to measure the significance of observational data, after identification of an apparent relationship between two variables. Table 6 shows that p value of 0.000 which indicates that there is significant influence of Firm specific factors, Industry Specific Factors and Macroeconomic factors on Firm Profitability.

Table 6: ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	152.511	3	50.837	190.373	.000 ^b
	Residual	28.039	105	.267		
	Total	180.550	108			

a. Dependent Variable: PROF

b. Predictors: (Constant), FSF, MACF, ISF

The regression analysis output confirmed that there is a significant positive relationship between firm-specific factors (FSF) and Firm Profitability (PROF) as the p-value is 0.02, which is less than 0.05. Saunder *et al.*, (2014) suggest that the p-value should be equal to or less than 0.05 to be significant. Furthermore, the regression analysis output confirmed that there is a significant positive relationship between Macroeconomic factors (MACF) and the Profitability of the firm, as the p-value is 0.036, which is less than 0.05. Moreover, the regression analysis output confirmed that there is a significant positive relationship between industry-specific factors (ISF) and Firm

Profitability (PROF) as the p-value is 0.02, which is less than 0.05. Findings evidence that all factors affect firm profitability.

Table 7:Coefficients^a

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients Beta		
1	(Constant)	.098	.243		.404	.687
	MACF	.371	.044	.790	8.412	.036
	ISF	.829	.078	1.208	10.664	.021
	FSF	.181	.041	.403	4.455	.020

a. Dependent Variable: PROF

5.0 Conclusion and Recommendation

The study concludes that there is a significant positive relationship between firm-specific factors, industry specific factors and macroeconomic factors as their p values were below 0.05. The study recommends that manufacturing firms in Iringa Municipality to increase market share, total assets, conduct intensive research and maintain good reputation. The study also recommend government to inflations, unemployment and control banks when it comes to lending rates because all of this affect firm profitability.

6.0 References

- Amariat S.N (2017). The extent to which financial factors affect profitability of manufacturing firms listed in Nairobi Stock Exchange. *Masters Thesis Kenyatta University*
- Avdalovic, S.M. (2018). Impact of firm Specific Factors on Profitability of Industrial Grinding Companies. *Economic of Agriculture Vol 65(2).pp 493-501*
- Bhutta N.T and Hassan A (2013). Impact of Firm of Specific Factors on Profitability of Firm in Food Sector. *Open Journal of Accounting Vol 2(2) page 35-46*
- Bolarinwa S (2019). Re-examining the determinants of bank profitability in Nigeria. *Journal of Economic Studies Vol 46(3) page 633-651*
- Cheong, C., Hoang, H.V. (2021). Macroeconomic factors or Firm Specific Factors? An examination of the impact on Corporate Profitability before, during and after the global financial crisis. *Cogent Economics and Finance Vol 9(1). pp 23-32*
- Christian et al., (2022). The effect of Exchange rate fluctuation on Bank profitability in Zimbabwe. *Global Scientific Journal Vol 10(6) page 797-810*

- Christopher, S. (2019). Firm-specific factors and SME profitability: Empirical evidence from Tanzania. *International Journal of Business and Management*, 14(12), 13-67
- Dahmas, F., Al Salamat, W., Masadeh, W.M., Alshurafat, H. (2021). The effects of firms' internal factors on its profitability. Evidence From Jordan. *Journal of Investment Management and Financial Innovations* vol 18(2) pp 130-143
- Dewi, Intanie V., Soei, Catharina T., Surjoko, Oriana F. (2019). The impact of Macroeconomic Factors on Firms Profitability (Evidence From Fast Moving Consumer Good Firms Listed on Indonesia Stock Exchange). *Academy of Accounting and Financial Studies Journal*, vol 23(1) page 1-6
- Dogan M (2013). Does Firm Size affect the firm profitability? Evidence from Turkey. *Research Journal of Finance and Accounting* Vol 4(4) page 45-53
- Irungu A.M (2019). Effect of Firm Level Factors on Financial Performance of Listed Firms in the Nairobi Securities Exchange. PhD thesis Jomo Kenyatta University of Agriculture and Technology.
- Kant, M.C.T. (2018). Factors influencing the profitability of manufacturing firms listed on the New York stock Exchange. Masters thesis. Faculty of behavioral Management and Social Sciences
- Makoye M and Mlinga R.S (2022). Impact of Macroeconomic factors on performance of construction industry in Tanzania. *International Journal of Construction Management* Vol 2(5) page 1-12
- Matimbwa H and Kipilimba T (2018). The contribution of Microfinance Institutions to Households Welfare. A case of Finca and Pride in Iringa Tanzania. *Journal of Business Management and Economic Research* Vol 2(6)
- Moussa, M. A., & Boubaker, A. (2023). The determinants of firm profitability in the Tunisian Stock Exchange. *The International Journal of Accounting and Business Society*, 31(1), 31–44.
- Msami J and Wangwe S (2016). Industrial Development in Tanzania. Comparative Studies of Industrial Development in Africa and Emerging Asia. *International Journal of Business and Economic Science Applied Research* Vol 7(2) pp 21-32
- Mwang'onda, E. S., Mwaseba, S. L., & Ngwilizi, D. N. (2018). Impact of Financial Sector Development on Economic Growth: Evidence from Tanzania. *International Journal of Economics and Financial Research*, 4(8): 258-265.
- Mwenda B, Ndiege B and Pastory D (2021). The influence of firm specific factors on performance of firms listed in Dar es Salaam Stock Exchange in Tanzania. *East African Journal of Social and Applied Sciences* Vol 3(2) page 67-89
- Nguyen, V.H. (2021). Internal Factors Affecting Firm Performance. A case study in Vietnam. *Journal of Asian Finance, Economics and Business* Vol 8(5) pp 303-314
- Njogu S.W. (2019). Analysis of Factors Influencing Career Choice Among Secondary School Students in Meru County Kenya. *PhD Thesis Kenya Methodist University*

- Nyamu F (2016). The effects of Macroeconomics factors on Financial Performance of Insurance Firms in Kenya. Masters Thesis University of Nairobi.
- Pastory, D. and Marobhe, M. (2015). The determinants of the Commercial Banks Profitability in Tanzania. Panel Evidence. *European Journal of Business and Management* vol 7(13)
- Raza et al (2020). The impact of Consumer Perceived Value on Purchase Behaviour in a Developing Country. The case of Green. *International Journal of Innovation, Creativity and Change* Vol 13(7) page 38-43
- Zampara, K., Giannopoulos, M., Koufopoulos, D.N. (2017). Macroeconomic and Industry specific determinants of Greek bank profitability. *International Journal of Business and Economic Science Applied Research* Vol 2(1) pp 13-22



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Does Innovation Training Predict Street Food Vendors Performance in Informal Market? Experience From Women Owned Business in Iringa

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Abstract

The focus of this study was to analyze the influence of innovation training on the performance of street food vendors in Tanzania especially women owned business in Iringa Municipality. This study was quantitative in nature where cross section research design was used to capture data at one time. Questionnaire was used to collect data for statistical analysis from women owned business in food vending industry. Questionnaire was found to be suitable as it capture measurable data suitable for hypothesis testing. Simple random sampling was used to draw 356 respondents from the targeted population in the context of Iringa Municipality.

Using multiple regression analysis, findings revealed that innovation training has significant influence on the performance of street food vendors who are women in Iringa. It was further found that the significant contribution of innovation training is contributed by the explanatory power of general innovation training, food safety training and business communication training. Based on these findings this study concludes that innovation training is significant predicting street food vendor's performance. This study recommends that sensitization for street food vendors to access training program should be done by the government in order to capacitate food vending on general innovation skills, communication skills and food safety skills.

Keywords: *Food Street Vendors, Women Entrepreneurship, Innovation Training*

1. Introduction

Previous empirical studies have evidenced that competitive age toward performance in informal market food vending is promoted by many social networking and resource based factors (Rosales, et al., 2023; Kok and Balkaran, 2014). However, innovation training has been shown to be primary factor for predicting performance in informal market among street food vendor (Ma et al., 2019; Alfiero et al., 2017). The importance of innovation training in predicting performance among street food vendor is evident in a human capital theory of Backer (1964). In his theory, the author advocates that innovation training imparts useful knowledge and skills which in turn increases performance of the targeted group. This means that performance in informal market will be relatively high when innovation training towards performance is exposed to women street food vendors for them to acquire relevant knowledge and skills on the benefit of innovation. This is consistent with Alfiero et al. (2017) who empirically establish the positive link between innovation training toward performance in informal market. In Tanzania, Kara and Tonya (2021) found that women street food vendors with relevant innovation training would be more compliant to performance. In other words, owners of street food vending do willingly to innovate their vendors if they are aware of innovation techniques.

In spite of the evidence that innovation training predict street vendors' performance, some of the empirical evidence have found innovation training to have insignificant prediction on performance (Matzembacher et al., 2019). Notably example, Putri and Venusita (2019) found and concluded that innovation training have no influence to street food vendors performance in Informal Market. Given this conflicting findings, it is not clear whether innovation training is predicting performance in informal market or not. Further, there has not been a universally recognized system of indicator variables for the development of innovation training in business performance. This study filled the gap by answering the research question that; Does innovation training predict street food vendors performance in informal market?

2. Literature Review

2.1 Key Concepts

Street Food Vendor

Street-vended food are defined as consumables such as beverages and foods sold in public places, which may be eaten elsewhere (Nkosi and Tabit, 2021). According to Mkama *et al.* (2020) street food vendor is defined as enterprises of ready-to-eat food or drink sold on a street or other public places, such as a market or fair by a hawker or vendor from a portable stall. On the other hand, Amos and Panama (2016) defined street food vendor as small in size; require relatively simple skills, basic facilities and small amounts of capital. In the current study, street food vendors are generally defined as informal business, small; require relatively simple skills, basic facilities and small amounts of capital.

Innovation Training

According to Harleen and Abrol (2017) an innovation training refers to the teaching and learning activities carried on for the primary purpose of helping members of an organization acquire and apply the knowledge, skills, abilities, and attitudes needed by a particular job and business for business to perform. On the other hand, Toh (2018) innovation training is a means of providing learners with the knowledge and skills they need to perform their jobs at a high level in order to achieve maximum business performance. Moreover, business training refers to the teaching of a type of behavior aimed to improve a person's capacity, capability, performance, or productivity (Mwangi and Bwisa, 2015). They further defined training as the process of increasing the knowledge and skills of the workforce to enable them to perform their jobs. In the current study business training is a learning and development process that refers to the acquisition of specific skills, abilities, and knowledge to improve employee and business performance

2.2 Relevant Theory

Human Capital Theory

In order to analyse the prediction of innovation training on performance among women street food vendors, Backer (1964) came with a human capital theory. Backer (1964) in his human capital theory, advocates that, training promote useful knowledge and skills to business owners that in turn increases their business performance. As in the current study, the idea of Backer has posited that, innovation training to women owned business tend to impact knowledge and skills which raises their business performance. The applicability of human capital theory in studying the relationship between training and business performance is observed in a number of studies (Nkosi and Tabit, 2021; Toh, 2018). Hence, this study used these theories to further make an analysis of an influence of innovation training on the performance of women owned businesses.

2.3 Empirical Literature Review

Worldwide, Mukhola (2014) carried out a study on street-food vending. The results revealed that street-food vendors training related to health and hygiene, customer care as well as skills for developing a business are driver for their performance. It was recommended that, the training of street-food vendors be a priority for city officials. Furthermore, it was recommended that street-food vendors be trained on customer care. Finally, it again recommended that, street-food vendor should be trained in money management. On the other hand, Harleen and Abrol (2017) carried out a study on the influence of training on firms' performance. The findings on training namely adaptive skills, innovation skills, managerial skills, marketing skills, technological skills, were found to be significant on firm performance. Moreover, Chipfunde *et al.* (2021) carried out a study on the determinants influencing the performance of women entrepreneurs in Malaysia. The findings indicated that, improving management skills strategize easy ways to access loan and finance, build a strong tie for family support, have significant influence in firm performance in Malaysia. In Tanzania, Toh (2018) conducted a study on assessment of the influence of soft skills for female entrepreneurship performance in Tanzania. The findings indicated the importance of

soft skills training for improving sustainability of business performance. He found those soft skills to give women a room particularly in establishing and utilizing social networks and improving their performance in business negotiations.

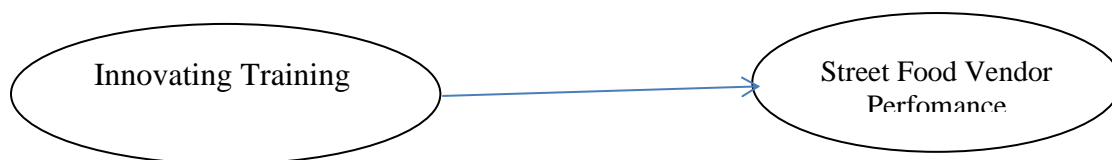
Given the above theory and empirical evidence, this study posit a hypothesis which state that:

Innovation training has significantly predicted power on street food vendors' performance in informal market.

2.4 Conceptual Framework

Based on the theory of human capital, as noted in the literature review section, we have drawn up the following conceptual framework in which we have framed our study to hypothesize the significant influence of innovation training on street food vendor performance (Figure 1)

Figure 1 Conceptual Framework



Source: compiled by author (2023)

3. Methodology

The study adopted quantitative approach. As Creswell argued, the quantitative research approach is designed to test the hypothesis and assess its significant relationship in a quantifiable form. In the current study, quantitative approach was used to allow a researcher to collect statistical data for hypothesis testing of the significant prediction of innovation training on performance of street food vendors. To obtain the statistical data, the author administered a structured survey to women owned business carrying out street food vending in Tanzania. This survey was divided into two sections: The demographics section and seven statements, three relating to innovation training and four to street food vendors performance, to which the participants had to answer in accordance with a 5-point Likert scale. Simple random sampling was used to draw valid sample of 356 respondents from the population who are women owned business in street food vending industry. On the other hand, multiple regressions were used to estimate the significant predictive power of innovation training on performance of street vendors among women owned business.

4. Findings

4.1 Respondents Profile

In this study, it was necessary to profile respondents' education, experience and vendors size simply because they have been found to moderate the effect of innovation in any social science activities. Including these variables in the social science studies could help provide a real picture of the community concerning the innovation training and street vendor's performance. Hence, these variables are very important to be included in any social research as each variable moderates different respondents' behavior concerning the innovation training, and they are used to provide a picture of the respondents involved in the study (Table 1).

Table 1 Descriptive Profile

Descriptive Variables	Measurement	Frequency	Percent
Education Level	None	50	14.0
	Primary Education	116	32.6
	Secondary Education	108	30.3
	College Education	82	23.0
Business Experience	Less than 5 Years	123	34.6
	5-10 Years	182	51.1
	Above 10 Years	51	14.3
Vendor Size	Up to 4 Employees	244	68.5
	5 to 49 Employees	112	31.5
Total		356	100

Source: Field Data

Table 1 has shown a general representation of the major characteristics of the study in terms of respondents' education, experience and vendors size. It is shown that there was general representation of the respondents in terms of respondents' education, experience and vendor size to capture enough data to cover the contents of the research objectives.

4.2 The Influence of Innovation Training on Predicting Street Food Vendors Performance

This specific objective was developed to test the hypothesis on the predicting power of innovation training on street food vendors' performance among women owned business. Finding using multiple regression are presented below on three tables

Table 2 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.386 ^a	.149	.136	1.075

a. Predictors: (Constant), Food Safety Skills , Business Communication Skills , General Innovation Skills

The results provided in table 2 above showed that dependent variable “street food vendors performance” is explained by variance of 14% of independent variable “innovation training” which has four indicators “Food Safety Skills , Business Communication Skills , General Innovation Skills” as indicated in R square. Further analysis was done and the results are presented in table 3 ANOVA to determine the extent to which innovation training is significant on predicting performance among street food vendors.

Table 3 ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	40.170	3	13.390	11.595	.000 ^b
Residual	229.811	199	1.155		
Total	269.980	202			

a. Dependent Variable: Food Vendors Performance

b. Predictors: (Constant), Food Safety Skills , Business Communication Skills , General Innovation Skills

The results provided in table 3 ANOVA^a above showed that overall, the model justify that innovation training has significant influence on street vendor food performance as demonstrated by significant p-value less than 0.05. Therefore the hypothesis on the influence on innovation training on street vendors’ performance is accepted. Further analysis of the individual indicator variable is described in the table 4 below:

Table 4 Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.158	.427		2.714	.007
General Innovation Skills	.214	.089	.189	2.412	.017
Business Communication Skills	.024	.090	.020	.263	.793
Food Safety Skills	.324	.082	.273	3.957	.000

a. Dependent Variable: Food Vendors Performance

The results provided in table 4 Coefficients above showed that out of three indicators only two indicator variables namely general innovation skills and food safety skills were predicting the explanatory power of innovation training on performance as they have scored significant value less than 0.05.

5. Conclusion and Recommendation

Base on the survey findings of this study, it is concluded that innovation training is strongly influencing street food vendor performance in Iringa Municipality. For street vendors to perform, it is recommended more training to be delivered to further capacitate street food vendor on general business skills, personal selling skills and business communication skills. This study recommends that the government should attract stakeholder such as NGOs to empower women on capacity building more specific on training on general business skills, personal selling skills and business communication skills. This study was carried in Iringa Municipality, in order to increase the strong evidence to generalize to other Municipal, future study should be done to involve more than one municipal.

Reference

- Ajuna, A., Ntale, J. & Ngui, T. (2018). Impact of training on the performance of women entrepreneurs in Kenya: Case of Meru Town. *International Academic Journal of Innovation, Leadership and Entrepreneurship*, 2(2), 93-112
- Cepeda, G. and Vera, D. (2007). Dynamic capabilities and operational capabilities: A knowledge management perspective. *Journal of Business Research*, 60(5), 426-437.
- Harleen,L. & Abrol, D. (2017) Evaluating the Influence of Dynamic Capabilities on Firms' Performance: Role of Innovative Sustainability and Adaptation to Change. *Amity Journal of Management Research*. 2(2), pp. 1-12
- Kapinga, A. F. & Montero, C. S. (2017) : Exploring the socio-cultural challenges of food processing women entrepreneurs in Iringa, Tanzania and strategies used to tackle them, *Journal of Global Entrepreneurship Research, Springer, Heidelberg*, 7(17), pp. 1-24, <http://dx.doi.org/10.1186/s40497-017-0076-0>
- Kikula, J.S. (2018) Challenges facing Tanzanian Women Entrepreneurs while Managing Entrepreneurial Ventures: A Case of Mbeya City. *HURIA Journal of The Open University of Tanzania* 25(1),
- Kok,R. & Balkaran, R. (2014) Street Food Vending and Hygiene Practices and Implications for Consumers . *Journal of Economics and Behavioral Studies*, 6(3), pp. 188-193
- Olasunkanmi, A. A., Babatunde, M. M., Dada, R. M. and Abayomi, T.A. (2017) Women Entrepreneurship Education: An Instrument Of Economy Growth And Overcoming Gender Gap In A Competitive Economy. *Global Journal of Commerce & Management Perspective*. 6(1), pp. 18-23
- Rosales, A. P., Linnemann, A. R. and Luning, P.A. (2023) A Net-Map analysis to understand the roles and influence of stakeholders in street food safety - A study in Ecuador. *Food Control*, 154 (2023) 109966

- Menes, C.C., Japitana, M.A.F., Chua, J.G.D., Dico, M.R., Parcon, A.M.D. and Makilan, R.E. (2019) Street Food: Stories and Insights on Production and Operations, Marketing Strategies, and Vending. *Philippine Journal of Hospitality and Tourism Management*. 1(1), 42-69
- Kara, N.S. and Tonya, E.M. (2021) Challenges Affecting Street Vending Business in Tanzania: A Review and Analysis from the Existing Literature. *The Pan-African Journal of Business Management*. 5(1), 101-122
- Alfiero, S., Giudice, A.L. and Bonadonna, A. (2017) Street food and innovation: the food truck phenomenon. *British Food Journal*. 119 (11), 2462-2476
- Matzembacher, D.E, Gonzales, R.L. and Saldanha, C.S.V (2019) Can street entrepreneurs be Schumpeterian entrepreneurs? The case of food trucks as family firms in an emerging country. *Journal of Global Entrepreneurship Research*. 9(6), 1-24. <https://doi.org/10.1186/s40497-018-0137-z>
- Ma, L., Chen, H., Yan, H., Wu, L. and Zhang, W. (2019) Food safety knowledge, attitudes, and behavior of street food vendors and consumers in Handan, a third tier city in China. *BMC Public Health*. 19, 1-13
- Adeosun K.P, Oosterveer P., Greene, M. (2023) Informal ready-to-eat food vending governance in urban Nigeria: Formal and informal lenses guiding the practice. *PLoS ONE* 18(7):e0288499. <https://doi.org/10.1371/journal.pone.0288499>
- Hilmi, M. (2020) Street food vendors' entrepreneurial marketing characteristics and practices from 12 countries: what lessons can be learnt for improving food marketing in BOP/Subsistence marketplaces. *Middle East Journal of Agriculture Research*, 9(2), 321-348, DOI: 10.36632/mejar/2020.9.2.27
- Halegoah, J., Akuoko, K. O., Dwumah, P., Marfo, K. A., Forkuor, J. B., Nsiah Frimpong, B., & Brobbey, L. (2020). Actors Perceptions on Challenges and Opportunities to Improve Street Vended Local Foods in Urban Ghana. *Advances in Applied Sociology*, 10, 435-453. <https://doi.org/10.4236/aasoci.2020.1011025>
- Alfiero, S., Giudice, A.L. and Bonadonna, A. (2017). Street food and innovation: the food truck phenomenon, *British Food Journal*, <https://doi.org/10.1108/BFJ-03-2017-0179>



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**Human Resource Information System Applications: Insights from Local Government
Authorities in Tanzania**

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Abstract

The study identified Human Resources Information Systems (HRIS) applications and its extent in selected Local Government Authorities (LGAs) in Tanzania. The study grounded on primary data collected through a structured questionnaire and in-depth interview from 201 Human Resources Officers (HROs) of 39 LGAs or districts councils selected from six regions. The study employed a mixed research approach and data were analysed descriptively where frequency and measures of central tendency were calculated and used to interpret the results. Results indicate that the extent of HRIS being used is considered to be high for the following uses; store records of new recruits, strategic decision making, and human resources planning. On the other hand, HRIS application in facilitating positional advancement or promotion of employee was found to be low. In addition, the other remaining HRIS functions were not applicable. This implies that there were some variations among LGAs in terms of their level of HRIS uses. The study recommends that frequent training of employees in relevant IT skills, nurturing commitment of HROs, encouraging experience-sharing, enhancement of technological features, provision of sufficient support to employees, and recruitment of sufficient and well-qualified ICT personnel are central to the effective of applications of HRIS.

Keywords: *Human Resources Management, Human Resource Information System, Local Government Authority, Use of Human Resource Information System.*

1. Introduction

In the ever-changing globalised business environment, organisations are bound to incorporate innovations to acquire a competitive edge. Most of the success realised by various organisations is determined by the extent to which profitable innovations are introduced to their respective departments (Bhuiyan, 2014). Organisations are therefore investing and using ICT, the latest form of technology in their daily operations in particular (Al-Saleh, Yousif, 2019). The use of Information and Communication Technology has revolutionised the approach of conducting business globally (Ahmer, 2013; Ochenge, 2015). It has enabled the improvement of business strategies, delivery of goods and services and enhancing organisations in gaining a competitive advantage over their rivals (Bhuiyan and Gani, 2015).

While ICT use is imperative to any organisation, the significance of the HRs in organisations is vast. In the contemporary globalised and skill-based economies around the world, HR is regarded one of the most valuable resources for the success of any organisation (Akoyo and Muathe, 2017). The success of an organization is largely dependent on the calibre of the people working therein. Without positive and creative contributions from the employees, organizations cannot progress and prosper. Organizations therefore need to manage their HRs effectively by recruiting personnel with requisite skills, qualifications, and experience where necessary. Therefore, management of both HRs and ICT are vital for the best organisations' performance (Matimbwa, Masue and Shilingi, 2020). Although the ICT use and the effective utilization of HRs are essential, but the extent of application is yet to be explained in Local Government Authorities.

According to Jahan (2014), the major functions of HRIS is to acquire, store, manipulate, analyse, retrieve, and disseminate information regarding HRs within an organization. Principally, HRIS's major objectives in almost all organizations include facilitating access to information; reduce costs, process information with greater speed, and consequently improving information accuracy.

Basically, HRIS in HRM maintains employees' information for instance; employees' profiles, work attendance reports, salary administration, promotion, recruitments, personal histories, leave, retirement, training and their accomplishments (Ahmer, 2013; Ochenge, 2015). Therefore, organisations are highly dependent on HRIS uses as it facilitates their HRM and productivity (Troshani et al., 2011; Ahmer 2013; Jahan, 2014; Opiyo, 2015; Akoyo and Muathe, 2017) by improving organisational decision-making through the provision of faster, accurate, and complete information (Kassim et al., 2012). In addition, information is a vital aspect of management

(Wairimu and Karanja, 2016), thus, it is pointless to have employees without their recent, complete and accurate career information.

In Tanzania, prior to the introduction of computerized HRM, the Local Government Authorities (LGAs) used the paper-based record (Ishijima et al., 2015) which was usually much slower, produced incomplete and inaccurate output. As a result, in the whole period of paper-based HRM system up to the late 2000s, the LGAs had high occurrences of fraud in the public payroll (ghost workers), public recruitment and deployment of employees, delayed public sector employee promotion and poor employees training and development plans (Daniel, 2015; Lameck, 2015). In response, the Tanzanian government in 2011, introduced a desktop-platform HRIS, which was termed as Human Capital Management Information System (HCMIS) to its LGAs and Ministries, Departments and Agencies (MDAs). The aim was to enable HR officers to maintain recent, complete and accurate employees' information. Therefore, data cleaning was undertaken to enhance HR data completeness, accuracy and integrity. The vital information needed were: vote number, position, salary, and terms of service, date of employment and promotion, birthdates, citizenship, marital status, education and disabilities.

Moreover, in order to improve HR information management and share, HRIS underwent a major application transformation from a desktop platform (URT, 2010) to a web-enabled platform (Kassam, 2013). A web-enabled HRIS is currently installed in 194 LGAs and is managed by HR officers in HR departments. Although the LGAs upgraded HRIS to web enabled, the challenges remain. The persistence of challenges is raising a question on the extent of HRIS use in improving employees' information in the LGAs. At the same time, there is limited research on how the HRIS had been used in LGAs to ensure availability of complete and accurate information of employees. Therefore, in this paper identifies how HRIS was used and its extent of use in selected LGAs in Tanzania. Additionally, this paper provides the policy implications and practical contributions which can be used by policy makers and practitioners to improve HRIS implementation in Tanzanian LGAs and other developing economies.

2. Theoretical Framework

The Unified theory of Acceptance and Use Model (UTAUT)

User acceptance of new Information technology has been an important area of study within the field of information systems over the last two decades. Many models have been proposed in explaining and predicting users' acceptance of new technology. The Technology Acceptance Model (TAM) (Davis, Bagozzi & Warshaw, 1989; Davis, 1989) and its successor The Unified Theory of Acceptance and Use Model (UTAUT) also known as TAM2 (Venkatesh, Morris, Davis, & Davis, 2003; Venkatesh, 2000) have especially gained a great deal of attention for predicting users' adoption of new technology. The Unified Theory of Acceptance and Use Model by Venkatesh et al. (2003) will be used as the theoretical framework for this study in order to explore the factors affecting the application of HCMIS in LGAs in Tanzania.

The UTAUT model which aims to explain technology acceptance, is based on eight technology acceptance theories or models. In particular, the UTAUT draws on the Theory of Reasoned Action (TRA), the Technology Acceptance Model (TAM), the Motivational Model, the Theory of Planned Behaviour (TPB), the combined TAM and TPB, the model of Personal Computer Utilization, the Innovation Diffusion Theory and the Social Cognitive Theory (Venkatesh et al. 2003). At the core, the UTAUT model uses behavioural intention as a predictor of the technology use behaviour. The included predictors of behavioural intention are based on the components the eight technology adoption models reviewed. The basic form of the UTAUT model.

The UTAUT theory is relevant with the proposed study, especially in the Tanzanian context. First, considering that the main objective of the Tanzania Public Service Management and Employment Policy of 1999 is to introduce guidelines, ethos, and practices that guide the transformation of the Tanzania Public Service to a highly performing and dynamic meritocracy. The nation realised that HCMIS is a tool that can be used to attain this crucial objective of the policy. As a result, the government through all ministries, departments, and agencies adopted and applied HCMIS to process and maintain information regarding its human resources. Therefore, UTAUT informs the proper process of adopting and implementing HCMIS in LGAs for improved output; complete, accurate and up to-date.

3. Methodology

This study was conducted in 12 LGAs (i.e. district authorities/councils or urban authorities) where by two LGAs were purposively selected from each of six regions of Tanzania Mainland namely; Mwanza, Arusha, Dodoma, Morogoro, Iringa and Kagera. These regions represent LGAs with high, medium, and low numbers of ghost workers and civil servants with counterfeit certificates, delayed promotions and unpaid leaves of civil servants (Mwanza Region report, 2016; Arusha Region report, 2016; Dodoma Region report, 2016; Morogoro Region report, 2016; Iringa Region report, 2016; Kagera Region report, 2016). This study employed a mixed where the quantitative part of research, systematically and accurately identify the HRIS use and its extent in selected LGAs. The qualitative part was used as to assess attitudes, and opinions of respondents about HRIS use in order to explain quantitative findings.

The target population for this study consisted all human resources officers (HROs) using HRIS at district level in Tanzania. So, the sampling frame for this study comprised of all HROs in the selected LGAs. A sample of 201 was drawn from this frame. Thus, HRO were the unit of inquiry in this study. The reason for choosing HROs is the fact that they are well informed and possess good knowledge about application and effectiveness of the HRIS in LGAs. HROs consistently use HRIS and expected to be in possession of vital information on HRIS use and its effectiveness in managing employees' information. The study employed combination of sampling techniques for collection of quantitative and qualitative data. The six regions and the two LGAs from each region were selected using a multi-stage purposive sampling procedure. Then, for quantitative data; random sampling technique was employed to HROs who are authorized to use HRIS at district levels. In addition, for qualitative data; individual or groups were purposively selected based on their HRIS knowledge.

In this study, both primary and secondary data were collected. The primary quantitative data were collected using survey questionnaire while qualitative data were collected using an interview guide through in-depth interview. The secondary data were collected through documentary review method. Quantitative data collected through structured questionnaires were cleaned, summarized, coded and entered into Statistical Package for Social Sciences (SPSS) computer software version 21.0 for analysis. The data were analyzed using descriptive statistics; frequency and measures of central tendency. Qualitative data were subjected to content analysis. Content analysis helped to reduce the volume of recorded information or communication to a set of categories that represented meaningful themes of the research. In addition, the detailed analyses

of documentary review were done so as to produce information that can be linked to explain the situation in the field regarding to HRIS uses and its extent in the selected LGAs.

4. Results and Discussion

4.1 Results

4.1.1 Scope of HRIS Application in LGAs

Ten different uses of HRIS were identified during interviews with HROs in the selected LGAs to include, human resource planning, record keeping for new recruitments, storage of employee training records, and performance appraisal data. Other uses identified include the provision of up-to-date information to facilitate collective bargaining, assessing competencies and development plans, monitoring employees' job performance, employees' leave and absence control, and generation of various reports for decision-making. Of the ten, five uses were identified by more than half (> 50%) of the interviewed HROs, which include, the use of HRIS for record keeping of new recruitments, generation of HR reports, Human Resource Planning, facilitation of positional advancement of employees, and keeping employee training and learning records (Table 1).

Table 1: Distribution of Responses on HRIS Use in LGAs of Tanzania

SN	HRIS uses	n (%)
1.	Generation of HR reports	165(82)
2.	Human Resources Planning	161(80)
3.	Record keeping of new recruitment	128(64)
4.	Facilitation of employees' positional advancement	127(63)
5.	Keeping employees' training and learning records	102(51)
6.	Competence and development plans	97(48)
7.	Performance improvement follow-ups	60(30.0)
8.	Collective bargaining	56(28)
9.	Leaves and absence	22(11)
10.	Performance appraisal data	17(09)

Source: Field Data, (2023).

All of these were considered by the respondents as primary functions of the system and major focus of LGAs. The rest (i.e. five HRIS uses) were mentioned by less than half of the HROs contacted in LGAs (< 50%), implying moderate use of HRIS in Tanzania’s LGAs.

Table 2: HROs’ Responses on the Quality of Information from the HRIS

SN	Qualities	Responses	n (%)
1	Information from the system is current/up-to-date	Disagree	60(30)
		Neither agree nor disagree	52(26)
		Agree	89(44)
2	Information from the system can be quickly captured	Disagree	50(25)
		Neither agree nor disagree	77(38)
		Agree	74(37)
3	Information from the system is sufficient to facilitate HR tasks	Disagree	92(46)
		Neither agree nor disagree	51(25)
		Agree	58(29)
4	The system records all data sets and items	Disagree	96(48)
		Neither agree nor disagree	35(17)
		Agree	70(35)
5	Information from the system is error-free	Disagree	132(66)
		Neither agree nor disagree	36(18)
		Agree	33(16)
6	Human resource information output is authentic	Disagree	16(08)
		Neither agree nor disagree	79(39)
		Agree	106(53)

Source: Field data, (2023)

The study also assessed users’ perceptions regarding the quality of information obtained from HRIS. Indicators for quality of information included, 1) Timeliness (i.e., information from the system are very current/up-to-date, information from the system are readily accessible). 2) Completeness (i.e., information from the system is sufficient to facilitate human resource tasks, information from the system records all data sets and items), and 3) Accuracy, (i.e., information from the system are error-free, information from the system are reliable, and human resource information output is authentic (Table 2).

As revealed in Table 2, the majority (44%) of the respondents agreed to the statement that the system information is current/up-to-date; minority (30%) disagreed, while the rest (26%) were neutral to the statement. Table 2 presents similar findings as to whether information from the system can be quickly captured. Furthermore, the majority (46%) of the respondents disagreed that information from the system is sufficient to facilitate human resource tasks, 29%, and 25% agreed and were neutral to the statement respectively. The majority (48%) of the respondents also disagreed that the system records all data sets and items.

As depicted in Table 2, two-thirds (66%) of the respondents disagreed that information from the system is error-free. This reflects the popular slogan in computer science, which states that “garbage in, garbage out (GIGO)” implying that flawed or useless input produces useless output or "garbage.” More than half of respondents (53%) contacted in the selected LGAs agreed that human resource information output reflects authentic employee’s information entered into the system.

Table 3 summarises frequency distribution and measures of central tendency of HRIS applications. In this study, the HROs were asked to identify and rate the extent of HRIS applications in the selected LGAs in Tanzania from strongly agree to strongly disagree. The results in Table 1 indicated that the HRIS use of store records of new recruitment scored the highest frequency of 94.50% (n=190) which is the sum of 61.20% agreed and 33.30% strongly agreed. Moreover, the second-highest frequency score was found to be for the HRIS use of providing various reports which facilitate decision making 82.1% (n=165). Other indicators which scored highest frequencies and considered important application of HRIS in selected LGAs include: the HRIS use for human resource planning (80.1%) and the use of HRIS in facilitating positional advancement of employees (42.3%). In case of the HRIS uses which scored the lowest frequencies, Table 3 shows that HRIS use of maintaining performance appraisal data and HRIS use of controlling leaves and absence of employees scored the lowest frequency of 8.50% (n=17) and 11.0% (n=22). Thus, these HRIS uses were found to be the least important in the selected LGAs.

Furthermore, Table 3 identifies the uses of HRIS and their extent in selected LGAs. The findings indicated that the HRIS was used for HR planning, storing of records of new recruitment, facilitate positional advancement of employees and provides various reports which facilitate decision making since their average is above the threshold value average (>3.0 agreed and strongly agreed).

These HRIS uses were ranked in order to identify the ones which were highly used (extent of use). Thus, in view of ranking; the use of HRIS to store records of new recruitment was ranked first with 4.24 (SD=0.688) on average, meaning that in LGAs HRIS is used to higher extent to store records of new recruitment. This indicator has little dispersion and variability around the mean of the data set, on average. So, the values in the statistical data set are close to the mean of a sample population.

In addition, the use of HRIS to provides various reports which facilitate decision making ranked the second with mean score of 3.93 (SD=0.871) on average. Also, this item has little dispersion and variability around the mean of the data set, on average. So, the values in the statistical data set are close to the mean of a sample population. Similarly, the indicator which indicates that HRIS is highly used for human resource planning with mean score of 3.80 (SD=0.954) on average, with minimum variability around the mean of data set on average.

Table 3: Identified Human Resource Information System Indicators

Indicators (HRIS use)	Measurement	Total	Frequencies (%)	Mean	Rank	Minimum	Maximum	Std. Deviation
HRIS used for human resource planning	1. Disagree 2. Neutral 3. Agree	201	27(13.5) 13(6.5) 161(80.1)	3.8	3	1	5	.954
HRIS store records of new recruitment	1. Disagree 2.. Neutral 3. Agree	201	6(3.0) 5(2.5) 190(94.5)	4.24	1	1	5	.688
HRIS facilitates positional advancement of employees	1. Disagree 2. Neutral 3. Agree	201	58(28.8) 57(28.9) 85(42.3)	3.09	4	1	5	1.130
HRIS store information on employees participated in training and learning session	1. Disagree 2.. Neutral 3.. Agree	201	157(78.1) 17(8.5) 27(13.4)	2.03	8	1	5	1.053
HRIS maintains performance appraisal data	1. Disagree 2. Neutral 3. Agree	201	171(85.1) 13(6.5) 17(8.5)	1.85	9.5	1	5	.895
HRIS store information on competence and development plans	1. Disagree 2. Neutral 3. Agree	201	91(45.2) 37(18.4) 73(36.5)	2.82	6	1	5	1.198
HRIS facilitate collective bargaining	1. Disagree 2. Neutral 3. Agree	201	74(36.9) 71(35.3) 56(27.9)	2.90	5	1	5	1.037
HRIS facilitate follow up of employees' job performance	1. Disagree 2. Neutral 3. Agree	201	137(68.2) 30(14.9) 34(16.9)	2.28	7	1	5	1.040
HRIS is used to control leaves and absence of employees	1. Disagree 2. Neutral 3. Agree	201	165(82.1) 14(6.9) 22(11.0)	1.85	9.5	1	5	1.025

HRIS provides various reports which facilitate decision making	1. Disagree 2. Neutral 3. Agree	201	12(6.0) 24(11.9) 165(82.1)	3.93	2	1	5	.871

Source: Field data, 2023

However, the use of HRIS in facilitating positional advancement of employees scored a mean of 3.09 (SD=1.130) on average. On the contrary, this item has considerable dispersion and variability around the mean of the data set, on average. So, the values in the statistical data set are fairly away from the mean of a sample population. Therefore, it was revealed that all the identified HRIS uses for enhancing HRIS, were found to be useful. On the other hand, the remaining uses of HRIS were not applicable since their average were below the average (mean) threshold value (3.0). These indicators showed greater variability around the mean of data set, on averages.

Yet, according to Al-Saleh and Yousif (2009: 196), the indicators which showed high variability around the mean of data set they just reflect a large amount of variation in the group that is being studied. A small standard deviation can be a goal in certain situations where the results are restricted, but in situations where one just observes and record data; a large standard deviation is not necessarily a bad thing (Rumsey, 2016). This study comprised of HROs in selected LGAs with different levels of education, attitudes, values and perceptions. Hence data variability was expected and does not affect our results since the methods and tools used in data collection and analysis allowed data triangulation.

4.2 Discussion

The objective of this study is to identify HRIS uses and its extent in selected Local Government Authorities in Tanzania. Different studies have focused on the type of applications that are predominant in HRIS around the world (Kovach & Cathcart, 1999; Teo et al., 2001; De Alwis, 2010; Saharan & Jafri, 2012). The results of this study identified four HRIS use which were common in the selected LGAs. These HR activities were; storing of new recruitment records, provision of reports which facilitate decision making, human resource planning, and positional advancement or promotion of employee.

In case of storing of new recruitment records the study found that HRIS was used to store new recruitment records and for recruiting new workers in the LGAs through E-recruiting or Internet recruiting. This is one of the methods available to HR professionals that is integrated with HRIS in LGAs. The jobs are posted in a special government job portal (Ajira portal) and other private portals or posted in the internet where job seekers fill in application forms and submit online or respectively prepare an application letter and other required documents and submit them electronically via email to either HROs in LGAs or public services recruitment secretariat. However, job interview is conducted on face to face interaction between job seekers and HROs in LGAs. The new recruits' information available in job application documents such as age, birth date, academic qualifications, experiences and accomplishments are fed in HRIS as the starting point of building a complete and accurate data base of employees in LGAs.

The results of this study indicate that the extent of HRIS being used for storing new recruits' records in LGAs was considered to be high (94.5%) and an average score of 4.24 (SD=0.688) with minimum and maximum values of 1 and 5 respectively. These results are in consistent with prior studies, which conducted surveys on HRIS and found that HRIS is more commonly used for administrative purposes like keeping employee records (Ball, 2001; De Alwis, 2010; Saharan and Jafri, 2012; Masum, et al., 2013). De Alwis (2010) in his study on Sri Lankan industry indicates that the most common uses of HRIS in HR department among others are recruitment and selection (67.2% and 71.9%, respectively).

Moreover, Al-Dmour et al. (2015) found similar results that the most frequent application of HRIS in Jordan was found to be in employee records and recruitment or selection. Another study conducted by Teo et al. (2001) found employee record-keeping (96.8%), payroll (90.5%) and benefits management (57.1%) were the most common HRIS applications in Singapore. Likewise, Targowski and Deshpande (2001), Ball (2001), Zahid et al. (2007) and Ankarah and Sokro (2012) concur with the findings of this study. However, Ngai and Wat (2006) found that in Hong Kong companies' recruitment and selection (11.1%) was least used HRIS applications. Thus, Ngai &

Wat argued that HRIS should not be for administrative uses only; rather, it ought also to be used for decision-making and strategizing the organisations' activities.

Accordingly, this study found that HRIS use in provision of reports which facilitate decision making was identified as a common use of HRIS in selected LGAs in Tanzania. This study considers the use of HRIS in facilitating decision making was high (82.1%) in LGAs and an average score of 3.93 (SD=0.871) with minimum and maximum values of 1 and 5 respectively shows the extent of its use was high. These results corroborated with what HRO for Morogoro region said during an in-depth interview that HRIS had been used for making decisions regarding promotion and transfer of employees in LGAs. However, director of human capital division commented that HRIS is not yet been used for making strategic decisions such as training and performance appraisal of employees. This could be because HRIS use still is a recent phenomenon of HRM in Tanzania

In recent years, Saharan & Jafri (2012) and Masum et al. (2013) revealed that many organisations have started using HRIS for decision making such as employees' training and development, performance management, compensation management and corporate communication. In USA, CedarCrestone (2006) found that HRIS is used for strategic decision making by 61% in companies. In addition, Al-Dmour et al. (2015) found that in Jordan HRIS is used for strategic decisions such as succession planning, performance appraisal, compensation management and training and development of employees. Similarly, De Alwis (2010) revealed that in Sri Lanka, HRIS is most commonly used for training and development, performance appraisal (62.5%) and job analysis and design (62.5%). Also, Teo et al. (2001), Sadri & Chatterjee (2003), Gomez-Mejia et al. (2012), Bulmash (2013) and Jahan (2014) found analogous results.

Furthermore, this study identified that HRIS was commonly used in human resource planning in selected LGAs in Tanzania. In case of the extent of HRIS use in human resource planning, it was contemplated to be high. The HR planning is a strategic use of HRIS which is a four-step process that analyses current human resources, forecasts future requirements, identifies areas where there are gaps, and then implements a plan to tighten up those gaps. The results of this study similar to

what director of human capital division that HRIS had been used for human resource planning especially for identifying vacancies and fill them either by transfer of employees or hiring of new employees. Needless to say, HRIS offers a chance to HRM to play a more strategic role, through its ability to generate up-to-date reports on HR matters, such as HR planning activities, which can be used to support strategic decision making (Lawler et al., 2004). According to Sadri and Chatterjee (2003) HRIS use enables faster decision making, development, planning, and administration of HR because data become much easier to store, update, categorise, and analyse.

A study conducted in Canada and Hong Kong by Martinsons (1994) on the type of applications that are predominantly in HRIS, he identified the human resource planning as one of dominant uses of HRIS. Similarly, Al-Dmour et al. (2015) revealed that HRIS is used for HR planning in surveyed organizations in Jordan. In general, HR planning is a widely used HRIS application in private and public organisation worldwide (Ball, 2001; Byars & Rue, 2004; Ngai et al., 2008). On the contrary, Targowski & Deshpande (2001) reported that many organizations do not use the HRIS strategically for human resources planning, tracking skills of employees and making data available for analysis and actions.

Regarding to HRIS application in facilitating positional advancement or promotion of employee this study indicate HRIS was frequently used for the task. Furthermore, the results of this study indicate that the extent of HRIS being used to facilitate positional advancement or promotion of employee in LGAs was considered to be low. During in-depth interview, HROs for Morogoro and Mwanza regions validated this finding. The HRO for Morogoro region with enthusiastically said;

“Through HRIS I perform all HR activities including tracking employees’ records about their skills, education qualifications and performances which facilitates employees’ positional advancement or promotion... HRIS has been very helpful in this task”

Likewise, the HRO for Mwanza region passionately told the researcher that;

“My responsibilities include among others to make sure all employees information are correctly entered into HRIS and promotion issues are stipulated clearly if any”

The findings are in line with Ball (2001) when reviewed the issues surrounding the use of HRIS by employees and human resources departments, he found the systems is mainly uses includes

positional advancement. The finding is also in line with Teo *et al.*, (2001) and Matimbwa and Masue (2019) who disclosed that the most popular future applications of HRIS had been predicted as training and development (72.5%), career development or positional advancement (60.8%) and performance appraisal or management (58.8%). There appears to be a shift towards strategic applications of HRIS. The possible reason could be that most of the organizations which were using HRIS for few years till now, want to explore the possibilities of strategic HRIS applications over the next few years.

Furthermore, the remaining uses of HRIS were not applicable since their average were below the average (mean) threshold value (3.0). Also, these indicators showed greater variability around the mean of data set, on averages implying that there are some variations among LGAs in terms of their types of HRIS use and its extent of implementing HRIS applications. This variation could be as a result of some LGAs would prefer to use HRIS applications for administrative rather than strategic purposes. This result is consistent with the previous studies (De Alwis, 2010; Saharan and Jafri, 2012; Masum, et al., 2013; Al-Dmour et al., 2015).

5.0 Conclusion and Implications

Although HRIS uses such as keeping new recruitment records remain the most popular use, there is an intensification in use of HRIS in strategic decision-making activities. Thus, this study concludes that the scope of HRIS use have expanded in Tanzania. In addition, the current study has significant insights for researchers who intend to understanding HRIS uses in LGAs of developing countries like Tanzania. Therefore, descriptions of findings specify the importance of appropriate use of HRIS within organisation. This study provides some understandings into the implementation of HRIS by Tanzanian LGAs, which should support HR practitioners and policy makers to reach a better comprehension of the current HRIS implementation status and uses.

Theoretically, this study had added to the theoretical thinking of UTAUT providing the required evidences which include the importance of employee's commitment for improving application of HRIS in LGAs and hence enhance the timeliness, completeness and accuracy of information. This study also unveils the influence of availability of adequate IT infrastructure, HROs IT skills and IT specialists, technological compatibility on HRIS usefulness in LGAs.

In addition, HRIS use in Tanzania's LGAs like in Ministries, Department, and Agencies (MDAs) is guided by laws, policies, administrative circulars, and decrees. Such laws and policies include the Records and Archives Management Act (No. 3) of 2002, the Public Service Act (No. 8) of 2002 (URT, 2002), and the Employment and Labour Relations Act (No.6) of 2004 (URT, 2004). Others include, the Labour Institutions Act (No.7) of 2004 (URT, 2004b), the e-Government Act (No.10) of 2019 (URT, 2019), the National Information and Communications Technology Policy of 2016 (URT, 2019), Education and Training Policy of 2014 (URT, 2014), Vocational Education Policy of 1996 (URT, 1996), and the Higher Education Policy of 1999 (URT, 1999). Circulars and decrees are used alongside the mentioned laws and policies for administrative purposes. All these resulted in the development of Human Capital Management Information System (HCMIS) user manual to enable HROs to use the system. The manual was developed by the President's Office–Public Service Management (PO–PSM) in 2011 and revised in 2016 (URT, 2011; 2016).

Policies and laws guiding the application of HRIS aimed to reduce the manual performance of administrative activities and thus enable HR officers to maintain complete, accurate, and updated employees' information through computerized application software. However, the current study findings indicate that HRIS is moderately used since it is currently used to perform five tasks on record keeping of new employees, generation of human resource reports, human resource planning, facilitation of positional advancement of employees and keeping records on employees training and learning sessions; in LGAs. Underutilization of HRIS is associated with several factors, with ignorance among system users specifically HROs being the main attribute. This implies that policy goals to address irregularities in employee records as earlier reported cannot currently be achieved. Furthermore, improvement of ICT skills, HR knowledge, commitment, and education are policy issues, which should be addressed holistically by top management. It is argued in the current and previous studies that although HROs require training, it is provided by other actors. Thus, LGAs should allocate funds for training and improvement of HRIS infrastructures such as purchasing hard and software. Generally, this is termed as top managerial support, which was limited in the selected LGAs.

References

- Ahmer, Z. (2013). Adoption of human resource information systems innovation in Pakistani organizations. *Journal of Quality and Technology Management*, 9(2), 22-50.
- Akoyo, S.I. & Muathe S.M.A. (2017). Towards a theoretical model for human resource management information systems, government policy and organizational performance: A research agenda. *IOSR Journal of Business and Management (IOSR-JBM)*, 19(1), p 43-53.

- Al-Dmour, R.H., Obeidat, B.Y., Masa'deh, R. & Almajali, D.A. (2015). The practice of HRIS applications in business organisations in Jordan: An empirical study. *European Journal of Business and Management*, 7(33), p37-51.
- Al-Saleh, M.F. & Yousif, A.E. (2019). Properties of the standard deviation that are rarely mentioned in classrooms. *Austrian Journal of Statistics*, 38 (3), p193–202
- Ankrah, E., & Sokro, E. (2012). Human resource information system as a strategic tool in human resource management. *Problems of Management in the 21st Century*, 5, 6-15
- Ball K (2001). The use of human resources information system: A survey. *Personal Review*, 30(6): 667-693
- Bulmash J (2013). *Human resources management and technology in Canadian human resources management* (10TH edition pp 49-78) Whitby CA: McGraw Hill Ryerson
- Byars, L.L. & Rue, L.W. (2004). *Human resources management* (International Edition). Indiana University: McGraw-Hill
- CedarCrestone (2009). CedarCrestone 2009-2010 HR Systems Survey: HR Technologies, Deployment Approaches, Value, and Metrics, 12th annual ed., CedarCrestone, Alpharetta, GA.
- Daniel, J.P. (2015). *The influence of human resource information system on decision making in LGAs: The case of Lawson Version 9 in Kiteto District, Tanzania*. A Dissertation Submitted in Partial/Fulfillment of the Requirements for Award of the Degree of Master of Science in Human Resource Management (MSc HRM) of Mzumbe University.
- De Alwis, A.C. (2010). The impact of electronic human resource management on the role of human resource managers", *E M Ekonomie a Management*, vol. 4, pp. 47-60
- Gomez-Mejia L, Balkin D.B & Cardy R.L (2012). *Managing Human Resources*. (7th edition) New York, NY Pearson
- Ishijima H, Mapunda M., Mndeme., Sukums S., & Mlay, V.S. (2015). Challenges and opportunities for effective adoption of HRH information systems in developing countries: National rollout of HRHIS and TIIS in Tanzania. *Human Resources Health*. 2015;13(48)
- Jahan, S. (2014). Human resources information system (HRIS): A theoretical perspective. *Journal of Human Resource and Sustainability Studies*, 2, 33-39

- Kassam, A. (2013). *Challenges of human capital management information system (Lawson Version, 9) in Local Government Authorities: The case of Shinyanga Municipal Council*. A Dissertation for Award of MSc Degree at Mzumbe University, Morogoro, Tanzania. 100pp.
- Kassim, N., Ramayah, T. & Kurnia, S. (2012). Antecedents and outcomes of human resource information system (HRIS) use. *International Journal of Productivity and Performance Management*, 61(6), 603-623.
- Kovach, K.A. & Cathcart, C.E. (1999). Human resource information systems (HRIS): providing business with rapid data access, information exchange and strategic advantage. *Public Personnel Management*, 28, 275-282
- Lameck, W.U. (2015). Explaining the Performance of Decentralized Recruitment in Tanzania Local Government Authorities on Institutional Context Perspective. *International Journal of Academic Research in Business and Social Sciences*, Vol. 5, No. 12.
- Lawler, E.E., Levenson, A. & Boudreau, J.W. (2004). HR metrics and analytics: Use and impact. *Human resource planning*, 27, 27-35.
- Martinsons, M. G. (1994). Benchmarking human resource information systems in Canada and Hong Kong. *Information & Management*, vol. 26, no. 6, pp. 305-316.
- Masum, H., Rao, A., Good, B.M., Todd, M.H., Edwards, A.M., Chan, L., Bunin, B.A., Su, A.I., Thomas, Z. & Bourne, P.E. (2013). Ten simple rules for cultivating open science and collaborative R&D. *PLoS Computational Biology*, vol. 9, no. 9.
- Matimbwa H and Masue O S. (2019). Usage and Challenges of Human Resources Information System in Tanzanian Public Organizations. *Journal of Human Resource Management Vol 7, No 4, pp 131-137*.
- Matimbwa, H, Masue, O.S. and Shillingi, V. (2020). Technological Features and Effectiveness of Human Resources Information System in Tanzania Local Government Authorities. *American Journal of Operations Management and Information Systems*, 5(3), pp. 29-40
- Ngai E, W, T., Law C, C, H., & Wat F, K, T., (2008). Importance of the internet to human resource practitioners in Hong Kong', *Personnel Review*, 37(1), 66-84
- Ngai, E.W.T. & Wat. F.K.T. (2006). Human resource information systems: a review and empirical analysis. *Personnel review*, 35(3), 297-314.

- Ochenge, N.C. (2015). Role of human resource management practices and sustainable development of commercial banks: Case study of Kenya commercial bank. *International Journal of Social Sciences Management and Entrepreneurship*, (1):34-49
- Opiyo, A. P. (2015). Effects of human resource information system on performance of commercial banks in Kenya: A case of Kenya commercial bank. *Journal of Business Management*, Vol 1 Issue 1 Paper 2
- Runsey, D. (2016). *Statistics for dummies* (2nd Edition). Wiley Publications
- Sadri, J. & Chatterjee, V. (2003). Building organizational character through HRIS. *International Journal of Human Resources Development and Management*, 3, 84-98
- Saharan, T., & Jafri, S. (2012). Valuation of HRIS status an insight of Indian companies' perspectives. in Kundu, S. C., Punia, B. K., Narwal, K. P. and Singh, D. (Eds), *Business Management: Key Research Issues*, Excel Books, New Delhi, pp. 113-127.
- Targowski A.S & Deshpande S.P. (2001). The utility and selection of human resources information system. *Advances in Competitive Research*, 9(1) 42-56
- Teo, T.S.H., Soon, L.G. & Fedric, S.A. (2001). Adoption and impact of human resource information systems (HRIS). *Research and Practice in Human Resource Management*, vol. 9, no. 1, pp. 101-117.
- Troshani, I., Jerram, C. & Hill, S.R., (2011). Exploring the public sector adoption of HRIS. *Industrial Management and Data Systems*, 111(3), 470-488.
- Wahab A. (2011). *The Effectiveness of human resource management information system (HRMIS): Application in managing human resource at the Perlis State secretary office*. University Utara Malaysia.
- Zahid, H., W. James, & Nelarine, E.C. (2007). The use and impact of human resource information systems on human resource management professionals. *Information and Management*, vol. 44, no. 1, pp. 74-89.



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The Influence of Financial Literacy on Household Wealth Accumulation: A Case of Iringa Municipality

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Abstract

This study analyzed the influence of financial literacy on household wealth accumulation in Iringa Municipality in Iringa Region. Specifically, the study examined the influence of household budgeting knowledge on households' wealth accumulation in Iringa Municipality in Iringa Region; determined the influence of households' financial management on households' wealth accumulation in Iringa Municipality and ascertained the influence of household investment on household wealth accumulation in Iringa Municipality. The philosophical foundation for this study based on the positivism paradigm as it employed quantitative research approach with explanatory cross-sectional design to explain the causal effect relationship between financial literacy on wealth accumulation. The target population was all households in Iringa Municipality which makes a total of 50,448 and a sample of 156 respondents were contacted. Data were collected through structured questionnaire and analysed using descriptive and inferential statistics namely percentages, mean and multiple linear regression. Results show that there is a significant positive relationship between budgeting knowledge and Wealth Accumulation as the p-value is 0.000, which is less than 0.05. Furthermore, the regression analysis output confirmed that there is a significant positive relationship between Household Investment and Wealth accumulation, as the p-value is 0.000. The study also found there is positive but insignificant relation between financial management and wealth accumulation. The study recommends the government of Tanzania to set enough budget which will be used to educate its citizens on the aspect of financial literacy, this is because most of the households leave below poverty line. It is the role of the government to assist them to move away from poverty line.

Keywords: *Financial Literacy, Household Wealth Accumulation, Iringa Municipality.*

1. Introduction

The world economy is currently going through some economic challenges such that every individual needs to be active and smart in investment decisions so as to cater for the rising cost of living. Households consider investment to be captivating because they make decisions and later see the outcomes of the decisions they make (Agarwalla, Barua, Jacob, and Varma, 2016). So ideally everybody contributes to one form of investment or another, even those who do not participate in investment activities related to buying and selling of financial instruments and other related assets still take on investments through participation in other forms, for instance pension plans and employees' savings programs, buying life insurance and buying households assets etc. (Berry *et al.*, 2021). However, investments in any form require sufficient level of financial literacy.

Globally, the role of financial literacy in accumulation of household asset has been recognized (Lusardi and Mitchell, 2018), as it has been found that financial literacy helps households in making sound and informed decision on investments and assets holding and this has led to future income and subsequently to economic growth as clearly determined (Koomson and Ibrahim, 2022). According to Lusardi and Mitchell, (2018) financial literate households as opposed to their counterparts, illiterate ones, have great ability to access financial services which may enable them improve their economy by investing in education and health, starting business ventures, expanding existing investment and increase assets holding. Furthermore, in recognition the importance of United Nations Sustainable Development Goals (SDGs) pronounced goal number four which ensure inclusive and equitable quality of education and promote lifelong learning opportunities for all. The purpose of this goal is to provide direction to countries towards improved and financial literacy levels of users and providers of financial services by inspiring these countries to integrate financial education into their local curricula by end of 2020, however despite the effort still the challenge of lack of financial knowledge persists.

In Africa countries, financial literacy is considered to be positively associated with asset building and retirement planning. Agarwalla *et al.* (2015) linked financial literacy to household consumption, financial inclusion and other household welfare indicators. Lusardi and Mitchell, (2018) indicates that low levels of financial literacy can have adverse implications for individuals and on their investment behavior. People with low levels of financial literacy have a greater likelihood of facing complications in repaying debt, have a lower probability of engaging in formal financial institutions like the stock market (Van Rooji, Lusardi and Alessie, 2017), are less inclined to prepare for retirement, demonstrate lower proficiency in managing and gathering wealth efficiently (Stango and Zinman, 2017) are more likely to borrow credit at high interest (Millimet, McDonough, and Fomby, 2015), and hold less diversified portfolios.

In East African Region, financial literacy has been reported to help people to manage finances wisely and making sound financial decisions and achieve financial stability in life. Financial literacy is important because it equip people with the knowledge and skills needed for investment,

in other words financial literacy helps people weigh options and make informed choices for their financial situations, such as deciding how and when to save and spend, comparing costs before big purchase and planning for retirement or other long terms savings (Danella, Rahadi and Helmi, 2017). Financial literacy affects people in advanced economies as well economically emerging or developing economies. However, despite the benefits of financial literacy, in East Africa financial literacy is low even in advanced economies, as on average about one third of the global population has familiarity with the basic concepts that underli3 everyday financial decisions.

In Tanzania, financial literacy is viewed as a tool for empowering households and to complements their protection, however literacy levels are particularly low in the country as evidenced by a global financial literacy survey where only 21% of people in Tanzania are reported to be financially literate compared to 32 in Sub Saharan African and 65% in high income OECD economies. Matimbwa and Kipilimba (2018) posited that improvement of financial awareness and financial literacy had benefited many Tanzanians by having happier and financially successful constituents, creating jobs and helping to build a robust economy, while reducing poverty, crime and the strain on social welfare services. In this light, therefore the current study analyzed the influence of financial literacy on household wealth accumulation in Iringa Municipality by focusing on households 'budgeting knowledge, financial management and household investment as well as wealth accumulation determinants through asset accumulation and household saving.

The challenge of financial illiteracy among household members affects their lives in terms of wealth accumulation in Tanzania. As it is estimated that about 40% of Tanzanian lack financial literacy which contributes to poverty, since most of them miss opportunities around them (Magoma, Gasper and Mwashu, 2022). Furthermore, financial fragility emanating from lower levels of financial literacy can decrease assets accumulation and household consumptions. This implies that if financial literacy is misapplied, it might worsen poverty.

In addition, evidence from previous scholars such as Millimet et al., (2015) reported lack of financial literacy as a potential salient determinant of household level of food security and inadequate financial skills and practices are a significant problem that span all socioeconomic groups. Mireku (2016) depicted that lack of financial knowledge is widespread among university students in Ghana but they have moderate knowledge in savings and borrowing but low level of knowledge in other financial issues which affect them in many aspects of life, however this study was done by considering university students not households. Lusardi and Mitchell (2018) show that people with high financial literacy are more likely to have sound judgment about financial issues; make the right decision among financial alternatives and also have sound personal finance practices.

Furthermore, Gale, Harris and Levine (2018) in America reported contradicting findings as some households reported that financial literacy has impact on household saving while others respondents reported that there is no relationship between financial literacy and household savings, hence with these findings it is hard to have a stand. Furthermore Harry (2020) in Malawi and Uddin

(2020) in Oman reported that apart from financial literacy there are other factors which affects household savings, hence with these findings it is impossible to generalize the findings in the context of Tanzania. In this regard, this study provides robust evidence in this regard, by including questions on the influence of budgeting, financial management, and household investment on wealth accumulation specifically at Iringa Municipality in Iringa Region.

General Objective

The general purpose of the study was to analyze the influence of financial literacy on household wealth accumulation in Iringa Municipality in Iringa Region. Specifically, the study sought to examine the influence of household budgeting knowledge on households' wealth accumulation in Iringa Municipality in Iringa Region

2. Literature Review

Theoretical Literature Review

Financial Literacy

Financial literacy is the ability to understand and effectively use various financial skills, including personal financial management, budgeting, and investing (Kumar, 2020). The meaning of financial literacy is the foundation of a person relationship with money, and it is a lifelong journey of learning. Financial literacy is the possession of the set of skills and knowledge that allows an individual to make informed and effective decisions with all of their financial resources (Rahadi, Danella and Okodinawali, 2019).

Wealth Accumulation

Wealth accumulation is the deliberate and discipline process of accumulating assets to achieve certain meaningful goals (Harry, 2020). Without a clear goal, wealth accumulation is no different with wealth hoarding, produces more stresses and anxieties. Wealth accumulation is acquiring money, properties, or other assets that increase a person's net worth over time. Individuals can achieve it through investing and actively earning returns through them. Typically, a person does it to secure a financially stable future for them the coming years (Lu, Xiao and Wu, 2021).

Decision theory

Decision theory was developed by Warner in 1968. It explains individuals' actions. The theory is classified to both prescriptive and a descriptive form. Prescriptive form holds that individuals should select actions that will maximize their expected utility. Descriptive form asserts that individual do not select actions that will maximize their expected utility. Investment decisions are

made by a variety of factors pursuing a broad range of objectives. These actors include individuals who want to maximize on return, and those that want financial freedom and independence (Roberts and Henneberry, 2007).

The theory further postulates that financial information availability is significant variable that influences investment decisions, acquisition of assets and saving behaviours. Availability of information determines investors' behavior on the selection of assets. Easley et al., (2010) found a significant association between information, expected returns and investment decisions. Gentry and Fernandez(2008) established that key sources of information are interviews with firms' management and firms' annual reports. Kiplangat et al., (2020) showed that investors are guided by availability of information in making decisions to invest in shares. This theory relates with the current study as it has been explained that having financial information may facilitate investment decision, asset acquisition and saving behaviors.

Empirical Literature Review

Empirical literature review concerns the review of literature in regard with the research studies conducted before the present study. The aim is to portray a picture of how far research studies related to the present study have been reached outside and inside of the context where the present study is being conducted. This section deals with some of the few studies related to the present study. It comprises of international and local studies.

Effects of Budgeting Skills and Household Wealth Accumulation

Koomson, Villano and Hadley (2022) conducted a study on the role of financial literacy in households' asset accumulation process. The study specifically examines the impact of financial literacy training on household asset accumulation using data collected from a randomized controlled trial implemented in Ghana. Financial assets are measured using account holdings and savings while durable assets and their decomposed components are captured using their total values. After testing for baseline balance, impact is estimated using treatment effect models. The study found that financial literacy training plays a significant role in accumulation of both financial and durable assets, but the impact is more evident in the accumulation of productive durable assets. The study also revealed that households with budgeting skills can save and invest in assets like lands and housing and in turn wealth accumulation. The overall findings on productive and non-productive assets are robust to alternative conceptualizations of what constitutes productive and non-productive assets. The findings also show that financial literacy in terms of budgeting skills has an impact on the accumulation of both total and productive assets in female-beneficiary households, as well as enhancing account holdings for females, although this effect was larger for

males. The analyses for different age cohorts also revealed that financial literacy training results in higher asset accumulation among younger household heads.

Lu, Xiao and Wu (2021) in the study titled Financial Literacy and household assets allocation. evidence from Micro data in China. Based on 2017 and 2019 China Household Finance Survey data, this study examines the role of financial literacy in improving Household Asset Accumulation. It finds that the higher the household's budgeting skills, the higher the household's score in the asset allocation evaluation because households with higher financial literacy pay greater attention to economic and financial news and are more inclined to seek advice from investment advisors. Further analysis shows that the optimization effect of financial literacy on Households Assets Accumulation is greater in households that are wealthy, higher educated, and located in areas with better regional financial development. In conclusion, helping households improve their financial literacy in terms of financial management, planning and budgeting are the important step toward improving Household Asset Accumulation ability.

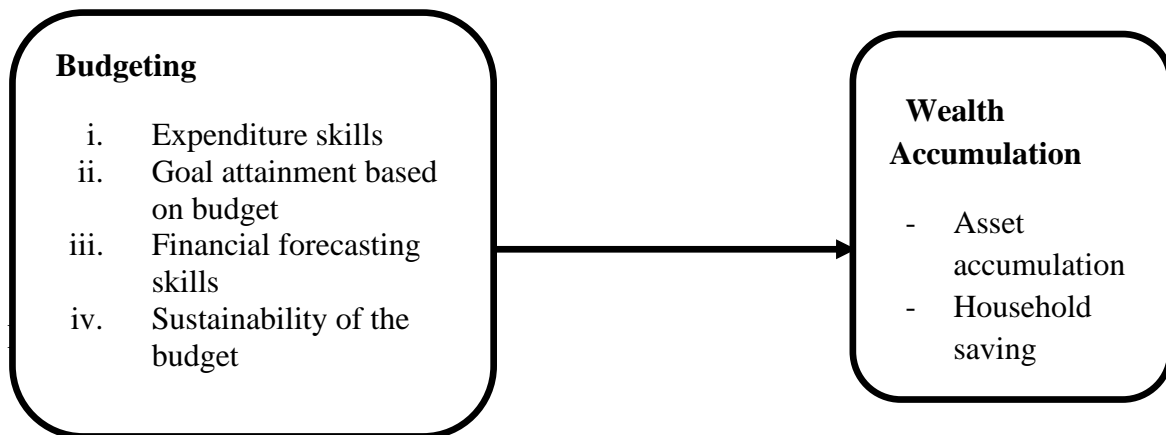
Rahadi, Danella and Okodinawali (2019) in the study titled Correlation between Financial Literacy and Family wealth distribution in branding, based on the results of survey, financial literacy level of Indonesia was 29.66% in 2016. It increased by 7.82% from 2013 alongside with reduction of poverty rate of Indonesia, which decreased from 11.47% in 2013 to 10.70% in 2016. Therefore, is there any relationship between financial literacy and poverty rate or wealth accumulation? From the study results it was depicted that there is correlation between financial literacy and family wealth distribution in branding. It was further revealed that most respondents already have saving accounts; however, for other financial assets. Bandung people still have low participation. The higher the financial literacy level, the bigger the net worth. Same with shares/stocks, individual who has high financial literacy level tend to have a more significant amount of shares/stocks net worth. Unfortunately, most of the shares/stock owners in Bandung still have low financial literacy level. Then, participation in the pension fund of Bandung's families is quite high. However, the amount of the net worth seems low to fund their retirement period. Financial literacy has a low impact on participation in pension funds. Compared to financial literacy, Bandung people seem more interested in non-financial assets.

Based on the literature on financial literacy and asset accumulation firstly, previous studies were done in different contexts as Koomson, Villano and Hadley (2022) conducted study in Ghana, whereas Lu, Xiao and Wu (2021) in China and Rahadi, Danella and Okodinawali (2019) in Indonesia and all these studies just focused on financial literacy and asset accumulation while the current study will have additional independent variables namely budgeting knowledge and household wealth accumulation.

Conceptual Framework

Conceptual framework is an analytical tool with several variations and contexts. It is used to make conceptual distinction and organize ideas (Kenneth, 2005). According to (Kenneth, 2005) a conceptual framework is an abstract indication of how basic concepts and constructs are expected to interact in the actual setting, and the experiences that form the foundation of the research study. It is concerned with the way ideas are organized to achieve a project purpose. The aim of this section is to develop an integrated conceptual model to analyze variable of the study. Accordingly, based on what have been understood from theoretical and empirical reviews the following conceptual framework used to guide the study. Budgeting knowledge, as the independent variable and wealth accumulation is dependent variable. These variables have been chosen to see the relationship between these variables i.e., to see the influence of financial literacy on household wealth accumulation. The conceptual framework can also be seen from the following diagram

Figure 2.1: Conceptual Framework: The Influence of Financial Literacy on Wealth Accumulation



In Statistics, a hypothesis is defined as a formal statement, which gives the explanation about the relationship between the two or more variables of the specified population. It helps the researcher to translate the given problem to have a clear explanation for the outcome of the study. It clearly explains and predicts the expected outcome. The current study is guided by the following hypotheses;

H₁: There is a positive significant relationship between budgeting and wealth accumulation

3. Methodology

The philosophical foundation for this study based on the positivism paradigm.

The study employed quantitative research approach in order to test hypothesis on influence of financial literacy on wealth accumulation in Iringa Municipality. This study is explanatory because it explains the causal effects relationships between variables namely budgeting and wealth accumulation in terms of asset accumulation,

Study Area

The current study was conducted at Iringa Municipality. The National Bureau of Statistics (2022) indicates that the Municipal council contributes 36.1 percent of the regional population in 2022.

According to the Population and Housing Census of 2022 the Municipality has a population of 151,345; male being 71934 and females 79413. This is approximately 44% of the total number of people in Iringa Region. The number of households in 50,448 which will be the total population of the current study. The reason behind selection of Iringa Municipality is due to the fact that Iringa Municipality has large number of people in Iringa who are poor, in other words the poverty level is higher compared to many districts in Tanzania (Mbilinyi, 2022). Furthermore, the other reason is due to the fact that the literacy rate is low (Magoma, Gapser and Mwashu, 2022). Therefore, this study aimed at analyzing the influence of financial literacy on wealth accumulation.

Study Population

Population refers to the aggregate group of people or things on which the researcher is expecting to make generalization of the study (Pallant, 2016). In this study, the target population was all households in Iringa Municipality which makes a total of 50,448 who are expected to provide information on if they have understanding or knowledge on finance and whether the knowledge has effect on asset accumulation and household saving.

Sample Size

The size of the sample in the extant reviewed studies range from a low 100 to as high as 300. According to Saleh (2006), the standard and sophisticated statistical analysis including the multiple regression model, recommend a sample size of 100 as fair and 300 as good. A formula was used to get the sample size. Thus, 156 households constituted the sample size.

Data Collection Instrument and Methods

Primary data was collected using questionnaires which administered to Iringa Municipal households. Questionnaires were used to gather information regarding the influence of financial

literacy on household wealth accumulation. Open-ended questionnaire was used in order to get the experiences and feelings from Iringa Municipal households about the influence of financial literacy on household wealth accumulation.

Variables and their Operational Measurements

Table 1: Variables and their measurements

Type of Variable	Constructs	Indicator variables	Scale measurements	Source
Independent Variable	Budgeting	Expenditure skills	Ordinal scale	Koomson et al., (2022); Lu et al., (2021); Rahadietal.,(2019)
		Goals attainment based on budget	Ordinal scale	
		Sustainability of the budget	Ordinal scale	
		Financial forecasting skills	Ordinal scale	
	Households Financial Management	Operating cash flow	Ordinal scale	Gale et al., (2018), Harry (2020) and Uddin (2020)
		Working capital	Ordinal scale	
		Account payable turnover	Ordinal scale	
		Working within set budget	Ordinal scale	
	Households' Investment	Share	Ordinal scale	Kumar (2020), Garang (2016) and Kristanto and Gusaptono (2020)
		Rent/fixed interest	Ordinal scale	
		Farm or land	Ordinal scale	
		Commercial vehicle ownership	Ordinal scale	
	Dependent Variable	Wealth accumulation	-Asset accumulation - Household saving	Ordinal scale

Validity and Reliability

Validity of the Study

The triangulation strategy was applied in this study to assure validity and this included data source and methodological triangulation. The researcher used data triangulation to gather information from a variety of sources, including primary and secondary sources. The researcher

measured the study’s validity using the Kaiser-Meyer-Olkin (KMO) and Bartlett’s Test of sphericity through SPSS and the findings are presented in Table 3.2. The sample sufficiency index O by Kaiser-Meyer-Olkin, which compares the sizes of the observed correlation coefficients to the sizes of the partial correlation coefficients for the sum of analysis variables, is 0.702 or 70.2 %, and it is reliable since it is greater than the recommended 0.5 or 50% threshold.

Table 2 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.702
Bartlett's Test of Sphericity	Approx. Chi-Square	2013.031
	Df	120
	Sig.	.000

Source: Field data (2023)

Reliability of the Study

The researcher ensured the instrument's reliability by conducting a brief pilot study to test the consistency of the questionnaires. The pilot study involved 10 households from Iringa Municipality, who were asked to fill out the questionnaire to determine clarity, reduce errors, adequate inclusion of constructs, and time spent in filling out the questionnaire. The coefficient alpha or Cronbach's alpha for the research scale is 0.704 or 70.4 %, which is an acceptable result for the internal consequence of the conceptual construction of the investigated scale, according to reliability statistics, findings are as detailed in table 3 below.

Table 3 Reliability Statistics

Cronbach's Alpha	N of Items
.704	20

Source: Field data (2023)

Presentation of Findings

Respondents Characteristics

Respondents' Gender

Regarding respondents’ gender, the study involved a total of 156 (100%) respondents who filled out the questionnaire, out of which 85(54.5%) were male and 71(45.5%) were female respondents.

The results demonstrate that the number of male respondents was slightly higher compared to their female counterparts.

Respondents' Age

The study findings in Table 4.1 show that 41 (26.3%) respondents were from the age group between 20 and 24 years. Twenty-seven (27) or 17.3% of respondents were from the age between 25 to 29 years. Twenty-six (26) or 16.7% were from the age group between 30 and 34, 45(28.8%) had age between 40-44, also 2(1.3%) had age between 45-49 years and the remaining 15(9.6%) had age above 50 years. The statistics signify that all age groups were considered during data collection.

Respondents Marital Status

Regarding employees' marital status the study found 34(21.8%) were single, 106 (67.9%) are married, divorce 8(5.1%) and 8(5.1%) were separated. These findings imply that majority of respondents were married.

Respondents' Education

The study found that 39 (25.0%) had bachelor degrees from universities, 38(24.4%) were a diploma holder. 50(32.1%) of respondents were holding certificates education, and 15(9.6%) had secondary education, 7(4.5%) had primary education and 7(4.5%) had never attended school. Therefore, the statistics indicate that all respondents of difference levels of education were considered.

Descriptive Statistics

Influence of household budgeting knowledge on wealth accumulation

On the influence of household budgeting knowledge on households' wealth accumulation, the researcher was interested to understand if knowledge in planning on the use of resources enable households to accumulate wealth. Mean and standard deviations employed to analyze data and results in Table 4 show that level of expenditure skills facilitate assets acquisition had a mean of 4.07 and standard deviation of 0.728. The study further found budgeting enabled households to attain their goals had a mean of 4.05 and standard deviation of 0.914. In addition, Budgeting skills has enabled sustainability of the budget for quite long scored a mean of 3.76 and standard deviation 0.673 and financial forecasting skills enabled households to own land other important assets in life. These findings imply that expenditure skills, budgeting skills, financial forecasting skills are the crucial skills in wealth accumulation because the means scored were above neutral point (3.00)

indicating the level of agreement towards statement posed were very high. This is due to the fact that, budgeting knowledge help households to determine long term goals by mapping of how to allocate spending to ensure they live within their means and work towards the purchase of only important items and avoid impulse purchase.

Table 4 Budgeting skills

Budgeting knowledge	N	Mean	Std. Deviation
The level of expenditure skills I have, facilitated the acquisition of assets	156	4.07	0.728
Through budgeting I am able to attain goals	156	4.05	0.914
Budgeting skills has enabled sustainability of the budget for quite long	156	3.76	0.673
Financial forecasting skills has enabled me to own some land and other assets	156	3.78	0.635

Source: Field data (2023)

Influence of households ‘financial management on wealth accumulation

On the influence of households’ financial management on households’ wealth accumulation, the found that knowledge on operating cash flow facilitates acquisition of wealth had a mean score of 3.50 and standard deviation of 0.723, Financial literacy enhances quality of financial decision scored a mean of 3.03 and standard deviation of 1.226, Working within set budget enable household to acquire assets had a mean score a mean of 3.56 and standard deviation of 0.972. The study also revealed that working capital enhance wealth accumulation had a mean of 2.44 and mean score of 2.44 and standard deviation of 0.721, also the study being knowledgeable on account payable facilitate wealth accumulation had a mean score of 2.40 and standard deviation of 0.707. These findings imply knowledge on operating cash, working within set budget and financial literacy enhance wealth accumulation as well as enhance quality of financial decision as means scored were above neutral point (3.00) while the study also show working capital and being knowledgeable on account payable had mean below the average mean which imply there is no relationship between them and wealth accumulation.

Table 5 Financial Management

Financial Management	N	Mean	Std. Dev.
The knowledge on operating cash flow facilitates acquisition of wealth	156	3.50	0.723
Working capital enhance wealth accumulation	156	2.44	0.721
Working within set budget enable household to acquire assets	156	3.56	0.972
Being knowledgeable on account payable facilitate wealth accumulation	156	2.40	0.707
Financial literacy enhances quality of financial decision	156	3.03	1.226

Source: Field data (2023)

Influence of household investment on household wealth accumulation

On the influence of household investment on household wealth accumulation, the study found financial literacy enables households to invest in land and have houses had a mean score of 4.20 and standard deviation of 0.942 indicating that financial literacy is important for investment in land. The study also revealed that financial literacy facilitates household to invest in organization and in turn they get dividends had a mean of 2.24 and standard deviation of 0.780, financial literacy has enabled households to have fixed assets had a mean score of 2.09 and standard deviation of 0.594, most of the households with financial literacy own commercial vehicles had a mean of 1.96 and standard deviation of 0.656. These findings show that respondents denied that financial literacy to assist them in investing in organization, or to have fixed asset and own commercial vehicles.

Table 6: Household Investment Knowledge

Investment Knowledge	N	Mean	Std. Dev
Financial literacy facilitates household to invest in organization and in turn they get dividends	156	2.24	0.780
Financial literacy has enabled households to have fixed assets	156	2.09	0.594
Financial literacy enables households to invest in land and have houses	156	4.20	0.940
Most of the households with financial literacy own commercial vehicles	156	1.96	0.656

Source: Field data (2023)

Multivariate Analysis

The model summary in Table 7 shows the strength of the relationship between the model and Wealth Accumulation. R, the multiple correlation coefficients is the linear correlation between the observed and model predicted values of the dependent variable (wealth accumulation). The Regression (R) square of 50.9% indicates that there is a good model fit since the R square is greater than 50%. This implies that the specified model places wealth accumulation at 50.9%.

Table 7 Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.640 ^a	.509	.497	1.07479
a. Predictors: (Constant), Household Investment, Financial Management, Budgeting skills				

Source: Field data (2023)

Furthermore, the use of p value in the ANOVA output determined whether the differences between some of the means are statistically significant. P value has been used to measure the significance of observational data, after identification of an apparent relationship between variables. Table 8 shows that p value of 0.000 which indicates that there is significant influence of Budgeting knowledge, Financial Management and Household Investment on wealth accumulation.

Table 8 ANOVA

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	121.561	3	40.520	35.077	.000 ^b
	Residual	175.587	152	1.155		
	Total	297.147	155			
a. Dependent Variable: Wealth Accumulation						
b. Predictors: (Constant), Household Investment, Financial Management, Budgeting skills						

Source: Field data (2023)

The regression analysis output confirmed that there is a significant positive relationship between budgeting knowledge (BUDT) and Wealth Accumulation (WA) as the p-value is 0.000, which is less than 0.05. Saunder *et al.*, (2014) suggest that the p-value should be equal to or less than 0.05 to be significant. Furthermore, the regression analysis output confirmed that there is a significant positive relationship between Household Investment (HIK) and Wealth accumulation, as the p-value is 0.000. The study also found there is positive but insignificant relation between financial management and wealth accumulation.

Table 9: Regression output

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.845	1.168		1.580	.116
	BUDT	.325	.045	.525	7.159	.000
	FIM	.021	.042	.033	.504	.615
	HIK	.635	.067	.675	9.455	.000
a. Dependent Variable: WA						

Source: Field data (2023)

Correlation Analysis: Hypotheses Testing

In addition to the above findings a researcher intended to test hypotheses and spearman correlation employed and findings as indicated below in Table 10. Upon measuring the influence of budgeting knowledge. The study revealed, household investment found to have a strong correlation with wealth accumulation with a coefficient of 0.381** and p value of 0.000, followed by budgeting knowledge with correlation coefficient of .373** and p value of 0.000.

Table 10: Correlations

			WA	BUDT		
Spearman's rho	WA	Correlation Coefficient	1.000	.373**		
		Sig. (2-tailed)	.	.000		
		N	156	156		
	BUDT	Correlation Coefficient	.373**	1.000		
		Sig. (2-tailed)	.000	.		
		N	156	156		
** . Correlation is significant at the 0.01 level (2-tailed).						

Key:

WA = Wealth Accumulation

BUDGT = Household Budgeting

FIM = Financial Management

HIK = Household investment

Discussion of Findings

Influence of household budgeting knowledge on wealth accumulation

On the influence of household budgeting knowledge on households' wealth accumulation the study revealed there is positive and significance relationship between budgeting knowledge and wealth accumulation. Budgeting knowledge enabled households to attain their financial goals, acquisition of assets, having sustainable budget and ownership of land. Budgeting knowledge is crucial to every household member help to determine long term goals by mapping of how to allocate spending to ensure they live within their means and work towards the purchase of only important items and avoid impulse purchase.

These results are in line with the study done by Banerjee (2023) who reported that financial literacy and wealth creation are intrinsically intertwined because with sufficient budgeting knowledge, people will have confidence to develop a financial strategy that priorities wealth accumulation in order to protect their financial future. The study further pointed out that budgeting is the cornerstone of sound financial management, as it creates a plan for allocating income to different expense categories such as housing, savings and investments. Having budgeting knowledge enable households to track their income and expenses and gain a clear understanding of where money is going and can identify areas for potential savings and optimization.

Wong (2018) points out that many households engage in spending without keeping track of what they purchase, fail to understand the opportunity cost of repeated small purchases made over time, can be vulnerable to unwise impulse purchases, and establish choice architectures in which personal saving is placed at the end of the decision process order instead of up front. Clark *et al*, (2017) found a positive association between financial literacy in terms of budgeting skills and wealth holdings after controlling for other determinants of wealth, such as income, age, education, family composition, risk tolerance, patience and attitudes towards saving in a sample of Dutch adults aged 16+. The study suggest that more financially literate individuals spread their wealth over a richer class of assets and hold more diversified portfolios.

The study further pointed out budgeting knowledge enhance household attainment of goals, as household budgeting skills contribute to increasing private assets, thus self- awareness may lead to wealth accumulation (Bazley *et al.*, 2020). When a household plans the use of its financial savings, it sets expenditure targets, outlines alternative methods for achieving them, and takes account of limiting factors and the impacts of other conditions on the outcome. In the course of planning their assets for the long term, households with high financial literacy consider the various alternative possibilities of investment, such as the purchase and holding of stock-exchange traded investment securities or pre-retirement savings.

Regarding ownership of the properties, Rahadi, *et al*,(2019) in Indonesia found a contradictory finding by pointed out that wealth background seemed to have more impact on wealth accumulation rather than financial literacy, especially on homeownership or other property. However, the impact of wealth background seems low. However, in some few situations, it is true that the higher the financial literacy level, the bigger the net worth. Same with shares/stocks, individual who has high financial literacy level tend to have a more significant amount of shares/stocks net worth. Rahadi *et al*, (2019) also pointed that when households lack budgeting knowledge, they spend money unconsciously, by habit more than deliberate choice; they indulge themselves on quick consumables because of difficulty delaying gratification; a lack of time to plan properly in order to avoid unnecessary grocery shopping trips; and wanting a large house as a symbol of success, so called conspicuous consumption. While households who are knowledgeable on budgeting can track expenses, plan meals and grocery shopping a week in advance.

Conclusion

On the influence of household budgeting knowledge on households' wealth accumulation the study concludes that there is positive and significance relationship between budgeting knowledge and wealth accumulation. The study also concludes that budgeting knowledge enabled households to attain their financial goals, acquire assets, having sustainable budget and own land. It is also concluded that budgeting knowledge is crucial to every household member in Iringa Municipality as it help to determine long term goals by mapping on how to allocate spending to ensure they live within their means and work towards the purchase of only important items and avoid impulse purchase.

Implications and Recommendations

Policy and Decision Makers

The implication of the study findings includes Policy and decision makers who can use the findings to formulate or modify adapted financial policy interventions which stimulate influence of financial illiteracy for household wealth accumulation. The study also is expected to provide relevant information to government officials responsible for development of policies, guidelines for the community. This study hopes to contribute to the existing knowledge, address and provide the background information to research organizations, individual researchers and scholars who want to carry out further research in this area.

Researchers and Academicians

The study findings are expected to be resourceful for other researchers and scholars, as it will form a basis for academic discussions on various aspects the influence of financial literacy on household wealth accumulation. The study will also be a source of information for other researchers who intend to conduct similar studies in Tanzania or elsewhere. Moreover, the study findings are expected to make a valuable addition to the body of knowledge on the influence of financial literacy on household wealth accumulation studies in developing countries. Furthermore, prospective researchers could make use of the findings to improve or apply tested theories.

Households

Households will be equipped with key concepts of financial management, skills in budgeting and investment which could help them to change their habits and attain their wealth.

Recommendations for action

The government of Tanzania should set enough budget which will be used to educate its citizens on the aspect of financial literacy, this is because most of the households leave below poverty line. It the role of the government to assist them to move away from poverty line.

Limitations and areas for further studies

The researcher experienced a number of limitations to include; respondents were preoccupied with other responsibilities during the data collection phase thus, the researcher had to reschedule appointments severally to accrue data. Also, the study was limited to only three predictors of wealth accumulation to include; budgeting knowledge, financial management and household investment other drivers were beyond the scope of this study. Moreover, the time assigned for the completion of this research project was limited thus; the researcher was compelled to improvise by working on weekends. Furthermore, this study was cross sectional study, hence future study could be longitudinal and conducted in other geographical area as the limit of the study was in Iringa Municipality.

References

- Agarwalla, S. K., Barua, S. K., Jacob, J., & Varma, J. R. (2015). Financial literacy among working young in urban India. *World Development*, 67, 101–109.
- Banerjee A (2023). How financial composure can assist you in accumulating wealth. *Journal of Business Management and Economic Research Vol 4(6) page 56-63*
- Bernheim, B. D., & Garrett, D. M. (2018). The effects of financial education in the workplace: Evidence from a survey of households. *Journal of Public Economics*, 87(7-8), 1487-1519.
- Berry, J., Karlan, D., & Pradhan, M. (2021). The impact of financial education for youth in Ghana. *World Development*, 102, 71–89.
- Bodie, Z., Kane, A., & Marcus, A. J. (2020). *Investments*. McGraw-Hill Education.
- Brealey, R. A., Myers, S. C., & Allen, F. (2017). *Principles of Corporate Finance*. McGraw-Hill Education.
- Brown, M., Collins, J. M., & Schmeiser, M. D. (2017). Do financial education programs work? NBER Working Paper, 24226.
- Creswell, J. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Thousand Oaks, California: Sage Publications.
- Creswell, J. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Thousand Oaks, California: Sage Publications.
- Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Upper Saddle River, NJ: Prentice Hall.
- Creswell, J. W., Fetters, M. D. and Ivankova, N. V. (2004). Designing a Mixed Methods Study in Primary Care. *The Annals of Family Medicine*, 2(1), 7-12.

- Damodaran, A. (2017). *Investment Valuation: Tools and Techniques for Determining the Value of Any Asset*. John Wiley & Sons.
- Danella, J., Rahadi, R. A., & Helmi, I. (2017). A Conceptual Study on the Impact of Financial Literacy Level to Household Wealth in Bandung. *Journal of Humanities, Language, Culture and Business*, 1(6), 82-93.
- Deloof, M., & Jegers, M. (2017). Working capital management and profitability: Analysis of European retail companies. *International Journal of Financial Management*, 47(4), 947-962.
- Dew, J., & Dakin, J. (2017). Financial planning and credit card debt reduction. *Journal of Financial Planning*, 30(1), 56-62
- Dichev, I. D., & Tang, V. W. (2018). Cash flows and accrual accounting in predicting equity returns. *Review of Accounting Studies*, 23(1), 98-129.
- Drechsler, I., A. Savov, and P. Schnabl. 2018. A Model of Monetary Policy and Risk Premia. *Journal of Finance* 73:317–373.
- Gale G.W, Harris B.H and Levine R (2018). Raising Household Saving. Does Financial Education Work Security Bulletin Vol 72(2) page 34-45
- Garang M (2016). The Effect of Financial Literacy on Investment Decisions in the Juba City South Sudan. Masters' Thesis University of Nairobi
- Gitman, L. J., Juchau, R., & Flanagan, J. (2020). *Principles of Managerial Finance*. Pearson
- Grinblatt, M., & Titman, S. (2020). *Financial Markets and Corporate Strategy*. McGraw-Hill Education.
- Harry N.A (2020). Determinants and Impact of Financial Literacy on Saving Behaviours among Households in Malawi Masters thesis KDI school of Public Policy and Management
- Hastings, J. S., & Mitchell, O. S. (2018). How financial literacy and impatience shape retirement wealth and investment behaviors. *Brookings Papers on Economic Activity*, 49*(2), 1-76
- Koomson, I., & Ibrahim, M. (2022). Financial Inclusion and Growth of Non-farm Enterprises in Ghana. In: Efobi, U., & Asongu, S. (eds) *Financing Sustainable Development in Africa*. Palgrave Macmillan, Cham
- Kothari, C. R. (2012). *Research Methodology and Techniques*. New Age International (P) Limited, New Delhi, India
- Kristanto H.C and Gusaptono, R. H The Impact of Financial Literacy on Investment Decisions Between Saving and Credit: Studies on Sharia Bank Customers in the Special Region of Yogyakarta (November 16, 2020). *Journal of Economics and Business*, Vol.3 No.4
- Kumar D.A.T(2020).The impact of Financial Literacy on Investment Decisions. With special reference to undergraduates in Western Province, Sri Lanka. *Asian Journal of Contemporary Education* Vol 4(2)
- Lu X , Xiao J and Wu Y (2021). Financial Literacy and Household assets allocation. Evidence from Micro data in China. *The Journal of Consumer Affairs* vol 6(2) page 34-42

- Lusardi, A., Michaud, P.-C., & Mitchell, O. S. (2018). *Using a life cycle model to evaluate financial literacy program effectiveness*
- Magoma H, Gasper L and Mwashia N (2022). Financial Literacy Investment and Saving Decisions Among Government Institutions Workers in Tanzania. *African Journal of Applied Research Vol 8(1) page 108-119*
- Matimbwa, H. &Kipilimba, T. (2018). The Contribution of Micro Finance Institutions to Households Welfare: A Case of FINCA and Pride in Iringa Tanzania. *Journal of Business Management and Economic Research, 2(6), 1-10*
- Millimet, D. L., McDonough, I. K., &Fomby, T. B. (2015). *Financial literacy and food security in extremely vulnerable households*. Institute for the Study of Labor (IZA), IZA DP No. 9103.
- Mullins, D. W. (2019). Wealth Creation: How Cash Flow Affects Value. Harvard Business Review.
- Porter, G., & Norton, M. (2019). Financial Literacy and Education: Evidence and Implications. Oxford University Press.
- Rahadi R.A. Danella J and Okdlinawal L (2019). The correlation between financial literacy and family wealth distribution in Bandung Indonesia. *Journal of Business and Management Research Vol 4 (2)*
- Robert, V. and Morgan, W. (1970).Small Sample Techniques. *The NEA Research Bulletin, Vol.38 1970,p. 99.*
- Ross, S. A., Westerfield, R. W., & Jordan, B. D. (2020). Fundamentals of Corporate Finance. McGraw-Hill Education.
- Saunders, M., Lewis, P., &Thornhill, A. (2012). *Research Methods for Business Students* (6th ed.). Harlow, England: Pearson Education
- Uddin M.A (2020).Impact of Financial Literacy on Individual Saving . A study in the Oman Context. *Research in World Economy, Vol 11(5) special issue*
- Van Rooij, M., Lusardi, A., &Alessie, R. (2017). Financial literacy and stock market participation. *Journal of Financial Economics, 114(1), 144-160*
- Vitt, L. A., Anderson, C., Kent, J., & Lyter, D. M. (2017). Personal Finance. Cengage Learning.



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**Effect of Internal Controls System on Revenue Collection: Experience From Tanzania
Revenue Authority, Iringa Tax Region**

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Abstract

This study investigated the effect of internal control system on Revenue collection in Iringa tax Region. Specifically, the study assessed the effect of duties separation, effective supervision and job rotation towards revenue collection. The study guided by control theory which postulates that controls measures enables organizations to perform well. The study employed pragmatic philosophy with mixed research approach dominated by quantitative approach. Explanatory cross-sectional design was adopted to explain the causal effects relationship between duties separation, effective supervision, job rotation on revenue collection. Sample size of the current study was 100 respondents who were picked randomly. Data were collected using structured questionnaire and interview guide and analyzed using descriptive statistics namely frequencies, percentages, mean and multiple linear regressions while qualitative data were analyzed using content analysis. Results show that that there is a significant influence of effective supervision and job rotation on revenue generation. Furthermore, the influence of separation of duties was found to have insignificant influence on revenue collection. The study recommends more emphasize on effective supervision and job rotation because these two have found to have positive and significant effect on revenue collection at Tanzania Revenue Authority.

Keywords: *Duties separation, Effective supervision, Job rotation & Revenue collection*

1. Introduction

Any entity of whichever form or size should put in place its own system of controls in order to achieve its objectives (Urquia, 2018). A system of effective internal controls is a critical component of company management and a foundation for the safe and sound operation of organizations. However, ineffective internal controls result in ineffective programs and eventually leading to losses (Olumbe, 2022). While writing a report on Capital Markets Regulators Reign in on Rogue Firms for the Standard Media in May 2019, James Anyanzwa stated that the recent incidence of corporate failures and accounting frauds are mostly preceded by failure in companies internal control structures.

The incidence of internal control weaknesses, unsatisfactory and deteriorating service delivery have undesired effect of not only weakening the organization ability to effectively collect revenue but also encourages collusion, fraud, embezzlements, loss of cash (revenue), assets conversion genuine and deliberate mistakes, corruption, lack of transparency and accountability for revenue collection and other assets (Brown, 2016). Despite considerable investment, service delivery is unsatisfactory and degenerating. For the enhancement of the attainment of the mission and goals of the organization, it is therefore necessary that these hindrances be removed. The management of the organization should familiarize themselves with internal control procedures that will ensure effective service delivery and the desired revenue generation (Efozie, 2020).

Despite of the resources available at Iringa Region but still the statistics for the past three (3) years shows that TRA revenue collections against budget are decreasing from 73% (TZS63,947.8 million) in 2019/2020 to 67% (TZS 59,280.7 million) and 64%(TZS 57,935.4 million) in 2020/2021 and 2021/2022 respectively. Also, TRA Iringa region for the past three (3) years consecutively it has been ranked below the sixth position country wise (Tanzania Revenue Authority 2023). This has attracted the researcher to conduct this study with a case study of TRA Iringa region. Thus, the study evaluates the effect of internal control system in operation at TRA with a view of knowing whether strengthening of internal controls can have any effect on revenue collection.

2. Literature Review

2.1 Theoretical Framework

Control theory developed by Rotter (2001) postulates that organization or an individual who properly follows the system of internal controls will be excluded from collusion process. The theory further asserts organizations which stick to controls measures including duties separation, job rotation and supervision always succeed. The objective of a control theory is to calculate solutions for the proper corrective action from the controller that result in system stability, that is, the system will hold the set point and not oscillate around it. Systems have inputs and outputs to bring a product after processing and so inputs and outputs of a control system are generally related by differential equations. Control theory pointed out several ways of findings proper corrective actions for preventing many problems in accounting; these include **duties separation**, effective supervision and job rotation which enhance security in day-to-day operations which in turn improve performance.

All these Control means built within a process is internal in nature. It takes place with a combination of interrelated components-such as social environment affecting behavior of employees, information necessary in control, and policies and procedures. Internal control structure is a plan determining how internal control consists of these elements. The theory also postulates that every organization set various control measures based on the nature of an organization. Example Tanzania Revenue Authority imposes several measures to ensure security and increase of revenue collection. These measures include duties separation, effective supervision and job rotation. The authority thought the implementation of these measures has a positive effect on revenue collection.

This control theory relates to the current study because it aims at assessing the effects of the control mechanisms namely duties separation, effective supervision and job rotation as a proper way of enhancing revenue collection by Tanzania Revenue Collection. Hence the researcher has been able to obtain three variables (duties separation, effective supervision and job rotation) of the study.

2.2 Empirical Literature Review

Globally, Ofozie (2020) assessed the impact of Internal control system on Revenue generation control at local government level. The data analysis is through descriptive and inferential statistical methods. The descriptive analysis involves the use of simple percentage, tabulation and counts were as chi-square inferential statistical method. The main finding of the study includes among other; concluded that internal control system such as duties separation plays a major role in prudently managing the resources and funds entrusted to public sector managers. This study relate to the current study as the focus was on internal control and revenue generation however it was done in Local government authorities which is not the case here it was done in Tanzania Revenue Authorities.

Alhassan (2018) conducted a study on the Effect of internal control on revenue collection in Kintampo Municipal Assembly in Ghana. The study focused on identification of effective control mechanism which provides support in the revenue collection, eliminating income and resource loss, identifying and preventing fraud. Data were collected from 63 respondents using structured questionnaire. Data were analyzed using descriptive and inferential statistics. The findings revealed that internal controls had a significant influence on revenue collection and the study also pointed out that effective supervision enhance revenue collection at Kintampo Municipal. The study relates with the study but differs in terms of study area.

In Africa, Kwaji and Dabari (2017) did a study in Nigeria that aimed to assess tax revenue collection by the Federal government in Nigeria. The research employed quantitative research design. The study also relied on the secondary data that was retrieved from the FIRS in relation to the aggregate oil tax revenue gathered as well as non-oil taxes between 2011 and 2015. The population entailed of Federal Inland Revenue Services whereas the sample size comprised planning, reporting and statistics departments. The results of the findings pointed out that capital gains tax, stamp duty, education tax and petroleum profit tax are positively substantial at 1%, 5% and 10% respectively whereas company income tax and value added tax are not substantial. The study hence recommended that there is need for the government to increase tax revenue collection

processes as well as ensure that any compliance deviations from the established guidelines are dealt with and punished.

Chonoro (2021) in the study titled *Effects of Internal Control Systems on Revenue Collection in UasinGishu County Kenya*. Specifically, the study determined the effects of control environment, risk assessment, monitoring activities, job rotation on revenue collection. The study targeted all the 108 staff of UasinGishu County in Kenya. The study collected data through questionnaire which were analyzed using descriptive and inferential statistics. The study found control environment, risk assessment, monitoring activities, job rotation had positive and significant relationship on revenue collection. The study relates with the current study as the effects of control system on revenue were the focus, however differs in the variables studied namely control environment, risk assessment, monitoring activities, job rotation on revenue collection.

Brian (2013) carried out research that aimed to examine the internal control impacts at Kenya Revenue Authority (KRA). The study was undertaken by way of qualitative and quantitative methods. The study employed primary information which was gathered using structured questionnaires. The study population involved 38 respondents. The findings of the analyzed data established that the 5 elements of control; environment, assessment of risk, activities related to control, communication and information and assessment ought to be put in place so as to enable internal control function. The study similarly pointed out that ineffective internal controls have aided conspiracy to fraud, assets loss as well as misappropriation of the revenue collected. The study hence determined that internal controls do operate however; with setbacks and that a substantial influence exists between KRA revenue collection and internal controls.

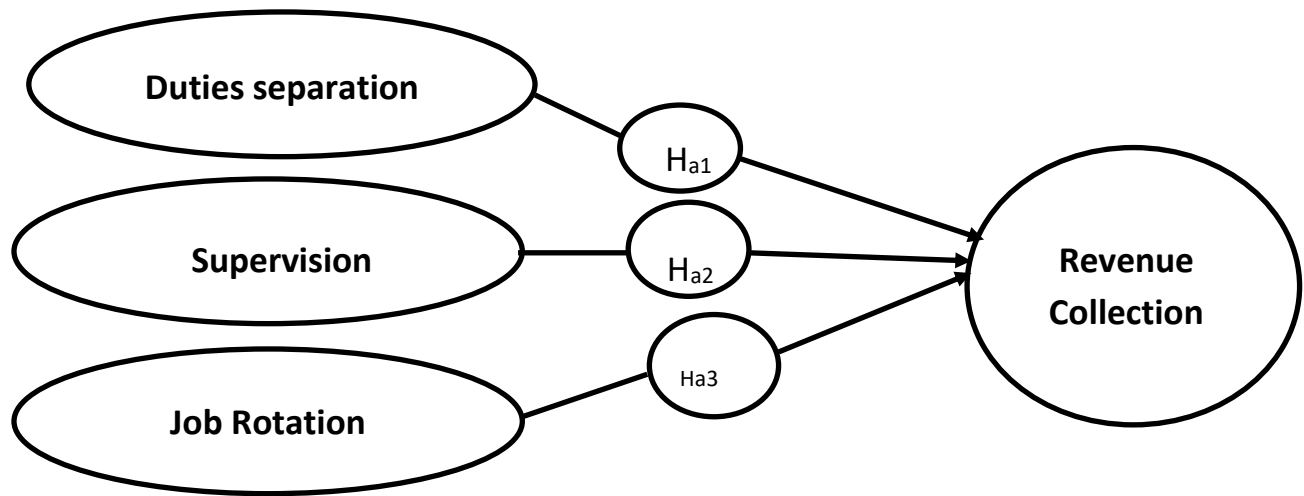
All in all, in spite of increasing the number of research relating to the internal control systems, there is still a gap in relation to this topic (Jing and Avery, 2008). Example, Salawu and Agbeja (2017) who examined auditing and accountability mechanism in the public sector provided a significant contribution towards the need for a strong internal control. Temple man, (2013) also provided evidence on the need internal control in the public sector. But their studies focused on internal control system, they are not linked with internal control mechanisms such as the supervision, rotation of jobs and assignments, segregation of duties and adherence of internal revenue polices with the improving of revenue collection. Hence, this study has considered the

internal control systems employed by Tanzania Revenue Authority, Iringa tax region that have a great influence on the revenue collection.

2.3 Conceptual Framework

The conceptual framework of this study presents the relationship between the independent variables (duties separation, supervision, and jobs rotation and the dependent variable (Revenue correction). The relationship between the independent variables and dependent variables has been shown on the diagram.

Figure 2.1 Conceptual framework



3. Methodology

The philosophical foundation for this study based on the pragmatic paradigm. Pragmatic paradigm was used owing to the adoption of mixed method research. The rationale behind the use of pragmatic research paradigm is due to the fact that there is no single way of learning but multiple ways of understanding. The study employed mixed methods, where quantitative approach was more dominant because the study's aim is to explain the causal relationship between duties separation, supervision and job rotation on revenue collection. Also, qualitative data was captured through interview which was conducted with managers of the departments to get their opinions of

efforts done by managers to increase revenue collection. The study is an explanatory study because it closely examines the influence of duties separation, supervision and job rotation on revenue collection. The study further adopted a cross-sectional data collection method because data collection, analysis, and interpretation were conducted at the same time. The target population was all employees of Tanzania Revenue Authority in Iringa specifically at Iringa, Mafinga, Kilolo and Ilula TRA offices who were purposively selected. Data were collected using questionnaire and interview, and analyzed using frequencies, percentage and multiple linear regression as well as content analysis.

4. Results

4. 1 Effects of duties separation towards revenue collection

Regarding the effects of duties separation on revenue collection at Iringa Region, the key focus was on; if duties separation helps to reduce oversight, enable catching of errors, prevents ill intentions, prevents frauds or thefts and reduce inappropriate actions. Results in Table 1 shows that; having more than one person in a certain job at TRA ensure there is no oversight which in turn facilitate revenue collection scored a mean of 3.83 and Standard deviation (SD) of 0.484, Assigning different tasks to more than one individual at TRA helps to catch errors regarding revenue amount set had a mean of 3.74 and SD= 0.747, distribution of rights among staff in TRA revenue collection system prevents ill intentions scored a mean of 3.80 and SD = 0.667. Also, the study found assigning different tasks to more than one individual prevent frauds or theft hence right amount of tax is collected had a mean score of 3.83 and SD= 0.954 and assigning different tasks to more than one individual reduces the existence of shared responsibilities and hence risk of inappropriate actions had a mean of 3.15 and standard deviation of 0.219. The study findings show the mean scores for all the variables were above neutral point (3.00) which indicates that there is positive relationship between duties separation and performance of Tanzania Revenue Authority in terms of revenue collection.

Table 1: Effects of duties separation

Duties separation	N	Mean	Std. Deviation
Having more than one person in a certain job at TRA ensure there is no oversight which in turn facilitate revenue collection	100	3.83	0.484

Assigning different tasks to more than one individual at TRA helps to catch errors regarding revenue amount set	100	3.74	0.747
Distribution of rights among staff in TRA revenue collection system prevents ill intentions	100	3.80	0.667
Assigning different tasks to more than one individual prevent frauds or theft hence right amount of tax is collected	100	3.83	0.954
Assigning different tasks to more than one individual reduces the existence of shared responsibilities and hence risk of inappropriate actions	100	3.15	0.729

Source: Field data (2023)

These findings show the mean scores were above the neutral point (3.00) hence little dispersion and variability around the mean of the data set, on average. Therefore, the values in the statistical data set are close to the mean of the sample population and they imply that duties separation have various advantages as reduction of an oversight, detection of errors, prevention of ill intentions and frauds and reduction of the risks of inappropriate actions which in turn facilitate revenue collections.

These findings are also in line with the information provided by one of the key informants who said that;

“Separation of duties is very important in our organization because it helps to prevent fraudulent activities. Through separation of duties, the person who is collecting and recording the receipts is not the same, this practice has been helpful because we have been able to reduce risks of fraud, error and other financial misconducts. In addition, it helps to promote accountability, transparency and ethical behavior in our organization”.

Another key informant when responding to benefits of the internal control in Tanzania Revenue Authority asserted that;

“Separation of duties has enabled Tanzania Revenue Authority to improve accuracy and reliability of financial reporting and internal controls, as well as reduce the likelihood of errors or omissions in financial records. This help TRA to comply with regulatory requirements and industrial standards and avoid legal and reputation risks”.

It is the fact that separation of duties prevent fraud, theft, misuse of information, and other security breaches. Separation of duties accomplishes this by dividing the responsibilities of users to

complete their responsibilities, so no one user has control over an entire process. Separation of duties is the most effective approach to placing internal controls over your organization's assets and preventing the kind of fraud. Separation of duties serves a two-fold purpose: **as it** ensures that you have oversight and review of access and control of conflicts within your organization and it helps prevent fraud or theft because it requires two people to conspire to hide transactions and errors.

Not only that separation of duties reduces the existence of shared responsibilities and hence risk of inappropriate actions. Similar results were obtained by Ofozie (2020) who reported separation of duties is one of the most impactful techniques of minimizing risks internally. With segregation of duties, the risk of erroneous or fraudulent actions is minimized as each employee involved has access control and limitations. In line with study findings, Salawu and Agbeja (2017) reported that separation of duties promotes a culture of trust, integrity and accountability and protect the organization and its stakeholders from negative consequences of financial misconduct.

4.2 Effects of supervision towards revenue collection

On the effects of supervision towards revenue collection at Tanzania Revenue Authority, the researcher posed several questions onif effective supervision facilitates tax compliance and obedience, staff competence enhances tax compliance. Here, respondents were required to jot down statements and show the level of agreement and disagreements on the statements posed. Results in Table 2 shows that effective supervision facilitates tax compliance and obedience among tax payers scored a mean of 3.88 and Standard deviation of 0.624, TRA staff competence contribute to revenue collection scored a mean of 4.32 and standard deviation 0.764, effective supervision and personal skills contribute to timely tax payment and enhance tax compliance had a mean score of 4.57 and standard deviation of 0.624, Effective supervision increases tax compliance among tax payers had a mean of 4.53 and standard deviation of 0.521, likewise commitment of tax payers is enhanced when there is close follow up from tax officers had a mean score of 4.24 and standard deviation of 0.754. The study findings show the mean scores for all the variables were above neutral point (3.00) which indicates there is positive relationship between effective supervision and performance of Tanzania Revenue Authority in terms of revenue collection.

Table 2: Supervision

Effective Supervision	N	Mean	Std. Deviation
Effective supervision facilitates tax compliance and obedience among tax payers	100	3.88	0.624
TRA staff competence has contribution on revenue collection	100	4.32	0.764
Effective supervision and personal skills contribute to timely tax payment and enhance tax compliance	100	4.57	0.624
Effective supervision increases tax compliance among tax payers	100	4.53	0.521
Commitment of tax payers is enhanced when there is close follow up from tax officers	100	4.24	0.754

Source: Field data (2023)

In addition, one of the key informants posited that

“Prime means of controlling revenue is separation of responsibilities and effective supervision which would enable no individual to record and process complete transaction. Separation of duties reduces risk of intentional errors and increase element of self-checking. The cross checks of transaction which results from segregation of the duties facilitate early detection of errors and losses from embezzlements, frauds or carelessness. Functions which TRA separated include authorization, custody, examination and recording. It should be noted here that once two or more employees dishonestly collude each other, this tends to overpower the efficiency of the system and management of the revenue”.

It is the fact that effective supervision provides a safe space for workers to reflect on their practice, as well as to develop skills and knowledge. Similar results were obtained by Njagi and Mwangi (2019) who revealed a significant correlation between environment of control in terms of close supervision and revenue collection. The study concludes that there is positive increase of revenue due to internal control practices.

The study findings also supported by Gang and Torgler (2018) who pointed out that Supportive supervision (mentoring, performance appraisal, and performance feedback) had combined significant effect on tax audit. Supportive supervision (mentoring, performance appraisal, and performance feedback) had combined significant effect on tax compliance in Anambra State

Internal Revenue Service. The study concluded that provision of sufficient mentoring to workers, continuous evaluation of workers' performance, and provision of feedback to workers after each appraisal exercise will bring about efficient tax management, quality tax reporting, and consistent tax compliance in the Anambra State Internal Revenue Service.

4.3 Effects of job rotation towards revenue collection

Regarding the effects of job rotation towards revenue collection in Tanzania Revenue Authority. Results in Table 3 shows that moving employees between different tasks facilitate experience sharing and enhances efficiency in revenue collection had scored a mean of 4.06 and standard deviation of 0.722, also the study found moving employees between different tasks prevent corruption and enhance efficiency in tax collection had a mean of 4.03 and standard deviation of 0.731, in addition the study revealed moving employees between different tasks encourage teamwork and hence increase employee morale in execution of duties had a mean of 4.44 and standard deviation of 0.519.

Table 3: Job Rotation

Job rotation	N	Mean	Std. Deviation
Moving employees between different tasks facilitate experience sharing and enhances efficiency in revenue collection	100	4.06	0.722
Moving employees between different tasks prevent corruption and enhance efficiency in tax collection	100	4.03	0.731
Moving employees between different tasks encourage team work and hence increase employee morale in execution of duties	100	4.44	0.519
Moving employees between different tasks enables labor flexibility to work and hence easy for every staff to fully participate in revenue collection	100	4.36	0.689
Moving employees between different tasks prevent any bad intention and hence contribute to revenue growth	100	3.19	1.368

Source: Field data (2023)

Furthermore, the study revealed moving employees between different tasks enable labor flexibility to work and hence easy for every staff to fully participate in revenue collection had a mean score of 4.36 and standard deviation, lastly moving employees between different tasks prevent bad

intention and hence contribute to revenue growth had mean score of 3.19 with standard deviation of 1.368. These findings imply that job rotation at Tanzania Revenue Authority enhance efficiency, prevent corruption, increase tax compliance and employee morale and enable employees' flexibility and easy their full participation in revenue generation.

In line with qualitative findings, one of the supervisors said that;

“Rotating responsibilities on occasion can also benefit our organization practice. This not only ensures that we have someone who can step into a job in the event of an emergency, but it also deters fraud when potential perpetrators know that someone else will do their job for a period of time”

Job rotation plays a dual role of improving employee's productivity as well as helps to detect fraud or other irregularities. Mandatory job rotation also reduces the risk of collusion between two employees as two employees will not be allowed to work together over an extended period of time.

Employees who commit fraud tend to need to be continuously working in order to conceal their fraud. However, when the employee is forced to perform another job or take a vacation, the employee will no longer be able to hide their fraud activities. During job rotation, one of the most important aspects is that the employee's previous access, to certain aspects of the organization's software, is revoked and that new accesses are established for their new position. Without the change in access, they will still be able to continue to cover up their fraud activities (Oparanma & Nwaeke, 2015).

Matimbwa and Ochumbo (2019) asserted that job rotations aim is to motivate, enlighten, update, acquaint and educate workers on the various departments of the organization by adding more responsibilities and ensuring efficiency in the operation in the endeavor of a vertical promotion, also it is used to prevent ill intention and detection of bad practices. Gang and Torgler (2018) pointed out that job rotation is *a powerful fraud deterrent* and helps prevent other misdeeds such as sabotage and information misuse as well. It is much harder for a fraudster to cover their tracks if another employee will be stepping into their shoes. The same logic makes job rotation useful in detecting fraud once it has occurred and even finding innocent mistakes as the next employee transitions into the role with a fresh set of eyes.

4.4 Regression Analysis of the influence of each internal control mechanism on Revenue Collection.

The model summary Table 4 shows the strength of the relationship between the model and revenue collection. R, the multiple correlation coefficients is the linear correlation between the observed and model predicted values of the dependent variable (revenue collection). The Regression (R) square of 53.9% indicates that there is a good model fit since the R square is greater than 50%. This implies that the specified model places revenue collection at 53.9%.

Table 4: Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.734 ^a	.539	.524	.71596
a. Predictors: (Constant), Job rotation, Duties separation, Effective supervision				

Source: Field data (2023)

Furthermore, the use of p value in the ANOVA output determined whether the differences between some of the means are statistically significant. P value has been used to measure the significance of observational data, after identification of an apparent relationship between two variables. Table 5 shows that p value of 0.000 which indicates that there is significant influence of job rotation, duties separation and effective supervision on revenue collection.

Table 5: ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	57.430	3	19.143	37.345	.000 ^b
	Residual	49.210	96	.513		
	Total	106.640	99			

a. Dependent Variable: Revenue Collection

b. Predictors: (Constant), Duties separation, Job rotation and Effective Separation

The regression analysis output in Table 6 confirmed that there is a significant positive relationship between effective supervision and revenue generation as the p-value is 0.000, which is less than

0.05. Saunder *et al.*, (2014) suggest that the p-value should be equal to or less than 0.05 to be significant. Furthermore, the regression analysis output confirmed that there is a significant positive relationship between job rotation and revenue collection as p value was 0.033) and separation of duties has positive but insignificant influence of duties separation and revenue collection as p value was 0.180 which is higher than 0.05.

Table 6: Regression Output

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.362	1.203		.301	.764
	Duties Separation	.042	.031	.096	1.351	.180
	Effective supervision	.445	.042	.760	10.546	.000
	Job separation	.067	.031	.153	2.169	.033

a. Dependent Variable: Revenue collection

Source: Field data (2023)

5. Conclusion and Recommendations

The study concludes that there is positive but insignificant relationship between duties separation and revenue collection. The study also concludes that duties separation reduce oversight, helps to catch errors regarding revenue amount set, in addition distribution of rights among staff in TRA revenue collection system, prevents ill intentions and frauds or theft hence right amount of tax is collected. On the effects of effective supervision on revenue collection, the study concludes positive and significance relationship between them. The study also concludes effective supervision facilitates tax compliance and obedience among tax and contribute to revenue collection, also effective supervision and personal skills contribute to timely tax payment and enhance tax compliance, increases tax compliance as well as commitment of tax payers is enhanced when there is close follow up from tax officers. Regarding job rotation and its effects on revenue collection, the study concludes a positive and significance relationship between job rotation and revenue collection. The study concludes that moving employees between different tasks facilitate experience sharing and enhances efficiency in revenue collection, prevent corruption, encourage teamwork and hence increase employee morale in execution of duties

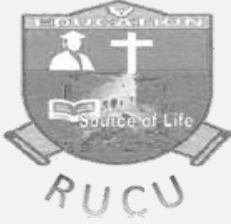
The study recommends more emphasize on effective supervision and job rotation because these two have found to have positive and significant effect on revenue collection at Tanzania Revenue Authority.

References

- Adams, R. A. and Kamuzora K (2018). *Public Sector Accounting and Finance. 3rd Edition: Yaba, Lagos Ngeria Corporate Publishers Venture.*
- Adepoju O.A (2017). Strategies for improving internal control in Small and Medium Enteprires in Nigeria. *International Academic Journal of Economics and Finance, 3(3), 98-116*
- Alhassan M (2018). Effect of Internal control on revenue collection in Kintampo Municipal Assembly. Unpublished Masters' Thesis University of Cape Cost Institutional.
- Angella A (2009) *Evaluation of Internal Control Systems: Uganda Maastricht School of Management, Endepolsdomein 150 6229 EP Maastricht, The Netherlands.*
- Awitta, M. (2020). Effectiveness of Revenue Collection Strategies at Kenya Revenue Authority in Nairobi. Unpublished Research Paper, University of Nairobi
- Brown (2016) *Internal Controls and Organizational performance. An Empirical investigation. Strategic Management Journal7,p 217-31*
- Casebeer, A.L. and Vehoeef, M.J. (1997). Combining Qualitative and Quantitative Research Methods. *Chronic Diseases in Canada, 18(3), pp. 130-135.*
- Committee of Sponsoring Organization of the Treadway Commission, (COSO) 2015, *Internal Control-Integrated Framework, AICPA, New York.*
- Committee of Sponsoring Organizations of the Treadway Commission (COSO); (1985, 1992, 2005, 2012). Internal Control over External Financial Reporting: A Compendium of Approaches and Examples.
- Gang K and Torgler B (2018). Effects of supervision on tax compliance. Evidence from a field experiment in Austria. *Elsevier Vol 123(3) page 378-398*

- Gerrit S and Mohammad J (2020). Monitoring Effects of the Internal Audit function: Agency theory versus other explanatory variables. *Internal journal of Audit*. Blackwell publishing Limited.
- Ibrahim M (2017). Internal Control and Public Sector Revenue Generation in Nigeria. An empirical analysis. *International Journal of Scientific Research is Social Sciences and Management Vol 2(1) page 35-39*.
- Khan A & Bartley (2014). *Financial Management Theory in the Public Sector*: Praeger Publishers, post Road West.
- Millichamp, A. H. (2021), "Auditing, (Eighth edition)", The Bath Press.
- Mwachiro D.M (2015). Effects of Internal Controls on Revenue Collection. A case of Kenya Revenue Authority Masters' Thesis University of Nairobi.
- Njagi A W and Mwangi M (2019). Effect of Internal Controls on Revenue Collection of level five hospitals in Kiambu Count *International Academic Journal of Economics and Finance. Vol 2 issue 3 page 98- 116*.
- Ogeatum J (2015). Factors affecting local government Revenue Collection. Case study of Soroti Municipality. *International Journal of Economics, Commerce and Management Vol 4(10) page 45-63*
- Sigilai D.K and Njiru A (2016). Assessment of Internal control systems effects on Revenue Collection at Nakuru Levels five hospital. *International Journal of Economics, Commerce and Management Vol 4(10) page 45-63*
- Olumbe, C.O. (2022). The relationship between Internal Controls and Corporate Governance in Commercial Banks in Kenya. Unpublished Research Thesis. University of Nairobi.
- Salawu, R. O. and Agbeja, O. (2007) Auditing and Accountability Mechanism in Public Sector, *The International Journal of Applied Economics and Finance*, 1(1): 45-54.

- Urquia L.G.M (2018). Effects of Internal Control System on Financial Performance in an Institution of Higher Learning. *Journal of Fundamental and Applied Science Vol 3(4) page 110-125*
- Wambura, B. J., Okibo, W. B., Nyang'au, A. & Ondieki, S. M. (2015). Effects of Inventory Warehousing Systems on the Financial Performance of Seventh Day Adventist Institutions: A Case of Adventist Book Centers (ABC), Kenya. *International Journal of Business and Management, 10(4), 259 -264.*



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Determinants Of Firm Investment Decisions in Iringa Municipality Tanzania

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Abstract

This study assessed the determinants of Firm Investment Decisions in Tanzania. Specifically, the study examined the effect of financial market information, financial knowledge and firm profitability on investment decisions. The study employed positive paradigm and the quantitative research approach. The explanatory cross-sectional design was also employed in the study to explain the causal relationships between the variables. Owners and managers of the Asas Group, PSSSF, NSSF, Iringa, and Logistics were the study's target population. Techniques for non-probability purposive sampling were employed to choose respondents. Data were analysed using both inferential statistics, namely Multiple Linear Regression, and descriptive statistics, including frequencies, percentages, means, and standard deviations. Results demonstrate that there is a significant positive relationship between firm profitability (FIP) and Investment decision (IVD) as the p-value is 0.000, which is less than 0.05. Furthermore, the regression analysis output confirmed that there is a significant positive relationship between Financial Market Information (FMI) and the investment decision, as the p-value is 0.022, which is less than 0.05. Moreover, the regression analysis found a positive and insignificant relationship between Investors' Financial Knowledge and Investment Decisions as evidenced by a p value of 0.396, which is above the 0.05 threshold. These findings imply that Firm profitability and Financial Market Information positively influence Firm Investment Decisions. The study recommends strengthening financial market information and creating a positive workplace atmosphere to ensure that firms flourish and make additional investments.

Keywords: Firm Profitability, Financial Market Information & Investment Decision.

1. Introduction

Investment decision-making has become more multifaceted and dynamic than ever before. Investment decisions relate to those initiated by senior-level management and individual investors concerning the projected amount of funds to be reimbursed into a particular investment opportunity. An investment decision determines the kind of holdings or Inventories that would demand the amount of capital to be invested by fund managers. Therefore, effective investment decisions vastly correlate with the level of an investor's financial knowledge and skills (Baker and Noinger, 2020).

The decision to invest typically starts with determining the required rate of return or the minimum return projected on a given investment, although most investments have listed market prices and expected cash flows. An investor then forecasts the amount expected for a given investment to establish if the market price aligns with the intrinsic worth (Reilly & Brown, 2017). Accurate investment decisions often depend on the complete analysis of the investment proposal. A significant factor to consider when making this decision is determining the level of risk that is associated with the given investment project. This risk exists because investors are apprehensive about whether the funds invested will accumulate profits over time (Avram *et al.*, 2019).

According to Sibiu (2015), the decision to invest generally depends on an investor's prior earning experience and the prospects of profit opportunities. Making an investment decision is often difficult for investors, especially given the current volatile business environment and the abundance of options available. Collective decision-making is preferred over relying solely on resources at hand and complex financial models. If investors desire to thrive, they must have the appropriate information and maintain their focus (Farooq & Sajid, 2015).

Souza and Aste (2019) analysed the composition of financial market information and its predictive role in successful investment outcomes. This was accomplished by fusing historical financial data with experimentally derived sentimental social media data. According to the research, social media views are less trustworthy than the makeup of the financial market. Risk information, for the most part, affects one's confidence and perspectives on risk, according to research by Hung *et al.* (2010)

on risk disclosure and investment choices in the US. The proponents contended that there was a weak correlation between risk and the observed change in behaviour.

Osabutey and Okoro (2015) examined the influence of political risk on direct foreign investment in Africa. They identified various elements of political risk and analysed their impact on the inflow of FDI into the Nigerian communications sector for the period between the years 2002 – 2011. The findings demonstrate that minimizing political risk by people in authority resulted in increased FDI net inflows into the Nigerian communications industry.

Kefela (2020) discovered that investor's financial knowledge is strongly related to self-beneficial financial performance across African countries. Thus, financial knowledge is crucial for making sound investment decisions. The researcher recommended that basic financial education should be provided in schools since the lack of knowledge in financial principles and concepts is attributable to uninformed financial decisions. Kefela further observes that individuals with minimal financial education are more likely to face challenges with incremental debt and high mortgage costs in comparison to their well-informed counterparts. This results in poor saving tendencies and consequently pitiable investment decisions.

In a study conducted in Tanzania, Mbilinyi and Kadigi (2018) examined survey data collected from companies listed on the DSE between the years 2013 and 2021 to explore the relationships between working capital management and profitability. Their research revealed a correlation between firm returns, inventory retention, and disbursement. The researchers however discovered a negative relationship between profitability, the time it took for accounts receivable, and the period for converting investment into inventory. The researchers concluded that the increase in sales, the scope and size of a company, and fiscal advantage profoundly influence firms' profitability.

In addition, majority of Tanzanian studies have focused on the behavioural elements influencing investor decisions. Due to significant variances in socio-political environments, legal and educational systems, and cultural influences, the findings from the aforementioned studies have little relevance to situations similar to those in Tanzania. Thus, little is known about the factors that influence firm investment decision-making, particularly in Iringa Region firms. According to

data from the Tanzania Investment Centre (TIC), investment levels have decreased by 25% over the past five years (TIC report, 2022). Regardless of the favourable climate, adequate infrastructure, and reliable market, it is reported that the rate of investment is on the decline in Tanzania's southern highlands, where Iringa is one of the regions that make up that zone. This circumstance requires comprehensive analysis thus, this research utilises Iringa municipality as a case study to investigate the factors that influence firm investment decisions in Tanzania.

2. Literature Review

2.1 Theoretical Literature Review

The Profit Theory of Investment and Financial Theory of Investment guided the current study as detailed below.

2.1.1 The Profit Theory of Investment

Markowitz (1952) proposed the Profit Theory of Investment and postulates that investment depends on profits, which subsequently depend on income. The theory also assumes that high total income and profits will translate into high-retained earnings for firms, and vice versa. When the capital market is unreliable, retained earnings are crucial for both small and large businesses since it is more affordable to utilize them. As a result, substantial profits also translate to significant retained earnings.

Firms prefer to reinvest their surplus earnings rather than deposit them in banks in order to purchase securities or to provide dividends to shareholders. This is because the cost of capital is relatively inexpensive and the optimal capital inventory is often large. In contrast, when their profits decline, they scale back their investment plans. Furthermore, the theory contends that a firm is inclined to invest if it anticipates making greater profits from doing so. The researcher thus considered profitability as a determinant of firm investment decisions as informed by this theory.

2.1.2 The Financial Theory of Investment

James Duesenberry proposed the Financial Theory of Investment in 1978. According to this theory, a firm's cost of capital is represented by the market rate of interest and does not change

depending on the amount of investments it makes. As a result, the firm has unlimited access to capital at the market rate of interest.

The theory further asserted that several drivers such as financial market information, investment financial knowledge and profit expected after investment and amount of risks associated with the risks predict investor behaviour. The firm may borrow at whatever interest rate funds are available to finance investment expenditures.

This theory is relevant to the current study because at Iringa Municipality, where variables like financial market information and investment financial expertise were measured, investment drivers are presumed to predict investment decisions.

2.2 Empirical Literature Review

2.2.1 The Effect of Financial Market Information on Investment Decision Making

Farooq (2015) evaluated factors influencing managers and investors' choice of investments in Pakistan. The study reached the conclusion that firm aversion and financial tools have a negative and significant impact on investment decision-making. Moreover, a strong and positive association was demonstrated between all behavioural traits at the corporate and investment levels of the firm. The author recommends that these findings may be used by regulatory agencies and stock exchanges to inform investors about behavioural predictors of investment decisions. In its context, the aforementioned study was carried out in Pakistan and concentrated on financial instruments and firm aversion as the factors that influence investment decisions. This is contrary to the current study, as the main variables under investigation were financial market information, investor financial knowledge, and firm profitability.

Worzie (2020) evaluated various factors influencing the investment decisions of firms listed on the Nairobi Securities Exchange. The results were analysed and presented using tables. The researcher draws the conclusion that the four independent variables namely financial market information, investment risks, investor financial education, and firm profitability have little impact on the investment decisions made by firms listed on the Nairobi Stock Exchange. This study is comparable to the current one in terms of variables analysed; however, there are contextual

variances since it was conducted in Nairobi and not Tanzania. In methodological terms, the aforementioned study was informed by respondents in various managerial positions, unlike the current study which was solely informed by financial managers.

Mutswenje (2019) examined the factors influencing investment decisions in Tanzania. 42 investors, who were picked from the target population of 50 investors, informed the study. A self-administered structured questionnaire was utilised in the study to gather information from the participants. According to the study, the reputation of the firm, its position in the market, expected corporate earnings, profit, and financial condition, past performance, firm inventory, share price, investor expectations, and investors' feelings about the economy and the market are the most crucial factors that influence investment decisions. This study varies from the aforementioned survey in that it solely examined financial market information, investor financial literacy, and firm profitability as variables that determine investment decisions.

2.2.2 The Effects of Investment Financial Knowledge on Investment Decision Making

Mutuku (2015) analysed the impact of financial literacy on employees' individual investment decisions. The study also discovered a significant correlation between financial literacy and favourable investing decisions. It was recommended as per study findings that information be made available through educational programmes to provide people with the skills necessary to make wise financial decisions. This study is comparable to the preceding one in that it concentrated on financial literacy and investment, whereas it distinguished itself by concentrating on firm investment rather than individual investment. Additionally, the study's variables namely return, investment risks, holding times, and interest rate trends varied from those of the current study.

Musundi (2018) explored the effects of financial knowledge on personal investment decisions in Nairobi's Real Estate industry. The results of the study demonstrate a positive and significant correlation between financial knowledge and investing decisions. The study makes recommendations for additional research into the effects of inflation rates on investment decisions and strategies for minimising unforeseen losses attributable to inflation and fluctuation. The report also suggests more research into how non-financial factors affect the investment decision-making process. This study was conducted in Nairobi and its scope was limited to Real Estate Investors

while the current study focused on a variety of investors. Furthermore, the aforementioned study concentrated on inflation and fluctuation, contrary to the case in this study.

Akims and Jagongo (2017) examined the relationship between financial literacy and investment decisions in Nigeria. The specific objective was to explore the theoretical perspective of financial literacy and its impact on investment decisions. The study was grounded in the decision theory, prospect theory and theory of mental accounting. It was revealed that individual financial literacy positively influences investment decisions. This study was conducted in Nigeria and was informed by three theories namely decision theory, prospect theory and theory of mental accounting, as opposed to the current study.

2.2.3 The Effect of Firm Profitability on Investment Decision Making

Patru and Bagodi (2021) examined the factors affecting investment decisions in India. The study was conducted in the Indian Inventory market, the survey entailed 14 attributes, which were filled out by 2100 respondents, and predictor variables included financial statements, current economic indicators like profit making, insider information and the results of technical analysis. This study was done in the India Inventory market and focused on profit making and insider information while the current study focused on financial market information, investor financial knowledge and firm profitability and was not conducted in the Inventory market.

Hesniati and Lasmiyanto (2022) examined the factors affecting investment decisions, and their study specifically investigated the impact of behavioural finance on gold investment decisions. The findings indicate that behavioural patterns like information asymmetry and availability bias have little bearing on investment decisions. Additionally, business profitability can be predicted by other factors notably the likelihood of earning a substantial profit. The remaining independent variables, however, do not significantly affect investment decisions. This study, which was carried out in Batam City, Indonesia, concentrated on the availability and asymmetry of information, whereas the current study analysed more parameters including financial market knowledge, investor financial literacy, and firm profitability.

Gowela (2020) investigated the variables affecting private investors' decisions in shares traded at the Dar es Salaam Stock Exchange. The results showed that decision-making tools for investors have a positive impact. Additionally, the findings indicated that both accounting information and neutral information have an impact on investors' decision-making. Other aspects including inventory price, firm profitability, and firm image, historical pattern of shares or inventory performance, and advocate recommendation, also influence the decision-making process. Although this study was conducted in Tanzania, its scope was limited to trading stocks and the key variables were inventory price, firm profitability, and firm image, past trend of shares or inventory performance, and advocate recommendation. This varies from the current study, which focused on variables including financial market information, investor financial knowledge, and firm profitability.

3.Methodology

This study was guided by positivism paradigm owing to the adoption of quantitative research. This decision was informed by the need to explain the causal-effect relationship between financial market information, investment financial knowledge, firm profitability and investment decision. The researcher also used the positivism paradigm to build a highly structured methodology to allow generalization and quantifiable observations and evaluate outcome with the aid of statistical techniques. This study employed a deductive research approach in order to test hypotheses regarding determinants of investment decisions in selected firms of Iringa Municipality in Iringa region. The study employed the explanatory cross-sectional research design to test the existence of relationships among variables and validate the model, which was used to explain firm investment. This study was explanatory in nature since it describes the causal-effect relationships between variables. In addition, the rationale for using the explanatory design was based on its usefulness in explaining relationships between financial market information, investment financial knowledge, firm profitability and investment decisions.

Target population that is composed of owners and managers of Asas Group (44), PSSPF (15), NSSF (16) and Iringa Food and Logistics (26). The four firms were picked from a pool of 101 firms operating in Iringa Municipality as of 2 January 2023. Thus, firm owners (50) and managers (51) made up the target population of 101. Non-probability sampling with purposive sampling

techniques was used to select the respondents who informed this study, as suggested by Kothari (2004). The entire population of 101 individuals was included in the sample, which is adequate for regression analysis as suggested by Hair *et al.*, (2006). Data were collected using questionnaire and analysed using both inferential statistics, namely Multiple Linear Regression, and descriptive statistics, including frequencies, percentages, means, and standard deviations.

4.Findings

4.1 The Effect of Financial Market Information on Investment Decision Making

The results in Table 1 demonstrates that the right source of information enhances investment decisions as evidenced by a mean score of 4.76 and a Standard Deviation (SD) of 0.602. It was further revealed that the flow of information facilitates investment decisions, as evidenced by a mean score of 4.38 and SD of 0.705. As further revealed, sharing of information on materials and production costs enhances investment decisions owing to a mean score of 4.81 and standard deviation of 4.81. Further revelations are that reliable information sources enhance investment decisions as illustrated by a mean score of 4.85 and standard deviation of 0.357. These results suggest that there is a positive correlation between financial marketing information and investment decisions since all mean scores were above the neutral point of 3.0.

Table 1: Financial Market Information

	N	Mean	Std. Deviation	Std. Error Mean
Right source of information enhances investment decisions.	101	4.76	.602	.060
Information flow facilitates investment decisions.	101	4.38	.705	.070
Sharing information on material and production costs enhances investment decisions.	101	4.81	.417	.042
Reliable information source facilitates investment decisions.	101	4.85	.357	.036

Source: Field data (2023)

4.2 The Effect of Investor Financial Knowledge on Investment Decision Making

The current study also assessed the effect of investor financial knowledge on investment decision-making. The predictors of investor information knowledge included financial planning, budgeting skills, working capital awareness shared short and long-term investment awareness. Results in Table 2 demonstrate that financial planning knowledge is positively correlated to investment decisions as evidenced by a mean score of 5.02 and standard deviation of 0.510. It was further revealed that investor budgeting knowledge enhances investment decisions as evidenced by a mean score of 4.91 and standard deviation of 0.960. As further revealed, working capital awareness facilitates investment decisions owing to a mean score of 4.47 and a standard deviation of 0.672. Furthermore, short- and long-term investment enhances investment decisions. According to the findings, there is a positive correlation between financial literacy and investment decision-making. This is evidenced by the fact that all the mean scores for the indicator variables were above the neutral point of 3.0%.

Table 2: Financial Knowledge

	N	Mean	Std. Deviation	Std. Error Mean
Financial planning knowledge is important in making investment decisions.	101	5.02	.510	.051
Knowledge in budgeting enhances investment decisions.	101	4.91	.960	.096
Working capital awareness facilitates investment decisions.	101	4.47	.672	.067
Shared short and long-term investment enhances investment decisions.	101	4.84	.393	.039

Source: Field data (2023)

4.3 The Effect of Firm Profitability on Investment Decision Making

The predictors of firm profitability in this study included expected profit, return on investment, final measure of investment, and estimated cost of investment. Results in Table 3 indicates that expected profit enhances investment decisions owing to the mean score of 4.82 and standard

deviation of 0.385. It was further revealed that investment return enhances investment decisions as evidenced by a mean score of 4.65 and standard deviation of 0.478. Moreover, it was revealed that the final investment measure enhanced investment decisions by a mean score of 4.70 and standard deviation of 0.481. The estimated cost of investment also facilitates investment decision owing to a mean score of 4.72 and standard deviation of 0.472. Given the mean scores for all the variables were above the neutral point of 3.0, these results indicate that firm profitability promotes investment decisions.

Table 3: Firm Profitability and Investment Decision Making

	N	Mean	Std. Deviation	Std. Error Mean
Expected profit or return influences investment decision making.	101	4.82	.385	.038
The amount of return on investment enhances investment decisions.	101	4.65	.478	.048
Final measure of investment enhances investment decisions.	101	4.70	.481	.048
Estimated cost of investment may facilitate or frustrate investment decisions.	101	4.72	.472	.047

Source: Field data (2023)

4.4 Correlation Analysis

The Pearson results under correlation revealed that, Firm profitability (FIP) and Investment Decisions (IVD) has positive and significance relationship as the correlation coefficient of 0.593 with p value 0.000. Furthermore, the correlation output confirmed that there is a significant and positive relationship between Financial Market Information (FMI) and investment decisions, since correlation coefficient of 0.397 the p-value is 0.00, which is less than 0.05. Moreover, the correlation analysis found a positive and significant relationship between Investors Financial Knowledge (IFK) and Investment Decisions as evidenced correlation coefficient of 0.263 with a p-value of 0.008. These findings imply that all the three alternative hypotheses developed were accepted.

Table 4 Correlations

		IDM	FMI	IFK	FIP
IDM	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	101			
FMI	Pearson Correlation	.397**	1		
	Sig. (2-tailed)	.000			
	N	101	101		
IFK	Pearson Correlation	.263**	.211*	1	
	Sig. (2-tailed)	.008	.034		
	N	101	101	101	
FIP	Pearson Correlation	.593**	.367**	.301**	1
	Sig. (2-tailed)	.000	.000	.002	
	N	101	101	101	101

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

4.5 The influence of each predictor variable on Investment Decision

The model summary Table 5 illustrates the strength of the relationship between the model and Investment Decision. The multiple correlation coefficient ‘R’ depicts the linear correlation between the observed and model-predicted values of the dependent variable (investment decision). The Regression (R) square of 59.3% indicates that there is a good model fit since the R square is greater than 50%. This implies that the specified model places investment decisions at 59.3%.

The regression analysis output confirmed that there is a significant positive relationship between firm profitability (FIP) and Investment Decisions (IVD) since the p-value is 0.000, which is less than 0.05. Furthermore, the regression analysis output confirmed that there is a significant positive relationship between Financial Market Information (FMI) and investment decisions, since the p-value is 0.022, which is less than 0.05. Moreover, the regression analysis found a positive but insignificant relationship between Investors Financial Knowledge and Investment Decisions as evidenced by a p-value of 0.396, which is above 0.05. These findings imply that Firm profitability and Financial Market Information favourably influence Investment Decisions.

Table 5 Regression Coefficients^a

Model	Coefficients ^a					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	-4.576	1.667		-2.746	.007
	FMI	.115	.050	.199	2.321	.022
	IFK	.038	.044	.071	.852	.396
	FIP	.525	.092	.499	5.683	.000

a. Dependent Variable: IVD

4.6 Discussion

4.6.1 The Effects of Financial Market Information on Investment Decision Making

The current study revealed a positive and significant relationship between financial market information and investment decisions. Financial market information parameters that strongly influence investment decisions include precise information sources accessible to investors, information flow, sharing of information on material prices and product costs, and availability of reliable information sources. Simply put, financial market information enhances investment decisions. It also plays a pivotal role in facilitating the smooth operation of capitalist economies through the allocation of resources, creation of liquidity for businesses and enhancement of investment decisions.

Similar, Worzie (2020) supports that financial information aids investors in evaluating the financial conditions of the organization, assess the stewardship of the organization, analyse the efficacy of operations and determine the level of compliance with directives, which in turn inform their investment decisions. The majority of firms are currently utilising accounting data to inform investment decisions to invest in either physical projects or the capital market. Financial market knowledge is essential to making wise investment decisions. This is attributable to the fact that the majority of investors require reliable market information to invest with a positive Net Present Value for anticipated growth and expansion.

Consistent with current study findings, Akims and Jagongo (2017) contend that financial market information, such as the prescribed price and funds mobilised, are essential pieces of knowledge for any investor. According to Calvet et al. (2016), choosing the proper stock among various options at the right moment is crucial for an investor to make a successful investment decision. The investor must assess other investments, set criteria to minimise investments and rank alternatives in order to select superior stocks.

The current study also revealed that financial market information simplifies investment decisions. These findings are in line with those of Riaz and Hunjra (2015), who found that investors use market information such as stock market information, product market price and services to inform their investment decisions. Moreover, Financial marketing information address the need for quicker, yet accurate decision making by investors. Market and customer specific information aids investors in understanding customer needs. This enables them to tailor their products and services to meet these needs, thus enhancing customer satisfaction and loyalty.

Furthermore, Farooq (2015) emphasises that acquiring information about the financial market is crucial for investors since it enables them to understand the customer demand for a good or service that a company is putting forward to the public. Investors can grasp market trends and the necessity of releasing a new product or modifying an existing one to satisfy consumer demand by using financial market information. Similarly, Charles and Kasilingam (2023) indicated that reliable financial market information that is pertinent to the corporate environment, both internally and externally, is essential for making wise investment decisions.

Baihaqqy et al., (2020) also found that financial market information helps managers to recognize marketing trends with respect to prices, product design, packaging, and promotion schemes. The study further found that financial market information facilitates marketing planning and control, and enhances the quality of decision-making. It has also been observed to tap business opportunities, recognize change, enhance marketing intelligence, and in turn facilitate investment decision-making.

4.6.2 The Effect of Investor Financial Knowledge on Investment Decisions

The study's findings on how investor financial knowledge affects investment decision-making showed a positive but weak correlation between investor financial knowledge and investment decisions. The study also discovered that working capital, collaborative short and long-term investments, knowledge of financial planning, and budgeting, and knowledge all improve investment decisions. It is believed that investors with less financial expertise make irrational decisions because they lack the ability to effectively manage their resources. People who are well-versed in finance and possess appropriate decision-making abilities may analyse their options and opt wisely based on their financial position, such as when and how much to save, spend, or invest.

According to Kurniawan et al. (2021), people with financial knowledge are more likely to be interested in investing since they are aware of the advantages of managing investments properly as well as the decisions to be taken. Bhushan (2018) similarly stated that individuals in the high financial literacy group preferred mutual funds, stock market investments, debentures, life insurance, public provident funds, pension funds, bonds, and the commodity market in comparison to their counterparts with low financial literacy.

The study additionally demonstrated that knowledge of financial planning and budgeting improves investing decisions. Similar to this, Roy and Jane (2018) found that when people gain expertise in financial planning and budgeting, they become more financially intelligent and consequently make wise investment decisions. Ansong and Afrizawati (2016) noted that psychological biases like greed, fear, lack of financial literacy, and risk aversion frequently prompt investors to be discontented with their investments.

4.6.3 The Effect of Firm Profitability on Investment Decision Making

The current study discovered a significant and positive relationship between firm profitability and investment decisions. The study additionally demonstrated that indicators including expected profit, return on investment, final investment measure, and predicted cost of investment facilitate better investment decisions. A crucial financial indicator termed "firm profitability" assesses a company's capacity to make profits in relation to its sales, assets, or equity. Profitability is crucial when making investment decisions since it offers important information about the financial performance and health of a firm (Smith et al., 2019).

Smith and Johnson (2019), similarly discovered that firm profitability significantly impacts investment decisions. A company's high profitability is often viewed as an excellent indicator, suggesting that it is deploying its resources effectively and producing returns as anticipated. Investors are more likely to fund businesses with a proven record of accomplishment and profitability because it represents a higher likelihood of earning a competitive return on their investment. Profitability measures can also be used to compare firms operating in the same sector or industry, which helps investors spot possible investment opportunities or gauge the relative strength of their current holdings.

The study also discovered that the expected amount of return has an impact on investment decisions. This finding may be explained by the crucial function that the expected amount of return plays in aiding investors in determining which investment possibilities are the most alluring. According to Johnson et al. (2017), expected return, which is directly related to the degree of risks involved with an investment, is the anticipated financial gain or loss from a particular investment. Investors evaluate the trade-off between prospective rewards and inherent risks using expected return as a yardstick. It acts as a guiding principle for building portfolios, enabling investors to strategically diversify their holdings, align them with clear financial objectives, and maintain a balanced risk-return profile.

These results are also in line with a study by Chen and Li (2019), which discovered that a rise in Return on Investment (ROI) is frequently accompanied by an increase in investor confidence and a readiness to make additional investments. Investors are drawn to possibilities that offer a sizable return by nature, and they are more willing to commit additional resources to those that have a track record of generating a favourable return on investment. Additionally, Wang and Wu (2018) contend that the level of ROI encourages investors to diversify their holdings. Investors develop confidence in their capacity to make wise investment decisions when they see positive returns on their investments. This newfound confidence can drive them to seek out new investment opportunities and diversify their holdings. The study also indicates that higher ROI not only encourage investors to invest more but also leads to increased engagement in financial markets.

Additionally, Patel and Sharma's (2017) research, which revealed that high returns on investments create a positive feedback loop where investors are more likely to reinvest their gains and increase

capital allocation, confirmed the findings of the current study. This behaviour aligns with the premise of compounding returns, where investors understand that a greater ROI increases the possibility for future rewards while simultaneously expanding the initial investment.

The study also discovered a positive relationship between the final investment metric and its influence on investment decisions. According to Wang and Liu (2019), the method used to measure investment has an effect on both portfolio construction and how individual investments are perceived. Investors evaluate and contrast potential investments within their portfolios using a variety of techniques, which aids in their strategic resource allocation. The investment horizon, risk tolerance, and financial goals are only a few examples of the variables that affect measurement method selection. Furthermore, Patel and Sharma (2020) suggested that investors are more likely to make wise decisions that are in line with their financial goals if they have a better awareness of various measurement tools.

The study also discovered that investment decisions are influenced by the projected cost of investment. Similarly, Jagongo (2019) found that investors are comfortable with a lower anticipated cost of investment, made similar findings. This is because a lower initial capital eases investors' financial stress and increases the appeal of the opportunity. Investors are more likely to investigate and consider assets with lower upfront costs because they coincide with risk reduction and capital preservation. On the other hand, Jain (2018) highlights that a higher estimated cost of investment can be discouraging for investors, particularly those with a preference for lower risk opportunities. Investment with substantial initial costs may demand a longer time horizon for investors to recoup their capital, which can deter those seeking quicker returns. This discouragement effect is often more pronounced in volatile or uncertain economic environments.

5.0 Conclusion and Recommendations

Regarding the effect of financial market information on investment decision making, the study concludes that there is positive and significant influence between financial market information and investment decision. The study also concludes that the availability of the right source of information, sharing of information on material prices and production costs, reliable information sources, and financial market information enhance investment decisions. The study further

concludes that financial market information plays a vital role in facilitating the smooth operation of capitalists' economies. The study further concludes that understanding financial planning, budgeting, working capital, and shared short- and long-term investments improves investment decisions. The study draws the conclusion that there is a positive and significant association between firm profitability and investment decision-making. The study also draws the conclusion that factors like expected profit, return on investment, investment ultimate measure, and predicted cost of investment enhance investment decisions. A crucial financial indicator termed "firm profitability" assesses a company's capacity to make profits in relation to its sales, assets, or equity. Lastly, the study recommends strengthening financial market information and creating a positive workplace atmosphere to ensure that firms flourish and make additional investments.

References

- Akims M.A and Jagongo A (2017). Financial Literacy and its Impacts on Investment Decisions in Nigeria. A theoretical perspective. *International Journal of Scientific Research and Innovative Technology vol 4(11)*
- Ansong A (2016). Firm reputation and financial performance of Small and Medium Enterprises. The Ghanaian perspective. *EuroMed Journal of Management, 1(3) page 134-141*
- Avram, E. L., Savu, L., Avram, C., Ignat, A. B., Vancea, S., & Horja, M. I. (2019). Investment decision and its appraisal. *Annals of DAAAM & Proceedings, 17(3)1905-1907.*
- Ayaa M M and Peprah W.K (2021). Gender difference in investment decision-making. Evidence from Ghana. *International Journal of Economics, Commerce and Management Vol 9(7) page 415-424*
- Baker, H. K. & Nofsinger, J.R. (2010). Behavioral Finance: Investors, Corporations and Markets. *John Wiley and Sons.*
- Calvet L, Sodini P and Vallee B (2016). Financial Innovation and Stock Market Participation. *International Journal of Humanities and Social Science, Vol 4(4) page 88-100*
- Chen J and Li Q (2019). The impact of Return on Investment-on-Investment Behavior. *Journal of Finance Research, Vol 42(3) page 123-138*

- Fama F.F and French K.R (2014). The capital asset pricing model. Theory and evidence. *Journal of economic perspective vol 18(3) page 25-46*
- Farooq A (2015). Factors affecting investment decision-making. Evidence from Equity Fund Managers and Individual Investors in Pakistani. *Research Journal of Finance and Accounting Vol 9*
- Gowela I (2020). Factors influencing individual investors' decision in Trading of Shares: The Case of Dar es Salaam Inventory Exchange. Master of Mzumbe University
- Hair, Joseph F., Black., D., Babin, T., Tatham, N., (2006). *Multivariate Data Analysis 6th Edition*. Prentice Hall, Englewood Cliff, NJ.
- Hesniati J and Lasmiyanto H (2022). Analysis of Factors Influencing Investment Decision. *Journal of Poverty Investment and Development vol 4(26) page 44-50*
- Jagongo A (2019). A survey of the factors influencing investment decision. The case of individual investors at the NSE. *International Journal of Humanities and Social Science, Vol 4(4) page 92-102*
- Jain D(2018). Impact of demographic factors on investment decision of investors in Rajasthan. *International Refereed Research Journal, Vol 2(3) page 81-92*
- Johnson B (2020). The art and Science of Investment Decision Making. *Journal of Investment Research Vol 28(3) page 45-62*
- Kefela, G. T. (2010). Promoting access to finance by empowering consumers-Financial literacy in developing countries. *Educational Research and Reviews, 5(5), 205-212.*
- Kodongo, O., Mokoaleli-Mokoteli, T., & Maina, L. N. (2015). Capital structure, profitability and firm value: panel evidence of listed firms in Kenya. *African Finance Journal, 17(1), 1-20.*
- Kurniawan M.I et al., (2021). The impact of Merger Company on the Value of Case Study Stocks on Merger Gojek and Tokopedia. *Proceedings on Engineering, Vol 3(4) page 425-432*
- Monisola A.E and Oladipupo A (2022).Risk and Uncertainty in Investment Decisions. An Overview. *Arabian Journal of Business and Management Review, Vol 2.4*
- Mulyani E, Fitra H and Honesty F.F (2021). Investment Decisions: The effect of Risk Perceptions and Risk Propensity for Beginner Investors in West Sumatra. *Advances in Economics, Business and Management Research, Volume 192*
- Musundi K.M (2018). The effects of financial literacy on personal investment decision in real estate in Nairobi count. Master' Thesis University of Nairobi

- Mutswenje V. S (2019). A survey of the factors influencing investment decision. The case of individual investors at the Nairobi Inventory Exchange. Master' Thesis University of Nairobi
- Mutuku S (2015). The effect of financial literacy on personal investment decision among employees of seventh Day Adventist Church in Kenya. Master' thesis, University of Nairobi
- Oladapo F.A (2015). The impact of Risk on Investment Decision in Nigeria. *Research Journal of Finance and Accounting Vol 6 (23)*
- Osabutey, E. L., & Okoro, C. (2015). Political risk and foreign direct investment in Africa: The case of the Nigerian telecommunications industry. *Thunderbird International Business Review, 57(6), 417-429.*
- Patel R and Sharma A (2017). Psychological Aspects of ROI and Investors Behavior. *Journal of Behavioral Finance, 14(4) page 325-342*
- Patri S and Bagodi V (2021). A study of factors affecting investment decisions in India. The KANO way. *Asia Pacific Management Review Vol 26(4) page 197-214*
- Riaz L and Hunjra A.I (2015). Relationship between Psychological Factors and Investment Decision Making. The Mediating Role of Risk Perception. *Pakistani Journal of Commerce and Social Science 7(6), 17-29.*
- Smith A and Johnson B (2019). The impact of Firm profitability on investment decision making. *Journal of Finance and Investment, Vol 12(3) page 45-58*
- Worzie P (2020). Factors affecting investment decisions among listed firms in the Nairobi Securities Exchange. *International Journal of Engineering Technologies and Management Research Vol 7(2)*



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Assessment of Impact of Reward Practices on Job Commitment in Tanzania A Case of Iringa District

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Abstract

The general objective of this study was to identify impact of rewards practices on Job Commitment in Tanzania. The Study was conducted in Iringa District in secondary schools. Specifically, the study sought to identify the impact of Intrinsic factors and how these can lead to teacher's job commitment and suggestions for improving teacher's job commitment. The study used descriptive research design with quantitative approach. Five (5) secondary schools were selected and involved two (2) heads of Department at District Education Office (DEO), fifty (50) teachers were interviewed to gather information relevant to the study. Structured Questionnaire was used in collecting quantitative data which was later analyzed using SPSS version 20 basing on the objectives of the study. The findings of the study show that both reward in forms of Intrinsic have effect on Job commitment for Teachers in Iringa District. Teachers who are intrinsically motivated may be observed to undertake a task for its own sake, for the satisfaction it provides or for the feeling of accomplishment and self-actualization. The government should also review policies on secondary education for example by making teachers participate indecision making and have a say on matters regarding the management and teacher's personal development.

Keywords: *Reward Practices, Job Commitment, Intrinsic Factors*

1.0 Introduction

The purpose of this study was to assess the impact of the Rewards practice and how do they affect job commitment in Tanzania with emphasis on secondary school teachers. In Tanzania the academic performance is dropping year after year despite of the great efforts done by the Government to raise it. The situation is alarming most in rural public schools (URT, 2013), teachers' motivation has an important influence on students' academic achievement. Motivated teachers play a crucial role in educational attainment because they are responsible for translating policy into action and principles based on practice. Reward plays an important role in creating, building and maintaining the commitment among the employees with the purpose of ensuring high standards of performance and work stability. It is obvious that employee enter the organization with special qualifications and skills, desire and goals are expecting in return work settings where they can use their skills to satisfy their desire and achieve their goals.

Teacher's commitment and effectiveness solely depend on motivation, morale and job satisfaction (Shann, M (2001)). This implies that teacher motivation through rewards practice is important phenomena for all organizations including schools in any country. According to MOEVT Report (2002) "Job satisfaction and the ability of teachers to perform well professionally are key factors in the maintenance of quality of education. Teacher's job commitment helps to realize the attainment of education goals. Many researchers have explored issues related to effects of employed benefits or rewards at individual level. On the whole most studies explored the impact of employee's benefit or rewards in turnover, retention, satisfaction, productivity, mobility, attraction and motivation. Little is known about whether rewards have an impact on organization commitment especially in education sector in Tanzanian context.

Teachers are needed in developing countries such as Tanzania but due to their unattractive remuneration some professional teachers have left the classrooms to seek for greener pastures elsewhere. This study aimed at finding out the impact of rewards practices on job commitment in Tanzania, specifically, to find out intrinsic reward influence job commitment. The specific question being; how do intrinsic rewards influence job commitment for secondary school teachers? In this study intrinsic rewards include pay satisfaction, promotion, training and bonuses

Rewards referred to all valued work outcomes that teachers receive directly or indirectly as a result of task performance and to which teachers have self-control over them. Promotion opportunities referred to satisfaction of employees about organizational policies and their execution, including whether promotions are frequent, fair and based on ability and competence. Most teachers value promotions because they provide opportunities for more personal growth, a better wage and more prestige. Thus, it was measured by the frequency at which an employee is promoted. Pay satisfaction implies the satisfaction with the amount of pay one gets for the amount of work done, as well as satisfaction with pay compared to amount paid in similar organization. The study

expressed pay satisfaction as the employee's feeling about their pay, including whether it is as much as they deserve, secure and adequate for both normal experience and luxury items. However, pay satisfaction was measured by the comparison of the pay that employee want and the pay they received.

2.0 Literature Review

The study is based on Equity Theory that developed by Stace William (2006). The theory defines the rate of reward as people evaluate their inputs and outcome in a given situation and compare them with those of related or reference group. Input is the contributions that people make to the organization, such as skills, time, effort, loyalty, and commitment. Outcome are rewarding that people receive from the organization such as Pay recognition, benefit, feedback and promotions. The equity Theory for teachers' commitment recognizes not only with the absolute amount of rewards they receive for their efforts but also with relationships of this amount to what others receive (Ramlall, 2004).

A study conducted by Sasi (2011) in Tanzania expresses that the causes for better performance in secondary schools to have the better qualified and motivated 18 teachers. Sasi (2011) also commented that Christian secondary schools perform better in ordinary secondary schools examinations because their teachers are motivated by the Christian teachings and satisfied as they believe that not performing their duties is a sin and against the will of God. Teachers' motivation have greater force on achievement of students' academic performance because teachers play essential role in the formidable endeavor through imparting the needed knowledge and ability in the minds of students (Sasi, *ibid*). Thus, the performance of teachers workforce depends on the implementation of Rewards practices to increase the productivity.

2.1 Teachers Reward Practices in Tanzania

Bennel and Mukyanuzi (2005) acknowledged that both government and its international associates recognize the need to develop teacher job satisfaction and motivation in order to raise educational quality. However, the dedication to take the steps that are required to do this is comparatively weak. In part, this is because the focal political pressure is to enlarge secondary school enrolments rather than improve the quality of service delivery. Teachers' organizations assert that salary level is low, often declining in real terms and relative to remunerating in other professions. Where teacher salaries have been eroded, this has often pushed teacher into second job or private tutoring. One of the largest benefits reported by proponents of performance-based rewards is an increase in the motivation of teachers. It is argued that performance-based pay will increase teacher

motivation by adequately rewarding productivity gains. This perspective links the attitude of teachers to student outcomes, by arguing that once the motivation and skill of the teacher determine salaries, teacher quality will be improved. Within the literature, Tomlinson (2000) argues that performance-based pay is about motivating people, and developing performance-oriented cultures. Teachers, who are not motivated by financial rewards, can be encouraged with non-financial rewards (Odden, 2000a). These rewards can include, for example: satisfaction from high student achievement, recognition, influence, learning new skills, and personal growth (Tomlinson, 2000; Odden 2000b). As Odden and Kelley (2002; Kelley, 1999) argue school-based rewards are a means of providing motivation by introducing clear goals to the whole school, and facilitating student achievement. However, from my experience the teacher in some of the Non-Government Secondary schools enjoy better salaries than their colleagues in the Government and Community Government Secondary School.

Rectifying problem with payments and allowances may involve more teacher absence while they take long and frustrating visits to district offices, further reducing motivation. Late and unreliable pay also undermines the development of professional attitudes among teachers. Increasing the reliability of salary payments seems to offer a cost effective method of enhancing teachers' working conditions.

In Tanzania the administration of secondary schools, headed by the headmaster rewards teachers and students every year during speech and prize-giving day. This is to say that teachers work and dedication are been recognizes by both education officers and parents.

2.2 Organizational Climate and Motivation in the Public Sector in Kenya

This organization Climate here refers to the general environment, the organizational culture, the rules and regulations and the terms and conditions of service for public servants. The study focused on the following motivational factors in order to determine the extent to which the climate in the public service in Kenya promotes the concept of motivation hence employee commitment.

2.2.1 Salary Structure

Perhaps the most basic element of motivation in an organization is the salary which a worker takes home. This is accordance with Maslow's hierarchy of needs theory. Salary helps to satisfy the very basic needs of an individual which includes food, clothing and shelter (Johns, 1996, p. 162). The salaries paid to public sector workers in Kenya are extremely low and hardly motivates them. The incidences of industrial unrest are a clear indication of the magnitude of the problem of low wages. For example, the University lecturers went on strike from November 2003 to February 2004 to press for an increase of 200 per cent in their salaries. The government awarded salary increase of 160% per cent which enable a full university professor to earn a maximum consolidated salary of Kenya Shillings 149,543, equivalent to US Dollars 1917 per month, up from US \$ 397 per month with effect from July 2004 (Siringi, 2004).

2.2.2 Rewards that influence Teachers Commitment

Intrinsic Rewards

Intrinsic Rewards are the non-monetary gains that influence people through non material rewards like: giving more responsibility, promotion, praise and recognition in public. However, it implies Indirect Rewards arising from work itself such as: achievements and autonomy. Such Rewards are believed in one way or the other to affect job commitment either negatively or positively.

Maicib,N(2003) Identifies three types of intrinsic rewards that is, the need for power, need for affiliation and need for achievements. If an organization is to make its employees committed on the job the need to give them power in form of promotion and too they should be accepted on the job through recognition.

Armstrong, M (2004) noted that money is not everything for employees for instance they need additional things to make them committed- in their jobs. Likewise, Ministry of Education and Sports in Kenya (2005) observed that money is not everything for employees in various schools and recommends that schools heads need to use additional things to motivate teachers. These might include assignment of special task, delegation of authority and involving them in decision making to raise their sense of belonging and commitment with the school. Teachers need both support and supervision throughout their careers. It would be naïve to assume that teachers can go through a pre – service programme and then perform well for the remainder of their careers without further professional development .Support for teachers can take a variety of forms, including access to resources, in-service courses, and peer groups.

2.2.3 Factors contributing to Job Commitments

In many organizations there is a growing gap between the expectations of employees and what are prepared to do. The reason for this is lack of commitment among employees that is caused by a failure in the part of management, poor supervision by managers to create a committed workforce hence led to loss of valued employees. Employees commitment is determined by a number of factors (variables) namely financial and non-financial rewards, work environment and management style.

Training

Training is perceived both a significant reward in the overall development package offered to the employees and as investment made by an employer which according to Exchange Theory is likely to promote feelings reciprocation and obligation on the part of employees to satisfy with the organization. In order to enhance employee commitment, the organization should ensure that the training package is effective implemented to the employee. This includes the induction course,

orientation, coaching, counseling, on the job Training and other forms of training for employee development.

Promotion Opportunities

Promotion is defined as upward movement in organization hierarchy. Promotion activities refer to the adequacy and satisfaction perceived by the employees as regard to promotional policy of the organization as a regard to opportunities available for advancement.

Pay Satisfaction

Pay satisfaction implies the satisfaction with amount of pay one gets for the amount of work done, as well as satisfaction with pay compare to the amount paid in similar organization. In that sense, Extrinsic Rewards remain the single highest motivator in the following reasons:

- i. Higher wages provide access to physical goods, services and lifestyle greatly valued by majority of organizations;
- ii. Higher income indicates occupational competence and mark of success;
- iii. Money can be simultaneously satisfying many needs, from the basic to the highest level;
- iv. Money is convenient way of measuring the worthy of a job and for indicating the standards expected from a worker.

From this study, pay satisfaction in form of salaries is recognized and bonuses awarded to excellent performance can greatly increase a worker commitment and general morale.

Management Style

The quality of management at all levels in Education Sector ensures the commitment whereby the management effectiveness combines outcomes of the management systems to enhance the competence of individual employee. Due to poor management Teachers in rural areas feel particularly as isolated, which in turn increases the importance of good school management to manage entire workforce for improving productivity.

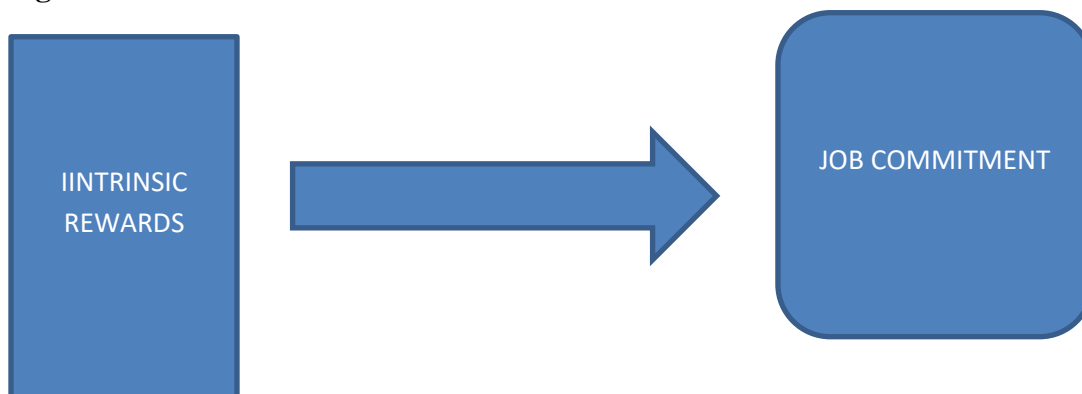
The Management Styles also includes the supervision practices where by it evaluates the effectiveness of employees within an organization. Both horizontally and vertically. It includes aspects like planning measuring, problem solving, communication, advising, guiding, leading and work encouragement done by the top officials or selected persons.

Personal Factors

Employees who are highly conscious outgoing (extroverted) are generally have positive outlook on life (optimistic) are often more inclined to be more committed. Employees who are team

oriented and tend to place the group above their own typically also engage in a more citizenship behaviours. (Bolino,T(2003)

Figure 2.1: A Model on Job Commitment



Adopted from Musaaazi Nakaciwa, 2005

3.0 Methodology

The study used descriptive research method in collecting data, based on quantitative approach. Measuring or examining teacher’s job commitment required a scientific instrument to gather data from the selected sample population. In this case, a five (5) Likert-type scale instrument is suitable for this particular study. Quantitative research method minimizes the chances of personal biases. The quantitative approach was employed by use of numerical expressions and statistical tools to analyze data and generalize findings. Information was collected through self-administered questionnaires, interviews with key individuals and review of documents relevant to study.

Table 3.1: Data collection Framework Strategy.

S/N	Variable	Measurement/Indicator	Types of Data	Carriers of Data
1	Training Opportunity	- Availability of Training Practices - Acquisition of Skills/Knowledge	- Academic and Professional Qualification - Competence in Performance	- Staff Development Plan - Organization Performance Report
2	Pay Satisfaction	- Adequacy - Comparison - Behavior Change	- Needs sustainability - Relative with other sectors	- Payroll - Salary Slips - Employee Monthly Budget

S/N	Variable	Measurement/Indicator	Types of Data	Carriers of Data
3	Promotion Opportunity	- Frequency - Fairness - Nature	- Time Lapse - General execution - Basis for promotion	- Staff Development Plan (2008 – 2012) - Organizational work Reports (2008 – 2012)

Some respondents were interviewed. The interview guide composed both structured and non-structured questions in order to get more insight of the respondent's information about the issue to study. The study was carried out in Iringa District in Iringa Region. The district 36 secondary schools whereby 28 secondary schools are owned by the Government and 8 secondary schools are owned by private Institutions (source: District Education Office Department). The rationale for select is a little study of the said topic here been undertaken in the area The study was conducted to five (5) selected secondary schools' teachers in Iringa District namely; Kalenga, Kidamali, Isimila, Tosamaganga and Nyerere High School. Having 560 teachers' schools were concentrated as sample study due to constraints on time and familiarity with the schools. Thus, teachers in both categories administrative and teaching positions who have worked with the various schools for at least one year or more were targeted. Those who have worked in schools for less than one year were excluded to be part of the study.

However, the District Executive Director, Education Officers and School inspectors were interviewed since they are the supervisors who ensure the service delivery at secondary schools are improved and responsible for delivering information to other government officials. The researcher conducted a stratified sampling to obtain a representative sample. This is because a sample does not constitute a homogeneous group. With the confidence level of 95% and confidence interval of 12.5% the sample size for a study was 52 respondents derived from a population of 560 Secondary School teachers, 10 District Education Officers, 10 School Inspectors in Iringa District. Thus the required sample was as shown in the below table.

Table 3.4 Requested sample for Study

Employee strata	Total Population	Sample Size
Teachers	560	50
Education Officers	10	1
School Inspectors	10	1

Source: Researchers field work, 2023.

Reliability and Validity Instruments

Validity and Reliability are the most important criteria for evaluating quantitative instruments.

Validity

This refers to the degree to which an instrument measures what is intended to be measured this study the validity of instruments was ensured by including all the key concepts relevant to the research topic. Besides that, the questions were formulated according to the components of the study model.

Reliability

Reliability of an instrument occurs when various methods exist for assessing the stability aspects which concerns the extent to which a questionnaire will provide the same results on repeated administration. The Cronbach's Alpha test was used to test for consistency of instrument. This was ensured by considering the satisfactory value that is required to be more than 0.7 for the scale to be reliable.

Table 3.5 Reliability measurement for the Questionnaire sections

Reliability Statistics

Cronbach's Alpha
.864

No. of Items
31

Source: Field Survey, 2023

According to Cronbach's Alpha co-efficient, the instrument was reliable since all the subsections of the instrument had Alpha values above 0.7. In other words, the current study involved a large number of teachers and this helped to make the instrument reliable.

4.0 Findings

Description of respondents' background

This section gives a description of the background of respondents in the following arrangement; designation, sex, age, professional grade and length of service as a teacher.

(i) Respondents by their Designations

Table 4.1: Demographic Information

Distribution of respondents according to their designation

Position	Frequency	Percent
Headmaster/Headmistress	6	12.0
Head of Department	13	26.0
Other/Teaching staff	31	62.0
Total	50	100.0
Distribution of Respondents by Sex		
Male	34	68.0
Female	16	32.0
Total	50	100.0
Respondents by Age		
20 – 30	15	30.0
30 – 40	19	38.0
40 – 50	14	28.0
More than 50	2	4.0
Total	50	100.0
Respondents by Level of Education		
Diploma	17	34.0
Bachelor	33	66.0
Total	50	100.0
Working Experience		
0 -10	14	28
10 - 20	10	20
20 -30	18	36
More than 30	8	16
Total	50	100

Table 4.1 shows that majority of respondents 31 (almost 62%) were class teachers and the least were Headmasters/Headmistress with 6 (Almost 12%). The implication of this is that, teaching staff was more willing to give information than other categories of respondents.

(ii) Respondents by Sex

According to Table 4.1 most of the respondents were male with 68%. In the discussion with some teachers, it was noted that male teachers are more willing to work in rural Secondary Schools despite the low Salaries than the female teachers.

(iii) Respondents by Age

From the Table 4.1 it is indicated that majority of the respondents 19 (38%) were of age 30-40 implying that most teachers in Secondary Schools in Iringa District are matured and committed on their jobs. Few of the respondents were in the age group more than 50. This implies that there are few old teachers in the District Schools as their level of commitment goes down suggesting that the Government should enhance teachers' job commitment to retain them in their Schools.

(iv) Respondents by level of Education

Table 4.1. shows that majority of the respondents were Bachelor graduates' teachers (66%) followed by Diploma holder Teachers (34%) this implies that nowadays most of the teachers in most secondary are qualified enough to be conscious with their rights. In the discussion with some of the respondents it was revealed that more qualified teachers were not committed enough on their jobs.

(v) Respondents by Working Experience

Teachers at Selected Secondary Schools were asked to indicate the period for which they had taught in school. It turned out that 18(36%) of the respondents indicated that they had taught for a period between 20 to 30 years, 14(28%) of the respondents had taught for a period between 0-10 years, 10(20%) had taught for a period between 10 - 20 years and that 8(16%) had taught for a period more than 30 years. From the findings of the study, it can be said that majority of teachers interviewed had taught for a long period of time, they may be satisfied with their jobs due to improved Rewards practices in the schools they work.

The findings of the study are supported by Esther and Marjon (2008) did a study in Netherlands on motivation to become a teacher and its relationships with teaching self-efficacy, professional commitment and perceptions of the learning environment. They found that teachers' ratings of the academic assessment during their training related significantly to teachers' motivation based on prior learning and teaching experiences and teachers' motivations based on teaching as a fallback career.

In order to justify the findings on variables on Dependent Variable on Job commitment at work only five (5) observations were displayed to show the findings as shown in Table 4.2

Table 4.2 Table showing descriptions of Dependent Variable (Job Commitment)

CODE	ITEM	RESPONSE	FREQUENCY	%	MEAN	S. D
JOC 1	Willingness to put more efforts for School Success	Strongly	8	16	2.8	1.229
		Disagree				
		Disagree	14	28		
		Neutral	13	26		
		Strongly	10	20		
		Agree	5	10		
		Agree				
JOC 2	Tanzania Teaching as A great Deal	Total	50	100	2.48	1.359
		Strongly	17	34		
		Disagree				
		Disagree	10	20		
		Neutral	9	18		
		Strongly	10	20		
		Agree	4	8		
JOC 3	Coverage of Syllabus time	Agree			3.70	.886
		Total	50	100		
		Strongly	4	8		
		Disagree				
		Disagree	17	34		
		Neutral	19	38		
		Strongly	14	28		
JOC 4	Attendance at Staff meeting	Agree	10	20	3.52	1.035
		Agree				
		Total	50	100		
		Strongly				
		Disagree	7	14		
		Disagree	17	34		
		Neutral	15	30		
JOC 5	Attending to student Needs	Strongly	10	20	4.02	.869
		Agree				
		Agree	50	100		
		Total				
		Strongly	1	2		
		Disagree				
		Disagree	1	2		
Neutral	9	18				
Strongly	24	48				
Agree	15	30				
Agree						
Total	50	100				

CODE	ITEM	RESPONSE	FREQUENCY	%	MEAN	S. D
JOC 6	Proud to be part and parcel of School	Strongly	6	12	2.88	1.223
		Disagree				
		Disagree	17	34		
		Neutral	9	18		
		Strongly	13	26		
		Agree	5	10		
		Agree				
JOC 7	Preparation Lesson Plan on time	Total	50	100	3.68	1.039
		Strongly	1	2		
		Disagree				
		Disagree	6	12		
		Neutral	13	26		
		Strongly	18	26		
		Agree	12	24		
JOC 8	Circumstances to leave the Job	Agree			2.96	1.245
		Agree				
		Total	50	100		
		Strongly	4	8		
		Disagree				
		Disagree	20	40		
		Neutral	7	14		
JOC 9	I choose Teaching over other Jobs	Strongly	12	24	2.44	1.387
		Agree	7	14		
		Agree				
		Total	50	100		
		Strongly	17	34		
		Disagree				
		Disagree	14	28		
JOC 10	I don't have much to gain with the Job	Neutral	3	6	3.16	1.346
		Strongly	12	24		
		Agree	4	14		
		Agree				
		Total	50	100		
		Strongly	8	16		
		Disagree				
JOC 11	I am concerned with student performance	Disagree	10	20	3.76	1.041
		Neutral	5	10		
		Strongly	20	40		
		Agree	7	14		
		Agree				
		Total	50	100		
		Strongly	2			

CODE	ITEM	RESPONSE	FREQUENCY	%	MEAN	S. D		
JOC 12	Preparation Scheme of Work on time	Strongly	16					
		Agree	14					
		Agree						
		Total	50					
		Strongly						
		Disagree						
		Disagree						
		Neutral	14	28	4.08	.804		
		Strongly	18	36				
		Agree	18	36				
JOC 13	Decision to work in Secondary School as a mistake	Agree						
		Total	50	100				
		Strongly	10	20				
		Disagree						
		Disagree	8	16				
		Neutral	9	18	3.08	1.412		
		Strongly	14	28				
		Agree	9	18				
		Agree						
		Total	50	100				
JOC 14	Commitment to my job as teacher	Strongly	12	24				
		Disagree						
		Disagree	15	30				
		Neutral	5	10	2.68	1.362		
		Strongly	13	26				
		Agree	5	10				
		Agree						
		Total	50	100				
		JOC 15	Not committed due to poor remuneration	Strongly	8	16		
				Disagree				
Disagree	8			16				
Neutral	3			6	3.34	1.394		
Strongly	21			42				
Agree	10			20				
Agree								
Total	50			100				
JOC 16	Love to teach because of Rewards given			Strongly	13	26		
				Disagree				
		Disagree	16	32				
		Neutral	6	12	2.56	1.343		
		Strongly	10	20				
		Agree	5	10				
		Agree						
		Total	50	100				

CODE	ITEM	RESPONSE	FREQUENCY	%	MEAN	S. D
JOC 17	Acceptance of Duties	Strongly Disagree	8	16	2.94	1.219
		Disagree	8	16		
		Neutral	19	38		
		Strongly Agree	9	18		
		Agree	6	12		
		Agree				
		Total		50		

i) Job commitment among Secondary Teachers

Secondary Teachers were asked to indicate whether they were willing to put efforts for school success. The study found that 14(28%) of the respondents indicated that they disagree; while 13(26%) indicated neutral response; 10(20%) strong agreed; and 8(16%) strongly disagree. This indicates that the reward practices to teachers are not practical. Carraher et al (2006) advocates that there should be an effective reward system to retain the high performers in the organization and reward should be related to their productivity.

ii) Perception towards Teaching Profession

During the field work teachers were asked to whether Teaching as a Great deal for them. Findings show that 17(34%) of teachers Strongly Disagree; 10(20%) strongly agree; and 9 (18%) had neutral response. The study implies teachers and community they live with despise the teaching profession. In that sense, Extrinsic Rewards remain the single highest motivator in the following reasons:

- (i) Higher wages provide access to physical goods, services and lifestyle greatly valued by majority of organizations;
- (ii) Higher income indicates occupational competence and mark of success;
- (iii) Money can be simultaneously satisfying many needs, from the basic to the highest level;
- (iv) Money is convenient way of measuring the worthy of a job and for indicating the standards expected from a worker.

iii) Coverage of Syllabus on time

Secondary Teachers were asked to indicate whether they cover syllabus on time. The study found that 24(48%) of the respondents indicated that they agree; while 21(42%) indicated disagree response; This indicates that the teachers at schools work to meet their goals with expectations to be motivated.

iv) Attendance on Staff meetings regularly

Respondents were asked to indicate whether they had attended the staff meetings regularly organized by either Heads of Schools or District Directors. Only 25(50%) of the respondents indicated that they had attended such meetings while 8(16%) indicated that they had not attended such meetings. From the findings of the study, it can be said that most of the teachers in secondary schools in Iringa District attended organized meetings regularly. This makes them to be compatible with organization mission.

v) Circumstances to leave the Teaching Job

Teachers were asked to indicate whether they were able to leave their current job as a teacher. The study found that 24(48%) of the respondents indicated that they disagree on leaving job while 19(38%) indicated that they agree on leaving the job and 7(14%) had neutral opinion. This indicates that the reward to teachers is effective. As Carraher et al (2006) advocates that there should be an effective reward system to retain the high performers in the organization and reward should be related to their productivity.

Description of Independent Variables

This part shows the justification of the findings on variables on Independent Variable on Rewards Practices as motivator factor for Job commitment at work places. This is detailed below as follows:

- (i) The statistical data from the table 4.3 indicated that, most respondents agreed with getting good salary 20(40%) followed by 18 (36%) who disagree with getting good salary. In order to maximize the performance of the employee's organization must make such policies and procedures and formulate such reward system (salary and other incentive packages) under those policies and procedures which increase employee satisfaction and motivation.
- (ii) On item two of the table, 21(42%) agreed on getting salary on time compared to 13(26%) who disagreed on getting salary on time. Therefore, it is evident that teachers get salaries on time. The situation of getting salary on time has positive implication to commitment at work
- (iii) Item three (3) most respondents disagreed on salaries to be equivalent to Qualification 28(56%) followed by 14(28%) who agreed that salaries tallies with Qualification. This implies that there is a tendency of delaying promoting teachers at time.
- (iv) Item four (4) the respondents rated high on getting increment every year where 28(56%) agreed compared to 13(26%) who disagreed with getting increment every year. This is justified as the Government efforts to promote teachers in terms of remunerations is obvious.

- (v) On item five (5) of the table; most of the respondents disagreed with getting promotion regularly where 21(42%) disagreed compared with 14(28%) who agreed. Thus, it shows that there is a little consideration for teachers in terms of promotions and consideration of level of education for those acquired further training.
- (vi) Item six (6) most respondents Disagreed with availability of training opportunities at the District 21(42%) disagreed compared with 14(28%) who agreed.
- (vii) Item seven (7) of the construct expressed the working condition that support job commitment most respondents disagreed with availability of working condition that support job commitment 26(52%) followed by 14(28%) who had no suggestions on the variable compared to those agreed 10(20%). Thus, there is a need to ensure adequate facilities and resources for teaching and learning, that the school is convenient, that the school environment is peaceful and conducive for leaning.
- (viii) Item eight (8) most respondents disagreed with the availability of management style that support creativity in the schools 21(42%) disagreed, followed by those with neutral 20(40%) and 9(18%) who agreed that at school there is practical management style that support creativity. The quality of management at all levels (School and District headquarters) is critically important in ensuring that teachers are adequately motivated.

Table 4.3: Statistical distribution of independent Variables (Rewards practices)

Code	Item	Response	Frequency	Percent	Mean	Standard Deviation
RP 01	I receive Good Salary	Strongly Disagree	5	10	3.18	1.335
		Disagree	13	26		
		Neutral	12	24		
		Strongly Agree	8	16		
		Agree	12	24		
		Total	50	100		
		RP 02	I get Salary on time	Strongly Disagree		
Disagree	8	16				
Neutral	14	28				
Strongly Agree	14	28				
Agree	9	18				
Total	50	100				
RP 03	The salary tallies with Qualification	Strongly Disagree		13	26	2.60
		Disagree	15	30		
		Neutral	8	16		

Code	Item	Response	Frequency	Percent	Mean	Standard Deviation
RP 04	I get increment every year	Strongly Agree	7	14	3.58	1.311
		Agree	7	14		
		Total	50	100		
		Strongly Disagree	3	6		
		Disagree	10	20		
		Neutral	9	18		
		Strongly Agree	11	22		
		Agree	17	34		
		Total	50	100		
		RP 05	I get Promotion regularly	Strongly Disagree		
Disagree	18			34		
Neutral	15			30		
Strongly Agree	7			14		
Agree	7			14		
Total	50			100		
Strongly Disagree	4			8		
Disagree	17			34		
Neutral	15			30		
Strongly Agree	7			14		
RP 06	Opportunities to be trained	Agree	7	14	2.94	1.175
		Total	50	100		
		Strongly Disagree	9	18		
		Disagree	17	34		
		Neutral	14	28		
		Strongly Agree	4	8		
		Agree	6	12		
		Total	50	100		
		Strongly Disagree	10	20		
		Disagree	11	22		
RP 07	Working condition provide challenge	Neutral	20	40	2.62	1.227
		Strongly Agree	5	10		
		Agree	4	8		
		Strongly Disagree	4	8		
		Disagree	11	22		
		Agree	4	8		
RP 08	Permission for Creativity	Agree	4	8	2.64	1.156
		Total	50	100		
		Strongly Disagree	10	20		
		Disagree	11	22		
		Neutral	20	40		
		Strongly Agree	5	10		
		Agree	4	8		
		Total	50	100		

Code	Item	Response	Frequency	Percent	Mean	Standard Deviation
		Total	50	100		

Variations of Job Commitment with other Variables

The Research Study apart from determining the relationships between Dependent and Independent Variables it investigated the relationships between some concepts to see if they contribute to the level of Job commitment as detailed below.

Variations of Job Commitment with Position

The Study aimed to find out whether commitment varied with Positions of respondents.

Table 4.4 shows pertinent ANOVA results:

Position	N	Mean	Standard Deviation	F	Sig - 2
Headmaster/Headmistress	6	4.17	.408		
Head of Department	13	3.31	1.437	10.353	.000
Other	31	2.13	1.118		
Total	50	2.68	1.362		

The mean from the observations suggests that respondent's job commitment differ slightly by positions even though Headmaster/headmistress rates the highest (4.17). The F value is 10.53 whose significance. 000 is less than the expected value of 05 signifies that there is rejection of the hypothesis that there is significant relationship between position and job commitment.

Variations between Working experience and Job Commitment

The Study was also targeted to find out whether commitment varied with experience of teachers. This is shown by ANOVA as follows.

Table 4.5: Variations between Working experience and Job Commitment

Working Experience	N	Mean	Standard Deviation	F	Sig - 2
0 - 10	14	2.71	1.684		

10 – 20	10	2.70	1.160	1.544	.216
20 – 30	18	2.28	1.227		
More than 30	8	3.50	1.069		
Total	50	2.68	1.362		

From the table 4.5 the study findings show that the job Commitment did not differ much by working experience except for working experience of more than 30 (Mean 3.50). The F Value results to 1.544 with significant value 216 which is greater than the threshold value of .05 hence the variables are not significant.

Variations of Job Commitment with Age

Table 4.6: Variations of Age with Job Commitment

Age group	N	Mean	Standard
20 – 30	15	2.47	1.598
30 – 40	19	2.21	1.134
40 – 50	14	3.50	1.092
More than 50	2	3.00	1.414
Total	50	2.68	1.362

Source: Field Survey, 2013

Test of Homogeneity of Variances

Levene Statistic	Df 1	Df 2	Sig.
1.819	3	46	.157

ANOVA

Commitment to my job as a Teacher

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	14.489	3	4.830	2.908	.045
Within Groups	76.391	46	1.661		
Total	90.880	49			

The results from the tables show that there is equal variance due to having significance value greater than .05. However, the significance value .045 implies the statistically significant between age of the respondents and the commitment at job.

5.0 Conclusions and Recommendations

5.1 Conclusion

From the discussion, the following conclusions were drawn from the hypotheses and descriptive study. Intrinsic rewards in form of management style, working condition, training significantly affect commitment of Secondary School teachers in Iringa District.

However, the study found that:

- (i) Education management at various schools, policymakers, and other stakeholders in the education field should know that rewards are not the sole factor that enhances commitment of teachers. They should instead look for other ways of raising commitment of teachers.
- (ii) Policymakers, administrators and headmasters of different Secondary Schools should reward teachers through both intrinsic and extrinsic rewards to realize teachers' job commitment in Schools.
- (iii) Job Commitment is not only an important topic to the Secondary School teachers but also to the Elementary, Primary School and higher Institutions of Teachers. Future studies should be done among Elementary/Kindergarten, Primary School and higher institutions teachers.

5.2. Recommendations

In order to ensure the effective performance in education sector teachers have to be taken as important group in Tanzania. The recommendations in the following four key areas are identified as top priorities in this study; better incentives for rural teachers, improved conditions of service, attractive career structures, and increased teacher and school accountability.

Incentives for Rural Teachers

First and foremost, major improvement in the incentives for teachers in rural Schools is identified as the top priority in nearly every School. Unless this is done, the large majority of students who live in rural areas will continue to receive poor quality education.

In the short term, the provision of good quality housing with running water and electricity for teachers is probably the most cost-effective way of attracting and retaining teachers at hard-to-staff rural Schools. However, rural allowances would have to be at least half of basic pay in order to staff Schools with qualified and able teachers. In the longer-term, the staffing crisis in rural Secondary Schools can only be solved once government makes concerted efforts to promote the economic and social development of rural areas.

5.3.2. Improved Conditions of Service

With reference to condition of service it is recommended that teachers pay should be significantly increased. The core of the teacher motivation crisis, especially in sub-Saharan Africa, is that teachers pay is seriously inadequate. Though in Tanzania there is some improvement in pay. Most Secondary School Teachers, particularly in relatively high-cost Urban Centers like Dar-es-Salaam are simply unable to meet their basic household needs. As a result, many of them are forced to find other sources of income. Those who cannot earn additional income slide into poverty. Secondary School teacher salaries in Tanzania should be at least doubled.

5.3.3. Attractive Career Structures

Attractive career structures for Secondary School Teachers need to be urgently introduced with regular promotions based on clearly specified and transparent performance-related criteria. Teachers who work at hard-to-staff rural Schools should also be given accelerated promotion and/or preferential access to qualification upgrading opportunities.

5.4. Recommendation to the Government.

Results reported in the current study have several policy and practical implications for education management. The decision to remain with a teaching job is largely determined by an employees' level of commitment to the job. Thus, the policy makers should ensure that:

- (i) Ministry of education and Vocational Training (MOEVT) has to formulate policies that would make termination of organizational membership costly to employees such as competence pay, skill-based pay and knowledge-based pay.
- (ii) Pay level and pay structure policies should be designed to achieve both external and internal consistency. The frequent use of salary surveys will guide the Teachers on what their pay levels are relative to those of others in the industry.
- (iii) An extrinsic reward is a proxy for other motivational needs such as status and esteem because its power is in what it can buy.
- (iv) Management of education can also provide management style, which can inspire people with a vision for the future and develop processes and an organizational climate that encourages people's growth in terms of skill and higher levels of achievement. Management should also be able to receive and use employee ideas and a suggestion scheme would be appropriate practice.
- (v) Training and development has a significant impact on organizational commitment. Employees tend to interpret training and development activities as an indication of the organization's commitment to its human resources resulting in a strong psychological bonding and a willingness to contribute more to the organizations objectives. Thus

organizational – specific skills are likely to induce continuance commitment rather than affective commitment because such skills constitute sunken costs in terms of time and effort that an employee stands to lose if they leave the organization.

- (vi) The ministry of Education and Vocational Training should establish clear lines of communication to allow for free flow of information among the teachers and their immediate supervisors.

References

- Abdullah, A. A., & Wan, H. L. (2013). Relationships of non-monetary incentives, job satisfaction and employee job performance. *International Review of Management and Business Research*, 2(4), 1085.
- Ajila, C., & Abiola, A. (2004). Influence of rewards on workers performance in an organization. *Journal of Social Science*, 8(1), 7-12.
- Armstrong, M. (2009). *Armstrong's handbook of performance management: an evidence-based guide to delivering high performance*. Kogan Page Publishers.
- Armstrong, M., & Stephens, T. (2005). *A handbook of employee reward management and practice*. Kogan Page Publishers.
- Cameron, J. and Pierce, W.D. (1994) 'Reinforcement, Reward, and Intrinsic Motivation: A Meta - analysis', *Review of Educational Research*, 64: 363–423.
- Christensen Hughes, J., & Rog, E. (2008). Talent management: A strategy for improving employee recruitment, retention and engagement within hospitality organizations. *International Journal of Contemporary Hospitality Management*, 20(7), 743-757.
- Costen, W. M., & Salazar, J. (2011). The impact of training and development on employee job satisfaction, loyalty, and intent to stay in the lodging industry. *Journal of Human Resources in Hospitality & Tourism*, 10(3), 273-284.
- Danish, Q. R., Usman, A. (2010): Impact of Reward and Recognition on Job Satisfaction and Motivation: An Empirical Study from Pakistan. *International Journal of Business and Management*, Vol. 5, No. 2, pp.159
- Edirisooriyaa, W. A. (2014, February). Impact of Rewards on Employee Performance: With Special Reference to ElectriCo. In *Proceedings of the 3rd International Conference on Management and Economics* (Vol. 26, p. 27).
- Eisenberger, R., & Rhoades, L. (2001). Incremental effects of reward on creativity. *Journal of personality and social psychology*, 81(4), 728.
- Eckerman, G. (2006). Job enrichment and staff motivation. *Human Resource Management*, 183-

191.

- Farrell, D., & Rusbult, C. E. (1981). Exchange variables as predictors of job satisfaction, job commitment, and turnover: The impact of rewards, costs, alternatives, and investments. *Organizational behavior and human performance*, 28(1), 78-95.
- Harpaz, I. (1990). The importance of work goals: An international perspective. *Journal of international business studies*, 75-93.
- Islam, R., & Ismail, A. Z. H. (2008). Employee motivation: a Malaysian perspective. *International Journal of Commerce and Management*.
- Kanungo, R. N. (1982). Measurement of job and work involvement. *Journal of applied psychology*, 67(3), 341.
- Klein, H. J., Wesson, M. J., Hollenbeck, J. R., & Alge, B. J. (1999). Goal commitment and the goal-setting process: conceptual clarification and empirical synthesis. *Journal of applied psychology*, 84(6), 885.
- Kothari, C. R. (2004). *Research methodology: Methods and techniques*. New Age International.
- Moran, R. T., Abramson, N. R., & Moran, S. V. (2014). *Managing cultural differences*. Routledge
- Morgan, H., & Jay, J. K. (2011). Preparing for the talent exodus ahead. *Leader toLeader*, 2011(62), 33-38
- Mugenda, O., & Mugenda, A. G. (2003). *Research methods: Quantitative and Qualitative methods. Revised in Nairobi*.
- Murphy, M., Arenas, D., & Batista, J. M. (2015). Value creation in cross-sector collaborations: The roles of experience and alignment. *Journal of business ethics*, 130(1), 145-162.
- Nongo, E. S., & Ikyanyon, D. N. (2012). The influence of corporate culture on employee commitment to the organization. *International Journal of Business and Management*, 7(22), 21-28.
- Podsakoff, P. M., Todor, W. D., & Skov, R. (1981). Effects of Leader Reward and Punishment Behaviors on Subordinate Performance and Attitudes. In *Academy of Management Proceedings* (Vol. 1981, No. 1, pp. 151-155). Academy of Management.
- Rhoades, L., Eisenberger, R., & Armeli, S. (2001). Affective commitment to the organization: The contribution of perceived organizational support. *Journal of applied psychology*, 86(5), 825.
- Scholl, R. W. (1981). Differentiating organizational commitment from expectancy as a motivating

- force. *Academy of management review*, 6(4), 589-599.
- Seyyed Javadin, S. R., Farahi, M., & Taheri Attar, G. (2008). Understanding the impact of organizational justice dimensions on different aspects of job and organizational satisfaction. *Journal of Management*, 1(1), 55-70.
- Sims, H. P. (1980). Further thoughts on punishment in organizations. *Academy of Management Review*, 5(1), 133-138.
- Sivo, S. A., Saunders, C., Chang, Q., & Jiang, J. J. (2006). How low should you go? Low response rates and the validity of inference in IS questionnaire research. *Journal of the association for information systems*, 7(1), 17.
- Stebbins, R. A. (1970). On misunderstanding the concept of commitment: A theoretical clarification. *Social Forces*, 526-529.
- Wambugu, A., Onsomu, E., Munga, B., & Onsomu, E. (2010). Unemployment in Kenya: A Situational Analysis.
- Yapa, S. (2002). An examination of the relationship among job satisfaction, rewards and organizational commitment. *Journal of the management science*, 1(1), 46-66.
- Zain, Z. M., Ishak, R., & Ghani, E. K. (2009). The influence of corporate culture on organisational commitment: A study on a Malaysian listed company. *European Journal of Economics, Finance and Administrative Sciences*, 17(17), 16-26.
- Zia Ur Rehman, M .and Riaz Khan, M .and Ali Lashari, Z&J. (2010), Effect of Job Rewards On Job Satisfaction, Moderating Role of Age Differences: Empirical evidence from Pakistan, *African Journal of Business Management*, Vol. 4(6), pp. 1131-39



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