

**FACTORS AFFECTING VALUE ADDED TAX COMPLIANCE AMONG
MECHANICS IN NAIROBI COUNTY**

**BY
ELIUD LUTOMIA**

**A RESEARCH PROJECT SUBMITTED TO THE SCHOOL OF BUSINESS
AND ECONOMICS, DEPARTMENT OF ACCOUNTING AND FINANCE IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD
OF THE DEGREE OF MASTER IN TAX AND CUSTOMS
ADMINISTRATION (TAX ADMINISTRATION)**

MOI UNIVERSITY

2021

DECLARATION

Declaration by Candidate

This research project is my original work and has not been presented for a degree in any other University or institution of Higher Learning. No part of this research project may be reproduced without the prior written permission of the author and/or Moi University.

Signature: _____ Date: _____

Eliud Lutomia

KESRA105/0131/2019

Declaration by the Supervisors

This research project has been submitted with our approval as university supervisors.

Signature: _____ Date: _____

Dr. Josephat Cheboi Ph.D.

Department of Accounting & Finance

Moi University

Signature: _____ Date: _____

Dr. Bernard Baimwera

Department: Dean of Studies

Kenya School of Revenue Administration

ACKNOWLEDGEMENT

I wish to acknowledge Dr. Bernard Baimwera, and Dr. Josephat Cheboi, Ph.D., my supervisors, for their professional guidance and critical evaluation of this academic piece of work. I recognize my lecturers as well for taking me through my course work, including sharpening my social research skills.

ABSTRACT

Taxation of the informal economy has been a challenge faced by many countries in various regions of the world. Even, though many countries especially the developing economies struggle with meeting the demand for more revenue generation, the informal economy has been left untapped appropriately. Several studies have been carried in this area and still, there is no better and agreeable way on how to tax the informal economy which seemingly has the potential to plug the revenue gap. For this reason, the study aimed at investigating the effect of value added tax on VAT compliance among mechanics in Nairobi County. The specific objectives of the study were to investigate the effect of VAT knowledge on VAT compliance, the effect of VAT imposition procedures on VAT compliance, and the effect of tools and systems on VAT compliance among mechanics in Nairobi County. The study was anchored on the ability to pay theory and systems theory. The study adopted an explanatory research methodology. The target population was a total of 428 from where a sample of 207 owner mechanic garages was drawn using the Brigit and Lewin formula. Both cluster and systematic sampling techniques were used to reach the target respondents. Primary data was collected using a self-administered questionnaire on a 5-point Likert scale with closed-ended questions. Study instrument was subjected to validity, reliability and statistical assumptions of regression tests before data were analyzed. Descriptive data was then presented in descriptive tables while inferential statistics were analyzed using regression and correlation analysis. Multiple regression analysis was established with a positive insignificant linear relationship between VAT knowledge on VAT compliance among mechanics in Nairobi County with evidence of beta 0.074, $p=0.294$, $p>0.05$. However, there was a positive significant linear effect of VAT imposition procedures on VAT compliance among mechanics in Nairobi County with evidence of beta -0.235, $p=0.003$, $p<0.05$ and also a positive significant linear effect of value added tax administration tools and systems on VAT compliance among mechanics in Nairobi County with evidence of beta 0.187, $p=0.017$, $p<0.05$. The findings further revealed that VAT knowledge, VAT imposition procedures, and VAT tools and systems had a positive effect on VAT compliance up to 24.5% or ($R=0.245$). It was also revealed that VAT knowledge, VAT imposition procedures, and VAT tools and systems caused a variation of 6% or ($R^2=0.060$ and adjusted $R^2=0.045$) on VAT compliance. The study concluded that VAT imposition procedures and VAT administration tools and systems played a significant role in the VAT compliance among mechanics in Nairobi County while VAT knowledge was not found to play a significant role in the VAT compliance among mechanics in Nairobi County. The study recommended that KRA should focus more on VAT imposition procedures and VAT administration tools and systems to achieve tax compliance effectively and efficiently. The study findings could be used by the government to better understand and design strategies that are aimed at bringing the informal sector into the active taxation bracket for improved VAT compliance and revenue performance. Future studies should put more emphasis on social and economic factors that may affect VAT compliance among mechanics and to a wider population.

TABLE OF CONTENTS

DECLARATION	ii
ACKNOWLEDGEMENT	iii
ABSTRACT.....	iv
TABLE OF CONTENTS.....	v
LIST OF TABLES	ix
LIST OF FIGURES	x
ABBREVIATIONS AND ACRONYMS	xi
OPERATIONAL DEFINITION OF TERMS	xii
CHAPTER ONE	1
INTRODUCTION.....	1
1.1 Background of the Study	1
1.2 Problem Statement	8
1.3 General Objective of the Study	10
1.3.1 Specific Objectives of the Study.....	10
1.4 Research Hypothesis	11
1.5 Significance of the Study	11
1.6 Scope of the Study	12
CHAPTER TWO	13
LITERATURE REVIEW	13
2.1 The Concept of VAT Compliance	13
2.2 Theoretical Framework	16
2.2.1 Ability to Pay Theory.....	16
2.2.2 The Systems Theory	18
2.3 Empirical Review of Variables	22
2.3.1 VAT Compliance	22
2.3.2 VAT Knowledge and VAT Compliance.....	25
2.3.3 Value Added Tax Imposition Procedures and VAT compliance.....	27
2.3.4 Tools and Systems and VAT compliance.....	29
2.4 Conceptual Framework.....	33

CHAPTER THREE	35
RESEARCH METHODOLOGY	35
3.1 Research Design.....	35
3.2 Population and Sample	35
3.2.1 Target Population.....	36
3.2.2 Sampling Procedure	36
3.2.3 Sample Size.....	37
3.3 Data Types and Sources.....	38
3.4 Data Collection Procedure	38
3.5 Measurement of Variables	38
3.6 Pilot Study.....	40
3.6.1 Validity of the Research Instruments.....	40
3.6.2 Reliability of the Research Instruments	41
3.7 Tests for Assumptions of Regression	42
3.7.1 Normality Test	42
3.7.2 Multicollinearity Test.....	42
3.7.3 Data Transformation	43
3.8 Data Analysis and Presentation	43
3.9 Model Specification	44
3.10 Ethical Considerations	44
CHAPTER FOUR.....	45
DATA ANALYSIS, PRESENTATION, AND INTERPRETATION	45
4.1 Questionnaires Response Rate.....	45
4.2 General Information.....	45
4.2.1 Gender of Respondents	46
4.2.2 Age of Respondents	46
4.2.3 Highest Level of Education	47
4.2.4 Business Registration Services	48
4.2.5 Estimated Average Sales/Service Turnover.....	48
4.2.6 Approximate Cars Serviced in a Good Business Day	49
4.2.7 Average Charge on Customers per Service	50

4.2.8 Number of Employees	51
4.2.9 Business Ownership.....	51
4.3 Reliability Test.....	52
4.4 Validity Test.....	52
4.5 Tests for Statistical Assumptions.....	53
4.5.1 Normality Test	53
4.5.2 Multicollinearity Test.....	54
4.5.3 Data Transformation	55
4.6 VAT Knowledge.....	55
4.7 VAT Imposition Procedures	57
4.8 Tools and Systems	60
4.9 VAT Compliance	62
4.10. Inferential Statistics	65
4.10.1 Correlation Analysis	65
4.10.2 Regression Analysis.....	66
4.10.1.1 Model Summary	66
4.10.1.2 Analysis of Variance	67
4.10.1.3 Test of Hypotheses	68
4.11 Discussion of Findings.....	68
4.11.1 VAT Knowledge and VAT Compliance.....	68
4.11.2 VAT Impositions Procedures and VAT Compliance	70
4.11.3 VAT Administration Tools and Systems and VAT Compliance.....	71
4.12 Regression Analysis Model	72
CHAPTER FIVE	74
SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS	74
5.1 Summary of Findings.....	74
5.1.1 Effect of VAT Knowledge on Value Added Tax Compliance	74
5.1.2 Effect of VAT Imposition Procedures on Value Added Tax Compliance	74
5.1.3 Effect of VAT Administration Tools and Systems on Value Added Tax Compliance	75
5.2 Conclusions.....	75

5.3 Recommendations.....	76
5.4 Limitations of the Study.....	77
5.5 Suggestions for Further Research	77
REFERENCES	78
APPENDICES	84
Appendix I: Letter of Introduction.....	84
Appendix II: Research Questionnaire	85
Appendix III: KESRA Research Letter	91
Appendix IV: NACOSTI Research Permit.....	92
Appendix V: Plagiarism Report.....	93

LIST OF TABLES

Table 3.1: Target Population.....	36
Table 3.2: Sample Size	37
Table 4.1: Response Rate.....	45
Table 4.2: Gender of Respondents.....	46
Table 4.3: Age.....	47
Table 4.4: Highest Level of Education	48
Table 4.5: Business Registration Services	48
Table 4.6: Estimated Average Sales/Service Turnover	49
Table 4.7: Approximate Cars Serviced.....	50
Table 4.8: Average Charge on Customers per Service	51
Table 4.9: Number of Employees	51
Table 4.10: Business Ownership.....	52
Table 4.11: Reliability Test.....	52
Table 4.12: Validity Test	53
Table 4.13: Normality Test.....	54
Table 4.14: Multicollinearity Test	55
Table 4.15: VAT Knowledge.....	57
Table 4.16: VAT Imposition Procedures	60
Table 4.17: Tools and Systems	62
Table 4.18: VAT Compliance.....	64
Table 4.19: Correlation Analysis	66
Table 4.20: Effect of VAT Knowledge, VAT Imposition Procedures and VAT Tools and Systems on VAT Compliance.....	67
Table 4.21: ANOVA Test.....	67
Table 4.22: Regression Analysis Model	72

LIST OF FIGURES

Figure 2.1: Conceptual Framework	34
--	----

ABBREVIATIONS AND ACRONYMS

ATAF	Africa Tax Administration Forum
AUC	Africa Union Commission
EACCMA	East Africa Community Customs Management Act
GDP	Gross Domestic Product
ILO	International Labour Organization
KRA	Kenya Revenue Authority
LAC	Latin America and the Caribbean
OECD	Organization for Economic Corporation and Development
PIN	Personal Identification Number
VAT	Value Added Tax

OPERATIONAL DEFINITION OF TERMS

Garages and Mechanics - These are business premises that are established by individuals engaged in the business of motor vehicle service, and repairs with a formal or informal establishment within Nairobi County. Within these premises the owners as mechanics work therein (KEPSA, 2020).

Tools and Systems for VAT Administration - Tools and systems include both manual and electronic avenues and platforms used by the Kenya Revenue Authority to interact with taxpayers for the purpose of VAT registration, VAT filing, VAT payment, and checking of the taxpayers' ledger in relation to tax paid (World Bank, 2018).

VAT Compliance - The ability of the taxpayer to adhere to the requirements of Value Added Tax laws, procedures, rules and regulations fully and completely as provided for in the exiting tax laws (Slemrod, 2015).

VAT Imposition Procedures - These are the laws, rules, regulations and guidelines that govern the implementation of value added tax as provided for in the Value Added Tax Act 2013. These would include registration, acquiring of ETR machines, keeping records, filing and paying for VAT within the specified timelines (Bird and Gendron, 2007).

VAT Knowledge - The aspect of having eligible taxpayers having requisite know how about the value added tax laws, procedures and other requirements that are as the Value Added Tax Act, 2013 (KRA, 2019).

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Value added tax (VAT) is a fee assessed against businesses at each step of the production and distribution process. It is usually assessed whenever a product is resold, or value is added to it. Sek (2017) conducted a study on the informal economy and value added tax in Indonesia. The findings of the study found a strong interconnectedness between VAT and the informal economy. VAT may be the cause for the growth of the informal sector and while on the other hand, some VAT-related measures may be introduced to reduce or at least stop further growth of the informal economy. The types of VAT are determined based on the treatment of capital goods of a firm. Value added tax falls under the general category of consumption tax. This means that VAT is levied on what people buy rather than on their earnings, savings, or investment. Value added tax is imposed on the value added at each stage of production and distribution. Value added tax systems have more checks against fraud because the tax is assessed at more than one point of the distribution process (Ebrill *et. al*, 2002).

Value added tax was first suggested in Germany during the post-World War I period as a replacement to the country's turnover tax. The turnover tax was similar to the value added tax system but did not provide rebates for the taxes paid at each stage (Quiros *et.al*, 2021). In 1953, the United States adopted the use of value added tax to substitute the excise taxes imposed after the War. France was the first county, to begin using value added tax to partially replace its turnover tax. In 1967, the Council of the European Union Economic Community issues directives for widespread adoption of the value added tax to replace existing turnover taxes and link EEC members to a common tax system (Manson, 2020). Post this EEC, many countries outside the EEC such as

Austria, Sweden, Brazil, Greece, and Peru also adopted some variations to the valuation added tax (Manson. 2021). Value added tax is a primary source of tax revenue in many European Countries and other developing countries, including Kenya.

According to OECD (1999), value added tax is a primary source of tax revenue in many governments with exception of the United States. That all countries of the Organization for Economic Cooperation and Development (OECD) use a VAT or similar tax on consumer expenditures. Value added tax has become the most common general consumption tax in the world (Bird and Gendron, 2007)). The widespread use of the VAT is due in part to its perceived efficiency and effectiveness in raising tax revenue compared to other indirect taxes (OECD, 2008). In theory, value added tax systems with a uniform rate are neutral to all forms of productive input. Many countries across the world though have modified their VAT systems with multiple rates and exemptions to meet political, economic, and social needs. Most nations do not assess any tax on necessities such as food, medicine, and shelter. Some of these exemptions are caused by difficulties in computing value added, professional services such as banking, accounting, and insurance (OECD, 2008).

In 2018, the Africa unweighted average value added tax-to-GDP ratio for the 30 countries under evaluation was 16.5%. However, the Africa average was below the Latin America and the Caribbean (LAC) average of 23.1% and the OECD average of 34.3% in the same year. Value added tax to GDP ratios in Africa ranged from 6.3% in Equatorial Guinea and Nigeria to 32.4% in Seychelles, with 21 countries having ratios between 10% and 25%. The value added tax-to-GDP ratio exceeded 25% in four countries that's Morocco, Seychelles, South Africa, and Tunisia) and was less than 10% in five countries (Chad, the Republic of Congo, the Democratic Republic of the Congo, Equatorial Guinea, and Nigeria). The main changes in the average value added tax to

GDP ratio between 2010 and 2018 were increases in VAT and income tax revenues, increasing mostly between 2010 and 2014 at 0.9p.p and 0.5pp respectively (OECD, 2021). According to International Tax Foundation (2020), in 2019 there was an increase in the number of countries in Africa that requested for change of information on several companies and individuals. This translated to nearly USD 12 million additional value added tax revenue and between 2014 and 2019, a group of 8 African Countries identified USD 189 million of additional taxes by exchanging information. It is estimated that Africa loses around USD 40 to 80 billion every year due to tax evasion (OECD/AUC/ATAF, 2020).

Taxes on goods and services were the main sources of tax revenue among the countries the 30 countries in Africa. Total taxes on goods and services accounted for 51.9% of total tax revenues on average in 2018, with VAT contributing to 29.7%. The West Africa Economic and Monetary Union (WAEMU) has set a goal to achieve a tax-to-GDP ratio of at least 20% according to Diallo (2018). However, the tax-GDP ratio in the WAEMU countries averaged 15.2% in 2018 with variations in each member country. In the Southern African Customs Union (SACU), the average tax to GDP ratio was at 19.6% in 2018 with variations from 12.1% in Botswana and 29.1% of GDP in South Africa (OECD/AUC/ATAF, 2020). The average tax-to-GDP ratio of the three East Africa Community (EAC) countries was 15.5% in 2018, which was below the Africa average. Tax-to-GDP ratios in Kenya and Rwanda exceeded 17.0% in 2018 and amounted to 11.8% in Uganda (OECD/AUC/ATAF, 2020).

In Kenya, the responsibility of tax administration is charged to the Kenya Revenue Authority. According to Kenya Revenue Authority (2021), value added tax is charged on the supply of taxable goods or services made or provided in Kenya and on importation of taxable goods or services into Kenya. It further states that any person,

individual, company, or partnership that has supplied or expects to supply taxable goods worth Kenya Shillings 5,000,000 and above within 12 months, must register for VAT. The registration is done through the online portal via iTax system where such an entity is assigned a Personal Identification Number (PIN) (KRA, 2021). Once registered, such an entity is required to account for VAT charged on the taxable supplies made through online monthly returns and pay any VAT due. Kenya charges three various tax rates of value added tax (VAT). The first-rate is 0%; this is charged on the zero-rated supplies. These goods are listed in the 2nd Schedule to the VAT Act, 2013. These include among others exportation of goods and or services charged, goods supplied to Export Processing Zones, privileged persons, and public bodies, among others. The second tax rate is 8%; this is charged on petroleum oils obtained from bituminous, motor sprits that are from diesel, super, aviation spirit, among others. The third tax rate is 16%; this is a general rate for other goods and services as long there is an aspect of value addition along the production and distribution process (Kenya Revenue Authority, 2021). All registered entities must submit their VAT returns on or before the 20th of every month following the month in which the VAT was realized. There are strict penalties for defaulter of which is rated at Kenya Shillings 10,000 and 5% of the tax due whichever is the higher (KRA, 2021). The payment of VAT in Kenya is done through iTax system, which is an online portal allowing for both invoice generation and payment of the VAT due. Value Added Tax is housed in the Domestic Taxes Department at Kenya Revenue Authority. In the last financial year, value added tax dropped by 7% brought about by declining business associated with the global corona virus pandemic (KRA, 2021). This was also occasioned by the reduction of the general value added tax rate from 16% to 14% to help both businesses and individuals cope with the effects of the pandemic. This was however regularized in December 2020.

Tedika and Mutascu (2013) studied the effects of the shadow economy on tax revenues of several African Countries using a panel-model approach covering the period 1999 to 2007. The study findings revealed that the shadow economy had a significant negative impact on the tax revenue of the selected African countries. The study further suggested that African governments should endeavor to manage shadow economy occurrences to avoid subsequent decreases in the level of tax revenue. Due to the growth of technological possibilities of doing business without an established physical presence, taxing the informal / shadow economy is increasingly becoming a serious challenge to most governments (OECD, 2020).

Ngicuru *et al.* (2016) conducted a study on the effect of selected factors affecting revenue collection in the Nairobi City County Government. The study adopted a descriptive methodology of data collection, analysis, and interpretation. The study findings revealed that tax structure affects revenue collection through flexibility, equitability, neutrality, and simplicity while different forms of revenue affect the amount of revenue collected. The study further revealed that revenue diversification had a positive and significant relationship with the amount of revenue collected. The study further noted that tapping onto the majority of untaxed sectors such as informal sectors would contribute to the performance of tax revenue in the County.

Sikka (2017) conducted a study on the challenges of information communication technology adoption in tax administration across various tax jurisdictions in Europe. The study findings revealed that government may lose revenue because of tax misconducts, wrong transfer invoicing, risk counterbalance, overuse of tax motives, and other tax planning systems which may be caused by faults in the tax administration tools and systems. He further noted that it is a crucial matter to ensure that tools and systems used to levy taxes are efficiently and effectively interacting with the taxpayers.

According to Richard (2008), half a century after its introduction, the VAT has emerged as the world's most widely used consumption tax and a central component of public finance in Africa. Sijbren (2015) notes that VATs are preferred in several African countries since VAT is less detrimental to growth than income taxes. VAT has several advantages compared to other tax instruments prevalent in developing countries, which arguably explains its widespread adoption around the world. It is seen as superior to an import tax or turnover tax in terms of production efficiency according to Keen (2016). Value added tax is also seen as superior to a retail sales tax in terms of revenue mobilization as it features compliance incentives for a business-to-business transaction and can generate revenue earlier in the supply chain even if the retailers fully evade their turnover, and income tax liabilities (Kopczuk and Slemrod, 2006).

Even though empirical evidence show that value added tax (VAT) is superior and a better way to generate non-disruptive revenue in the economy, some sectors of the economy that should ideally contribute to its efficiency fail to do so since collection and accounting for VAT is made mandatory for the parties that meet the minimum thresholds (Keen and Mintz, 2004). According to Alexeev and Chibuye (2016), the informal sector presents a challenge to most tax administrations because of the nature of the business which they run and their inability to meet the minimum thresholds. Even though there are many other tax regimes in place to ensure that the informal sector contributes to revenue collection, still many do not participate.

In the study conducted by de Mel *et al.* (2012) on the determinants of VAT compliance among the informal sector businesses across Asia. The findings of the study revealed that VAT knowledge was one of the determinants that had a strong positive correlation with VAT compliance among the informal sector players across multiple industry sectors. Ahmad & Samsudin (2016) conducted a study on the determinants of sales tax

(VAT) compliance in small and medium scale enterprises in Jordan: a call for empirical research. The study discussed the importance of sales tax in the small and medium enterprise (SME) sector in Jordan. The study stressed on the need to signal the severity of tax gap that should be addressed by the government. The study used secondary data for analysis recording 166,000 SMEs. The study findings indicated around 87% of small enterprises and 35% of medium enterprises did not comply in paying their sales tax (VAT).

Tatariyanto (2014) used a Multiple Indicator and Multiple Cause (MIMIC) approach to examine the size of the underground economy and the loss of tax revenue in Indonesia from 2000 to 2008. The study found evidence that the underground economy increased when a large number of people were not submitting tax returns due to changes in tax imposition policy and the growth rate of unemployment. The study further found that the underground economy in Indonesia decreased sequel to greater public knowledge to comply with tax payment of their civic obligations. The study further noted that where imposition procedures become complicated and that taxpayers find challenges in filing their returns and making payments, they are discouraged. The study also found that imposition procedure when perceived negatively by the informal sector players, then negative perception may lead many potential taxpayers to voluntary non-compliance.

Strapuc and Cazacu (2016) conducted a study on the roles of taxation tools and systems as a contributing factor to VAT compliance in Romania. The study found out that to evaluate the interaction between tools, systems, and taxation; we must understand the aspects of all sectors, the behavior of tools and systems used in the assessment of taxes, as well as properties even in the same market having differing peculiarities especially in the case where the users of these tools and systems may have limits in accessing and

effectively understand the setup of these tools and systems. According to the findings of various scholars on the taxation of the informal economy, this study, therefore, adopted factors of tax knowledge, imposition procedures, and tools and systems used in the administration of value added tax to further investigate their effect on mechanics who fall within the informal economic sector.

This was why the study was interested in investigating mechanics who fall in the informal sector of the economy. These mechanics services vehicles of those considered to be operating mostly in the formal economy and individuals of mid-class income. According to Action Aid International (2018), informal sectors players due to their inability to register formally for tax purposes, still may be double taxed and even overtaxed since they buy parts and raw materials which are taxed but cannot easily transfer that tax to final consumers since they are not registered. The study was interested in finding factors that would enhance compliance to the benefit of both the revenue authority and the mechanics themselves by being in the formal business.

Even though the value Added Tax Act 2013 provides for voluntary registration which may be a choice of the business owner according to the assumed benefits (OECD, 2018), the option may give rise to businesses that trade above the minimum threshold requirements for VAT registration yet fail to register. Such business may contribute to poor compliance with VAT which is a major contributor to the total revenue collected in any given financial year in Kenya. The study, therefore, investigated the effect of value added tax on VAT compliance among mechanics in Nairobi County.

1.2 Problem Statement

According to World Bank (2018), virtually all countries which have VAT regimes with thresholds to mandatory qualify for VAT registration; small and unregistered businesses do not have to collect and remit VAT on their sales. Further, these

unregistered businesses cannot use their VAT credits-purchased VAT- as generated by their businesses to seek VAT refunds (OECD, 2015). In the case of mechanics who realize VAT on their sales but cannot deduct the VAT paid on inputs because they are not registered for VAT as per the requirements of the law which then affect VAT compliance. Gale *et al.* (2015) conducted a study on the relations between value added tax among the informal sector and revenue collection. The study found that revenue collection is greatly underperforming among the informal sector players due to several factors. The study identified factors such as lack of sufficient knowledge, VAT imposition procedures and policies, and tools and systems that tax authorities used to administer VAT.

Harju *et al.* (2015) studied the determinants of VAT compliance among the informal sector in Jordan. The study findings revealed that VAT knowledge among informal sector players leads to inadvertent non-compliance to the required tax laws and procedures which ultimately affects VAT compliance. Brashares *et al.* (2014) conducted a study on VAT compliance among the hardest to tax entities within the Philippine economy. The study found that even though traders in the informal economy may want to comply with all tax requirements; tax imposition procedures were itself hindering others due to complex processes that had to be followed to complete a tax return process. This was noted to affect VAT compliance among the informal sectors. Sika (2017) conducted a study on the role of tools and systems in improving VAT compliance within the informal sector. The findings of the study showed that when tools and systems are wrongly designed, they may contribute to loss of revenue as a result of non-compliance.

VAT compliance still appeared to be a challenge among the informal sector where mechanics belong. Various scholars have studied the informal sector and tax

compliance. The findings still showed that many factors affect compliance. It is critical thus, to investigate the relationship between VAT knowledge, VAT imposition procedures, tools and systems, and VAT compliance among the mechanics. As it is, mechanics make sales and pay for the inputs mostly using cash or cash equivalents and they do not, account for, file, and pay the tax due from the sales received (Gale *et al.*, 2015). These factors could be addressed on how to increase VAT knowledge among mechanics who otherwise meet the set minimum threshold for VAT compliance, the procedures used to impose VAT, and how it affects compliance and tools and systems in place to administered VAT as provided for in the VAT Act 2013 s as to improve on compliance. This would lead to value addition in the management of informal sector players and mechanics for improved VAT compliance and increased revenue collection in Kenya.

1.3 General Objective of the Study

The purpose of the study was to investigate factors affecting value added tax compliance among the mechanics in Nairobi County.

1.3.1 Specific Objectives of the Study

- i. To determine the effect of VAT knowledge on VAT compliance among mechanics in Nairobi County.
- ii. To investigate the effect of VAT imposition procedures on VAT compliance among mechanics in Nairobi County.
- iii. To establish the effect of value added tax administration tools and systems on VAT compliance among mechanics in Nairobi County.

1.4 Research Hypothesis

H₀₁: There is no significant effect of VAT knowledge on VAT compliance among mechanics in Nairobi County.

H₀₂: There is no significant effect of value added tax imposition procedures on VAT compliance among mechanics in Nairobi County.

H₀₃: There is no significant effect of tool and systems on VAT compliance among mechanics in Nairobi County.

1.5 Significance of the Study

The study evaluated factors affecting VAT compliance among mechanics in Nairobi County. The findings of the study could be used by the government of Kenya to put more effort into the VAT imposition procedures among the mechanics to enhance compliance since this has been shown to impact VAT compliance positively. The findings of the study could be used by the government to improve on the tools and systems used to account for VAT among the mechanics for those who meet the mandatory thresholds for VAT obligations to enhance compliance and ensure that levels of accountability are improved.

The findings could be used to improve policy inclinations towards the inclusion of mechanics into the taxation brackets better, for improved value added tax compliance. The findings could also be used by the legislature to formulate other tools and systems to improve the ability to register mechanics without necessarily meeting the minimum threshold as tax collection agents to tax revenue collection by the government.

To the academic fraternity, the findings of the study could be used to enhance the body of knowledge-based by further studying the issue of taxation among the mechanics which are mostly part of the informal sector. Gaps have been revealed where knowledge

was found to have insignificant consequences on VAT compliance, which could call for further investigations into the underlying factors that render the knowledge available to the mechanics being inconsequential to tax compliance in Kenya.

1.6 Scope of the Study

The study specifically targeted individuals who were mechanics but running businesses that are not registered for VAT by the Kenya Revenue Authority for value added tax purposes. These individuals owned garages with a formal business name registered in their respective names or businesses. According to Value Added Tax Act 2013, these individuals were not mandatorily required to register for VAT, file value added tax returns due to a lack of PIN as per KRA requirements. These individuals were also not legible for VAT registration due their trade volumes which were below the required minimum threshold of Kenya Shillings five million. However, they purchased VAT in their normal business operations from companies that sold spare parts and other accessories required to conduct their trade. Such mechanics must have operated their garages for periods of not less than 2 years within the same locality. The study limited its geographical focus to all mechanics within North, East, South, and West based on tax authority areas in Nairobi. The study focused on financial years 2019/2020 and 2020/2021. The area was relevant to the researcher due to the understanding of the industry. The choice of the geographical locations also ensured that there were many mechanics trading but unregistered for VAT and therefore provided sufficient data for analysis and the ultimate interpretation of the gathered information. This factor further made it possible to generalize the study findings and outcome to a large population of mechanics operating in the country.

CHAPTER TWO

LITERATURE REVIEW

This chapter discussed the literature that had been reviewed by the researcher to inform the study. The chapter began with a brief explanation of the study concept and how the variables begin with the dependent variable and then to independent variables and how they relate to each other in the study. The chapter proceeded to look at the theoretical frameworks that relate to and support the study. Each of the variables was then reviewed under empirical review based on the studies by other scholars which were currently being undertaken, have been undertaken, and are mainly dependent on journals, papers, and books to some extent. The chapter closed with the conceptual framework, diagrammatically showing the relationship between the variables.

2.1 The Concept of VAT Compliance

The dependent variable in the study is VAT compliance. Government revenue is mainly raised through taxes. One of these taxes is value added tax (VAT). Value added tax is not a final tax and therefore all businesses that collect the VAT on behalf of the government are expected to claim the refund. However, this is only applicable to those businesses which are formally registered by the tax authority. Therefore, performance could be affected by the non-mandatory registration of all businesses and lead to performance issues.

According to a study by de Mel *et al.* (2012) on the determinants of VAT compliance among the informal sector businesses across Asia. The study found that VAT knowledge was one of the determinants that had a strong positive correlation with VAT compliance among the informal sector players across multiple industry sectors. Loperpick (2009) while studying the impact of education on value added tax performance among organizations in the informal set up in Turkey, found that there is

a need to ensure that taxpayers are aware of the requirements of the tax laws, tax procedures, and accompanying penalties and punishments which are levied as deterrence to tax evasion. The study further recommended that when tax authorities take the initiative to increase taxpayers' knowledge, especially in the informal sector, the revenue collected would increase as some taxpayers in the informal economy will feel obligated once they know what is required of them.

Ahmad & Samsudin (2016), studied determinants of sales tax (VAT) compliance in small and medium scale enterprises in Jordan: a call for empirical research. The study discussed the importance of sales tax in the small and medium enterprise (SME) sector in Jordan. The study stressed the need to signal the severity of the tax gap that should be addressed by the government. The study used secondary data for analysis recording 166,000 SMEs. The study findings indicated around 87% of small enterprises and 35% of medium enterprises did not comply in paying their sales tax (VAT). Thabani and Richard (2020) studied factors that affect tax compliance among small and medium enterprises (SMEs) in Lusaka, Zambia. It was found that high tax rates and complex filing procedures are the most crucial factors causing non-compliance of SMEs because many of the players in the SMEs are not aware of the tax procedures, requirements and find it expensive to engage tax experts to assist in filing taxes as per the requirements.

Value added tax is not a final tax on the registered businesses but is final on the consumers. In the case whereby the business is unregistered for the VAT, purchases VAT, and does not collect VAT from their customers; this could lead to the imposition procedures being ineffective and affect VAT compliance. The study will assume that the concept of VAT imposition procedures and VAT compliance particularly among the mechanics has some relationship.

Tatariyanto (2014) used a Multiple Indicator and Multiple Cause (MIMIC) approach to examine the size of the underground economy and the loss of tax revenue in Indonesia from 2000 to 2008. The study found evidence that the underground economy increased when a large number of people were not submitting tax returns due to changes in tax imposition policy and the growth rate of unemployment. The study further found that the underground economy in Indonesia decreased sequel to greater public knowledge to comply with tax payment of their civic obligations. The study further noted that where imposition procedures become complicated and that taxpayers find challenges in filing their returns and making payments, they are discouraged. This might affect the total revenue collection especially in the difficult-to-catch tax evaders sectors such as the informal economy.

There are tools and systems used by the tax authority to implement, collect, and communicate with taxpayers. The concept of the study is that there is a relationship between tools and systems and VAT compliance. The assumption is that when tools and systems are designed efficiently, effectively, and objectively then, these should address any potential challenges irrespective of the economic sector and the tax base for which it is meant. In the case of mechanics, these tools and systems should be able to effectively bring on board all those that qualify for taxation or tax collection as agents. When this is not the case, then tools and systems may contribute to revenue underperformance.

In the study conducted by Strapuc and Cazacu (2016), on the roles of taxation tools and systems as a contributing factor to VAT compliance in Romania. The study found out that to evaluate the interaction between tools, systems, and taxation; we must understand the aspects of all sectors, the behavior of tools and systems used in the assessment of taxes, as well as properties even in the same market having differing

peculiarities especially in the case where the users of these tools and systems may have limits in accessing and effectively understand the setup of these tools and systems. These challenges if experienced may lead to underperformance of the revenue due to inadvertent non-compliance as a result of tools and systems being complicated.

2.2 Theoretical Framework

The study was anchored on two theories, and these were the ability to pay theory, and the systems theory. These two theories were reviewed based on their relevance and support to the study.

2.2.1 Ability to Pay Theory

Adam Smith and Piguó founded the theory of ability to pay in 1903. The ability-to-pay theory of taxation maintains that taxes should be levied according to a taxpayer's ability to pay. The idea of progressive taxation that is the ability to pay was espoused by Adam Smith, who is considered the father of economics. Smith (1776) wrote that the subjects of every state ought to contribute toward the support of the government, as near as possible, in proportion to their respective abilities; that is in proportion to the revenue which they respectively enjoy under the protection of the state. Ability-to-pay taxation theory argues that those who earn higher incomes should pay a greater percentage of those incomes in taxes as compared to those who earn less (Britannica, 2021). This theory further stresses as put forward by (Kagan, 2020) that everyone should make an equal sacrifice in paying taxes, and because people with more money have less use for a given amount, paying more of them in taxes does not impose a greater burden.

Utz (2017), while writing on the ability-to-pay theory states that indirect taxes such as Value Added Tax (VAT), excise, sales, or turnover taxes can be adapted to the ability to pay criterion, but only to a limited extent, for example by exempting necessities such as food or by differentiating tax rates according to the urgency of need. Neumark,

2018), however, disagrees that such policies are generally not highly effective, moreover, they distort consumer purchasing patterns and their complexity often makes them difficult to institute. Other scholars (Due *et al*, 2018), held that throughout the 20th century, the distribution of the tax burden among individuals should reduce the income disparities that naturally result from the market economy. However, Mill (1989) and other classical economists were of the opinion that if taxes are levied in proportion to the incomes of the individuals, it will extract equal sacrifice. Yet, modern economists assert that when income increases, the marginal utility of income decreases. The equality of sacrifice can only be achieved if the persons with high incomes are taxed at higher rates and those with low incomes at lower rates.

The ability-to-pay theory also is commonly interpreted to mean the requirement that direct personal taxes have a progressive rate structure, although there is no way of demonstrating any degree of progressivity is the right one. This is because a considerable part of the population does not pay certain direct taxes such as income and thus some tax theorists believe that a satisfactory redistribution can only be achieved when such taxes are supplemented by direct transfers or refundable credits (Blum & Kalven, 1952). Other scholars however argue that income transfers and negative income tax create negative incentives; instead, they favor public expenditure targeted toward low-income families as better means of reaching distributional objectives (Neumark et al, 2020).

The ability to pay theory is relevant to the study and supports the dependent variable since mechanics who have the ability to pay for their VAT should comply with the requirements of VAT regulations and procedures. Mechanics are considered part of the SMEs and the majority are unregistered businesses however due to the business they trade in any given financial year, is sufficient to bring them into the bracket of

mandatory registration, filing, and payment of VAT. The other aspect of the paradox is that their clients are people of means and therefore as much as possible taxes should be collected from them. The theory, therefore, informs the researcher to focus more on the study towards contributing to the knowledge and efforts of widening the tax bases to ensure that all elusive and missing but eligible taxpayers are brought into the system to help improve VAT compliance.

2.2.2 The Systems Theory

System theory was proposed by biologist Ludwig von Bertalanffy in 1940 and furthered by Ross Ashby in 1964. The systems theory is an interdisciplinary theory about every system in nature in society and in many scientific domains as a framework with which we can investigate phenomena from a comprehensive approach (Capra, 1997). A system can be defined as an entity, which is a coherent whole (Ng., 2009) such as a boundary is perceived around it to distinguish internal and external elements and to identify input and output relating to and emerging from the entity. Systems theory is hence a theoretical perspective that analyses a phenomenon seen as a whole and not simply the sum of elementary parts. The focus is on the interactions and on the relationships between parts to understand an entity's organization, functioning, and outcomes (Golinelli, 2009). Systems can be found in an economic system and within information systems, among others.

Systems thinking comes from the shift in attention from the part to the whole while considering the observed reality as an integrated and interacting unified set of phenomena where the individual properties of the single parts become indistinct (Jackson, 2003). In contrast, the relationship between the parts themselves and the events they produce through their interaction becomes much more important, with the result that "system elements are rationally connected towards a shared purpose

according to Luhmann (1990). The proponent of the system theory argues that we are not able to fully comprehend a phenomenon simply by breaking it up into elementary parts and then reforming it; we instead need to apply a global vision to underline its functioning. Although we can start from the analysis of the elementary phenomenon, to fully comprehend the phenomenon in its entirety, we must observe it also from a higher level which is a holistic perspective (von Bertalanffy, 1968).

Today there are several kinds of systems perspectives from which systems theory can be related. There are service systems, viable systems, smart systems, living systems, economic systems, social systems, institutional systems, technological systems, conceptual systems, and ecosystems (Mele *et al*, 2010). Katz and Khan (1978) applied the concept of open systems to the organization and observed that organizations are systems built by energetic input-output where the energy coming from the output reactivates the system. Emery and Trist (1960) however viewed organizations as socio-technical systems, underlining the two main components of the firm as a system, which is a social component which is the people, and a technical component which is technology and machines.

Cutlip, Center, and Broom (2006) posit that the systems theory approach should view organizations as open social systems that must interact with their environments to survive. Organizations depend on their environments for several essential resources. These resources include customers who purchase the product or service, suppliers who provide materials, employees who provide labour or management, shareholders who invest, and governments that regulate these environments especially that of economics. The systems theory, therefore, contributes to the adaptation and adjustments to changes that often occur in the organization's environment. Katz and Kahn (1966); who first used the systems theory approach identifies organizational behaviour by mapping the

repeated cycles of input, throughput, output, and feedback between an organization and its external environment.

Bertalanffy (1951), notes that systems receive input from the environment either as information or in the form of resources. The systems then process the input internally, which is the throughput, and release outputs into the environment to restore equilibrium. The systems approach focuses on the means used to maintain organizational survival and emphasizes long-term goals rather than the short-term goals of the goal attainment approach. Most effective organizations, according to system theory adapt to their environments. Pfeffer and Salanick (1978), described the environment as the events occurring in the world that have any effect on the activities and outcomes of an organization. Environments range from static and extreme. Because dynamic environments are constantly changing, they create a lot of uncertainty about what an organization must do to survive and grow (Weinberg, 2001). The key to dealing with uncertainty is information. An open organization monitors its environment and collects information about the environmental deviations that is labeled as input. The organization then processes this information and uses it to formulate solutions or responses to the changes caused by the dynamisms of the environment (Checkland, 1997).

The systems theory supports the study's independent variables of VAT knowledge, value added tax imposition procedures, and tools and systems. This is because VAT knowledge, VAT imposition procedures, tools and systems must not be considered to be standalone efforts but a whole part of the complete taxation efforts. Therefore, all eligible taxpayers should have sufficient knowledge; the procedures for imposition of value added tax should apply to all entities and persons that do business without any form of segregation. The registration for VAT should be voluntary without any

coercion aided by tools and systems such as the iTax system. This creates a gap that even the rightfully qualifying mechanics opt not to be VAT compliant since the majority of people want to avoid accounting and paying taxes accumulated. Where VAT knowledge is viewed as part of the components of the learning system and as having a set of skills and competencies enables one to have its VAT knowledge (Nonaka and Takeuchi, 1995). Therefore, this knowledge works through a cognitive system establishing its existence, creating information, and activating skills to produce knowledge through continuous learning processes (Vicari, 1992).

Barile (2006), states that when systems theory is viewed from a systemic perspective, every system, at a certain level, is in relation with supra-systems and sub-systems. The former is hierarchically ordered as a function of their influence on the system; the latter ought to be directed and managed by the system to contribute to its finality (Barile, 2008). In the case of VAT imposition procedures, the system theory dictates that a systemic way must be there that guides on how the processes come one after the other. This is important to avoid discrepancies in VAT declaration, filing, and payment or claiming of the credit owed to the VAT agent. This leads to a smoother operationalization of VAT imposition procedures since the systems theory dictates that continuous contacts with the same process create participation since systems tend to absorb supra-systems and subsystems to develop as a whole system (Barile, 2008).

According to Beer's (1972) work which gave the systems theory a strong impulse with his viable systems model which outlines a system as an entity that is adaptable for the purpose of surviving in its changing environment. The viable systems are an abstracted cybernetic description that applies to autonomous systems. Cybernetics refers to the study of how actions by a system cause a change in the environment that are understood by the system itself in terms of feedback, allowing adaptation of the system to new

conditions (Golinelli, 2008). Tools and systems can be viewed as cybernetics since they have the capacity to interact with the taxpayers autonomously and give feedback to the tax authorities which then can be used to improve the sub-system of VAT compliance and the entire system of tax collection. This would enhance the effectiveness and the efficiency in addressing any gaps that could be felt in the economy towards revenue collection otherwise, underperformance would constantly be a challenge to revenue performance.

2.3 Empirical Review of Variables

These are studies that have been conducted or are currently being conducted by scholars on the topic area of the study. These works of literature reviewed are also critiqued, and the proposed study needs to be expounded.

2.3.1 VAT Compliance

The key functions of any state are to raise revenue in the form of taxes to meet its rising fiscal obligations. The need to raise tax revenue cannot be overemphasized. Mashkoor *et. al.* (2010) stated that as much as governments often use various methods of raising resources, taxation is the key and most important source of government revenue. According to OECD (2012), there is a need to strengthen the utilization of domestic revenue for public expenditure financing as well as the core role of taxes in the field of development and redistribution. The state needs to fulfill its task effectively by raising funds. These funds should then be used to provide protection, justice or run the state and follow the planned growth agenda. These can be achieved through levying taxes and promoting participation, transparency, and state capacity while and mistering various tax bases (Bräutigam, 2002).

In the financial year, 2019/2020 Kenya Revenue Authority collected a total of Kenya shillings 1.607 trillion which was an improvement from Kenya shillings 1.580 trillion

in the 2018/2019 financial year. Of the collection and of importance to the study, domestic taxes collected a total of Kenya shillings 1.092 trillion with a 4 % growth from the previous FY. However, value added tax (VAT), domestic, dropped by 7% as compared to the previous financial year (KRA, 2021) According to the study by Nyaga and Omwenga (2016) on factors influencing tax revenue growth at Kenya Revenue Authority: a case of Meru station. It was revealed that even though KRA has implemented notable reforms towards improved tax performance, there still exists gaps that need to be improved further. The question that remains constant is how best the performance of revenue can be improved. It may be time to focus attention on economic sectors that would contribute to the improvement of revenue collection.

Nawire (2020), conducted a study on constraints to enhanced revenue mobilization and spending quality in Kenya. The study noted that the structure and growth of Kenya's economy and spending quality have a bearing on its taxable capacity. Constraints to the enhancement of revenue mobilization and spending quality include the existence of a large informal sector, inadequate information on property ownership; perceived corruption; inefficient use of public resources; political interference; volatile election cycles; abuse of tax incentives; uneven transfer pricing; illicit financial flows; and untaxed online businesses, coupled with poor administrative capacity and tax policy design. Taking note of the informal sectors as one of the constraints, the informal economy is not comfortable and rosy place, and it is seen as a threat to the economic, political, and moral stability of society (Danesh, 1991).

Radzi (2019), studied in Malaysia factors affecting of VAT compliance among small and medium enterprises within the informal sector. The survey collected data from 248 usable owners from the northern Peninsular Malaysia. The findings of the study revealed that power, distance, individualism, masculinity, uncertainty avoidance and

long-term orientation are significantly related with intention to tax non-compliance. However, the owners of these small and medium businesses tend to engage in tax non-compliance due to huge opportunities involving cash business transactions with an aim to avoid cash declarations. Put differently, small businesses are likely to be compliant where transactions are not cash-based since there are evidence of businesses having taken place (Mohamad, Zakaria and Hamid, 2016). The avoidance of cash transaction would increase transparency in dealing hence contribute towards a culture of compliance.

Tedika and Mutascu (2013) studied the effects of shadows (informal) economy on tax revenues of several African countries using a panel-model approach. The duration of the study covered the periods between 1999 and 2007. The findings revealed that the shadow economy had a significant negative impact on tax revenues of the selected African countries, Kenya included. Tatariyanto (2014) used a Multiple Indicator and Multiple Cause (MIMIC) approach to examine the size of the underground economy and the loss of tax revenue in Indonesia from the year 2000 to 2008. The study found evidence that the underground economy is increased when large numbers of people were not submitting tax returns due to changes in tax policy, and growth of unemployment.

Tax VAT compliance based on the reviewed literature is arguably important to the resource mobilization efforts by the government. However, the performance is dependent on several factors as discussed in the reviewed literature. Some of these factors include the number of unregistered but qualifying businesses, tax imposition procedures, tools and systems for tax administration, among others. The study variables are therefore arguable able to measure the extent of the dependability of tax VAT

compliance on the above three particular factors. The study will specifically focus on the informal sector shadowed with mechanics in Nairobi County.

2.3.2 VAT Knowledge and VAT Compliance

Pimhidzai and Fox (2012) conducted a study on the role of tax knowledge and VAT compliance in Ukraine. The study adopted time series analysis and surveyed 3687 participants online for 5 years. The study found that among the participants from the informal sector, insufficient VAT knowledge on various tax laws and procedures played a role and failure to correctly declare their taxes and pay the tax due. The study also noted that the majority of tax authorities do not have the capacity and resources to effectively create awareness. Closely related is the fact that most tax authorities consider the individuals' incomes within the informal sector to be low and tax rates correspondingly modest, while the cost of collection and overall administrative burden is remarkably high (Keen, 2012).

According to a study conducted by La Porta & Shleifer (2014) on the determinants of revenue collection in the informal sector, case of small-scale traders in Pakistan, The study findings revealed that a large number of potential taxpayers in the informal sector are not aware of their tax obligations, tax laws, requirements and procedures of accounting for their taxes due. The study further found that the difficulties of monitoring hidden entrepreneurs and small-scale forms can give rise to serious revenue collection costs for tax authorities in developing countries, which then hinders overall VAT compliance. At the same time, the revenue potential of taxpayers in the informal sector is fairly modest, as their taxable income is usually quite low.

Awasthi and Engelschalk (2018) conducted a study on the impact of informal sector growth on VAT compliance among developing economies. The study adopted an exploratory study technique. Data were analyzed using regression and correlation

analysis to consider the relationship between taxation and informal economy and how tax systems can stimulate and enforce the formalization of business activities. The study found that the existence of a strong negative relationship between tax revenue collection and the informal economy. The findings further revealed that even those in the informal economy who qualify to pay taxes should be brought into the tax brackets through holistic strategies; the majority of these informal economy players lack the requisite knowledge to be fully compliant. The study further suggested that tax authorities may involve some form of the traditional approach of monitoring and use of law enforcement tools which may require officials to gain access to the informal economy participants databases, including third information from various public and private sources as well as banks to force compliance which ultimately may lead to improved knowledge on tax requirements.

Guillermo and Deyvi (2018) conducted a study on the impact of the informal economy on tax revenues and economic growth using panel data of OECD members and Latin American countries from 1995 to 2016. The study employed the use of the MIMIC approach and the Generalized Moment Method (GMM) to establish the impact of the size of the informal economy on economic growth and tax revenue collection. The study generally found that for both Latin America and OECD countries, the informal economy has a negative impact on the amount of tax revenue collected by the government especially in instances where the informal sectors are ignorant of the applicable tax laws, tax procedures, and general requirements to the existing tax regulations.

Barbara and Claudio (2015) conducted a study using simulation-based analysis to assess the effects of several tax reforms in the economy of Italy due to challenges of tax evasions resulting from undeclared jobs and businesses. The study constructed

various tax reform models and produced many results which revealed that macroeconomic and welfare effects of tax reforms might be so much underestimated if the informal sector were to be overlooked. In the case of the mechanics, their numbers could be in the thousands as Josh *et. al* (2014) found that knowing their exact number is often the greatest challenge that makes it difficult to plan and bring them into the tax bracket. However, increasing the level of awareness on tax laws, tax procedures and general knowledge is important for tax authorities to improve VAT compliance especially from the informal sector players.

2.3.3 Value Added Tax Imposition Procedures and VAT compliance

The value added tax imposition procedures is part of the Value Added Tax Act of 2013. This act regulates the administration of VAT is further regulated under Tax Procedures Act 2015 which ties with East Africa Community Customs Management Act and Excise Act 2015. These are the main laws alongside other procedures and regulations as issued by the commissioner general. The Act recognizes the Tax Point as the time at which one recognizes or charges VAT and it is the earlier of delivery or performance, issuance of the certificate, issuance of the invoice, and receipt in full or part payment on account of supply. VAT operates on an INPUT-OUTPUT principle whereby the difference between VAT purchased (input) and VAT sold (output) is either payable or claimable depending on which is greater. Therefore, where the output is more than the input VAT, the agent is expected to pay taxes, and where the input is greater than the output, the taxpayer is eligible for a refund (KRA, 2021, VAT Act 2013). Kenya Revenue Authority resolved to expedite the refunds claim processing duration from an average of 133 to 60 days. Notable milestones were achieved in financial 2018/2019/2020 where out of the processed refunds claims amounting to Kenya

shillings 36.1 billion approximately Kenya shillings 25 billion were refunded to various businesses within the financial year under review (KRA, 2021).

According to Sijbren (2015) report on mobilizing VAT revenue in African countries, he notes that because VAT on taxable purchases cannot be credited or rather washed out against the VAT on output, the business supplying exempt goods and services tend to substitute these purchases by lower-taxed or non-taxable goods and services. In other words, the exemption distorts input choices. He further notes that entities including individuals will try to avoid the tax on taxable purchases or services by performing various activities themselves that they would otherwise procure at lower pre-tax costs from third parties. In doing so they avoid the VAT on the labor element of the self-performed activity. These findings apply to the case of mechanics and the services they offer. Individuals and entities who have the capacity to pay VAT would avoid going to the registered garages in favor of the unregistered ones. This is because when the cost of VAT is added to the services offered, the expenditure goes up (KRA, 2021). By doing this, they affect VAT compliance. On the other hand, the mechanics, buy spare parts for the services they need. They may buy these without VAT or with VAT depending on the supplier. The mechanics are unregistered hence cannot use the procedures of VAT which is output VAT less input VAT and pay the rightful amount collected from their customers to the tax authority. This act may lead to loss of VAT revenue.

Muchiri (2014), took into consideration the inability of tax revenue to meet the expenditure requirements of the government of Kenya due to the existence of the informal economy even when several reforms in taxation have been implemented. The study made use of the Ordinal Least Squares (OLS) method and secondary form of data. The result showed that an increase in the size of the informal sector leads to a decrease

in VAT compliance and vice versa, which is quantitatively important. The study also found that the key factors determining tax VAT compliance included direct foreign investment, per capita GDP, and openness to trade. The study suggested the formulation of policies that would include the informal sector in the tax bracket which should involve fostering voluntary tax compliance and deduction of tax collection costs. As it is now, the informal sector has not been effectively brought into the tax bracket especially among the mechanics where huge taxes are purchased and sold in services and they are not accounted for or remitted due to policy gaps.

2.3.4 Tools and Systems and VAT compliance

The policies regulating the administration of VAT as discussed earlier are anchored in the VAT Act 2013 mainly and assisted by other legal frameworks namely Excise duty 2015, EACCMA 2004, and Tax Procedures Act 2015. The Acts of parliament guide the formulation of tools and systems to oversee the collection of value added tax. Notably, the performance of VAT was not as per the expectations in the previous financial year 2019/2020. Even though the global pandemic shocked many businesses, the percentage drop of 7% was the highest compared to other streams of revenue (KRA, 2021). This might be a pointer to improve on the tools and systems that govern the administration of VAT. The studies reviewed in the previous sections reveal that the informal sector is large and probably a lot of tax leakages are happening there (Keen, 2012; Sijbren, 2015; Levin & Widell, 2014).

The study conducted by Strapuc and Cazacu (2016), found out that to evaluate the interaction between tools, systems, and taxation; we must understand the aspects of all sectors, the behaviour of tools and systems used in the assessment of taxes, as well as properties even in the same market having differing peculiarities. Jackson and Milleron (1986) found that the increase of taxpayers not complying with taxes is because of the

complexity of and evolution of the tax system over time. The various types of forms to fill for the payment of taxes also discouraged taxpayers from filing and hence this leads to an increase in the tax non-compliance. Sikka (2017), noted that government may lose revenue because of tax misconducts, wrong transfer invoicing, risk counterbalance, overuse of tax motives, and other tax planning systems. It is a crucial matter to ensure that tools and systems used to levy taxes are efficiently and effectively interacting with the taxpayers.

As per the study conducted by Ngicuru *et. al.*, (2016), on the effect of selected factors affecting revenue collection in the Nairobi county government. The study adopted a descriptive method of data collection, analysis, and interpretation. Data were analyzed using Statistical Package for Social Sciences (SPSS) using the multicollinearity regression model. The study findings revealed that tax structure affects revenue collection through flexibility, equitability, neutrality, and simplicity in the tax administration tools and systems. That revenue diversification has a positive and significant relationship with the amount of revenue collected whereas different forms of revenue collected have a positive and significant effect on the amount of revenue collected in the county. Based on the study, it was of interest to further dig deeper to understand the underlying policy issues and gaps in the administration of VAT and how these issues affect the general environment of tax compliance in Kenya.

Proper imposition of tax procedures will contribute to building a social norm of voluntary tax compliance as firms expand over time (Joshi *et.al*, 2014). This line of reasoning can be connected to overall economic growth and development due to improved VAT compliance from the voluntary payments of tax irrespective of the economic sector (Gaspar *et.al*, 2016). That the emergence of taxpaying culture is likely to come in handy with good governance and strong governmental institutions, which

eventually give rise to economic growth and development through proper tax imposition channels. However, those who have different opinions may feel that given the low value for money of imposition tax on the informal sector in terms of revenue, tax administrations have often given little priority to the taxation of the informal sector firms, in this case where the majority of the mechanics belong. Many fear that taxing the informal economy may have a greater tax bearing and burden on the low-income informal sector firms (Josh *et.al*, 2014). However, to countries facing the challenges of sufficient revenue for development, there is a need to find a way in which these qualifying informal sector players can be brought into taxation to help improve VAT compliance towards meeting both growth and development needs of the country (Muchiri, 2014).

The literature reviewed showed that VAT is an important contributor to tax revenue collected by the Kenya Revenue Authority. As important as it is, several areas present some weaknesses in the administration and collection of VAT. As people naturally do not want to pay taxes, any loopholes, or weaknesses either in the administration itself or the policy framework are likely to get exploited. Kenya's informal sector is big and constantly growing which literature has shown that the larger they grow the lesser the revenue will be collected as may be able to pay taxpayers would find a haven in the informal sector to evade paying taxes. The current VAT Act 2013; provisions for voluntary registration for VAT unless mandatory for those that have met the minimum threshold which is at least Kenya shilling five million. Therefore, many people in the informal sector who may be above the set minimum threshold do not register effectively as agents for the collection and remittance of VAT.

Mechanics in Nairobi are a considerable part of the informal sector and offer services to those who can pay VAT have the ability to pay for VAT. This is not the case currently

as only a few are registered for VAT. None of the studies reviewed has directly conducted research on the determinants of VAT compliance among the mechanics. None of the variables under the study has ever been investigated within the context of the proposed study to the best knowledge of the researcher. Following the gap that there exists, the proposed study will therefore investigate the effect of value added tax on VAT compliance, in the case of mechanics in Nairobi County

The chapter opened with the introduction of the study concept where the study investigated factors affecting VAT compliance among mechanics in Nairobi County. The variables in the study were VAT compliance dependent on tax knowledge, value added tax imposition procedures, and tools and systems on the administration of VAT. The study assumed that there is a relationship between the tax VAT knowledge, VAT imposition procedures and tools and systems, and VAT compliance. The study also assumed that there is a relationship between VAT knowledge, VAT imposition procedures, and VAT tools and systems, and VAT compliance.

The chapter looked at two theories that anchor the study. The ability to pay theory as put forward by Adam Smith in 1903, posits those taxes should be paid based on an individual's ability to pay. That those with greater income should pay more since the taxes demanded of them do not create much burden. The theory is propounded on the canons of equity, justice, and fairness of taxation. The theory was relevant to the study since it enabled the development of the framework for discussing and reviewing the previous studies bearing in mind that people should and can only pay taxes based on their abilities. The theory also enabled the researcher to be more focused to understand the issues that are likely to affect the outcome of the study knowing well what prompts the people to pay their taxes and what prompts tax authorities to administer regulations to various sectors of the economy.

The chapter also looked at the concluded and the ongoing studies in the subject of the study and reviewed and critiqued some of the findings. Several pieces of literature review from the world, continental, and national view supported the study variables in one way or the other. These previous scholarly works also enabled the study to identify gaps that need to fill and not only contribute to the academic body of knowledge but to offer data-based solutions to the relevant authorities and even subsector economy under the study. In the review of variables specific to the study, the findings of various scholars showed that there is a relationship between the study variables. These relationships however were different from those that were in this study. That led to the realization of the gap that needs to be filled. Many scholars have looked at the area of tax compliance in the context of factors such as direct foreign investment, imports, and exports, larger companies, among others. However, fewer studies have concentrated on the informal sector. Those that have still have not conducted any study with the same variables as in this study. Therefore, there was a need to fill the gap and contribute to the body of knowledge, improve on study variables, and support the improvement of VAT compliance in Kenya.

The literature review chapter is summarized by looking at the various subsections of the main chapter. The chapter concluded with the framing of the conceptual framework to show the relationship between the variables as discussed in the chapter. The study investigated factors affecting VAT compliance among mechanics in Nairobi County.

2.4 Conceptual Framework

The study aims at evaluating the effect of value added tax on VAT compliance, a case of mechanics in Nairobi County. The dependent variable is VAT compliance, and three independent variables include VAT knowledge, value added tax imposition procedures,

and the tools and systems administering value added tax in Kenya. The relationship between these variables is further illustrated in figure 2.1.

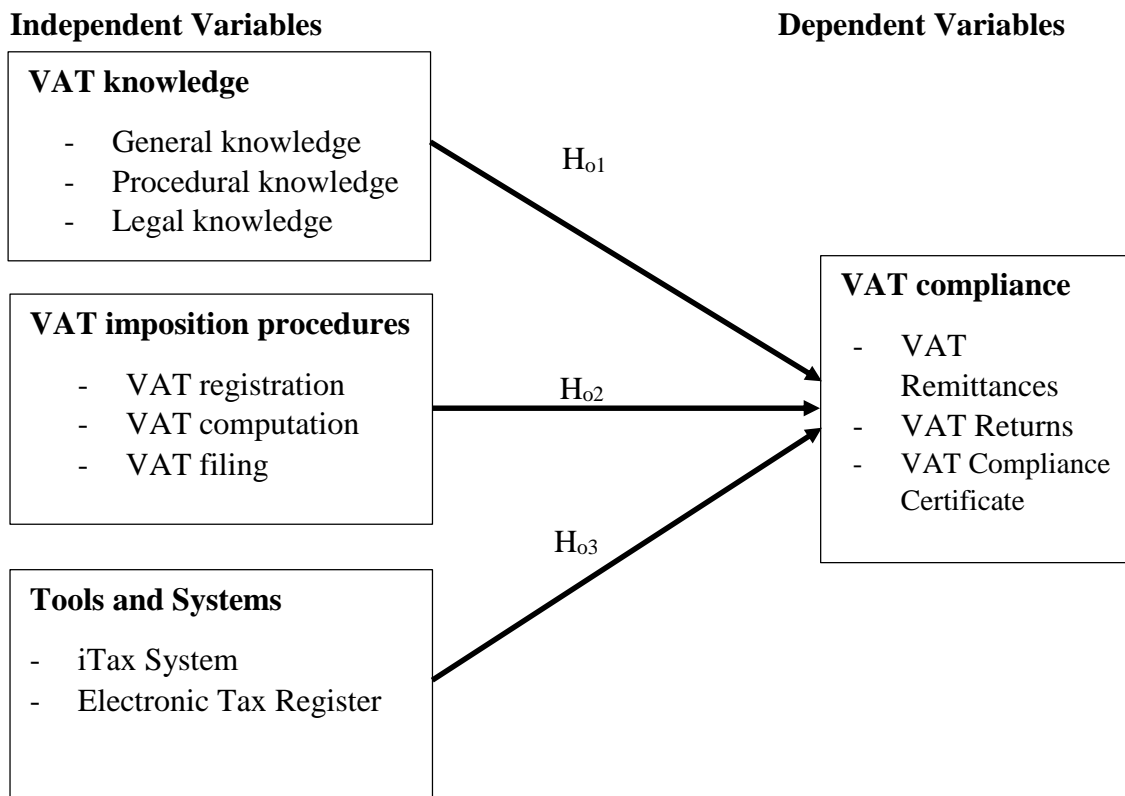


Figure 2.1: Conceptual Framework

Source: Author

CHAPTER THREE

RESEARCH METHODOLOGY

This chapter provided a discussion of the research methodology that was used in the study. It discussed the research design, target population and sample, data types and sources, data collection procedure, measurement of variables, data analysis, and presentation and ends with model specification and assumption of the regression model.

3.1 Research Design

Research design as noted by Yin (2009), is an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context. Yin further noted that a research design is all about establishing a systematic interface that ensures the interrelationship between the study's initial research questions and the empirical data that is accumulated thereon. This study adopted an explanatory research design. The primary purpose of explanatory research was to explain why phenomena occurred and to predict future occurrences. Explanatory studies are characterized by hypotheses that specify the nature and direction of the relationship between or among variables being studied. The goal is often to generalize the results to the population from which the sample is selected (Fowler, 2002). This design was appropriate for the study because it allowed the researcher to generalize the findings to a larger population (Schindler & Cooper, 2003).

3.2 Population and Sample

A population is the entire set of individuals having some common characteristics or who meet the sampling criteria for inclusion in a study (Burns & Grove, 2001). However, Cooper and Schindler define a population element as the subject on which the measurement is being taken and is the unit of study (Cooper & Schindler, 2003). On the other hand, a sample is a smaller group or sub-group obtained from the

accessible population. The sample should be selected in such a way as to ensure that certain sub-groups in the population are represented in the sample proportion (Mugenda, 2008).

3.2.1 Target Population

The target population of this research study comprised 428 Owner Mechanic Motor Vehicle Garages in Nairobi County. This includes East, West, South, and North as broken down by KRA stations divisions in Nairobi. This data was according to Kenya Auto Bazaar Association (2019). The study only targeted garages that had done business for the past 2 years.

Table 3.1: Target Population

Areas	Target Population
Nairobi East	184
Nairobi West	115
Nairobi South	53
Nairobi North	76
Total	428

Source: Author

3.2.2 Sampling Procedure

Sampling according to Lohr (2010) is defined as the procedure by which elements of a population are selected as representative of the total population. The study applied a cluster sampling technique to select the motor vehicle garages to participate in the study across the four division as per the Kenya Revenue Authority. The respondent mechanics within these garages were selected using systematic sampling for equal and normal distribution of respondents from the garages across the four areas of Nairobi County. To identify the participants every k^{th} mechanic was reached using the formula of $k = N/n$ where k^{th} person = $428/207 = \text{every } 2^{\text{nd}}$ mechanic among the sample population until the 207^{th} person was reached across all the four divisions within Nairobi County.

Systematic sampling was used since mechanics presented a homogenous group of the study population.

3.2.3 Sample Size

As noted by Zaied (2014), estimation of the sample size in research is a fundamental step in obtaining the intended research objects since it is a representation of the study population from which general observations can be made. According to the advice by Mugenda and Mugenda (2003) the larger the sample size the more accurate the findings of a given research. The sample size for this study was determined using Bridget and Lewin's (2005) formula. This formula assumes a normal distribution on the assumption that the garages were normally distributed according to the parameters under study. Using the formula and a precision level of 5%, the desired sample size is determined to be as below

$$n = \frac{N}{1+N(e)^2} = 428 / [1+428(0.05)^2] = 207 \text{ mechanics.}$$

where n = sample size, N = population size, then e = error of sampling or precision/error limit at 95% level of confidence, p = 0.5 and 5% level of precision is required. This sample size was considered adequate since it was greater than 1% of the target population (Gravette & Forzano, 2012). This sample was further distributed across the study area as per **Table 3.2**

Table 3.2: Sample Size

Area	Target Population	Sample Size
Nairobi East	184	87
Nairobi West	115	53
Nairobi South	53	24
Nairobi North	76	43
Total	428	207

Source: Author

3.3 Data Types and Sources

Leedy and Ormrod (2013), define data as information obtained during an investigation or study. Data for this research was collected mainly from primary sources. Data collection instruments refer to devices used to collect data such as questionnaires, tests, structured interview schedules, and checklists (Teddlie & Tashakkori, 2009). Primary data collection was accomplished using questionnaires. Primary data consisted of a series of original data collected by the researcher. The questionnaire was self-administered having closed-ended questions. The closed-ended questions enabled the collection of quantitative data for statistical analysis. The questionnaire was validated to help identify any ambiguous and unclear questions to the respondents.

3.4 Data Collection Procedure

Primary data was obtained through a self-administered questionnaire that was delivered to the respondents and collected after one week. Respondents were given instructions and assured of confidentiality after which they were given enough time to fill the questionnaires. A follow-up through personal visits to facilitate a good response rate was done.

3.5 Measurement of Variables

The dependent variable was measured using the constructs of value added tax remittances; value added tax returns and compliance certificates. The techniques used were ordinal scales through a self-administered 5-point Likert scale questionnaire with varying degrees of responses to which the study aimed to measure as is captured in appendix tow part four from statement numbers one to four. The data gathered with the study instrument was analyzed using regression and correlation analysis to assess the interdependency between the dependent variable and the independent variables in the study. The independent variable of VAT knowledge was measured using constructs of

the presence of general knowledge, procedural knowledge, and legal knowledge on value added tax compliance on a 5-point Likert scale self-administered questionnaire as appended in appendix two, part one statements one to five. The second independent variable VAT imposition procedures were measured using the constructs of VAT registration, VAT computation, and VAT filing using a self-administered questionnaire on a 5-point Likert scale as captured in appendix two, part two statements one to five. The third and last independent variable tools and systems were measured using iTax system, and electronic tax register (ETR) using a self-administered questionnaire on a 5-point Likert scale as captured in appendix two part three statements one to five. General questions and background information was captured in appendix two, part five using simple yes, no, and optional questions from one to nine. Data were analyzed using regression and correlation analysis to show the inter-relationship between the variable, other independent variables, and the dependent variable. To this extent, the study had not adopted any of the research hypotheses.

The study adopted normality, and multiple regressions to measure the degree to which the dependent variable was affected by the independent variables. ANOVA t- and f-tests were used to measure the significance of the model while measuring the relationship between determinants of VAT compliance at 95% confidence level and 5% significance level. A significance level of between 90% and 99% was sufficient to make a conclusion on the model's significance while tested at the P value. Pearson Correlation analysis (r) was used to determine and measure the strength and direction between the dependent variable and each of the independent variables. Coefficient of Determination (r^2) was used to measure the proportion of variance in the dependent variable that can be explained by the independent variable.

3.6 Pilot Study

A pilot study is a smaller version of the proposed study in preparation for the major study and does not form part of the eventual population group used in the final research study (Burns & Grove, 2002). It is used to refine the questionnaire so that respondents have no problems understanding and answering them (Saunders, 2012). It also helps in assessing the validity and reliability of the data that was collected. The pilot study was conducted on 21 or 10% of the sampled garages however outside the study area. The study conducted a pilot study in Kiambu County especially in Kahawa West Ward among garages that had been operational for at least two years and had their owner mechanics respond to the study questions. Only those mechanics who owned the garages were allowed to participate. Any other mechanic working for the garage was not required to participate in the pilot study. This was to ensure that only respondents who had firsthand information responded to the study instrument.

3.6.1 Validity of the Research Instruments

Validity according to Komp and Tromp (2009) is a measure of how well a test measure what it is supposed to measure. Content validity was achieved when questionnaires were given to experts in the field of study for comments on the suitability and representativeness of the questions. Their comments and observations were incorporated into the study instrument to ensure that the content is valid.

Construct validity indicates the extent to which a measurement method accurately represents a construct that can be measured directly and produces an observation, distinct from that which is produced by a measure of another construct (Carmines and Zellar, 1979). The study measured the validity of the constructs using factor analysis and correlation tests to ascertain whether all the constructs produced distinct observations independent of each other. Should this not be the case during the pilot

study, the study instrument was adjusted to ensure that each construct was distinct from the other.

Criterion validity according to Liu (2010) is the measure of the extent to which the instrument's scores correlate with an external criterion which is usually another measurement from a different instrument either at concurrent validity or predictive validity. The study measured criterion validity by comparing the correlation coefficient of relevant and similar previous studies between the two instruments measures. The criterion validity of a test is measured by the validity coefficient and a score above 0.35 is considered beneficial.

3.6.2 Reliability of the Research Instruments

Bell (2010) stated that reliability is the degree of consistency with which a research instrument measures whatever it is meant to measure. It is the extent to which a research instrument produces similar results on different occasions under similar conditions. In other words, it is concerned with the question of whether the results of a study are repeatable. For this study, reliability was determined by a test-retest technique where the researcher administered a pilot questionnaire twice in two separate instances to 10% of the sampled respondents who were not among the sampled respondents. Orodho (2012) noted that the pre-test should be 10% of the sample. The two scores were correlated to establish whether the contents of the questionnaire were consistent in eliciting the same responses every time the instrument was administered. The reliability of the instrument was assessed using Cronbach's alpha. A construct composite reliability coefficient (Cronbach alpha) of 0.7 or above is considered adequate for the study (Rousson, Gasser & Seifer, 2012)

3.7 Tests for Assumptions of Regression

Diagnostic tests are usually carried out to empirically determine the quantitative effect of study design shortcoming of estimates of diagnostic accuracy according to Wheeler and Tiefelsdorf (2005). The study conducted diagnostic tests before the data was analyzed to validate the accuracy and reliability of the findings. Using the Shapiro Wilk Test, when at an alpha level of 0.05 and the p-value of less than 0.05, then the null hypothesis was rejected and there was evidence that the data tested were not normally distributed. However, when the p-value is greater than 0.05, then the null hypothesis was not rejected meaning that the data had come from a normally distributed population.

3.7.1 Normality Test

A normality test is used to determine whether a data set is normally distributed. Visual representation of the distribution of tests results determines whether it conforms to the bell-shaped normal curve (Amata, 2017). The normality test was done using Shapiro Wilk Test.

3.7.2 Multicollinearity Test

According to Alin (2010), when two or more independent variables are linearly dependent on each other, then one of them should be used in data analysis instead of the two or more as this increases the standard errors, making the results biased. Using a Variance Inflation Factor (VIF) of values to measure whether the independent variables (IVs) suffer multicollinearity problem, a VIF value ≥ 10 shows there is multicollinearity while any VIF value ≤ 10 with a tolerance factor of ≥ 0.2 is an ideal and acceptable measure of multicollinearity. Zainodin and Yap (2011) note that it is important to test for multicollinearity among independent variables since the presence of multicollinearity leads to multiple errors in the analysis of data. The assumption was

that there was a true linear relationship between VAT compliance and VAT knowledge, VAT imposition procedures, and tools and systems. The study also assumed that errors were normally distributed, there was equal variance around the regression line during the analysis of the variables, and that the relationship was independent of one another to diagnostically test the relationship between the variables.

3.7.3 Data Transformation

According to Osborne (2002), data transformation is defined as the application of mathematical modifications of the values of a variable, including adding constants to multiply, square, or increase, convert to a logarithmic scale, inversion, and reflection, taking values from the square root and even apply trigonometric transformations such as sine transformation. This is done to ensure that the data meet the assumptions of normality and/or homoscedasticity/homogeneity of variance (Osborne, 2010). In the study data was not transformed since the test for normality showed that data was collected from a normally distributed population. This was based on the Shapiro Wilk test, which proved that all significance levels were above the required limits.

3.8 Data Analysis and Presentation

Data of the study were analyzed and tabulated by use of descriptive statistical analysis techniques. The completed questionnaires were edited for completeness and consistency before processing. The cleaned data were then entered into a computer for analysis using the statistical package for social sciences (SPSS). The result of the data analysis was presented in the frequency distribution table. Correlation analysis was used to determine the level of association of the variables in the study.

3.9 Model Specification

The model that was used in the analysis provided the extent to which the independent variable affected the dependent variable.

The multiple regression model was used as stated.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where: Y = VAT Compliance

β_0 = Constant term.

X_1 = VAT Knowledge

X_2 = VAT Imposition Procedures

X_3 = VAT Tools and Systems

ε = error term.

β_1 , β_2 and β_3 are coefficients of the various determinants of performance; and ε is error term.

3.10 Ethical Considerations

Ethical issues related to the privacy of possible and actual participants, voluntary nature of participation, the right to withdraw partially or completely from the process, consent, possible deception of participants, and maintenance of confidentiality of data provided by individuals or identifiable participants and their anonymity (Saunders, 2007). Permission was obtained from Moi University and NACOSTI to conduct data collection. The researcher was bound to adhere to all ethical issues of honesty, privacy, cultural sensitivity, informed consent, and voluntary participation. The ethics of the study were ensured by protecting the rights of the respondents that is anonymity and confidentiality. This was done by informing them in advance of the importance of the study and participation was on a willing basis. Respondents were at liberty to pull out from the study any time they felt not comfortable proceeding with the survey. Personal particulars like name and address were not disclosed.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, AND INTERPRETATION

This chapter presented the study results of the primary data collected through the use of closed-ended questionnaires. The vital areas of the study analyzed were the questionnaire's reliability test, response rate, and general information. The study objectives were to determine the effect of VAT knowledge on VAT compliance, determine the effect of VAT imposition procedures and determine the effect of value added tax administration tools and systems on VAT compliance among mechanics in Nairobi County. Descriptive and inferential statistics were as well used in data analysis, presentation, and interpretation of the data.

4.1 Questionnaires Response Rate

The study target response rate was 207 questionnaires, out of which 195 questionnaires were correctly filled and returned achieving a 94% return rate. According to C.R. Kothari (2014), a response rate of more than 70% was considered appropriate for data analysis and helped reduce sample biases. The results were displayed as in table 4.1.

Table 4. 1: Response Rate

Return Rate	Frequency	Percent
Returned Questionnaires	195	94
Unreturned Questionnaires	12	6
Total	207	100

Source: Author

4.2 General Information

The background information of the respondents in social research is a very vital consideration since it informs the views, opinions, and dynamics about the respondents and overall, the nature of responses achieved. In this study, the focus was on the gender,

age, and the highest level of education, business registration services, estimated average sales turnover in the past 3 years, cars approximately serviced on a good day, average charge of service per customer, number of employees if any, and the best description for one's business ownership.

4.2.1 Gender of Respondents

The study sought the respondents' gender and from the results in table 4.2, the majority of the respondents at 97% were male while females presented only 3% of the respondents. This exhibited the male gender to be higher than the female gender amongst the mechanics meaning this was a male-dominated area of service. This points to the fact that the economic sector of motor vehicles repair is mostly done by males which might influence their tax compliance behaviour.

Table 4. 2: Gender of Respondents

Gender	Frequency	Percent
Male	189	97
Female	6	3
Total	195	100

Source: Author

4.2.2 Age of Respondents

The respondents' age was analyzed and presented in table 4.3. The study conclusions indicated that the majority of the respondents at 56% were between ages 40-49 years, followed by 20% and 18% of the respondents who were between ages 29-39 years and 50-59 years, respectively. 4% and 2% of the respondents comprised of 18-28 years and 60 years and above respectively. These results revealed a representation of age as a factor that plays a role in this economic sector. This might point to age being an

expertise issue, creating a better understanding between the mechanics and their clients.

Age has also been associated with better compliance behaviour (Slemrod, 2016).

Table 4. 3: Age

Age	Frequency	Percent
18-28 years	8	4
29 - 39 years	39	20
40 - 49 years	110	56
50 - 59 years	35	18
60 years and above	3	2
Total	195	100

Source: Author

4.2.3 Highest Level of Education

The study sought information concerning the respondents' highest level of education attained as depicted in table 4.4. The results displayed that majority of the respondents at 54% had attained a secondary level, followed by 24% of the respondents who had a university/college achievement. 17% of the respondents had attained a primary level of education. Only 5% of the respondents seemed not to have attended school. These depictions showed excellent literacy levels of the respondents that assisted in achieving quality responses. Education level may be associated with understanding and being generally aware of the tax implications on the business. To some taxpayers, the knowledge could be used to avoid and evade paying taxes by exploiting the weaknesses in the tax laws, among them VAT registration thresholds.

Table 4. 4: Highest Level of Education

Level of Education	Frequency	Percent
Primary	33	17
Secondary	106	54
University/College	47	24
Others (Not gone to school)	9	5
Total	195	100

Source: Author

4.2.4 Business Registration Services

Further, the study solicited information of the respondents regarding if the business was registered with business registration services as presented in table 4.5 and the findings revealed that the majority of the respondents at 87% indicated that their business was registered with business registration services while only 13% of the respondents said it was not. Registration with the government is a critical aspect of doing business. It makes the mechanics visible, and their locations can be traced. It also plays a role in achieving compliance through registration with tax authorities for VAT purposes.

Table 4. 5: Business Registration Services

Registration Services	Frequency	Percent
Yes	170	87
No	25	13
Total	195	100

Source: Author

4.2.5 Estimated Average Sales/Service Turnover

Moreover, the study sought information of the respondents concerning the estimated average sales/services turnover realized in the past 3 years as displayed in table 4.6, whereby, the outcomes indicated that the majority of the respondents at 59% achieved

an estimated average sales/service turnover of between KES 100,000-1,000,000 in the last 3 years while 38% of the respondents achieved an estimated average sales/service turnover of between KES 1,000,000-2,000,000. 33% and 31% of the respondents achieved an estimated average sales/service turnover of between KES 2,000,000-3,000,000 and KES 3,000,000-4,000,000 respectively. 23% and 11% of the respondents achieved an estimated average sales/service turnover of between KES 4,000,000-5,000,000 and KES 5,000,000 and above respectively. The low rates exhibited from KES 5,000,000 and above could be a pointer to the fact that the majority of mechanics shy away from declaring their true sales/service turnovers for fear of the VAT implications on them by the Kenya Revenue Authority. The law requires that any trader who does turnovers above KES 5,000,000 must register for VAT obligations. This requires businesses to keep clear records of both sales and purchases to claim or pay for VAT due. Due to the nature of garages, only few mechanics can comply, hence the implication on these findings.

Table 4. 6: Estimated Average Sales/Service Turnover

Sales/Service	Frequency	Percent
KES 100,000 - 1,000,000	59	30
KES 1,000,000 - 2,000,000	38	19
KES 2,000,000 - 3,000,000	33	17
KES 3,000,000 - 4,000,000	31	16
KES 4,000,000 - 5,000,000	23	12
KES 5,000,000 and above	11	6
Total	195	100

Source: Author

4.2.6 Approximate Cars Serviced in a Good Business Day

Again, the study sought information on how many cars approximately the respondents serviced in a good business day. As presented in table 4.7, the judgments showed that

the majority of the respondents at 64% in a good business day serviced between 4-6 units while 22% of the respondents serviced between 1-3 units. Furthermore, 13% of the respondents said in a good day they had serviced between 7-9 units while only 1% had serviced 10 units and above. These estimates assisted in getting quality feedback that constituted the making of the study's conclusions. These findings could point to the fact that garages are a good source of revenue generation that may require efforts by the revenue authority to appropriately tax. The customers in this sector are individuals and companies with the means to pay for services inclusive of VAT

Table 4. 7: Approximate Cars Serviced

Cars	Frequency	Percent
1 - 3 units	43	22
4 - 6 units	124	64
7 - 9 units	26	13
10 units and above	2	1
Total	195	100

Source: Author

4.2.7 Average Charge on Customers per Service

Furthermore, the study sought information on how much on average the respondents charged their customers per service and as presented in table 4.8, the verdicts disclosed that the majority of the respondents at 53% charged between KES 1,500 - 3,000 while 22% of the respondents charged between KES 3,000 - 4,500. Additionally, 10% and 8% of the respondents indicated to charge between KES 4,500 - 6,000 and KES 6,000 - 7,500 respectively while only 7% charged from KES 9,000 and above. This finding could be a pointer that mechanics engage in the profitable service industry that should adequately contribute to value added tax. Their customers are taxpayers who have the ability to pay since the cost of getting services from the mechanics is not cheap.

Table 4. 8: Average Charge on Customers per Service

Cost	Frequency	Percent
KES 1,500 - 3,000	104	53
KES 3,000 - 4,500	42	22
KES 4,500 - 6,000	20	10
KES 6,000 - 7,500	15	8
KES 9,000 and above	14	7
Total	195	100

Source: Author

4.2.8 Number of Employees

Likewise, the study sought information on how many employees the respondents had and as shown in table 4.9, the findings revealed that the majority of the respondents at 100% had between 1 - 10 employees in the businesses. This could be an indicator that the service industry employs many potential taxpayers. These taxpayers should be made aware of their tax obligations to contribute to revenue generation.

Table 4. 9: Number of Employees

Employees	Frequency	Percent
1 - 10	195	100
Total	195	100

Source: Author

4.2.9 Business Ownership

Finally, the study sought information on how best the respondents described their business ownership and as displayed in table 4.10, the results revealed that the majority of the respondents at 80% described their business as a sole proprietorship while only 20% indicated to be in partnership. These results showed that the majority of the businesses were operated by the owners. This data points to an indication that most

mechanics are sole business owners who may not only qualify for VAT thresholds but also eligible for other tax bases such as PAYE, turnover tax, among others.

Table 4. 10: Business Ownership

Employees	Frequency	Percent
Sole Proprietor	156	80
Partnership	39	20
Total	195	100

Source: Author

4.3 Reliability Test

Bell (2010) stated that reliability is the degree of consistency with which a research instrument measures whatever it is meant to measure. A construct composite reliability coefficient (Cronbach alpha) of 0.7 or above, for all the constructs, was considered to be adequate for this study. As displayed in table 4.11, VAT knowledge with the highest reliability of ($\alpha=0.909$). The other variables of VAT imposition procedures had ($\alpha=0.707$) while VAT tools and systems had ($\alpha=0.723$) Lastly, VAT compliance had ($\alpha=0.753$).

Table 4. 11: Reliability Test

Factor	Number of Items	Cronbach Alpha Score	Conclusion
VAT Knowledge	5	.909	Reliable
VAT Imposition Procedures	5	.707	Reliable
VAT Tools and Systems	5	.723	Reliable
VAT Compliance	5	.753	Reliable

Source: Author

4.4 Validity Test

According to Komp and Tromp (2009), validity is a measure of how well a test measure what it is supposed to measure. The study measured questionnaire validity to ascertain

whether all the constructs produced distinct observations independent of each other by use of the correlation coefficient. The criterion validity of a test is measured by the validity coefficient and a score above 0.35 is considered beneficial. This is displayed in table 4.12.

Table 4. 12: Validity Test

Factor	Number of Items	Validity Score	Conclusion
VAT Knowledge	5	.673	Valid
VAT Imposition Procedures	5	.549	Valid
VAT Tools and Systems	5	.613	Valid
VAT Compliance	5	.552	Valid

Source: Author

4.5 Tests for Statistical Assumptions

The study carried out various tests for linear regression assumptions. These include tests for normality research data using Shapiro-Wilk (SW); and tests for multicollinearity using correlation matrix and Variance Inflation Factors (VIFs).

4.5.1 Normality Test

A normality test is used to determine whether a data set is normally distributed. Visual representation of the distribution of tests results determines whether it conformed to the bell-shaped normal curve (Amata, 2017).

The normality assumption should be taken seriously; otherwise, it would be difficult to draw an accurate and reliable conclusion about reality. The commonly used tests for normality for elements more than 50, Shapiro Wilk test was considered ideal and perfect. If the p-value of the Shapiro Wilk test is greater than 0.05, then the data is

normal. If the p-value is less than 0.05, then it significantly violates the normal distribution assumption.

The results of the Shapiro-Wilk tests were shown in table 4.13.

Table 4. 13: Normality Test

	Shapiro-Wilk	
	Statistic	Sig.
VAT Knowledge	1.318	0.52
VAT Imposition Procedures	1.972	0.57
VAT Tools and Systems	0.462	0.54
VAT Compliance	1.972	0.65

a. Lilliefors Significance Correction

Source: Author

4.5.2 Multicollinearity Test

This is when two or more independent variables are linearly dependent on each other, then one of them should be used in data analysis instead of the two or more as this increases the standard errors, making the results biased (Alin, 2010). Using a Variance Inflation Factor (VIF) of values to measure whether the independent variables (IVs) suffer multicollinearity problem, a VIF value ≥ 10 shows there is multicollinearity while any VIF value ≤ 10 with a tolerance factor of ≥ 0.2 is an ideal and acceptable measure of multicollinearity.

Since there were (3) independent variables then there was the need for a multicollinearity test. This was done by running variance inflation factor (VIF) values. Therefore, the study results in table 4.14 showed that the predictor's VIF values were < 5 implying that there was no multicollinearity.

Table 4. 14: Multicollinearity Test

Collinearity Statistics		
	Tolerance	VIF
VAT Knowledge	.994	1.006
VAT Imposition Procedures	.806	1.241
VAT Tools and Systems	.806	1.241

a. Dependent Variable: VAT Compliance

Source: Author

4.5.3 Data Transformation

According to Osborne (2002), data transformation is defined as the application of mathematical modification of the values of a variable including adding constants to multiplying, squaring or raising to a power, converting to logarithmic scales, inverting and reflecting, taking square root values, and even applying trigonometric transformations such as sine wave transformation. Therefore, in this study, data was not transformed because the Shapiro Wilk test showed that data came from a normally distributed population.

4.6 VAT Knowledge

The first objective of the study was to determine the effect of VAT knowledge on VAT compliance among mechanics in Nairobi County. The observations were measured using a 5-point Likert-scale ranging from (1) = Strongly Disagree, (2) = Disagree, (3) = Neither Agree nor Disagree, (4) = Agree, (5) = Strongly Agree.

With mixed responses on the effect of VAT knowledge on VAT compliance among mechanics, the results in table 4.15 showed that the majority of the respondents with a mean score of 3.96 said that they were aware that mechanics in business were many and they effectively contributed to revenue improvement should they be registered for VAT. This was followed by a mean score of 2.88 of the respondents who agreed that

they were aware that all registered businesses should collect on behalf of the revenue authority VAT and subsequently remitted the same as required while a mean score of 2.87 of the respondents said that they were aware that failure to register for VAT yet qualifying was against the legal requirements of Value Added Tax Act 2013. Further, mean scores of 2.78 and 2.33 of the respondents indicated that they were aware that all businesses trading above the minimum threshold of KES 5 million should mandatorily register for Value Added Tax (VAT) and also aware that their business traded above KES 5 million within the last one year and at least in one of the past two years, respectively.

Generally, a composite mean of 2.97 and a standard deviation of 1.202 established that there was a good understanding of the effects of VAT knowledge on VAT compliance among the mechanics in Nairobi County.

Table 4. 15: VAT Knowledge

Statements		SD	D	N	A	SA	Mean	Std. Dev
I am aware that my business traded above KES 5 million within the last one year and at least in one of the past two years	f	47	67	54	23	4	2.33	1.034
	%	24	34	28	12	2		
I am aware that all businesses trading above the minimum threshold of KES 5 million should mandatorily register for Value Added tax (VAT)	f	31	64	28	60	12	2.78	1.216
	%	16	33	14	31	6		
I am aware that failure to register for VAT yet qualifying is against the legal requirements of Value Added Tax Act 2013	f	34	64	11	65	21	2.87	1.335
	%	17	33	6	33	11		
I am aware that all registered business should collect on behalf of the revenue authority VAT and subsequently remit the same as required	f	33	67	14	53	28	2.88	1.364
	%	17	34	7	27	14		
I am aware that mechanics in business are many and they can effectively contribute to revenue improvement should they be registered for VAT	f	7	20	11	92	65	3.96	1.062
	%	4	10	6	47	33		
Composite Mean and Standard Deviation (n=195)							2.97	1.202

Source: Author

4.7 VAT Imposition Procedures

The second objective of the study was to investigate the effect of VAT imposition procedures on VAT compliance among mechanics in Nairobi County. The analyses

were measured using a 5-point Likert-scale ranging from (1) = Strongly Disagree, (2) = Disagree, (3) = Neither Agree nor Disagree, (4) = Agree, (5) = Strongly Agree.

The results in table 4.16 revealed that the majority of the respondents with a mean score of 4.12 said that they did not have sufficient knowledge about Value Added Tax and its applicable laws and registering will make business more complicated. This means that a lack of knowledge on the procedures and requirements for VAT, bar the majority of the mechanics from taking the voluntary initiative to register for VAT obligations. This leads to a situation whereby VAT obligations cannot be imposed because the mechanics are not legible for enforcement but also creates a loophole for non-compliance and loss of tax revenue. It is critical to note that the optional choice for VAT registration makes it difficult to enforce compliance as the majority of mechanics would avoid registration so as not to be caught in forced compliance, among the view who may use the knowledge gained to avoid accounting for VAT. While mean scores of 3.79 and 3.50 of the respondents indicated that their business usually purchased vatable supplies from various suppliers used in the business to service their clients and customers, and they feared the implications of registering for the VAT due to uncertainty in the behavior of their customers and clients in relation tax imposition, respectively. Finally, the mean scores of 3.09 and 2.49 said that their business was not registered for VAT accounting purposes and therefore did not file for VAT purchased during their business and their business had deliberately avoided the issue of taxation since they viewed it as complicated and attracts unwanted scrutiny of their business.

Even though a general composite mean of 3.40 and a standard deviation of 1.216 established that there was a relative understanding of VAT imposition procedures and VAT compliance among mechanics in Nairobi County; it is not about having sufficient knowledge but basic coupled with the knowledge and information that spread amongst

the mechanics themselves which might be factual or not. It might also reveal that mechanics often heard about the negative consequences of VAT imposition procedures such as arrests, fines, and penalties. Such relative understanding may inform negative actions by the mechanics who may reject VAT compliance.

The sufficient knowledge tested in the study, however, would include the knowledge of VAT accountability with the understanding that VAT is not a final tax and mechanics would just act as agents for collection from their clients' taxpayers. This sufficient knowledge would also include the ability to properly file all tax receipts for both purchases and sales, operate ETR machines, compute the VAT differences and file the same with the tax authority. This degree of knowledge might be insufficient but the general knowledge about the VAT implications and repercussions could have been heard among the majority of the mechanics targeted in the study.

Table 4. 16: VAT Imposition Procedures

Statements		SD	D	N	A	SA	Mean	Std. Dev
My business usually purchases vatable supplies from various suppliers used in the business to service my clients and customers	f	10	15	32	86	52	3.79	1.079
	%	5	8	16	44	27		
My business is not registered for VAT accounting purposes and therefore do not file for VAT purchased during my business	f	39	47	14	47	48	3.09	1.507
	%	20	24	7	24	25		
My business has deliberately avoided the issue of taxation since I view it as complicated and attracts unwanted scrutiny of my business	f	45	69	31	41	9	2.49	1.190
	%	23	35	16	21	5		
I fear the implications of registering for VAT due to uncertainty in the behavior of our customers and clients in relation tax imposition	f	17	33	21	84	40	3.50	1.237
	%	9	17	11	43	21		
I do not have sufficient knowledge about Value Added Tax and its applicable laws and registering will make business more complicated	f	6	19	7	76	87	4.12	1.067
	%	3	10	4	39	45		
Composite Mean and Standard Deviation (n=195)							3.40	1.216

Source: Author

4.8 Tools and Systems

The third objective of the study was to establish the effect of value added tax administration tools and systems on VAT compliance among mechanics in Nairobi

County. The interpretations were measured using a 5-point Likert-scale ranging from (1) = Strongly Disagree, (2) = Disagree, (3) = Neither Agree nor Disagree, (4) = Agree, (5) = Strongly Agree. The study results displayed in table 4.17 showed that the majority of the respondents with a mean score of 3.84 agreed that they had heard about the existence of iTax system used by the revenue authority to interact with taxpayers. This was followed by a mean score of 3.44 of the respondents that said they did not issue an ETR receipt if the clients did not demand it and consequently did not account for the VAT. Further, mean scores of 2.88 and 2.86 of the respondents agreed that their business had never used any of the systems by the revenue authority including iTax system, ETR, and any other for tax purposes and had used iTax system to interact with revenue authority systems for different purposes including registration for VAT, respectively. Lastly, only the mean score of 2.17 of the respondents said that their business owned and used the ETR machine to issue tax receipts for all the services and sales they made in the business.

Generally, a composite mean of 3.04 and a standard deviation of 1.222 established that there was a good understanding of tools and systems used in the administration of value added tax affected VAT compliance among mechanics in Nairobi County.

Table 4. 17: Tools and Systems

Statements		SD	D	N	A	SA	Mean	Std. Dev
I have heard about the existence of iTax system used by the revenue authority to interact with taxpayers	f	3	21	19	113	39	3.84	0.920
	%	2	11	10	58	20		
I have used iTax system to interact with revenue authority systems for different purposes including registration for VAT	f	32	66	18	55	24	2.86	1.326
	%	16	34	9	28	12		
My business owns and uses ETR machine to issue tax receipts for all the services and sales I make in the business	f	72	61	26	28	8	2.17	1.193
	%	37	31	13	14	4		
I do not issue ETR receipt if the clients do not demand for it and consequently do not account for the VAT	f	19	37	17	84	38	3.44	1.268
	%	10	19	9	43	19		
My business has never used any of the systems by the revenue authority including iTax system, ETR and any other for tax purposes	f	44	48	15	64	24	2.88	1.401
	%	23	25	8	33	12		
Composite Mean and Standard Deviation (n=195)							3.04	1.222

Source: Author

4.9 VAT Compliance

The dependent variable for this study was on VAT compliance and the explanations were measured using a 5-point Likert-scale ranging from (1) = Strongly Disagree, (2) = Disagree, (3) = Neither Agree nor Disagree, (4) = Agree, (5) = Strongly Agree.

The outcomes shown in table 4.18 ascertained that the majority of the respondents with a mean score of 3.95 agreed that their business did not collect value added tax from their customers and clients and therefore did not need to account for their transactions while the mean score of 3.63 of the respondents likewise agreed that their business was not required to account for, file and remit payments to revenue authority since it was small and informal. Moreover, the mean scores of 3.02 and 2.79 of the respondents indicated that they were aware that for one to qualify for value added tax obligations and requirements there was a minimum threshold, and their business was registered for value added tax as required by the Value Added Tax Act 2013 and its relevant rules and procedures. Additionally, the mean score of only 1.96 of the respondents said that their business computed, filed, and paid for VAT collect on behalf of the revenue authority from all their clients.

Generally, a composite mean of 3.07 and a standard deviation of 1.169 established that there was a good understanding of the state of VAT compliance among mechanics in Nairobi County.

Table 4. 18: VAT Compliance

Statements		SD	D	N	A	SA	Mean	Std. Dev
I am aware that for one to qualify for value added tax obligations and requirements, there is a minimum threshold	f	27	48	33	69	18	3.02	1.237
	%	14	25	17	35	9		
My business is registered for value added tax as required by the Value Added Tax Act 2013 and its relevant rules and procedures	f	43	54	20	57	21	2.79	1.359
	%	22	28	10	29	11		
My business computes, files and pays for VAT collect on behalf of the revenue authority from all my clients	f	74	77	27	11	6	1.96	1.012
	%	38	39	14	6	3		
My business is not required to account for, file and remit payments to revenue authority since it is small and informal	f	12	34	18	82	49	3.63	1.209
	%	6	17	9	42	25		
My business does not collect value added tax from my customers and clients and therefore I do not need to account for my transactions	f	11	9	14	105	56	3.95	1.027
	%	6	5	7	54	29		
Composite Mean and Standard Deviation (n=195)							3.07	1.169

Source: Author

4.10. Inferential Statistics

Furthermore, the study carried out inferential statistics using correlation and regression analyses. This was to show the inter-relationship between the variable, other independent variables, and the dependent variable.

4.10.1 Correlation Analysis

Pearson correlation coefficient (r) was used to assess the strength of association between the study variables. The results for this study were displayed in table 4.19 which indicated that VAT knowledge was positively and insignificantly associated with VAT compliance as shown $r=0.092$ and $p=0.201>0.05$). On the other side, the results revealed that VAT imposition procedures was negatively and significantly associated with VAT compliance as shown $r= -0.156$ and $p=0.029<0.05$). Again, the results presented that VAT administration tools and systems was positively and insignificantly associated with VAT compliance as shown $r=0.088$ and $p=0.221>0.05$.

Table 4. 19: Correlation Analysis

		VAT Compliance	VAT Knowledge	VAT Imposition Procedures	VAT Tools and Systems
VAT Compliance	Pearson	1			
	Correlation				
	Sig. (2-tailed)				
	N	195			
VAT Knowledge	Pearson	.092	1		
	Correlation				
	Sig. (2-tailed)	.201			
	N	195	195		
VAT Imposition Procedures	Pearson	-.156*	-.044	1	
	Correlation				
	Sig. (2-tailed)	.029	.541		
	N	195	195	195	
VAT Tools and Systems	Pearson	.088	.040	.437**	1
	Correlation				
	Sig. (2-tailed)	.221	.576	.000	
	N	195	195	195	195

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

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

Source: Author

4.10.2 Regression Analysis

The general objective of the study was to investigate factors affecting value added tax compliance among themechanics in Nairobi County. To achieve this, the study focused on three main objectives which were VAT knowledge, VAT imposition procedures, and VAT tools and systems. Plus, hypotheses were equally formulated.

4.10.1.1 Model Summary

From the results in table 4.20, it was revealed that VAT knowledge, VAT imposition procedures, and VAT tools and systems had a positive relationship with VAT compliance up to 24.5% or (R= 0.245). In addition, the results revealed that VAT knowledge, VAT imposition procedures, and VAT tools and systems caused a variation of 6% or (R²=0.060 and adjusted R² =0.045) on VAT compliance. This implied that the remaining 94% of the change was caused by other factors not included in the model.

Table 4. 20: Effect of VAT Knowledge, VAT Imposition Procedures and VAT Tools and Systems on VAT Compliance

Model Summary				
Mode	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.245 ^a	.060	.045	.439

a. Predictors: (Constant), VAT Knowledge, VAT Imposition Procedures, VAT Tools and Systems

b. Dependent Variable: VAT Compliance

Source: Author

4.10.1.2 Analysis of Variance

Additionally, ANOVA tests were done to determine whether the model works in explaining the connection among variables as assumed in the conceptual framework. The study conclusions from table 4.21 showed an F statistics value of 4.056 with a significance level of 0.008^a which was more than the conventional probability of 0.05 significant level. Therefore, establishing the model is statistically significant. The implication is that each independent variable contributed significantly to changes in the dependent variable.

Table 4. 21: ANOVA Test

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.344	3	.781	4.056	.008 ^a
	Residual	36.788	192	.193		
	Total	39.131	195			

a. Predictors: (Constant), VAT Knowledge, VAT Imposition Procedures, VAT Tools and Systems

b. Dependent Variable: VAT Compliance

Source: Author

4.10.1.3 Test of Hypotheses

The first hypothesis H_{01} stated that there is no significant effect of VAT knowledge on VAT compliance among mechanics in Nairobi County. VAT knowledge had a positive effect on the VAT compliance mechanics in Nairobi County. However, the results in table 4.22 above revealed that the p value was more than 0.05, $p=0.294$ which implied that the effect was not statistically significant therefore the null hypothesis was accepted.

The second hypothesis H_{02} stated that there is no significant effect of value added tax imposition procedures on VAT compliance among mechanics in Nairobi County. VAT imposition procedures had a negative effect on the VAT compliance among mechanics in Nairobi County. However, the results on table 4.22 revealed that the p value was less than 0.05, $p=0.003$ which implied that the effect was statistically significant therefore the null hypothesis was rejected.

The third hypothesis H_{03} stated that there is no significant effect of tool and systems on VAT compliance among mechanics in Nairobi County. Tool and systems had a positive effect on the VAT compliance mechanics in Nairobi County. However, the results in table 4.22 revealed that the p value was less than 0.05, $p=0.017$ which implied that the effect was statistically significant therefore the null hypothesis was rejected.

4.11 Discussion of Findings

This section presented a discussion of the outcomes of various tests carried out on the study. The results of each of the hypotheses in this study were discussed.

4.11.1 VAT Knowledge and VAT Compliance

The first objective of the study was to determine the effect of VAT knowledge on VAT compliance among mechanics in Nairobi County. The conclusions revealed that

the relationship between VAT knowledge and VAT compliance was statistically insignificant at the p value of 0.294 which was more than 0.05 at the conventional probability significance level. These findings show that taxpayers' knowledge of VAT laws, rules, and regulations is not beneficial to tax compliance. That even if taxpayers are knowledgeable on VAT requirements, they may not necessarily comply with the VAT returns and payment of taxes due. This could also mean that majority of the mechanics used the tax knowledge at their disposal to avoid and evade complying to the tax laws and requirements.

Awasthi and Engelschalk (2018) conducted a study on the impact of informal sector growth on VAT compliance among developing economies. The study adopted an exploratory study technique. Data were analyzed using regression and correlation analysis to consider the relationship between taxation and informal economy and how tax systems can stimulate and enforce the formalization of business activities. The study found that the existence of a strong negative relationship between tax compliance in the informal economy and tax knowledge. The findings further revealed that even those in the informal economy who qualify to pay taxes should be brought into the tax brackets through holistic strategies; the majority of these informal economy players lack the requisite knowledge beyond the general knowledge to be fully compliant.

However, as per La Porta & Shleifer's (2014), study on the determinants of revenue collection in the informal sector, case of small-scale traders in Pakistan. The study findings revealed that a large number of potential taxpayers in the informal sector are not aware of their tax obligations, tax laws, requirements, and procedures of accounting for their taxes due. The study further found that the difficulties of monitoring hidden entrepreneurs and small-scale forms can give rise to serious revenue collection costs for tax authorities in developing countries, which then hinders overall VAT compliance.

At the same time, the revenue potential of taxpayers in the informal sector is fairly modest, as their taxable income is usually quite low.

4.11.2 VAT Impositions Procedures and VAT Compliance

The second objective of the study was to determine the effect of VAT imposition procedures on VAT compliance among mechanics in Nairobi County. The conclusions revealed that the relationship between VAT imposition procedures and VAT compliance was statistically significant at the p value of 0.003 which was less than 0.05 at the conventional probability significance level. The lower values represented in the study could mean that VAT imposition procedures bear the greatest impact on VAT compliance. Mechanics would comply when they are faced with the threat of the revenue authority imposing producers to ensure compliance. The stronger the beta coefficient the stronger the effect of VAT imposition procedures on VAT compliance (Glen, 2021).

In agreement with this study's findings, Chibuye (2016) stated that the informal sector presented a challenge to most tax administrations because of the nature of the business which they run and their inability to meet the minimum thresholds. Even though there were many other tax regimes in place to ensure that the informal sector contributed to revenue collection, still many never participated. Proper imposition of tax procedures will contribute to building a social norm of voluntary tax compliance as firms expand over time (Joshi *et.al*, 2014). This line of reasoning can be connected to overall economic growth and development due to improved VAT compliance from the voluntary payments of tax irrespective of the economic sector (Gaspar *et.al*, 2016).

However, Tatariyanto (2014) found evidence that the underground economy increased when a large number of people were not submitting tax returns due to changes in tax

imposition policy and the growth rate of unemployment. The study further found that the underground economy in Indonesia decreased sequel to greater public knowledge to comply with tax payment of their civic obligations. The study further noted that where imposition procedures become complicated and that taxpayers find challenges in filing their returns and making payments, they are discouraged. This might affect the total revenue collection especially in the difficult-to-catch tax evaders sectors such as the informal economy such the mechanics who dominate the informal sector.

4.11.3 VAT Administration Tools and Systems and VAT Compliance

The third objective of the study was to determine the effect of value added tax administration tools and systems on VAT compliance among mechanics in Nairobi County. The assumptions revealed that the relationship between VAT administration tools and systems and VAT compliance was statistically significant at the p value of 0.017 which was less than 0.05 at the conventional probability significance level.

Strapuc & Cazacu (2016) agreed that to evaluate the interaction between tools, systems, and taxation, there must be an understanding of all the aspects of all sectors, the behavior of tools and systems used in the assessment of taxes, as well as properties even in the same market having differing peculiarities, especially in the case where the users of these tools and systems may have limits in accessing and effectively understanding the setup of these tools and systems. However, when taxpayers interact with tools and systems, at times, the government may lose revenue because of tax misconducts, wrong transfer invoicing, risk counterbalance, overuse of tax motives, and other tax planning systems. It is a crucial matter to ensure that tools and systems used to levy taxes are efficiently and effectively interacting with the taxpayers (Sikka, 2017).

Contrary to the above propositions, those who have different opinions may feel that given the low value for money of imposition tax on the informal sector in terms of

revenue, revenue authorities often given little priority to the taxation of the informal sector firms such as where the mechanics are found. Many fear that taxing the informal economy may have a greater tax burden on the low-income informal sector firms (Josh *et.al*, 2014). Still, countries facing the challenges of sufficient revenue have not otherwise but to find ways in which these qualifying informal sector players can be brought into taxation through the use of appropriate tools and systems in order to improve compliance which in turn equates to better revenue collection (Muchiri, 2014).

4.12 Regression Analysis Model

Furthermore, the regression analysis model showed the association between VAT knowledge, VAT imposition procedures, VAT tools and systems, and VAT compliance as displayed in table 4.22.

Table 4. 22: Regression Analysis Model

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.011	.209		14.420	.000
	VAT Knowledge	.032	.031	.074	1.053	.294
	VAT Imposition Procedures	-.143	.048	-.235	-3.000	.003
	VAT Tools and Systems	.148	.062	.187	2.398	.017

a. Dependent Variable: VAT Compliance

b. Predictors: (Constant), VAT Knowledge, VAT Imposition Procedures, VAT Tools and Systems

Source: Author

From table 4.22 the regression model is:

$$Y = 3.011 + -0.143 X_2 + 0.148 X_3$$

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where:

Y = VAT compliance

β_0 = Constant term.

X_1 = VAT Knowledge

X_2 = VAT Imposition Procedures

X_3 = VAT Tools and Systems

ε = error term.

β_1 , β_2 , and β_3 are coefficients of the various determinants of performance; and ε is the error term

The regression equation showed that a constant change of 3.011, a unit change in VAT knowledge causes an increase of 0.032 in VAT compliance. A unit change in VAT imposition procedures causes a decrease of 0.143 in VAT compliance while a unit change in VAT administration tools and systems causes an increase of 0.148 in VAT compliance.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

In this chapter the research findings were summarized, conclusions and recommendations to the study were drawn; limitations to the study were explained and suggestions for future studies were stated.

5.1 Summary of Findings

The overall objective of this study was to investigate factors affecting value added tax compliance among the mechanics in Nairobi County. With this in mind, the study sought to determine the effect of VAT knowledge on VAT compliance among mechanics in Nairobi County, to determine the effect of VAT imposition procedures on VAT compliance among mechanics in Nairobi County, and finally to determine the effect of value added tax administration tools and systems on VAT compliance among mechanics in Nairobi County.

5.1.1 Effect of VAT Knowledge on Value Added Tax Compliance

The first objective was to determine the effect of VAT knowledge on VAT compliance among mechanics in Nairobi County. Correlation analysis showed that VAT knowledge on VAT compliance among mechanics in Nairobi County was positively and insignificantly associated. Equally, the Regression analysis showed there was a positive insignificant linear relationship between VAT knowledge on VAT compliance among mechanics in Nairobi County with evidence of $p=0.294$, $p>0.05$.

5.1.2 Effect of VAT Imposition Procedures on Value Added Tax Compliance

The second objective was to determine the effect of VAT imposition procedures on VAT compliance among mechanics in Nairobi County. Correlation analysis showed that VAT imposition procedures on VAT compliance among mechanics in Nairobi County were positively and significantly associated. Likewise, the Regression analysis

showed there was a positive significant linear relationship between VAT imposition procedures on VAT compliance among mechanics in Nairobi County with evidence of $p=0.003$, $\rho<0.05$.

5.1.3 Effect of VAT Administration Tools and Systems on Value Added Tax Compliance

The third objective was to determine the effect of value added tax administration tools and systems on VAT compliance among mechanics in Nairobi County. Correlation analysis showed that value added tax administration tools and systems on VAT compliance among mechanics in Nairobi County were positively and significantly associated. Alike, the Regression analysis showed there was a positive significant linear relationship between value added tax administration tools and systems on VAT compliance among mechanics in Nairobi County with evidence of $p=0.017$, $\rho<0.05$.

5.2 Conclusions

Based on the above-mentioned findings, the study thus accepted the first null hypothesis and concluded that VAT knowledge had a positive and insignificant effect on VAT compliance among mechanics in Nairobi County. Hence, VAT knowledge was not found to play a significant role in VAT compliance among mechanics in Nairobi County.

However, the study rejected the second null hypothesis and concluded that VAT imposition procedures had a positive and significant effect on VAT compliance among mechanics in Nairobi County. Therefore, VAT imposition procedures were found to play a significant role in VAT compliance among mechanics in Nairobi County.

Finally, the study further rejected the third null hypothesis and concluded that value added tax administration tools and systems had a positive and significant effect on VAT compliance among mechanics in Nairobi County. Hence, value added tax administration tools and systems were found to play a significant role in the VAT compliance among mechanics in Nairobi County.

5.3 Recommendations

Value added tax is an important component of revenue collection strategies put established by the government through legislation. Drawing from the ability to pay theory, all eligible taxpayers should pay their taxes however small according to their ability to pay. Payment of tax must be seen to be a collective responsibility of the taxpayers and the government alike as posited by systems theory. The system of collecting value added tax should not be discriminative but all-inclusive to enhance revenue collection. From the study findings, the theories that anchored the study, and from the empirically reviewed literature, the study makes recommendations to the various stakeholders and economic sectors.

To the government, VAT imposition procedures have been shown to have a significant relationship with VAT compliance, therefore, the government should put more effort in designing and implementing imposition procedures that would capture all sectors and taxpayers who are eligible for VAT collections and remittances. Tools and systems should be enhanced to improve on the interaction with tax compliance procedures by reducing both the cost and time taken to comply with tax liabilities by the taxpayers. This is confirmed by the findings that showed a significant and positive relation between tools and systems and VAT compliance.

To the taxpayers and the general public, tax payment should be the responsibility of every citizen who has the ability to pay as posited by the ability to pay theorists.

Therefore, taxpayers should embrace voluntary compliance without the need to wait upon the tax authority to impose compliance which literature has shown to be costlier as compared to voluntary compliance. Taxpayers should also take advantage of tools and systems by the tax authority to increase compliance efficacy and effectiveness which then would lead to decreased cost of compliance.

5.4 Limitations of the Study

The research project had some limitations of not attaining a 100% response rate. This was attributed to the taxpayers' fear and reluctance to provide responses that would be used against them by the authorities or even getting penalized. Nevertheless, the limitation was alleviated by reassuring the respondents that data collected from them was confidential, remained anonymous, and used only for academic purposes. The study only included mechanics as well who are garages owners only to respond to the study instruments. Those who worked and were not owner of the garages were excluded from being participants to the study. However, the limitation did not in any way affect the outcome as the mechanic owner garages were specifically targeted for respond to the study instrument.

5.5 Suggestions for Further Research

The study specifically focused on the mechanics only. However, further studies should be carried out in other counties to attain objective inferences as different counties have different functioning settings. Additionally, the study focused on only three precise objectives VAT knowledge, VAT imposition procedures, and VAT administration tools and systems. Future studies should put more emphasis on other factors that may have an effect on VAT compliance among mechanics and to a wider population.

REFERENCES

- Abdul-Jabbar, H. (2009). Income tax non-compliance of small and medium enterprises in Malaysia: determinants and tax compliance costs. Curtin University of Technology.
- ActionAid Progressive Tax Policy Brief (2018) on Corporate Income Tax, available at https://actionaid.org/sites/default/files/publications/Corporate%20income%20tax%208%20page_0.pdf
- Alexeev, M. and Chibuye, B. (2016) Estimating the Value Added Tax (VAT) gap in Zambia: 2009-2011, International Growth Center Policy Brief No. 41204, International Growth Center Policy.
- ATAF (2019) African Tax Outlook 2019. Thematic Paper: Assessing VAT Revenue Performance in Selected ATO countries, Pretoria: African Tax Administration Forum.
- Awasthi, R. & Engelschalk, M., (2018), Taxation and the shadow economy. How the tax system can stimulate and enforce the formalization of business activities, Policy Research Working Paper 8391, World Bank Group Governance Global Practice.
- Bain, Kathrin, Michael Walpole, Ann Hansford, and Chris Evans. 2015. "The Internal Costs of VAT Compliance: Evidence from Australia and the United Kingdom and Suggestions for Mitigation." *eJournal of Tax Research*. 23 (1): 158-182.
- Barile, S. (eds.) 2006. *L'impresa come sistema. Contributi sull'Approccio Sistemico Vitale*, I ed. Torino: Giappichelli.
- Barile, S. (eds.) 2008. *L'impresa come sistema – Contributi sull'Approccio Sistemico Vitale*, II ed. Torino: Giappichelli.
- Bird, R. M., Gendron, P.-P., (2007) *The VAT in Developing and Transitional Countries*, Cambridge University Press, Cambridge.
- Brashares, Edith, Matthew Knittel, Gerald Silverstein, and Alexander Yuskavage. 2014. "Calculating the Optimal Small Business Exemption Threshold for a US VAT." *National Tax Journal* 67 (2): 283-320.
- Britannica, The Editors of Encyclopaedia. "Value-added tax". *Encyclopedia Britannica*, 22 Oct. 2020, <https://www.britannica.com/topic/value-added-tax>. Accessed 13 March 2021.
- Casanegra de Jantscher, M. (1990) 'Administering the VAT', in M. Gillis, C. Shoup and G.P. Sicat, *Value Added Taxation in Developing Countries*, Washington DC: World Bank
- Creswell, J. (2003). *Research design: Qualitative, Quantitative, and mixed methods Approaches*. 3rd Ed SAGE Publication Los Angeles.
- Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. London: University of Nebraska- Lincoln.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*. 16, 297-334

- De Mooij, R. A., & Keen, M. (2016). Debt, taxes, and banks. *Journal of Money, Credit and Banking*, 48(1), 5-33.
- Diallo, I. (2018). Tax exemptions for aid-funded projects: reasons for change. International Centre for Tax and Development (ICTD) Blog. <http://www.ictd.ac/en/taxexemptions-aid-funded-projects-reasons-change>.
- Diallo, M. S., & Rao, J. N. K. (2018). Small area estimation of complex parameters under unit- level models with skew- normal errors. *Scandinavian Journal of Statistics*, 45(4), 1092-1116.
- Ebrill, L., Keen, M., Bodin, J.-P., & Summers, V. (2001). *The modern VAT*. Washington DC: International Monetary Fund.
- Gaalya, M.S., Edward, B. and Eria, H. (2017) Trade Openness and Tax VAT compliance in East African Countries. *Modern Economy*, 8, 690- 711. <https://doi.org/10.4236/me.2017.85049>
- Gale, W. G., Gelfond, H., & Krupkin, A. (2016). Value-Added Taxes and Small Business.
- Gale, William, Aaron Krupkin, and Kim Rueben. 2015. "The Relationship between Taxes and Growth at the State Level: New Evidence." *National Tax Journal* 68 (4): 919-942
- Gaspar, V., and Jaramillo, L., and Wingender, P. (2016). Tax Capacity and Growth: Is There a Tipping Point? Available at SSRN: <https://ssrn.com/abstract=2902728> or <http://dx.doi.org/10.2139/ssrn.2902728>
- Gasper, D. (2014). Ethics and development. *The Companion to Development Studies*, 47-50.
- Golinelli, G.M. 2009. L'approccio sistemico vitale: nuovi orizzonti di ricerca per il governo dell'impresa. *Sinergie*. (80), IX-XXII.
- Guillermo, R.B.C. & Deyvi, A.A., (2018), The informal economy and its impact on tax revenues and economic growth, Analysis of OECD members and Latin America Countries (1995-2016). Retrieved on 24.05.2021 from: <https://www.researchgate.net/publication/328343445>.
- Harju, Jarkko, Tuomas Matikka, and Timo Rauhanen. 2015. "The Effect of VAT Threshold on the Behavior of Small Businesses: Evidence and Implications." Helsinki, Finland: VATT Institute for Economic Research Working Paper.
- Hooper, Paul, and Karen A. Smith. "A Value-Added Tax in the U.S.: An Argument in Favor." *Business Horizons*, May-June 1997.
- IMF (2011) *Revenue Mobilization in Developing Countries*, Washington DC: International Monetary Fund. Available at: <http://www.imf.org/external/np/pp/eng/2011/030811.pdf>
- ITD (2007) *Taxation and small and medium enterprises*, International Tax Dialogue. Available at: <http://www.itdweb.org/smeconference/documents/itd%20global%20conference%20-%20background%20paper.pdf>

- Joshi, A., Prichard, W. and Heady, C. (2014) 'Taxing the Informal Economy: The Current State of Knowledge and Agendas for Future Research', *The Journal of Development Studies* 50.10: 1325–1347
- Kasipillai, J. and Abdul Jabbar, H. (2006) 'Gender and Ethnicity Differences in Tax Compliance', *Asian Academy of Management Journal* 11.2: 73–88
- Keen, M. (2012) *Taxation and Development – Again*, IMF Working Paper 12-220, Washington DC: International Monetary Fund.
- Keen, M. (2013), 'The Anatomy of the VAT'. IMF Working Paper WP/13/111. Washington, DC: International Monetary Fund. Available at: <https://www.imf.org/external/pubs/cat/longres.aspx?sk=40543.0>.
- Keen, M. and Mintz, J. (2004) 'The Optimal Threshold for a Value-Added Tax', *Journal of Public Economics* 88(3-4): 559-576.
- Keen, M., & Slemrod, J. (2017). Optimal tax administration. *Journal of Public Economics*, 152, 133-142.
- Keen, M., Krelove, R., & Norregaard, J. (2016). Policy Forum: The Financial Activities Tax. *Canadian Tax Journal*, 64(2), 389-400.
- Kenya National Bureau of Statistics (KNBS) (2019), *Statistical Releases; Quarterly reports*, Nairobi
- Kopczuk, W., & Slemrod, J. (2006). Putting firms into optimal tax theory. *American Economic Review*, 96(2), 130-134.
- Kopczuk, W., Marion, J., Muehlegger, E., & Slemrod, J. (2016). Does tax-collection invariance hold? evasion and the pass-through of state diesel taxes. *American Economic Journal: Economic Policy*, 8(2), 251-86.
- Kothari, C.R (2004). *Research Methodology, Methods and Techniques* (Second Revised Edition), New Age International Publishers, New Delhi
- La Porta, R. & Shleifer, A. (2014). Informality and Development. *Journal of Economic Perspectives*, 28(3), 109-126.
- Leedy, P.D. and Ormrod, J.E. (2013) *Practical Research: Planning and Design*. 10th Edition, Merrill/Prentice Hall, Boston.
- Levin, Jörgen & Widell, Lars. (2014). Tax Evasion in Kenya and Tanzania: Evidence from Missing Imports. *Economic Modelling*. 39. 151-162. 10.1016/j.econmod.2014.02.021.
- Lin, J. Y. and Liu, M. (2007) 'Rural Informal Taxation in China: Historical Evolution and an Analytic Framework', *China & World Economy* 15.3: 1–18
- Mascagni, G., Dom, R., & Santoro, F. (2021). The VAT in practice: Equity, enforcement and complexity.
- Mashkoor, M., Yahya, S., & Ali, S. A. (2010). Tax revenue and economic growth: An empirical analysis for Pakistan. *World Applied Sciences Journal*, 10(11), 1283-1289.

- Md Radzi, N. Z. (2019). CULTURE INFLUENCE TOWARDS INTENTION OF TAX NON-COMPLIANCE AMONG SME OWNERS. *Asia Proceedings of Social Sciences*, 5(2), 128-132. <https://doi.org/10.31580/apss.v5i2.1079>.
- Meagher, Kate. (2021). *Taxing Times: Religious Conflict, Taxation and the Informal Economy in Northern Nigeria*.
- Mohamad, A., Zakaria, M. H. and Hamid, Z. (2016) 'Cash economy: Tax evasion amongst SMEs in Malaysia', *Journal of Financial Crime*, 23(4), pp. 974–986. doi: 10.1108/JFC-05-2015-0025.
- Moore, M., Prichard, W. and Fjeldstad, O.-H. (2018) *Taxing Africa: Coercion, Reform and Development*, Zed Books.
- Moyi, E. et al. (2006), *Taxation & Tax Modernization in Kenya; a Diagnosis on Performance and Options for Further Reform*. IEA 2006.
- Muchiri, K.B., (2014), An analysis of the effect of the growth of the informal sector on tax VAT compliance in Kenya, M.Sc. Thesis submitted to the school of Economics, University of Nairobi.
- Muchiri, K.B., (2014), An analysis of the effect of the growth of the informal sector on tax revenue performance in Kenya, Msc. Thesis submitted to the school of Economics, University of Nairobi.
- Nalyanya, K. et al. (2020). Effects of Inflation on Tax VAT compliance in Kenya. *International Journal of Economics, Business and Management Research* 4(5), 2456-7760.
- Nelson H. W. Wawire. 2020. “Constraints to Enhanced Revenue Mobilization and Spending Quality in Kenya.” CGD Policy Paper 163. Washington, DC: Center for Global Development. <https://www.cgdev.org/publication/constraints-enhanced-revenue-mobilization-and-spending-quality-kenya>
- Neumark, D. (2018). Employment effects of minimum wages. *IZA World of Labor*.
- Ngicuru, P.N. et al. (2016). Effect of Selected Factors Affecting Revenue Collection in Nairobi City County Government. *Journal of Economics, Business and Management Research*.
- Nyaga, J. N., & Omwenga, J. (2016). Factors influencing tax revenue growth at Kenya Revenue Authority: A case of Meru station. *International Academic Journal of Economics and Finance*, 2(1), 1-15.
- OECD (2008) *Consumption tax trends 2008: VAT/GST and excise rates, trends and administration issues*, OECD, Paris.
- OECD (2012). ‘Tax and Development: on Aid Modalities for Strengthening Tax Systems.’ Paris:
- OECD/AUC/ATAF (2020), *Revenue Statistics in Africa 2020*, OECD Publishing, Paris, <https://doi.org/10.1787/14e1edb1-en-fr>
- Ogley, Adrian. *Principles of Value-Added Tax—A European Perspective*. International Information Services, Inc., 1998.

- Ogunc, F. & Yilmaz, G., (2000), Estimating the Underground Economy in Turkey, The Central Bank of the Republic of Turkey, Research Department, Discussion paper, September 2000.
- Organisation for Economic Cooperation and Development. 2015. "Revenue Statistics – Comparable Tables." OECD Stat.
- Oueslati, W. (2014), Environmental tax reform: Short-term versus long-term macroeconomic effects. *Journal of Macroeconomics*, 40, 190-201.
- Petrescu, I.M., (2016), The Effects of Economic Sanctions on the Informal Economy, *Management Dynamics in the Knowledge Economy*, 4(4), pp. 623-648.
- Pimhidzai, O., & Fox, L. (2011). Taking from the poor or local economic development: the dilemma of taxation of small informal enterprises in Uganda. World Bank Africa Regional Project on Improving the Productivity and Reducing Risk of Household Enterprises, Washington DC
- Quiros-Romero, Gabriel & Alexander, Thomas & Ribarsky, Jennifer. (2021). Measuring the Informal Economy. Policy Papers. 2021. 10.5089/9781513568249.007.
- Rousson, Valentin & Gasser, Theo & Seifert, Burkhardt. (2002). Assessing interrater and test–retest reliability of continuous measurements. *Statistics in medicine*. 21. 3431-46. 10.1002/sim.1253.
- Scott, Andrew. "Taxing Financial Services: A Future with Options." *OECD Observer*, January 1999.
- Sęk, Małgorzata. (2017). Informal Economy and VAT. *Kwartalnik Prawa Podatkowego*. 10.18778/1509-877X.01.03.
- Sijbren, Cnossen. (2015). Mobilizing VAT revenues in African countries. *International Public Finance*. 22: 1077-1108. New York.
- Sikka, Prem. (2017). Accounting and taxation: Conjoined twins or separate siblings? *Accounting Forum*. 41. 10.1016/j.accfor.2016.12.003.
- Slemrod, J. (2016). 5. Complexity, Compliance Costs, and Tax Evasion. In J. Roth & J. Scholz (Ed.), *Taxpayer Compliance, Volume 2: Social Science Perspectives* (pp. 156-181). Philadelphia: University of Pennsylvania Press. <https://doi.org/10.9783/9781512806281-006>
- Slemrod, J. (2016). Tax compliance and enforcement: New research and its policy implications.
- Slemrod, J., *et al.* (2001) "Taxpayer response to an increased probability of audit: Evidence from a controlled experiment in Minnesota", *Journal of Public Economics*.
- Strapuc, C. & Cazacu, N. (2016). "Interaction Between Accounting And Taxation – Temporal And Spatial Milestones," *The USV Annals of Economics and Public Administration*, Stefan cel Mare University of Suceava, Romania, Faculty of Economics and Public Administration, vol. 16(1(23)), pages 199-204, June.
- Tatariyanto, F., (2014), Taxing the underground economy: The case of Indonesia, *Journal of Economics and Sustainable Development*, 5(27), pp. 236-250.

- Tedika, O. & Mutascu, M., (2013), Shadow economy and tax revenue in Africa. Munich Personal RePEc Archive, Available online at: <http://mpa.ub.unimuenchen.de/508121>.
- Utz, S. (2017). Tax Design Goals and How to Use Them. *Tax Design Goals and How to Use Them*, 157.
- Vicari, S. 1992. Risorse aziendali e funzionamento d'impresa in Finanza, Marketing e Produzione, 3.
- Von Bertalanffy, L. 1968. General System theory: Foundations, Development, Applications. New York: George Braziller.
- Weinberg, G.M. 2001. An Introduction to General Systems Thinking. Dorset House Publishing Company, Incorporated; 25th edition, April.

APPENDICES

Appendix I: Letter of Introduction

Dear respondent,

I am a student at Kenya School of Revenue Administration conducting a study on factors affecting value added tax compliance among mechanics in Nairobi County. This study will enlighten the mechanics, tax authority and the general public about the above area of study. In order to accomplish the study, I request you to complete this questionnaire.

The information obtained will be used purely for academic purposes and therefore, will be treated with utmost confidentiality and good faith. Thank you in advance for participating and making this study a success.

Yours sincerely

.....

Eliud Lutomia

KESRA105/0131/2019

Appendix II: Research Questionnaire

Instructions for Respondents

This questionnaire is divided into four parts namely Part 1, Part 2, Part 3, Part 4, and Part 5. You are requested to be as truthful as possible while answering the questions. You are to put a tick, circle or put an x mark in the spaces provided and as instructed where applicable.

PART 1: VAT KNOWLEDGE

This section aims at understanding effects of VAT knowledge on VAT compliance among mechanics Nairobi County. To what extent do you agree or disagree with the following statements. Kindly put a cross (X) where applicable.

Use a scale of 1-5 where; 1= Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree.

		1	2	3	4	5
1.	I am aware that my business traded above KES 5 million within the last one year and at least in one of the past two years.					
2.	I am aware that all businesses trading above the minimum threshold of KES 5 million should mandatorily register for Value Added tax (VAT)					
3.	I am aware that failure to register for VAT yet qualifying is against the legal requirements of Value Added Tax Act 2013.					
4.	I am aware that all registered business should collect on behalf of the revenue authority VAT and subsequently remit the same as required.					
5.	I am aware that mechanics in business are many and they can effectively contribute to revenue improvement should they be registered for VAT.					

PART 2: VAT IMPOSITION PROCEDURES

This section aims at understanding value added tax imposition procedures and VAT compliance among mechanics in Nairobi County. To what extent do you agree or disagree with the following statements. Put a cross (X) in the spaces provided. *Use a scale of 1-5 where; 1= Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree.*

		1	2	3	4	5
1.	My business usually purchases vatable supplies from various suppliers used in the business to service my clients and customers.					
2.	My business is not registered for VAT accounting purposes and the therefore do not file for VAT purchased during my business.					
3.	My business has deliberately avoided the issue of taxation since I view it as complicated and attracts unwanted scrutiny of my business.					
4.	I fear the implications of registering for VAT due to uncertainty in the behaviour of our customers and clients in relation tax imposition.					
5.	I do not have sufficient knowledge about Value Added Tax and its applicable laws and registering will make business more complicated.					

PART 3: TOOLS AND SYSTEMS

This section aims at understanding tools and systems used in the administration of value added tax affects VAT compliance among mechanics in Nairobi County. To what extent do you agree or disagree with the following statements. Put a cross (X) in the spaces provided. *Use a scale of 1-5 where; 1= Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree.*

		1	2	3	4	5
1.	I have heard about the existence of iTax system used by the revenue authority to interact with taxpayers.					
2.	I have used iTax system to interact with revenue authority systems for different purposes including registration for VAT.					
3.	My business owns and uses ETR machine to issue tax receipts for all the services and sales I make in the business.					
4.	I do not issue ETR receipt if the clients do not demand for it and consequently do not account for the VAT.					
5.	My business has never used any of the systems by the revenue authority including iTax system, ETR and any other for tax purposes.					

PART 4: VAT COMPLIANCE

This section aims at understanding the state of VAT compliance among the mechanics in Nairobi County. To what extent do you agree or disagree with the following statements. Put a cross (X) in the spaces provided. *Use a scale of 1-5 where; 1= Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree.*

No.		1	2	3	4	5
1.	I am aware that for one to qualify for value added tax obligations and requirements, there is a minimum threshold.					
2.	My business is registered for value added tax as required by the Value Added Tax Act 2013 and its relevant rules and procedures.					
3.	My business computes, files and pays for VAT collect on behalf of the revenue authority from all my clients.					
4.	My business is not required to account for, file and remit payments to revenue authority since it is small and informal.					
5.	My business does not collect value added tax from my customers and clients and therefore I do not need to account for my transactions.					

PART 5: GENERAL INFORMATION

1. What is your gender?

Male Female Choose not to say

2. How old are you?

18 – 28 years 29 – 29 years 40 – 49 years
 50 – 59 years 60 and above

3. What is your highest level of education?

Primary Secondary University/College
 Other Specify

4. Is your business registered with business registration services?

Yes No

5. What are the estimated average sales/service turn over realized in the past 3 years?

KES 100,000 – 1,000,000 KES 1,000,000 – 2,000,000
 KES 2,000,000 – 3,000,000 KES 3,000,000 – 4,000,000
 KES 4,000,000 – 5,000,000 KES 5,000,000 and above

6. How many cars approximately do you service on a good business day?

1 – 3 units 4 – 6 units 7 – 9 units
 10 units and above

7. How much on average do you charge your customers per service?

KES 1,500 – 3,000 KES 3,000 – 4,500 KES 4,500 – 6,000

KES 6,000 – 7,500 KES 7,500 – 9,000 KES 9,000 and above

8. How many employees do you have if any?

1 – 10

11 – 20

21- 30

9. How best do you describe your business ownership?

Sole Proprietor

Partnership

Company

THE END

Thank you for your participation!

Appendix III: KESRA Research Letter



Kenya School of Revenue
Administration



KENYA REVENUE
AUTHORITY

ISO 9001:2015 CERTIFIED

REF: KESRA/NBI/036

15th September 2021

TO: WHOM IT MAY CONCERN

RE: REQUEST FOR RESEARCH PERMIT

ELIUD LUTOMIA - REG. NO.: KESRA/105 /0131/2019

This is to confirm that the above named is a student at Kenya School of Revenue Administration (KESRA) Nairobi Campus pursuing Masters in Tax and Customs Administration.

The named student is undertaking Research on TOPIC: "EFFECTS OF VALUE ADDED TAX ON REVENUE PERFORMANCE, A CASE OF MECHANICS IN NAIROBI, KENYA."

The purpose of this letter is to request your good office to assist the above student with the information he requires to enable him work on his project.

Your support to KESRA in this regard will be highly appreciated.

Thank you.

Dr. Marion Nekesa, PHD,
Head Academic Research
KESRA



P. O. Box 48240 – 00100, Nairobi Email: kesratraining@kra.go.ke Tel: +254715877535/9

Tulipe Ushuru Tujitegeme!

Appendix IV: NACOSTI Research Permit



REPUBLIC OF KENYA



NATIONAL COMMISSION FOR
SCIENCE, TECHNOLOGY & INNOVATION

Ref No: **236056** Date of Issue: **20/September/2021**

RESEARCH LICENSE



This is to Certify that Mr. ELIUD LUTOMIA of Kenya School of Revenue Administration, has been licensed to conduct research in Nairobi on the topic: FACTORS AFFECTING VALUE ADDED TAX COMPLIANCE AMONG MECHANICS IN NAIROBI COUNTY for the period ending : 20/September/2022.

License No: **NACOSTI/P/21/13163**

Applicant Identification Number
236056

Director General
NATIONAL COMMISSION FOR
SCIENCE, TECHNOLOGY &
INNOVATION



Verification QR Code



NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013

The Grant of Research Licenses is Guided by the Science, Technology and Innovation (Research Licensing) Regulations, 2014

CONDITIONS

1. The License is valid for the proposed research, location and specified period
2. The License any rights thereunder are non-transferable
3. The Licensee shall inform the relevant County Director of Education, County Commissioner and County Governor before commencement of the research
4. Excavation, filming and collection of specimens are subject to further necessary clearance from relevant Government Agencies
5. The License does not give authority to transfer research materials
6. NACOSTI may monitor and evaluate the licensed research project
7. The Licensee shall submit one hard copy and upload a soft copy of their final report (thesis) within one year of completion of the research
8. NACOSTI reserves the right to modify the conditions of the License including cancellation without prior notice

National Commission for Science, Technology and Innovation
off Waiyaki Way, Upper Kabete,
P. O. Box 30623, 00100 Nairobi, KENYA
Land line: 020 4007000, 020 2241349, 020 3310571, 020 8001077
Mobile: 0713 788 787 / 0735 404 245
E-mail: dg@nacosti.go.ke / registry@nacosti.go.ke
Website: www.nacosti.go.ke

Appendix V: Plagiarism Report

