EFFECT OF ADMINISTRATIVE STRATEGIES ON REVENUE COLLECTION EFFICIENCY IN MACHAKOS COUNTY

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DECLARATION

I declare that this dissertation is my original work and has not been previously published/submitted elsewhere for award of a degree. I also declare that this contains no material written or published by other people except where due reference is made and author duly acknowledged.

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ABSTRACT

Despite devolution of funds to the county government having promising positive effect on development and service delivery at the grassroots, the revenue collection among these counties is insufficient to fund these projects and ensure effective service delivery. Thus, it is not statistically proven the effect of; revenue diversification, technology adoption and human capital management strategies on the revenue collection efficiency in Machakos County. This study sought to unlock the gap by assessing effect of administrative strategies on revenue collection efficiency in Machakos County and specifically, effect of; revenue diversification, technology adoption and human capital management strategies on the revenue collection efficiency in Machakos County. The underpinning theories included; portfolio theory, Henri Fayol Administrative Theory, and administration theories. This study used descriptive research design to gather information in the area of research on the assessment of the effect of administrative techniques on the quality of revenue collection efficiency in Machakos County. The study used the census as the target population was small and easily manageable where the target population as a whole was engaged in analysis. Using a drop-and-pick method, a structured questionnaire was directly distributed to participants in order to gather research data from primary sources. The validity and reliability of the questionnaire were examined before use. Descriptive statistics and inferential analysis were used to analyze the data, which was then described, illustrated, and explained using narration and data analysis powered by SPSS tools. The study concludes that at 5% significance level; Revenue diversification have a significantly moderate positive effect on revenue collection efficiency in County Government of Machakos (r=0.421; p=0.012). technology adoption moderately and significantly affects revenue collection efficiency in Machakos County positively (r= .432; p=0.008), and human capital management strategies has a significantly and moderately positive effect on the revenue collection efficiency in Machakos County (r=0.321=0.031). The study recommends that the County Government of Machakos should strengthen its revenue diversification through creatively and innovativeness establishing diverse and productive revenue diversification, appreciate the power in technology and therefore invest significantly in technology adoption, invest significantly in human capital management policies which champion for quality, experienced and professionalism & motivation.

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DEDICATION

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ACRONYMS AND ABBREVIATIONS

FY	financial year
HCT	Human capital Theory
HRM	Human Resource Management
ICT	Information Communication Technology
KRA	Kenya Revenue Authority
NACOSTI	National Commission for Science , Technology and Innovation
NSE	Nairobi Stock Exchange
OCOB	Office of the Controller of Budget
USA	United States of America

OPERATIONAL DEFINITION OF TERMS

Human capital development incorporates the health, knowledge, skills, intellectual outputs, motivation and capacity for relationships of the individual (Yusuph, 2015)

Revenue Administration strategies are defined as the processes, policies, procedures surrounding the revenue collection environment (Balunywa et al., 2014).

Revenue Collection efficiency is defined as the revenue collected by an entity during and after every financial period. This is measured through attainment of set targets set at the start of each period (Owolabi, 2011).

Revenue collection efficiency is defined as the revenue collected by an entity during and after every financial period. This is measured through attainment of set targets set at the start of each period (Owolabi, 2011).

Revenue diversification refers to strategies used to assist revenue body to identify all sources of county revenues thus boosts revenue generation through streams (Sechero & Otinga, 2020).

Revenue diversification refers to the various revenue streams from which an entity derives its income. In Government it generally refers to the various taxes and levies received from the taxpayers (Carcello, Williams, Haka & Bettner, 2008).

Technology adoption refers to appreciation and utilisation of systems to support information gathering, processing, tabulation and presentation in a meaningful form (Martkin & Moody, 2015).

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Ever since commencement of the previous decade, Kenya has been attempting to combat various socioeconomic inequities and low development concentration through a variety of reforms, with a primary focus on devolving funds (Owuor, Chepkuto, Tubey & Kuto, 2013). According to the country's vision 2030 initiative, the reforms are intended to make the nation a middle-income nation by the year 2030. In the devolution of these funds, the nation established provisions in the Kenyan Constitution of 2010 for the transfer of some of the power to levy taxes and incur expenses from the National Government to County Governments planning to improve service delivery to Kenyan citizens (Wanjiru et al., 2019). After the Kenyan Constitution of 2010 was ratified, 47 county governments were established throughout the state in addition to the already existing national government. The majority of the making plans and delivery of public services were devolved from the National Government to the County Governments under this arrangement, which was largely funded by devolved funds. (Mburugu & Gakera, 2016).

More precisely, the county governments in Kenya are empowered to collect revenue and incur expense locally for ensuring effectiveness in development and service delivery locally without relying on the national government ((Wanjiru et al., 2019). In their effort to achieve success in the expected development and service delivery, the Kenyan county governments must therefore seek attain consistent revenue collection efficiency; to satisfies the estimated budgets and beyond (Tibaijuka, 2015).

However, most Kenyan county governments are not collecting adequate revenue sufficient to cover their budget expectations for sustaining their development projects and ensure consistent service delivery (Wanjiru et al., 2019; Office of the Controller of Budget [OCOB], 2015). OCOB (2015) indicates that despite these counties having large variety of own-source revenue streams, they only utilise up to 6.62% of these streams consistently as-sources of revenue. Consequently, the revenue collection efficiency among the Kenya counties is deteriorating significantly affecting service delivery assurance and completion of development project (Javan-Noughabi, Sadeghi & Rezapour, 2018). Empirical research has shown that counties in Kenya are facing numerous challenges in their concerted efforts to ensuring revenue collection efficiency, with most of them pointing onto weak link in their revenue administration function (Wanjiru et al., 2019; Turuntayeva, Kassiyenova, Abrakhmatova, Radzhapov and Alshymbek; 2019). An empirical study conducted in Kazakhstan by Turuntayeva, Kassiyenova, Abrakhmatova, Radzhapov and Alshymbek (2019) shows that revenue administration ensures timeliness of budget revenues and increases revenue collection efficiency.

More so, administration and decision theories have associated revenue collection efficiency in the public sector to administration strategies. As Meek (2014) posit the complexity theory suggests that administration of public services lays a foundation for addressing complex administrative issues. Denhardt and Denhardt (2011) indicates that the public choice theory suggest that public administration function should ensure prevention of inefficiency while revealing accountability and commitment to the public interest. Accordingly, the public choice informs that the administration strategies used by the public officials should ensure that their expectations are met (satisfy budget through revenue collection efficiency) and they should as well respond public service delivery including development. While explain the public

administration theory, Bourgon (2007) suggests that interests of citizens (service delivery and development) is determined by the administration strategies practiced by elected officials or market preferences. As if to confirm these emphasis of these theories, Javan-Noughabi et al. (2018) indicated that effectiveness of revenue depends on the quality of revenue administration where ineffective revenue administration strategies negatively influence revenue collection since deterioration of revenue collection efficiency leads to a decrease in its revenue (funding). Therefore, this study assessed the effect of administration strategies on revenue collection efficiency in Machakos County.

Globally, many countries have developed and implemented revenue administration strategies so as to respond to the dynamically increasingly emerging challenges emanating from tax systems development (Eja, Idaka & John, 2018). The People's Republic of China introduced of tax administration that ensured e-invoices issuance and delivery, highly improving effectiveness of e-invoices issuance and delivery (Brondolo & Zhan, 2016; Ho & Lu, 2014). Electronic filing and payment revenue administration reforms were also found in 32 out of the 34 OECD high-income economies as well as in Europe and Central Asia, where 21 countries use electronic systems (OECD, 2016). This tax administration reforms has expanded to in 20 Caribbean countries (Aruba, Bahamas, Barbados, Bermudas, Virgin Islands, Grenada, Haiti, Surinam, Trinidad and Tobago, etc.) (Schlotterbeck, 2017) as well as in El Salvador and Panama. However, these strategies are not appropriately enhancing revenue collection efficiency due to tax legislation gaps from absence of taxation mechanism in the majority of countries (Ho & Lu, 2014; Ropp & McNamara, 2014). Presence of this gap is significantly influencing most countries' national budget as a result of striking deficit of tax revenues (Bennett & Elson, 2016). A range of countries, such as Republic of Kazakhstan are experiencing a lack of corresponding

legal framework for regulating the formation and expression of the main directions of tax administration policy for clearly and unambiguously defining and drafting new regulatory acts (Turuntayeva et al., 2019)).

In Africa, in order to increase their collection of taxes, many Sub-Saharan African countries have enacted tax reforms (Ngoma & Nikolina, 2019). Revenue collection reform has been a component of larger fiscal reform efforts in many African nations, which aim to restore macroeconomic stability and restructure tax systems to make them more effective, less disruptive of economic forces, and simpler to administrate. (Gichuki, 2015). However, there limited empirical assessment of their impacts across these countries which implies that there is limited statistical robustness to support a significance of these reforms on revenue collection in Sub-Saharan Africa. Evidence shows that up to and including the year 2015, there has been little valuable information available on performance of public revenue administration in African countries (Bird 2015). Accordingly, empirical studies have been concentrating on performance of public revenue administration process performance in low-income countries (Bogere 2018 This is where Adam Smith International (2018) made the revelation that the collection of comparative data about tax administrations in low-income countries has resulted in improvements. Ligomeka (2019) asserts that African countries lack reliable indicators of the caliber of national tax leaderships, despite the fact that the achievement predicament for revenue mobilization is improving. Malawi, for example, introduced the Tax Administration Diagnostic Assessment Tool (TADAT) in 2015, but the assessment's findings indicate that the country's revenue administration effectiveness is very subpar (Besharati & Loga, 2018). The inability (or lack of desire) to reduce tax liabilities and offer a variety of tax concessions is linked to the tax revenue deficit issues that currently plague South African countries (Williams, 2016).Fakile,

Adegbie, and Faboyede (2014) recognize that tax officials must modernize the revenue collection in order for it to function well in a more interconnected economy.

In Kenya, strictly restricted administrative capacity confines the country's efforts to implement tax reform (Gichuki, 2015). As a result, there is a significant gap between both the real and potential tax bases in the nation because of extensive tax evasion. There are gaps in the legal framework for county tax administration, and there is little Kenyan-specific literature. This study was conducted to evaluate the impact of administrative strategies on revenue collection efficiency in Machakos County because there was no history from which to draw lessons when resolving the issue.

1.1.1 Administration strategies

Administrative strategies have been found vital for driving revenue collection efficiency in firms (Shoaib, Ke, Susheng & Badar, 2018). Accordingly, Wanjiru et al. (2019) shows that administrative capabilities in terms of challenges in; revenue diversification, Technology Adoption and human capital management as among the difficulties counties face in managing their revenue. While Shoaib et al. (2018) shows that the Portfolio Theory explains revenue diversification (revenue from various sources) as important for enhancing the effectiveness of revenue collection, Gitaru (2017) explains Theory of Technological Determinism emphasizing on technology as a driver for changing modes of operations in organisation. Meanwhile Edwards (2018) exposed the Henri Fayol Administrative Theory as suggesting that human capital management (remuneration, development and growth, satisfying psychological needs, team work and training as an efficient management strategy for increasing production and improve the quality and quantity of work such as revenue collection efficiency.

In the meantime, the rational choice theory suggests that punishment such as enforcement strategies in revenue collection motivate people to pay taxes (Tax Procedure Act, 2015). Based on the rational choice theory, enforcement is a tool of debt recovery which ensure that revenue collection efficiency is attained. Law and Regulation (2017) indicates that revenue administration requires ensuring the fulfillment of a tax liability that was not timely met so as to offer public services. Based on this exposition, the study will consider the revenue diversification, technology adoption, and human capital management strategies as the indicators of revenue administration strategies influencing revenue collection efficiency. Locally, Ngicuru et al. (2017) discovered that revenue diversification expand the amount of funds acquired; additionally, the amount of revenue accumulated will increase with good tax administration practices, such as hiring competent staff and implementing the latest technology.

1.1.2 Diversification Strategies

Revenue diversification refers to strategies used to assist revenue body to identify all sources of county revenues thus boosts revenue generation through streams (Sechero & Otinga, 2020). Since no single source of income is in control or relied upon at the expense of other sources of funding, the use of various revenue diversification ensures the stability of income sources in public finances. 2017; Ngicuru et al. There are a number of theoretical explanations put forth to clarify why business groups favor diversification. These include industrial economics theory and portfolio theory. The portfolio theory aims to clarify how businesses choose which assets to invest in when making investment decisions. The theory gives businesses the rationale for choosing to invest in assets they deem as being less risky (Cochrane, 2007). The industrial economics theory also aims to shed light on the reasons behind corporate firms' decisions regarding their market behavior. It recommends that businesses select a form of diversification

that can fend off competitor moves and ensure sustained profitability (Alexis,2000). One of the tactics that is gaining popularity locally among Kenya's commercial banks is diversification. Among the banks that have long-term implemented the diversification strategy is Kenya Commercial Bank Limited (Alexis, 2000).

Over the years, low and erratic economic growth performance has been linked to the majority of SSA countries. Export diversification has been identified as one of the main factors influencing growth in these nations. Using panel data from 42 Sub-Saharan African nations, the study by Bank of Baroda Kenya Limited offers proof of the link between export diversification and economic growth. By using three different measures of diversification and the system Generalized Method of Moments (GMM) estimation technique, the bank discovered that export diversification significantly and favorably impacted SSA's economic growth. The findings held up to the export diversification measures.

1.1.3 Technology Adoption

Technology refers to systems that help with gathering information, computation, collation, and meaningful description (Martkin & Moody, 2015). This means enabling a modern competition of business institutions around the world to focus more on improving their efficiency in providing good customer service (Al-Rahimy, 2016). It is used in a variety of areas, with the common factor being its acceptance as a technology used to facilitate the movement of information through the use of various electronically aided communications for ease of access and decision making (Koltay, 2016t). Institutions use technology to boost administration efficiency and service delivery, whereas county governments can use it as an administrative strategy to improve revenue collection efficiency.

Information and communication technology (ICT) is used in Kenya to increase revenue collection (Maisiba & Atambo, 2016). However, due to some obstacles that prevent maximum revenue collection, ICT use for revenue collection has not reached its peak level of collection (Kipkemoi & Nzuki, 2018). ICT adoption closes the gaps and plugs the corruption leaks in tax collection, making it efficient and effective to use. Adoption of ICT supplants ineffective production in terms of revenue collection. Although there are other factors that have an impact on how ICT is used for revenue collection, Karimi (2017) indicates that technology plays a significant role in revenue collection.

1.1.4 Human Capital Management Strategies

Human capital is defined as the pool of knowledge, behavioral patterns, social and psychological traits, including creativity, that are embodied in the capacity to carry out workforce in order to generate economic value (Yusuph, 2015). Thus, it is an accumulation of resources such as knowledge, skills and abilities, expertise, competences, experience, intellect, teaching, decision, and wisdom that individuals in an organization possess individually and collectively. These resources are the total capacity of the people, which symbolizes a source of wealth that can be aimed to achieve the nation's or country's goals. The Human Capital Theory (HCT) emphasizes the importance of adding value to people who can contribute to an organization (Sagwa & K'Obonyo & Ogutu, 2015). Through strategies, the county benefits from high levels of employee training and knowledge.

According to Mulwa's (2018) investigation, employee performance is impacted by recruitment and selection practices, which also have an impact on meeting goals and providing services on time. Thus, effective human capital management improves individual and

organizational productivity as well as employee competency. Human resource management techniques can therefore improve employee performance. Performance is impacted by the investment in human capital, according to Yusuph's 2015 study. The study also revealed that investing in human capital leads to long-term, sustainable results, such as a rise in customer trust as a result of better service provision.

1.1.5 Concept of revenue collection efficiency

Revenue collection efficiency is the difference between the actual revenue collected and the revenue target. High revenue collection efficiency is critical for promoting efficiency in service delivery and economic growth in counties (Ngotho & Kerongo, 2014). Revenue efficiency is considered high when all revenue due is collected on time. Improving tax compliance guarantees that the anticipated revenue is gathered, which in turn improves efficient service delivery and economic development. The advantages of revenue collection efficiency include timely completion of development projects, efficiency in public service delivery, and economic growth.

Poor revenue collection efficiency for county governments has a negative impact on citizen empowerment, socioeconomic development, and does not guarantee long-term service delivery (Turuntayeva et al, 2019). The effectiveness of service delivery and economic development suffers as revenue collection begins to decline. According to the public choice theory, effective revenue collection is crucial for County-level service delivery, economic growth, and expansion.

High revenue collection efficiency is essential for encouraging effective service delivery and county economic development (Ngotho and Kerongo, 2014). However, research has shown that the majority of counties in Kenya struggle with various issues related to the efficiency of

revenue collection, to the point where they are unable to raise enough money to finance ongoing and development expenses. This results in their budgetary expectations for revenue falling short of the targeted revenue collections.

1.2 Machakos County

Machakos county is made up of eight (8) constituencies/ Sub counties including Machakos Town, Mavoko, Masinga, Yatta, Kangundo, Kathiani, Matungulu, and Mwala. Machakos Town is the administrative capital of the County. Machakos County borders Nairobi and Kiambu counties to the West, Embu to the North, Kitui to the East, Makueni to the South, Kajiado to the South West, and Murang'a and Kirinyaga to the North West. Machakos County stretches from latitudes 0º 45' South to 1º 31' South and longitudes 36° 45' East to 37° 45' East. The county has an altitude of 1000 – 1600 meters above sea level.

It has a total population of 1,098,584 people, 264,500 households and covers an area of 6,208.2km2 with availability of vast land for investment and a set industrial development corridor in Mavoko Sub-County. The County Building materials such as cement, building stones, ballast, sand, steel etc. are readily available due to the various industries located within the County. The County has approximately 3,720km2 of arable land which is under constant decline due to climatic changes and shift in land use to mainly real estate development. There are 12 irrigation schemes which sum up to 3,220 acres with a great potential for new and enlargement of the existing ones. There are 15 proposed new irrigation schemes summing up to 1,725 acres.

1.2 Statement of the Problem

Despite devolution of funds to the county government having promising positive effect on development and service delivery at the grassroots, the revenue collection among these counties is insufficient to fund these projects and ensure effective service delivery (Kimutai, 2017). Several counties, including Machakos county, are having significant difficulties meeting their goals for local tax collection. Machakos County's revenue collection efficiency in the fiscal year (FY) 2014/2015 was 47%, as it only managed to collect KSh1.12 billion out of a target of KSh2.37 billion (OCOB, 2016). Notably, b 9.6% of the its total budget is made up of revenue from the county's own sources. The challenges facing counties include weak administrative capacity which eventually affecting service delivery. This leads to poor revenue administration hence revenue leakage and inefficiencies manifesting stunt development and poor service delivery; a sign failed devolution (Wanjiru et al. 2019). Empirical research has associated revenue collection efficiency to tax administration. As per Javan-Noughabi et al. (2018), the quality of tax administration determines how effective taxation is, and poor tax administration has a negative impact on service delivery because it reduces funding for taxation. Meanwhile the research by Ngicuru et al. (2017), effective tax administration practices—such as hiring qualified staff and utilizing cutting-edge technology—will result in a rise in the amount of money collected. As Nyanumba et al. (2017) found, revenue diversification has a direct impact on the performance of counties in Kenya. Rakow (2016) found that diversifying results in a more stable revenue stream.

However, Ngoma and Nikolina, (2019) postulate that despite numerous tax administration reforms in Africa, the available empirical research has failed to provide evidence on significant impact from these reforms and most of the time research has been inconclusive

regarding Sub-Saharan African countries. The available empirical studies on revenue collection have not comprehensively shown the synergetic effect of administrative strategies on revenue collection. Thus, it is not statistically proven the effect of; revenue diversification, technology adoption, and human capital management strategies on the revenue collection efficiency in Machakos County. Therefore, this study sought to lock the gap by assessing effect of; revenue diversification, technology adoption, and human capital management strategies on the revenue collection efficiency in Machakos County.

1.3 Objectives of the Study

1.3.1 General Objective

The main objective was to assess the effect of administrative strategies on revenue collection efficiency in Machakos County.

1.3.2 Specific objectives

The study was guided by the following specific objectives;

i. To establish the effect of revenue diversification on revenue collection efficiency in Machakos County.

ii. To establish the effect of technology adoption on revenue collection efficiency in Machakos County.

iii. To establish the effect of human capital management on revenue collection efficiency in Machakos County.

1.4 Research questions

The study answered the following questions

i. What are the effects of revenue diversification on revenue collection efficiency in Machakos County?

ii. What are the effects of technology adoption on revenue collection efficiency in Machakos County?

iii. What are the effects of human capital management strategies on revenue collection efficiency in Machakos County?

1.5 Justification of the Study

Machakos county is having a difficult time meeting its goals for local tax collection. For instance, Machakos County realized a revenue collection efficiency of 47% in the FY 2014/2015. (OCOB, 2016). The difficulties Machakos faces result in poor revenue administration, which leads to revenue leakage and inefficiencies that manifest as stunted development and subpar service delivery, which is a sign of failed devolution. The study's findings were helpful to a variety of stakeholders because it examined how administrative strategies affected the effectiveness of revenue collection in Machakos County.:

1.6 Significance of the study

The results of this analysis were helpful to a variety of stakeholders because it examined how administrative strategies affected the effectiveness of revenue collection in Machakos County.

1.6.1 Machakos County Government: Through efficient revenue collection, the county might be able to raise enough money to fulfill its goals of socioeconomic development and service provision. They would gain from rising investments, a better quality of life, the creation of jobs, and a decline in poverty rates; as a result, effective revenue collection would promote economic development.

1.6.2 Revenue Collection Policy Makers: The article's findings will be valuable in developing policies governing the distribution and sharing of resources between the national and county governments. Policymakers may also use it to assess county governments' capacity to manage revenues apportioned and generated by counties in order to stimulate economic growth and improvement. The national government and its agencies may benefit from obtaining information that will allow them to put policies in place to support the achievement and sustainability of devolved funds for socioeconomic gain through important revenue collection pathways.

1.6.3 The Public and Stakeholders: The outcomes of the study will help us better understand how devolution affects revenue collection, the expectations of the residents in question, and how resources will be allocated and efficiently collected to meet those needs and desires, ensuring equitable resource distribution.

1.6.4 Academicians and Scholars: Academics and scholars might benefit from the research since it added knowledge about revenue allocation and public-private devolution in a devolved government.

1.6.5 Researcher and Scientists: The research opened the door to more research on financial management in devolved systems, making it useful to researchers and scientists.

1.7 Scope of the Study

The intention of the research was to assess the impact of administrative strategies on revenue collection efficiency in Kenyan counties. Data for this study were gathered from Machakos County Government departments. The rationale for selecting Machakos County is that it is regarded to be one of the socioeconomic afflicted challenges and thus classified as a vulnerable county. In an effort to achieve its objective, the study measured four key variables, revenue diversification, technology adoption, and human capital management strategies, and the revenue collection efficiency in Machakos County. The population comprised staff in the Machakos County's treasury department, who will be the key respondents.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The prevailing chapter contains a review literature highlighting the relationship between administrative strategies and efficiency in collecting revenues, particularly among institutions and authorities that collect revenues. The chapter focused on the analysis of relevant theories and in-depth empirical research that explains the way in which the administrative techniques in question contribute to the efficiency of revenue generation, as provided by the associate researchers, writers, scholars and academics and their creators. The theoretical analysis provides a solid basis for the development of the conceptual structure of the thesis while the analytical offers proof of the results and disclosure of the void that was filled by this report.

2.2 Theoretical Review

In anticipation of constructing an informative conceptual framework, the study comprehensively discussed and reviewed numerous theories informing the study variables. The beneficial theories to the study were found to be, portfolio theory, Henri Fayol administrative theory, and administration theories.

2.2.1 Portfolio theory

The portfolio theory suggests that diversification would mitigate uncertainty (Brealey; & Myers, 1991). According to portfolio theory, by investing in various types of investment, a corporation may reduce its financial risk by reducing sales and earnings fluctuations. guarding against the

failure of any particular asset and allowing the portfolio to expand over time (Frumkin, 2002). A similar argument may be applied to the collection of revenue from the county government. The combination or blend between various sources of revenue may be an efficient method to maximize the effectiveness of tax generation and reduce the financial burden of the county government. Such consistency is accomplished by creating several sources of income that are imperfectly associated (Chang, 1994); Brealey; & Myers, 1991).

With a well-diversified fund, the only thing that matters is the possibility that investors cannot get out of non-diversifiable portfolios. In the sense of county government financing, the concept of diversification of income is close to that of diversification of spending. The county will view the different sources of income or tax bases as an investment fund of the government and each tax as one of its shares. The instability in tax revenue is similar to the concept of market return volatility in corporate finance. According to White (1983), the diversification of income in government expenditure refers to the connection of two or more taxes. In order to minimize income fluctuations, the optimal tax system may contain taxes that are not completely associated. In other words, the various tax income would not travel in precisely the same direction and amount at the same time. Therefore, when one tax falls for certain reasons, such as an economic crisis, the net reduction of government income is reduced because other sources of taxation have not suffered the same changes (White, 1983). As a policymaker, the county government can need to step past the diversification of risk, given how the financial danger, under the general economic situation, is adjusted by the use of various tax combinations.

According to portfolio theory, diversified sources benefit from economies of scale that improve efficiency and reduce risk (Shoaib et al . , 2018). Revenues from multiple sources that are uncertain or imperfectly associated result in constant and reliable streams of bank earnings.

According to portfolio theory , the concept towards tax diversification has far-reaching consequences for public financing management, as it will improve the quality towards revenue generation that has become a policy priority for government and local governments. The implementation of various tax streams means the sources of income in public budgets are reliable and secure. It also means that no financial source has influence or is dependent upon other financial sources to the detriment of other sources.

2.2.2 Henri Fayol Administrative Theory

Henri Fayol Administrative Theory implies that equal remuneration for workers within companies should be guaranteed (Edwards, 2018). According to Fayol, the pay scales and the manner in which they are charged should be equal, equal and sufficient. Employees and bosses should consent to this. Logical and acceptable wage scales and ways of payment minimize the friction and discrepancies between employees and employers, create a harmonious partnership and a comfortable working environment. Further Fayol advises the availability of residential services, including electricity, water and toilets. According to this theory, the reliability of the usage of employees is related to the long tenure of workers in the organisation. This means that development is a collaboration, and productive management often creates a team of successful employees. If the team members want to alter the whole manufacturing process, they may be upset. It is therefore in the company's benefit that its loyal, skilled and qualified workers should not leave the organization. Employment satisfaction provides a sense of belonging for workers who, with this feeling, are motivated to increase the quality and quantity of jobs.

The theory reveals that the structure of association that thrives accommodates and maintains workers, as it were (Ohadinma & Uwaoma, 2000). Those companies help the workers

feel at home, share a part of the income with the employees, connect with the workers, be open to employees, express staff concerns and recognise personal / family problems. This is the sort of company that has been popular these days. Thus, the success of county tax collection productivity in Machakos County would be successful if human resource management followed techniques to make workers feel empowered.

The theory suggests for institutions to scientifically choose and then educate, instruct and improve a person. Notably, companies rely heavily on employee participation and empowerment for the best outcome. This theory was found useful in considering human capital management strategies as essential for revenue collection efficiency at Machakos County.

2.2.3 Theories on Public Administration

Empirical analysis on policy creation, decision-making, operation of government networks, governance structures, public sector management and public service in diverse institutional environments has laid the groundwork for addressing administrative problems on the basis and complexity theory to guide policy deliberation and public service administration (Meek 2014). Elements of complexity theory are helpful in creating theories of public policy and how public service can be promoted by an appreciation of nuanced interactions and relationships between highly interdependent components of our administrative processes.

The principle of public choice suggests that elected officials need monitoring and oversight to constrain their self-interested actions and thereby discourage inefficiency and corruption. This stresses officials' responsibility to people, with politicians representing and listening to individuals, rather than directing society. It assumes that elected officials will be

inspired to work on the grounds of public interest engagement and will respond to the demands of people of a stable and sensitive public service (Denhardt and Denhardt, 2011).

In a related way, Bourgon (2007) suggests that the theory of public administration, based on the principles of democracy and public interest, is articulated as a common interest of people rather than as an aggregate of particular desires decided by elected representatives or business preferences. The centrality of people as co-producers of policy and service delivery profoundly separates the method to public government from both the mathematical approach synonymous with the old public administration and the market-based approach to NPM, rather than merely introducing a modern model of public administration. That is why the efficiency of revenues in relation to county governments depends on the standard of the tax administration. Its inefficiency adversely impacts many areas of individual and state life. This is particularly true in the county revenue administration as a decline in the level in taxes leads to a reduction in its financing (Javan-Noughabi, adeghi, & Rezapour, 2018).

2.2.4 Tax compliance models

According to Jones (2009), the dimensions of revenue collection compliance include supplying accurate revenue information, remitting the correct revenue returns and doing this in timely manner (Brostek, 2007). As such, revenue collection compliance should ensure that the revenue amount collected is correct (Forum on Tax Administration, 2009) and reflects the correct status of revenue information. Revenue compliance is considered to be high when most of the taxpayers to the government pay for all revenues due from them at the right time.

According to Johnston and Clark (2001), certain benefits enjoyed by the government due to correct revenue collection include improving public service delivery and ensuring high

revenue collection performance. Katzan (2008) supported these sentiments by indicating that service delivery by governments revolves around provision of assistance and expertise through interrelated service processes, where high tax compliance performance expectations is of the most important concern to government for its economic development, growth and service delivery (Cuomo, 2000; Gummesson,1994).

Certain tax compliance models suggest that high revenue collection compliance is the cornerstone of economic growth, development and service delivery in the public sector and the government should enforce the rule of compliance to make this a reality (Gang, Hofmann & Kirchler, 2015). The various tax models thus considered in this study to explain the revenue collection included economic models, uncertainty models, and norms of compliance models.

The economic models indicate that taxpayers view tax non-compliance as a form of income through profit maximization. Although avoiding tax compliance and remaining unnoticed reduces enhanced tax revenue streams, taxpayers view it as a financial gain as it increases their profits (Becker, 1968). The taxpayers using some corrupt practices therefore avoid or evade revenue compliance. In fact, the economic models expose the presences of corrupt practices in revenue collection as a major hiccup in ensuring high revenue collection performance. Such practices lead to tax evasion and tax avoidance, which drastically reduce the revenue collection performance (Becker, 1968). So, the revenue collection agencies should therefore design and implement various measures to eliminate or reduce these corrupt practices in order to improve compliance (Sandmo, 1981) to the highest level possible. The inability by the revenue collection agencies to urgently apprehend tax cheats as a consequent of failure to implement technological innovations, highly motivated the present study to consider uptake of technology as a key factor affecting tax compliance performance.

The uncertainty models explain that tax compliance performance is influenced by the payers' knowledge of their tax compliance obligations (Lawsky, 2011). Lawsky (2011) emphasizes that the responsibility of creating awareness and understanding of the tax responsibility lies with the revenue collection authority (Lawsky, 2011) through application of effective revenue collection systems. The revenue collection authority should ensure clarity; goodwill and easier understanding of revenue obligations in order to ensue high revenue yields and enhanced compliance to desired levels that meet the revenue collection targets necessary for funding governmental budgets (Jordi & Judith, 2005).

The norms of compliance models rest on tax culture, where tax compliance by the taxpayer is influenced by the tax culture of that area. In fact, the revenue collection systems in place and revenue source account for level of compliance towards revenue collection (Gang *et al*., 2015). According to norms of compliance, tax compliance is higher where the taxpayers in that region consider tax compliance important and essential (Alm & Torgler, 2011) due to perceptions created by the existing revenue collection systems and revenue source. Further, information technology utilization in tax calculation and tax compliance management plays a very important role in improving compliance (Gang *et al*., 2015).

2.3 Empirical Review

This section contains review of empirical studies found useful on the relationship between the administrative strategies and revenue collection efficiency. The areas are the; revenue diversification, technology adoption, and human capital management strategies as captured hereunder

2.3.1 Revenue Diversification and revenue collection efficiency

Revenue diversification between revenue bodies and governments have been empirically shown to impact where Sechero and Otinga (2020) have identified revenue diversification as revenue-generating determinants in Kenyan county governments that income mapping projects help county governments recognise all sources of county revenue, thereby improving revenue generation in county governments. Study using detailed research methodology and providing detailed data as well as inferential statistics has contributed to the finding that revenue mapping programs have a substantial effect on revenue production in county governments.

According to the research results of the study by Shoaib et al. (2018) on assessment of South Asian countries, banks stand to gain from revenue diversification by breaking into some types of income-generating non-interest. Revenue diversification may gain financially banks if the diversified initiatives are typically less risky and yield high returns, but it may harm banks if the diversified activities are much riskier and yield low returns. These findings have implications for the use of alternative sales diversification strategies for revenue normalization. The Park and Park (2018) study identified a clear correlation between revenue diversification and governmental types by examined the extent to which their relationship causes a difference in government expenditure levels, by looking at the interface between income diversification and the degree to which public funding interacts.

In Kenya, in the North Rift Region, Kimutai (2017) studied revenue diversifcations and their effects on socioeconomic growth of the county. The study showed that corporate permits, natural resource leases, business charges and fees are the most productive means of revenue generation in county governments. The regression analysis found that the relationship between commercial

permits, loans and car park charges and the growth of the County was statistically important. Training has an enormous influence on socio-economic growth, money generation technologies, stakeholder engagement and income generation networks have substantial and beneficial effect on the county's socio-economic development.

Meanwhile, Ngicuru et al . (2017), performed a report on revenue diversification as influencing income generation of the comprehensive research nature in Nairobi County Government. That research showed that the volume of taxes collected increases with sound fiscal policies such as skilled employees and use of the new technologies, which would improve the income earned.

Nyanumba et al. (2017) researching the impact of revenue diversification on Kenya 's success found that income diversification has a strong effect on Kenya 's country success. In the comparative analysis of the diversification of public revenues, also Rakow (2016) pursued substantial improvement using a broad panel of US public revenue estimates to provide contextualization and clarification of varying findings in the current literature. Results from this study demonstrate that the current theoretical assumptions (and related scientific findings) are excessively simplistic and that the methodological advanced ideas are not sufficiently discussed. Rakow (2016) argues that the revenue diversification from a dynamic status quo into a more predictable business mix theoretically will lead to a more secure sales stream. However, if, as seems to be the case for most United States of America (USA) states, diversification is distant from dependency on reliable tax and revenue resources, it may lead to increased uncertainty. The contrary is the expected outcome in most current literature but is verified empirically with great strictness. The incoherence and incompleteness of the traditional income diversity test tend to be a big part of the issue.

Revenue diversity has been reviewed and found as part of the entire revenue method, and that isolating it as just part of it yields outcomes that cannot be completely trusted. Expecting such endogeneity, the outcomes observed at the same time are always the reverse of theoretical predictions. Although there is evidence that legislators respond to greater uncertainty by diversifying the income mix, it appears that this diversification would not contribute to greater reliability in income at the state level. The analysis of the empiric literature in this section indicates that the approach of diversification of sales has an impact on the quality of revenue generation. Diversification of revenue has been a common trend in state and local government financing (Yan, 2008). Specifically, the extension of revenue streams has the benefit of fulfilling the current the budget needs of the county government in the ever-changing economic cycle of government (Ngicuru et al., 2017). Accordingly, the present analysis proposed that the following null hypothesis be tested.

H_{O1}: Revenue diversification do not significantly affect revenue collection efficiency in Machakos County.

2.3.2 Technology adoption and revenue collection efficiency

Empirical research on employment of technology and tax collection performance has shown that the introduction of technology has had a substantial effect on revenue collection among the various revenue collection bodies. Sechero and Otinga's (2020) research results found that in county governments, technology adoption was adopted to reduce financial misappropriation associated with manual tax collection, tax mapping programs help county governments recognize all sources of county revenue, thereby improving revenue generation in county governments. Thus, automatic collections of income affect considerably tax production in county government

of Busia, contributing to the fact that revenue management technologies used to raise revenue in county governments strengthen dramatically, improving income generation in county governments in Kenya.

The results of the research of Mugambi (2019) to find out if technology adoption has an impact on financial management in the public sector in Kenya which has largely influenced financial management in Meru County through a census survey on revenue collection automation. The study also showed that the implementation of automated cash management in Meru County has a major effect on financial management. With regards to revenue collection automation, the report suggests streamlined model for increasing quality in time and collecting revenue. In the automation of cash processing, accountants and other personnel make good use of existing programs to ensure no waste of county money due to cash handling.

In the research of Kipkemoi and Nzuki (2018), the Kenya Revenue Authority (KRA) and the county government were primarily responsible for raising their income in Kenya. ICT employment in the revenue collection by local authorities has improved the collection of revenue, but the revenue has not been at its optimum collection due to some of the hindrance factors that hinder the complete collection of revenue. ICT implementation eliminates the gaps and closes the leakage of wrongdoing in the collection of revenue, rendering it safe and easy to use. ICT implementation reduces inefficient revenue collection output. Through attaching the power of ICT to accumulate revenue; new system boosts reliability of tax collection and seals leakage and increases revenue generation. In the year 2018, Kibaara conducted a study to determine the impact of the introduction of information and communication technology on the effective revenue collection process by the Nairobi County Government in Kenya. The study found that cloud computing, smart phone apps, and e-wallets had a significant positive impact on

revenue collection. According to the regression analysis of the four independent variables on the dependent variable, they account for more than two-thirds of all adjustments in the revenue collection process. Whilst researching the impact of automation systems results on the Nakuru County government revenue collection on the adoption of survey researches architecture and descriptive statistics in addition to the inferential statistics, Jananga (2018) found that the automation system openness, automation and automation system performance variables are forecasting revenue collateral variables. The research also found that accountability, productivity and ease were important variables that facilitate the accumulation of county revenues.

The Gitaru;s (2017) study looked at the effect of device automation on revenue generation in Kenya using a descriptive research style. The study results show that the number of transactions increased substantially after completion, resulting in a high volume of imported shipments being processed and managed via the centralized Document Processing Center (DPC) due to revenue systems automation. The analysis also showed that revenue increased gradually after the implementation of the Simba scheme.. As foreseen in the econometric model, the number of transactions has a positive correlation to the revenue recovery process. The results of the analysis revealed that the revenue received after automation in the simba system improved dramatically.

In compliance with the Karimi (2017) study results, Regarding the effects of advancements and information systems on revenue collection, ICT plays a critical role in revenue collection by the Government of the County of Embu. Maisiba and Atambo published a report in 2016 finding that information management regulations have an effect on the generation of revenues. The Mensah research of 2016 explores the influence on the success of Ghana's rural banks of ICT using data panel regression. The study has shown that rural banks are more likely to see a significant turnover of deposits as a result of their capacity to turn these deposits into more loans as ICT

systems are used effectively. The study reveals the connection of ICT cost efficacy with the total deposits of rural banks, which indicates that the effective use of existing ICT facilities raises the deposits of customers with the rural banks rather than continued investment in new ICT facilities.

In the 2016 Mburugu and Gakera report, determinants affecting income collection were analysed using descriptive research design in Kenya 's revenue authority results. The descriptive quantitative approach used the statistical analysis modeling approach to assess the importance of independent variables in the dependent variable. Model of multiple linear regression. According to the research findings, the implementation of ICT was a key factor influencing the Kenya Revenue Authority's income collection efficiency. The study discovered that implementing ICT has an impact on the efficiency of income generation. According to the Okiro (2015) report, the efficiency of revenue collection improved significantly after the implementation of the e-payment system to the revenue collection system in Nairobi City County. The study discovered that the adoption e-payment system has a positive effect on income collection performance in the county of Nairobi City.

The preceding analysis demonstrates that technological adoption has an impact on revenue collection efficiency. According to Koltay (2016), ICT is a technology that enables meaningful information collection, processing, tabulation, and display. ICT is used in a variety of fields, and as a technology, it is used to facilitate information movement through the use of various electronically supported communications to facilitate access and decision making, it is the common factor in all of these areas. ICT is a means for a new business institution to compete more globally and to improve its efficiency to a good customer service. In general, the county government of Machakos should view technology implementation as a safer path to using

income collecting productivity after all these considerations. On the basis of these discoveries, the present analysis proposed to test the following zero hypothesis in order to determine the second goal.

H_{02}: Technology adoption does not significantly affect revenue collection efficiency in Machakos County.

2.3.3 Human capital management and revenue collection efficiency

Empirical analysis has found that between human resource management and efficiency there is a clear and meaningful relationship. Four issues were addressed in Etukudo's 2019 report, which analyzed the managements of human capital by lowering labour costs, improving the efficiency of recruiting, improving the handling of talent and workers and increasing productivity in general. This include, the need for HR analytics to match itself with corporate strategies, the need to consider HR metrics and how HR analytics perspectives boost market outcomes and affect HR acceptance.

The study carried out by Jackonia (2018), using detailed analysis methodology for assessing the efficacy of training and improvement in staff results, examined the impact of the training in employees at Safaricom Company Limited. The research revealed that the evaluation of training has dramatically impacted employee performance, and the organization has periodically reviewed its abilities, and has identified areas of failure of which workers must be qualified. Training approaches have positively affected the efficiency of employees, as the quality of training for workers was in accordance with workplace requirements and was focused on company policy and procedures. The quality of trainings for workers which conform to structure requirements was substantially affected by the employee performance because of organization.

The research also showed that workforce engagement schemes, as a well structured induction scheme for all their new hires, greatly affected employee performance.

Research results from Mulwa (2018) shows that recruiting and preference practices impact on the efficiency of workers , especially on a successful recruitment process, and that the timely delivery of services, the quality of goods and services and the achievement of production goals are important. Via rigorous training and growth activities, organizational expertise and experience strengthen and thereby quality performance and facilities, as well as inspire staff. It has increasingly been observed that the activities of performance management programs assist workers in meeting their defined goals , monitoring employee efficiency and increasing employee skills. The corporate behavioral strategies have enhanced interpersonal capabilities and increased efficiency of companies and organisations. The study showed that activities in human resources management would increase the efficiency of workers.

Research carried out at Engetou, Cameroon 's Provincial Treasury, in 2017, studied the influence of an inadequate workforce on organizational efficiency, found that all workers could use human resources management and some communications strategy techniques to enhance their operational performance for an organisation to work well. Kyule (2017) analyzed with detailed survey methodology the effects of in-company preparation on employee performance among the Secretaries of Baringo County , Kenya. The analysis found a strong correlation with the success of secretaries in the Baringo County government between training strategies, training needs evaluations and training material. The report showed that the department of human resources performs preparation requirements assessments before in-service training takes place. The study showed that the quality of the instruction had significant effects on the output of the Baringo County secretaries.

The results of the Yusuph study (2015) shows that the Mkwawa Division has the correlation between investment in human capital and its efficiency. This was most clearly evident in the degree to which the bank supported further schooling, training and seminars. The study also showed that investment in human resources has durable long-term effects including increasing consumer interest through optimizing service quality.

The findings of a study conducted by Sagwa, K'Obonyo, and Ogutu demonstrate a statistically significant relationship between Human Resource Management (HRM) and the performance of Nairobi Stock Exchange (NSE) businesses.. The results of the study are consistent with the results of other empirical studies which identified a substantial relation between HRMP and company efficiency.

The analytical literature analysis in this section indicates that management of human resources has an impact on efficiency. Includes the potential to increase employee satisfaction, boost productivity, and increase prosperity in local communities which lead to positive socio-economic indicators (Etukudo, 2019).Based on these findings, the present study suggested to assessing the third objective by testing the following null hypothesis.

H_{03}: Human capital management strategies do not significantly affect revenue collection efficiency in Machakos County.

2.4 Summary and Knowledge Gaps

The studies reviewed various theories important for informing the conceptual framework which include; portfolio theory, Henri Fayol administrative theory, and administration theories. The study further reviewed empirical studies found useful in explaining the relationship between the

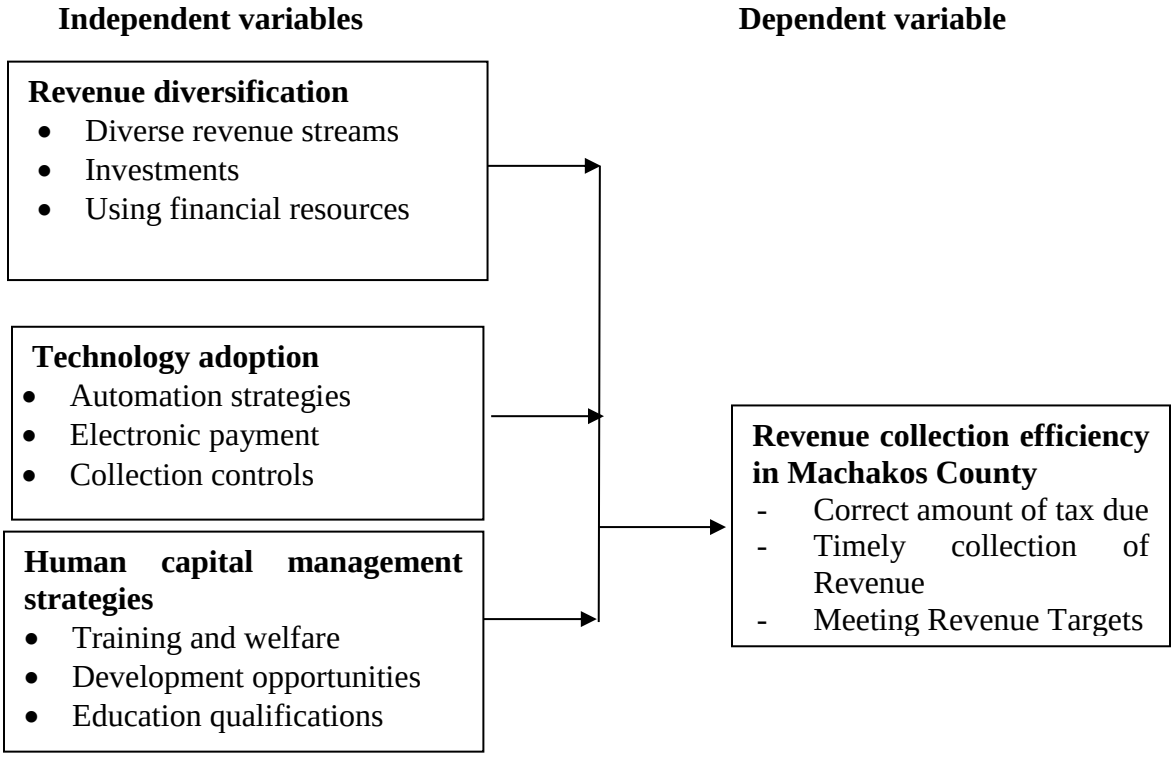
administrative strategies and revenue collection efficiency. The extension of revenue streams was found beneficial for fulfilling the budget needs of the county government in the ever-changing economic cycle of government while technology adoption was found as a safer path for assisting income collecting productivity after all these considerations and management of human resources has an impact on revenue collection efficiency. However, the reviewed empirical research have not comprehensively shown the synergetic effect of administrative strategies on revenue collection. Thus, it is not statistically proven the effect of; revenue diversification, technology adoption, and human capital management strategies on the revenue collection efficiency in Machakos County; hence this study.

2.5 Conceptual Framework

This study managed to construct a conceptual framework guided by the credit risk management regulations and guideline which proposes that revenue diversification; technology adoption; and human capital management strategies influence revenue collection efficiency. in Machakos County Thus, revenue diversification; technology adoption, and human capital management strategies are the independent variables (IV) and revenue collection efficiency in Machakos County is the dependent variable (DV) as captured in figure 1.

FIGURE 1

Conceptual Framework



Source: Researcher (2020)

2.6 Operationalization of study variables

The operationalization of the study variables was captured in table 1.

TABLE 1

Operational Framework

Variable	Orientation	Objectives	Indicators	Scale of Measurement	Tool of Analysis
Revenue collection efficiency in Machakos County	Dependent Variable	Status of revenue collection efficiency in Machakos County.	- Correct amount of tax due - True disclosure of payers income - Timely collection of Revenue - Meeting Revenue Targets	Ordinal Scale 5 point Likert Scale	Descriptive Regression Analysis
Revenue diversification	Independent Variable	To find out the effect of revenue diversification on revenue collection efficiency in Machakos County.	- Diverse revenue - Using financial resources - Partnerships - Donations	Ordinal using 5 point Likert Scale	Descriptive Regression Analysis
Technology adoption	Independent Variable	To establish the effect of technology adoption on revenue collection efficiency in Machakos County.	- Infrastructure - Automation strategies - Billing automation - Collection automation - Electronic payment - Collection controls	Ordinal using 5 point Likert Scale	Descriptive Regression Analysis
Human capital management strategies	Independent Variable	To assess the effect of human capital management human capital management strategies on revenue collection efficiency in Machakos County.	- Training - Employee welfare - Development/growth opportunities - Education qualifications - Segregation of Duties	Ordinal using 5 point Likert Scale	Descriptive Regression Analysis

Source: Researcher (2022)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Principally, this chapter describes the research methodology used in the assessment, carefully explaining the study's target population, the sampling strategy and sample size, the development of the research instrument, pilot testing, including the dependability and usefulness of the test methods, and the process of gathering data. It also addresses how the obtained data was to be processed and, finally, ethical concerns.

3.2 Research Design

According to Kothari (2012), the research design describes the Project Roadmap (outline or plan) which is used in the project to achieve the goal while at the same time providing answers to research questions. It is helpful to define the instruments and techniques needed for data collection and the successful analysis of the data collected. There are many approaches to study design. Since the present thesis aimed to describe a phenomenon, it then followed the concept of the descriptive research design as its analysis method. Descriptive research design was appropriate where the research identifies the state of affairs or illustrates the process (Gupta, 2014). This particular design was suitable for this analysis, as the present thesis required gathering and processing data from phenomena at the same time as it is being studied. Another important consideration in the nature of the descriptive survey was that it accurately explained the features of such individuals while at the same time creating relationships and making predictions. The present research sought; to explain the characteristics of the study variables, to define the

relationship between the independent variables and the dependent variable and to the projections as the study model (predicted model). Many of these functions are used in the descriptive survey design. Descriptive analysis architecture is used to define the features of the current phenomena. It can be used because it offers in-depth observations into the research issue by defining the variables of interest. It was used to describe, approximate, forecast and analyze associative relationships. This served to provide valuable and reliable knowledge which was based on; who was to be engage in the research, what was to be completed, when the research work was to be finished, where it was to be completed, why the study was to be performed, how the study was to be completed.

3.3 Target Population

The target population refers to the whole category of people or items that the researcher is interested in generalizing the findings of the analysis and possessing measurable characteristics (Mugenda & Mugenda, 2003). Furthermore, the target audience is the number of individuals, incidents or experiments that a study would like to generalize, whether actual or hypothetical. According to Kombo & Tromp (2006), the target population is the set of items that the researcher works on and to which the findings obtained can be applied. The target population for the study comprised of 11 chief officers and 8 other county government of Machakos officers drawn from each of the 8 sub-counties. The eight officer from each of the sub-county included 8 sub-county administrators, 8 chief revenue officers and 5 revenue officers all drawn from each of the eight sub-counties equally as shown in Table 2.

TABLE 2

Target Population

Category	Frequency
County Chief Officers	11
Sub County Administrators (1 per Sub-County	8
Chief revenue Officers (1 per Sub-County	8
Revenue Collection Officer (5 per Sub-County	40
Total	67

Source: County Government of Machakos (2019)

3.4 Sample Size and Sampling Procedure

According to Kothari (2010), the sample consists of chosen respondents representing the whole population. Definition of the size of the sample would be important to the study as it was helpful to provide a fair representation of the population. The research used stratified sampling where each sub-county was a strata and result, all 67 officers of the Machakos County Government drawn from the target community participated in the analysis as respondents.

3.5 Research Instruments

The present analysis collected primary data using a standardized questionnaire, with mostly closed questions. As a result, the questionnaire was used as the primary methods for gathering data (with closed questions). Where Section A was for gathering data on the demographic data of the respondent to assess gender, age, highest academic and professional degree, length of time in the county and position of the respondent. All questions in sections between section B and section F, all inclusive, were structured using the Likert 5-point scale. As section B remained used to collect

data on effect of revenue diversification on revenue collection efficiency in Machakos County, section C was used to collect data on effect of technology adoption on revenue collection efficiency in Machakos County, while section D was used to collect data on effect of human capital management on revenue collection efficiency in Machakos County. while section F was for status revenue collection efficiency in Machakos County.

3.6 Reliability and Validity of the Instrument

Before data is obtained, the analysis first performed a validity and reliability evaluation on the testing instrument. Validity aims to ensure that the structures in the instrument calculate the desired constructions. Kothari (2012) describes the validity of the instrument as the appropriateness, significance and usefulness of the inferences taken on the basis of the data obtained. Using the content validity test, validity checks were performed to assess the consistency and usefulness of the application. Content validity assessment was carried out by two trained analysts, the corporate management specialist and the supervisor. The expert tested the instruments to decide what definition the device was attempting to calculate. The corporate management specialist assessed if the collection of things would reliably measure the administrative strategies and revenue collection efficiency in Machakos County. The experts were consulted on the predictive value and practicability of the questions, as well as opinions on the technique layout to improve the quality of the data to be assembled..

According to Kothari (2010) evaluating the reliability of the testing instrument, it is calculated if the findings are reliable as the reliability of the accuracy or quality of the scores over time. Reliability measures thus assess the degree to which testing instruments deliver stable findings over time (Cooper & Schindler, 2008). Accurate instrument yields reliable results and the reliability of the data gathered can be tested by means of checks. To assess reliability, the analysis

collected data from seven (7) respondents for firms in Kajiado County (neighboring county) The research tested for reliability by means of an internal accuracy test dependent on Cronbach alpha. The outcome was the alpha coefficient of Cronbach, which was between-1 and 1 and this Cronbach Alpha has an absolute value ranging from 0 to 1 (Kothari (2010). According to Kothari (2010), in the social sciences, the Cronbach alpha value ≥ 0.7 implies high accuracy for a specified scale. Therefore, this coefficient is high when its absolute value is greater than or equal to 0.7 otherwise it is low (Kothari, 2012). In addition, Glen (2022) provides the rules of thumb in Table 3.

TABLE 3

Cronbach's Alpha Rule of Thumb

Cronbach's Alpha (α)	Internal consistency
$0.9 \leq \alpha$	Excellent
$0.8 \leq \alpha < 0.9$	Good
$0.7 \leq \alpha < 0.8$	Acceptable
$0.6 \leq \alpha < 0.7$	Questionable
$0.5 \leq \alpha < 0.6$	Poor
$\alpha < 0.5$	Unacceptable

A high coefficient means that there is a strong correlation between these objects, ensuring that there is a high degree of similarity between the objects and that particular elements can be preserved in the tools. If the coefficient is very low, the object will either be removed from the tool or fixed..

The data collected for reliability tests was analysed to yield results in Table 3

TABLE 4

Reliability Tests

Subscale	Items	Cronbach's Alpha	Internal consistency
Revenue diversification	6	0.707	Acceptable
Technology adoption	6	0.871	Good
Human capital management strategies	8	0.726	Acceptable
Revenue collection efficiency in Machakos County	6	0.853	Good
Tool Cronbach's Alpha	**5**	**0.789**	Acceptable

Source: Research data (2022)

The results in TABLE 4 revealed that the tool's Cronbach's Alpha coefficient was 7.89, exceeding the 0.7 cutoff point suggested by Kothari (2012) and indicating high consistency among the tool's items. Each of the variables, revenue diversification, technology adoption, human capital management strategies, and revenue collection efficiency in Machakos County had a very high consistency. Still, these variables possessed their own internal constancy; revenue diversification (α=0.707), technology adoption (α=0.871), human capital management strategies (α=0.726), revenue collection efficiency in Machakos County (α=0.853). The tool was therefore deemed by the study to have very high consistency and to be suitable for measuring all of the study variables in order to produce reliable and consistent results.

3.7 Data Collection Procedure

The research made use of primary data that are the same as the data that were originally accumulated for this analysis (Saunders et al., 2012). The respondents were told of the goals of the report. The researcher applied to receive a research permit from the National Commission for Science, Technology and Innovation (NACOSTI) after successfully defending the plan. The questionnaire was administered by drop and select process. Analyses were performed on testing instruments prior to data collection, which was followed by adjustments being made in the test

and a lengthy data collection process. In order to plan when and how to collect data, researcher first requested an appointment with the Machakos County Government Head of the Department of Human Resources. While collecting primary data, the administration of the questionnaire was done using a drop-and-pick method. The participants answered the questionnaires, and they requested that the researcher clarify any issues that they found with the data in order for them to respond and return the completed questionnaire at the scheduled time (Kombo & Tromp, 2006). After a week, the researcher collected the questionnaire for review to enable the respondents to react to the questionnaire in their free time.

3.8 Data Processing and Analysis

3.8.1 Descriptive Statistics

The acquired data was first checked for omission and endorsement errors. After that, it was categorized and marked appropriately. In order to provide descriptive statistics, the thesis conducted a quantitative analysis of the data. The first step in quantitative analysis consisted of determining each variable and how it affected the effectiveness of revenue collection in Machakos County. Measures, concentrations, and standard deviations in particular were produced as descriptive data to help define patterns, trends, and relationships as well as to make it simpler for the researcher to comprehend and analyze the analysis's findings. Tables and narrative representations of the findings were presented..

3.8.2 Inferential statistics

The research then compared with each of the IV's; revenue diversification; technology adoption; and human resource management strategies and DV (Revenue collection efficiency in Machakos County) to assess if there was any interaction. The research employed the Pearson product approach at a significance level of 0.05 (p-value<=0.05).

Subsequently, Multiple Regressions Analysis (MRA) was carried out to establish the nature of the relationship based on the model;

$Y= \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$……. (i)

Where:

Y = Revenue collection efficiency in Machakos County

X_1 = Revenue diversification

X_2 = Technology adoption

X_3 = Human capital management strategies

β_0 is a constant (which is the value of dependent variable when all the independent variables are 0).

β_{1-5} is the regression coefficients or change induced by X_1, X_2, and X_3,

e = error term

The findings of the data collection was provided in the form of tables for interpretation. Researchers used the SPSS Version 22 and MS Excel development tools to assist in the detailed study of quantitative data obtained using questionnaires. The measurement was at a significance level of 0.05 (p-value<=0.05). The assessment of the model sample also included predictions where the viability of the experiment was evaluated using the Analysis of Variance (ANOVA).

3.8.2 Diagnostic tests

Before the inferential analysis of the sample is carried out, the results for linearity, normality, multicollinearity and heteroscedasticity were first checked by suitable diagnostic testing. The normality test was carried out to determine if the data is usually transmitted and, if not, the data would be adjusted accordingly. Normality was tested with the Kolmogorov-Smirnov test. In this

exercise, the data was considered to be normally distributed when the mean and the standard deviation are the same, otherwise it was considered to be non-normal. The analysis measured Multicollinearity to decide if the IVs were strongly correlated in which case the correlated variables was dropped since they share the same information. Multicollinearity happens when two or more independent variables are associated because there is no Multicollinearity. Multicollinearity occurs where the inflation factor variation (VIF) is greater than 10 and the resistance is less than 0.1 or 10% (Fawad and Taqadus, 2013). Heteroscedasticity happens where the distribution of each term of error is different. The research tested for heteroscedasticity using the Breusch-Pagan test at a 5% degree of significance and heteroscedasticity did occur. when p-value ≥ 0.05.

3.9 Ethical Issues

Ethical considerations as components of social factors in social science analysis would be assured in this report. In order to ensure ethical considerations, the researcher received a letter from KCA University and a permit from the NACOSTI before beginning data collection. In addition, the respondents were informed that the information gained by this study was not exchanged with their colleagues. Respondents were therefore expected to supply the relevant information truthfully and frankly. Finally , the results of this analysis would be conveyed to the parties involved, including interested persons, upon request.

CHAPTER FOUR

DATA ANALYSIS, FINDINGS AND DISCUSSIONS

4.1 Introduction

In this chapter, the research offers its findings as well as the analysis and interpretation of these findings in addition to discussions of the same. Basically, the research sought to determine whether administrative strategies affect revenue collection efficiency in Machakos County, Kenya. The analysis and presentation of findings were informed by the study objectives. As a result, descriptive statistics were created using the data that was subjected to quantitative analysis. For determining the characteristics of variables, descriptive statistics were crucial and for each IV to establish how it relates to the DV, revenue collection efficiency in Machakos County. These descriptive statistics include; frequency, percentages, means as well as standard deviations. Tables were used to present the results, which were appropriately interpreted. For estimating a study model, inferential statistics were also recorded along with associated diagnostic test results in addition to descriptive statistics.

4.2 Response Rate

The study gathered its data through administration of 67 pieces of questionnaire among officers of County Government of Machakos of the county government. Out of that targeted sample population of 67 respondents, 56 responded by submitting correctly answered questionnaire and the associated statistics captured in Table 5.

TABLE 5

Study Response Rate

Category	Sample	Response	Response Rate
County Chief Officers	11	9	81.82%
Sub County Administrators	8	5	62.50%
Chief revenue Officers	8	6	75.00%
Revenue Collection Officer	40	36	90.00%
Total	**67**	**56**	**83.58%**

Source: Research Data (2022)

The results in table 5 show that that response rate was 83.58. Based on assertion by Mugenda and Mugenda (2003), while a response rate of between 49% and 60% is adequate, that of between 60% and 69% is as good and a rate going above 69% is very high. Mugenda and Mugenda (2003) declare that a response rate exceeding 69%, which rated as very high, will lead to producing accurate results. Thus, a response rate of 83.58% was declared as fit for producing credible results. In these results, the response from County chief officer was 81.82% while that of the Sub County Administrators was 62.50% as that among Chief revenue Officers was 75.00% and the response for revenue collection officers was 90.00%. All those who responded provided adequate answers to help in analysis.

4.3 Respondents Background Statistics

Various demographic information was found appropriate for the helping make valuable decisions during the analysis. such information included; The study required the respondents to provide their backgrounds information based on their sex, highest education qualifications attained, professional qualifications, Number of Employees at the moment, and years of experience. These data was analysed and summarized Table 6.

TABLE 6:

Analysis by Demographic of the Respondents

Demographic	Frequency	Percent
Sex		
Female	29	51.79%
Male	27	48.21%
Total	**56**	**100.00%**
Highest education level attained		
Primary School	2	3.57%
Secondary School	15	26.79%
College	8	14.29%
Undergraduate degree	18	32.14%
Masters Degree	13	23.21%
Total	**56**	**100.00%**
Professional qualifications		
Diploma (e.g. CPAI)	9	16.67%
Professional Level I	9	16.67%
Professional Level II	14	25.93%
Professional Level III	8	14.81%
None	14	25.93%
Total	**54**	**100.00%**
Number of Employees at the moment		
0 – 10	22	40.74%
11 – 20	20	37.04%
21 – 30	1	1.85%
31-40	10	18.52%
More than 40	1	1.85%
Total	**54**	**100.00%**
Years of experience		
0 – 10 yrs	14	37.84%
11 – 20 yrs	15	40.54%
21 – 30 yrs	1	2.70%
More than 30 yrs	7	18.92%
Total	**37**	**100.00%**

Source: Research Data (2022)

The results in Table 6 show that as the male respodents were 29(51.79%), their female counterpars made up 27(28.21)%. This showed gender diversity among employees of Machakos

County and true adherence to the requirements of Constitution of Kenya (2010) that no gender should occupy more than 2/3rd of the total representation. based on these results, the differcne between the number of males and female was small.

These results show that most of the employee in Machakos County who fomrded 18(32.14%0 were university graduates while 15(26.79%) were secodary school leavers as 13(2.21%) were postgraduate degree holder, 8(32.14%) were college diploma holders and 2(3.57%) wee primary school dropouts.

While 14(25.693%) possesed professional level II accuonting qualifactions, another 14(25.693%) did not have any professional waulifacvtion. As 9(16.67%) showed that they had dilpoma certifciate as their highest professional qualifcaition, another 9(16.67%) idcniated that they had professional level I as their highest professional qualifactions. 8(14.81%) showed that thay had professional level III.

in these results, 22(40.74%) showed that in their units they had not more than 10 employees while 20(37.04%) showed that between 11 and 20 employees as 10(18.52%) indicated that they had between 31 and 40 employees. meanwhile as 1(1.85%) showed that they had between 21 and 30 employees, 1(1.85%) showed that they had more than 40 employees.

The results show 15(40.54%) indicating that they had work experience of between 11 and 20 years as 14(37.84%) showed that they had work experience of not more than 10 years. This was when 7(18.92%) showed that had work experience of more than 30 years and 1(2.70%) indicated that their work experience was between 21 and 30 years.

4.4 Analysis of Descriptive statistics

As guided by the research objectives, research analysed quantitative data using quantitative approach to obtain descriptive statistics These descriptive statistics included means as well as standard deviations obtained from analysis of answers from questions on 5-point Likert Scale (1-5); strongly Disagree = 1: disagree= 2: neutral = 3: agree =4: strongly agree = 5 as well as strongly Not at all = 1: Low v= 2: Moderate = 3: High =4: Very high = 5. These were transformed into numeric data and interpreted as 1-1.8 to mean Strongly disagree, above 1.8 to 2.6 to indicate disagree, above 2.6 to 3.4 to refer to neutral, above 3.4 to 4.2 for agree and above 4.2 to 5.0 to mean strongly agree. Also, 1-1.8 to means Not at all, above 1.8 to 2.6 indicates Low, above 2.6 to 3.4 to refers to Moderate, above 3.4 to 4.2 is for High and above 4.2 to 5.0 mean very high.

4.4.1 Revenue diversification and Revenue Collection Efficiency

Objective one was to establish the effect of revenue diversification on revenue collection efficiency in Machakos County. The study assessed the effect of revenue diversification on the revenue collection efficiency in Machakos County using the results obtained from the questionnaire. The results are contained in Table 7.

TABLE 7

Effect of revenue diversification on the revenue collection efficiency

Revenue diversification indicator	M	SD
Identifying diverse revenue diversification and streams	3.02	0.77
Encouraging Investments on income generating projects	3.13	0.99
Ensuring efficient utilisation of all financial resources such as minerals and natural resources	3.02	0.77
Partnering with other stakeholders in creating income for the county	3.14	0.86
Ensuring accessibility of the revenue diversification	3.36	0.92
Monitoring and controlling performance of all revenue diversification	3.30	0.78
Revenue diversification	**3.16**	**0.85**

Source: Research Data (2022)

Based on the findings in Table 7, respondents mentioned that, on average, revenue diversification had an impact on the effectiveness of revenue collection in Machakos County was moderate (M = 3.16; SD =0.85). According to these results, the effect of identifying diverse revenue sources and streams on the revenue collection efficiency was moderate (M=3.02; SD=0.77) while encouraging investments on income generating projects also moderately affected on the revenue collection efficiency (M=3.13; SD=0.99) and ensuring efficient utilisation of all financial resources such as minerals and natural resources too had a moderate effect on the revenue collection efficiency (M=3.02; SD=0.77). While partnering with other stakeholders in creating income for the county moderately affected on the revenue collection efficiency (M=3.14; SD=0.86), the effect of ensuring accessibility of the revenue sources on the revenue collection efficiency was also moderate (M=3.36; SD=0.92) and monitoring and controlling performance of all revenue sources also moderately affected on the revenue collection efficiency (M=3.30; SD=0.78)

The study found that revenue diversification adopted by County Government of Machakos moderately affected the county's revenue collection efficiency. On the other side, revenue collection efficiency was moderate too to confirm the findings by Nyanumba et al . (2017) who found that income diversification has a strong effect on Kenya 's country success. In the comparative analysis of the diversification of public revenues. The revenue diversification were not reliably identifying diverse revenue sources as it also averagely encouraged investments on income generating projects. Nevertheless, Rakow (2016) argues that the diversification from a dynamic status quo into a more predictable business mix theoretically will lead to a more secure sales stream. So, diversification is distant from dependency on reliable tax and revenue resources may lead to increased uncertainty. So, incoherence and incompleteness of the traditional income diversity test tend to be a big part of the moderate revenue collection efficiency (Rakow, 2016). the extension of revenue streams has the benefit of fulfilling the current the budget needs of the county government in the ever-changing economic cycle of government (Ngicuru et al., 2017). In fact, Ngicuru et al . (2017) showed that the volume of taxes collected increases with sound fiscal policies such as skilled employees and use of the new technologies, which would improve the income earned.

The county rarely ensured efficient utilisation of all financial resources such as minerals and natural resources as it also rarely partnered with other stakeholders in creating income for the county. Thus, the county was relaxed in ensuring accessibility of the sources and as a result there was limited monitoring and controlling performance of all revenue sources. However, Sechero and Otinga (2020) identified revenue-generating determinants in Kenyan county governments that income mapping projects help county governments recognise all sources of county revenue, thereby improving revenue generation in county governments. The finding by Sechero and Otinga (2020) show that revenue mapping programs have a substantial effect on revenue production in

County Government of Machakos. Again, The findings of the Shoaib et al . (2018) indicate that revenue diversification by splitting into some forms of income-generating sources would spur revenue generation. Revenue diversification may therefore benefit County Government of Machakos if diversified activities are generally less risky and have high returns. These results are important to the use of alternate sales diversification approaches for revenue stabilization in Machakos County.

Notably, while Park & Park (2018) identified a clear correlation between revenue diversification and the degree to which public funding interact, Kimutai (2017) showed that corporate permits, natural resource leases, business charges and fees are the most productive means of revenue generation in county governments. The study by Kimutai (2017) found that the relationship between commercial permits, loans and car park charges and the growth of the County was statistically important.

4.4.2 Effect of Technology Adoption on Revenue Collection Efficiency

The second objective was to establish the effect of technology adoption on revenue collection efficiency in Machakos County and the results from the study are shown on Table 8.

TABLE 8
Effect of technology adoption on revenue collection efficiency

Technology adoption indicator	M	SD
Implementing information technology Infrastructure for revenue collection	3.21	0.803
Developing revenue collection automation strategies	3.57	0.912
Adopting billing automation for revenue collection	3.29	0.847
Utilizing a complete revenue collection automation	3.16	0.968
Employing electronic payment for all revenue collection processes and operations	3.20	1.052
Instilling collection controls at every stage of revenue processing	3.32	1.046
Technology adoption	**3.29**	**0.94**

Source: Research Data (2022)

The results in Table 8 on effect of technology adoption on revenue collection efficiency in Machakos County indicate that the respondents showed that technology adoption has a moderate effect on revenue collection efficiency in Machakos County (M=3.29; SD=0.94). They showed actually showed while implementation of information technology infrastructure for revenue collection moderately affected revenue collection efficiency in Machakos County (M=3.21; SD=0.803), development revenue collection automation strategies highly affected revenue collection efficiency in Machakos County (M=3.57; SD=0.912). and utilization of a complete revenue collection automation moderately affected revenue collection efficiency in Machakos County (M=3.16, SD=0.968). As adoption of billing automation for revenue collection had a moderate effect on revenue collection efficiency in Machakos County (M==3.16; SD=0.968), employment of electronic payment for all revenue collection processes and operations also moderately affected revenue collection efficiency in Machakos County (M=3.20; SD=1.052) and instilling collection controls at every stage of revenue processing had a moderate effect on revenue collection efficiency in Machakos County (M=3.32; SD=1.046)

Specifically, the effect of technology adoption on revenue collection efficiency in Machakos County was moderate. on contrary, Sechero and Otinga's (2020) found that in county governments, automated revenue systems were adopted to for improving revenue generation in county governments. Thus, automatic collections affect considerably revenue production in county government of Busia, contributing to the fact that revenue management technologies used to raise revenue in county governments strengthen dramatically, improving income generation in county governments in Kenya. However, in Machakos County, the effect was moderate

Gitaru (2017) revealed that after the introduction of the Simba scheme revenue was gradually improved. As foreseen in the econometric model, the number of transactions has a positive correlation to the revenue recovery process. The results of the analysis revealed that the revenue received after automation in the simba system improved dramatically. However, implementation of information technology infrastructure for revenue collection had moderate effect on revenue collection efficiency in Machakos County. In compliance with Gitaru (2017) Karimi (2017) shows ICT plays a key role in revenue collection by the Government of the County of Embu regarding the effects of innovations and information systems on revenue collection. This was confirmed by Maisiba and Atambo (2016) finding that information management regulations have an effect on the generation of revenues.

The Mensah (2016) also reveals the connection of ICT cost efficiacy with the total deposits of rural banks, which indicates that the effective use of existing ICT facilities raises the deposits of customers with the rural banks rather than continued investment in new ICT facilities. Also the effect of development revenue collection automation strategies on revenue collection efficiency in Machakos County was high.

The results of the research of Mugambi (2019) to find out if ICT adoption has an impact on financial management in the public sector in Kenya which has largely influenced financial management in Meru County. However, the adoption of billing automation for revenue collection moderately effected on revenue collection efficiency in Machakos County. The study by Mugambi (2019) also showed that the implementation of automated cash management in Meru County has a major effect on financial management. With regards to revenue collection automation, the report suggests streamlined model for increasing quality in time and collecting revenue. In the automation of cash processing, accountants and other personnel make good use of existing programs to ensure no waste of county money due to cash handling.

Employment of electronic payment for all revenue collection processes and operations moderately affected revenue collection efficiency in Machakos as instilling collection controls at every stage of revenue processing had a moderate effect on revenue collection efficiency in Machakos County. But, Mburugu and Gakera (2016) report found that the implementation of ICT was a key factor affecting Kenya Revenue Authority 's income collection efficiency. The study showed that implementing ICT influences the efficiency of income generation. In the report by Okiro (2015) after the implementation of the e-payment system to the revenue collection system in Nairobi City County, the efficiency of revenue collection improved considerably. The study found that the e-payment system for adoption has a positive effect on income collection performance in the county of Nairobi City.

Furthermore, Kibaara produced (2018) showed that e-wallets had a substantial positive effect on the revenue collection process. Whilst researching the impact of automation systems results on the Nakuru County government revenue collection on the adoption of survey researches architecture and descriptive statistics in addition to the inferential statistics, Jananga (2018) found

that the automation system openness, automation and automation system performance variables are forecasting revenue collateral variables. The research also found that accountability, productivity and ease were important variables that facilitate the accumulation of county revenues.

The review above shows that adoption of technology affects the efficiency of revenue collection. ICT is a technology which supports meaningful information collection , processing, tabulation and display. The ICT is used in various areas and, as a technology used to facilitate information movement through the use of various electronically supported communications to facilitate access and the taking of decisions, it is the common factor in all of these areas. ICT is a means for a new business institution to compete more globally and to improve its efficiency to a good customer service. In general, the county government of Machakos should view technology implementation as a safer path to using income collecting productivity after all these considerations. On the basis of these discoveries, the present analysis proposed to test the following zero hypothesis in order to determine the second goal.

4.4.3 Effect of Human Capital Management Strategies on Revenue Collection Efficiency

Objective three was to establish the effect of human capital management strategies on revenue collection efficiency in Machakos County. On assessing the influence of human capital management strategies on revenue collection efficiency in Machakos County, the study results are as shown in Table 9.

TABLE 9

Effect of human capital management strategies on revenue collection efficiency

Human capital management strategies indicator	M	SD
County obtaining academically qualified revenue staff	3.36	0.94
Ensuring revenue staff obtain high professional qualifications	3.25	1.00
Ensuring that revenue staff gain sufficient experience in revenue collection	3.45	0.99
Properly facilitating staff to undertake their duties	3.14	1.07
Facilitating target-oriented training on revenue administration as per the training needs analysis.	3.30	1.04
Improving the work environment to advance staff morale.	3.29	1.09
Providing revenue staff with development and growth opportunities	3.20	1.00
Providing for revenue staff (employee) welfare	3.38	0.91
Human capital management strategies	**3.30**	**1.00**

Source: Research Data (2022)

The results in Table 7 indicate that the respondents showed that the human capital management strategies had moderately effect on the revenue collection efficiency in Machakos County (M = 3.30; SD = 1.00). They showed that by the County obtaining academically qualified revenue staff, it moderately affected the revenue collection efficiency in Machakos County (M=3.36; SD=0.94) and also ensuring revenue staff obtain high professional qualifications had a moderate effect on revenue collection efficiency in Machakos County (M=3.25; SD=1.00). while ensuring that revenue staff gain sufficient experience in revenue collection highly affected the revenue collection efficiency in Machakos County (M=3.45; SD=0.99), the effect of properly facilitating staff to undertake their duties on revenue collection efficiency in Machakos County was moderate (M=3.14; SD=1.07) and as well facilitating target-oriented training on revenue administration as per the training needs analysis moderately affected revenue collection efficiency in Machakos County (M=3.30; SD=1.04). The respondents further showed that as improving the work environment to advance staff morale had moderate effect on revenue collection efficiency in Machakos County (M=3.29; SD=1.09), providing revenue staff with development and growth

opportunities moderately affected revenue collection efficiency in Machakos County (M=3.20; SD=1.00) and the effect of providing for revenue staff (employee) welfare on revenue collection efficiency in Machakos County was moderate (M=3.38; SD=0.91)

The study found that human capital management strategies had a moderate effect on the revenue collection efficiency in Machakos County. This confirms Engetou (2017) all workers could use human resources management and some communications strategy techniques to enhance their operational performance for an organisation to work well. Kyule (2017) found a strong correlation with the success of secretaries in the Baringo County government between training strategies, training needs evaluations and training material. The report showed that the department of human resources performs preparation requirements assessments before in-service training takes place. The study showed that the quality of the instruction had significant effects on the output of the Baringo County secretaries. The results of the Yusuph study (2015) shows ta correlation between investment in human capital and its efficiency. The study also showed that investment in human resources has durable long-term effects including increasing consumer interest through optimizing service quality. The findings of by Sagwa, K'Obonyo and Ogutu (2015) indicate a statistically relevant association between Human Resource Management (HRM) and performance. The results of the study are consistent with the results of other empirical studies which identified a substantial relation between HRMP and company efficiency.

While obtaining academically qualified revenue staff moderately affected the revenue collection, ensuring revenue staff obtain high professional qualifications. while ensuring that revenue staff gain sufficient experience in revenue collection highly affected the revenue collection efficiency in Machakos County and properly facilitating staff to undertake their duties moderately affected revenue collection efficiency in Machakos County. Mulwa (2018) shows that

recruiting and preference practices impact on the efficiency of workers , especially on a successful recruitment process, and that the timely delivery of services, the quality of goods and services and the achievement of production goals are important. Via rigorous training and growth activities, organizational expertise and experience strengthen and thereby quality performance and facilities, as well as inspire staff. It has increasingly been observed that the activities of performance management programs assist workers in meeting their defined goals , monitoring employee efficiency and increasing employee skills. The corporate behavioral strategies have enhanced interpersonal capabilities and increased efficiency of companies and organisations. The study showed that activities in human resources management would increase the efficiency of workers. This agree with Jackonia (2018) that workforce engagement schemes, as a well structured induction scheme for all their new hires, greatly affected employee performance. In ths study, while improving the work environment to advance staff morale had moderate effect as providing revenue staff with development and growth opportunities moderately affected revenue collection efficiency in Machakos County providing for revenue staff (employee) welfare moderately affected revenue collection efficiency in Machakos County .

Facilitating target-oriented training on revenue administration as per the training needs analysis moderately affected revenue collection. Jackonia (2018) revealed that the evaluation of training has dramatically impacted employee performance, and the organization has periodically reviewed its abilities, and has identified areas of failure of which workers must be qualified. Training approaches have positively affected the efficiency of employees, as the quality of training for workers was in accordance with workplace requirements and was focused on company policy and procedures. The quality of trainings for workers which conform to structure requirements was substantially affected by the employee performance because of organization.

The analytical literature analysis in this section indicates that management of human resources has an impact on efficiency. Includes the potential to increase employee satisfaction, boost productivity , and increase prosperity in local communities which lead to positive socio-economic indicators (Etukudo, 2019).

4.4.4 Revenue collection efficiency in Machakos County

The study assessed status of revenue collection efficiency in Machakos County, by analysing data collected using the data captured in the questionnaire and the the results obtained captured in table 8 below.

TABLE 10

Revenue collection efficiency

Statement	M	SD
Our revenue collection always complies to budget estimates	2.50	0.93
The revenue collection sometimes exceeds the budget estimates in our county	2.82	1.01
The revenue is collected in time in our county	3.07	0.97
Revenue enforcement strategies are effective in achieving taxpayer compliance	2.79	0.99
The county maintains accurate records for revenue collected and banked	2.89	0.85
Revenue collections have continued to grow year after year	2.93	1.15
Revenue collection efficiency in Machakos County	**2.83**	**0.98**

Source: Research Data (2022)

The results in Table 8 indicate that on overall revenue collection efficiency was shown to be moderate (M = 2.71; SD =1.01). The respondents disagreed to the assertion that the county had always been collecting revenue that was in accordance with the budget estimates (M = 2.45; SD =0.89). Thus, revenue that was in accordance with the budget estimates was not satisfying the budget requirement. According to the results, the respondents showed that sometimes the revenue collected was in excess of the budget estimate and other times it was not (M = 2.64; SD =1.01).

This meant that the county was not always collecting revenue collected in excess of the budget estimate.

The respondents showed that sometimes the county revenue collection was on time and other times it was delayed (M = 2.87; SD =1.07). The respondents were neutral on the assertion that the county always collected revenue the as per rates stipulated in the tariff structure (M = 2.71; SD =1.05) and they further showed the county did not always maintain accurate records for revenue collected and banked (M = 2.75; SD =0.92). They were neutral on the assertion that revenue collections had continued to grow annually (M = 2.81; SD =1.13). This is an indication that some financial years, revenue collections had continued to grow and other years it did not grow.

According to the findings in the present study the revenue collection efficiency by County Government of Machakos was moderate and the County was not always collecting revenue that is in accordance with the budget estimates. This implies that revenue fell short of satisfying the budget requirement and the County barely achieved a revenue collection in excess of the budget estimate. The majority of Kenyan counties, according to Owuor et al. (2013), face significant difficulties in collecting taxes because significant sums of money are left uncollected, leaving enormous local revenue collection gaps. For instance, Kajiado County was only able to collect KES 557 million of the KES 900 million in targeted revenue for the 2016–17 fiscal year. This resulted in a 62% budgetary outcome and a 14% drop from the 2015–16 Financial Year (Kajiado County, 2017). The study's conclusions supported the difficulties County Governments face in carrying out their yearly operations.

The study found that County revenue collections is delayed and as such it was very difficult for the County to attain its budget estimates and making it difficult to have any form of

accountability. It was found that the sometimes the County revenue collection efficiency fails s the revenue collection process is not adhered as per stipulated rates in the tariff structure. The study by Ngotho and Kerongo (2014) showed compliance levels and tax rates were factors that mainly affected revenue collection efficiency since most taxpayers use various tax evasion tactics. This may be attributed to poor record management and minimal accountability for revenue transactions, this moderate performance County Government of Machakos hinders and economic development in the County.

The results of Agyapong's (2012) study on the effectiveness of revenue mobilization strategies in Kumasi, Ghana, showed that the lack of sufficient revenue margins prevented development-related infrastructure projects from meeting their needs and requirements. The study came to the conclusion that the local authority was unable to support itself through revenue collection, which meant that it had not created fresh, long-term plans for enhancing the effectiveness of its revenue collection efforts. Therefore, to increase the effectiveness of its revenue collection, the County Government of Machakos should develop creative, long-term strategies.

The public choice theory is more focused on offering a chance to advance socioeconomic development, economic growth, and service delivery between many government agencies by ensuring high revenue collection efficiency in devolved Governments (Namoit, 2012). The county governments offer opportunities to advance socioeconomic growth and service provision in the counties, which are typically evaluated by how effectively they provide for and grow their respective socioeconomic indicators (Muriisa, 2008). However, insufficient revenue collection would suggest that service delivery faces significant difficulties.

Through its effectiveness and strong collection performance, the public choice theory plays a key role in promoting the high revenue collection efficiency required to hasten the county's socioeconomic growth and development. This theory serves as the foundation for high revenue collection efficiency to adequately support service delivery, socioeconomic development, and growth at the local level, achieving the County Government's financial goals (Muriisa, 2008; Namoit, 2012).

4.5 Diagnostics testing

The study analysis carried out, linearity, normality, multicollinearity and heteroscedasticity to ensure satisfaction of the five classical linear regression model assumptions and outcome captured in Table 11, Table 12, Table 13, Table 14, and Table 15

linearity was tested between each IV; revenue diversification, technology adoption, human capital management strategies and the DV; revenue collection efficiency in Machakos County and this occurs when the value for deviation from linearity is greater than 0.05. The analysis produced Table 11.

TABLE 11

Analysis by Deviation from Linearity

	Sum of Squares	df	Mean Square	F	Sig.
Revenue collection efficiency in Machakos County * Revenue diversification	2.867	14	.205	1.088	.396
Revenue collection efficiency in Machakos County * Technology adoption	4.239	19	.223	1.293	.248
Revenue collection efficiency in Machakos County * Human capital management strategies	4.641	20	.232	1.180	.327

Source: Research Data (2022)

Ba

sed on these results, there exists linearity between each of the IV and the DV since the Deviation from Linearity Statistics for each relationship was greater than 0.05; revenue collection efficiency in Machakos County * Revenue diversification (p = 0.396);, Revenue collection efficiency in Machakos County * Technology adoption (p-value = 0.248), and Revenue collection efficiency in Machakos County * Human capital management strategies (p-value = 0.327). furthermore, the f-statistics evidence that these relationships are insignificant

Normality was tested using Shapiro-Wilk test, since this test can handle sample sizes as large as 2,000. Where the p-value is greater than 0.05 it is an indication, the data is normally distributed. the results on normality tests are in table 12.

TABLE 12

Normality Analysis

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Revenue diversification	.085	56	.200*	.975	56	.298
Technology adoption	.103	56	.200*	.963	56	.084
Human capital management strategies	.122	56	.036	.974	56	.272
Revenue collection efficiency	.133	56	.015	.976	56	.314

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

Source: Research Data (2022)

The p-value for each; Revenue diversification (p=0.298); Technology adoption (p=0.084); Human capital management strategies (p= 0.272); and Revenue collection efficiency (p = 0.314) was greater than 0.05, an indication that there was no first line normality; normally distributed.

The study then tested existence of multi-collinearity in the IV to ensure that another variable or group of variables measured no variable in the model that was measuring the same relationship as. Multicollinearity exists when Variance Inflation Factor (VIF) is greater than five and Tolerance is less than 0.1. The results obtained after testing for multi-collinearity were captured in Table 13 below.

TABLE 13
Results of Multi-collinearity Tests on Independent variables

	Collinearity Statistics	
	Tolerance	VIF
Revenue diversification	.918	1.090
Technology adoption	.921	1.086
Human capital management strategies	.980	1.021

Source: Research Data (2022)

The results in table 10 indicate that the tolerance for; revenue diversification was 0.918, technology adoption 0.921; and human capital management strategies 0.980 and more so the tolerance for all each IV were greater than 0.1 or 10%. The VIF for each of the variables was below 10 hence no need to drop any of them individually. Therefore, the study concluded that there were no multi-collinearity issues and therefore the estimators were considered reliable to estimate the model.

Heteroscedasticity problems among variables occur when the p-value <= 0.05 and in this study, the Heteroscedasticity tests were done using Breusch-Pagan to bring put Table 14 results.

TABLE 14

Heteroscedasticity Test

Coefficients

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	.467	.234		1.992	.052
Revenue diversification	-.042	.060	-.097	-.698	.488
Technology adoption	-.064	.044	-.201	-1.448	.154
Human capital management strategies	.054	.042	.171	1.273	.209

a. Dependent Variable: Unstandardized Value

Source: Research Data (2022)

The results in table 14 show that, the p-value for each variable; revenue diversification (p-value = 0.488), technology adoption (p-value = 0.154), and human capital management strategies (p-value = 0.209) was greater than 0.05; showing absence of heteroscedasticity problems. The study data is uniform and the error term is consistent.

Autocorrelation demonstrates the level of similarity between estimations of similar factors over successive time intervals. The Durbin Watson test was utilized to test for autocorrelation so as to determine whether error terms were related with each other for various observations and results acquired are in Table 12.

TABLE 15

Tests for Autocorrelation

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
.589[a]	.3475	.3098	.39813	1.814

a. Predictors: (Constant), human capital management strategies, technology adoption, revenue diversification
b. Dependent Variable: revenue collection efficiency

These results inform that the Durbin Watson (1.814) were between 1.5 and 2.5, indicating absence of autocorrelation between the data items

4.6 Model Fitting

In seeking to fit the model, the study established whether the IVs; revenue diversification, technology adoption, and human capital management strategies were good predictors of DV, revenue collection efficiency in Machakos County by using inferential analysis (correlation analysis and regressions analysis) to yield inferential statistics using. This led estimating a model

that predict revenue collection efficiency in Machakos County in terms of; revenue diversification, technology adoption, and human capital management strategies.

4.6.1 Correlation Analysis

Using Pearsons' Product Movement (PPM), a correlation analysis was necessary establish existence of relationship existed between the DV and each of the IVs. This carried out at 5% (0.05) level of significance and results captured in table 16.

TABLE 16

Correlation Analysis

Correlations

		Revenue collection efficiency	Revenue diversification	Technology adoption	Human capital management strategies
Revenue collection efficiency	Pearson Correlation	1	.421**	.432**	.321*
	Sig. (2-tailed)		.001	.001	.016
	N	56	56	56	56
Revenue diversification	Pearson Correlation	.421**	1	.272*	.121
	Sig. (2-tailed)	.001		.043	.375
	N	56	56	56	56
Technology adoption	Pearson Correlation	.432**	.272*	1	.106
	Sig. (2-tailed)	.001	.043		.437
	N	56	56	56	56
Human capital management strategies	Pearson Correlation	.321*	.121	.106	1
	Sig. (2-tailed)	.016	.375	.437	
	N	56	56	56	56

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

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

Source: Research Data (2022)

These results show each of the IVs; revenue diversification ($p<0.01$), technology adoption ($p<0.01$), and human capital management strategies ($p=0.016$) as being significantly related to revenue collection efficiency in County Government of Machakos, since the p-value for each relationship was less than 0.05. There was in fact a positive significant relationship between each of revenue diversification ($r = 0.421$, p-value = 0.001), technology adoption ($r = 0.432$, p-value = 0.001) and human capital management strategies ($r = 0.321$, $p = 0.016$), were significantly related

to revenue collection efficiency in Machakos County. It can further been seen that each of diversification strategies (r = 0.421), technology adoption (r = 0.432) and human capital management strategies (r = 0.321\) was moderately related to revenue collection efficiency in Machakos County since the correlation coefficient (r) for each comparison was greater than 0.3 and not exceeding 0.6. So, there was a moderate positive and significant relationship between each of diversification strategies (r = 0.421, p-value = 0.001), technology adoption (r = 0.432, p-value = 0.001) and human capital management strategies (r = 0.321, p = 0.016) had revenue collection efficiency in Machakos County.

4.6.2 Regression Analysis of Revenue collection efficiency

That there was significant relationship between the IVs and the DV, the study south to estimate model to predict the DV; (revenue collection efficiency in County Government of Machakos in terms of the IV; revenue diversification, technology adoption, and human capital management strategies using Multiple Linear Regression (MRA). So, Multiple regression was done on the IV's (revenue diversification, technology adoption, and human capital management strategies) against the DV (revenue collection efficiency in County Government of Machakos) to estimate the model to determine if there was a significant relationship. The regression results are shown in Table 18.

TABLE 17

Regression Results on Revenue collection efficiency and administrative strategies

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.830	.390		2.130	.038
Revenue diversification	.258	.100	.303	2.589	.012
Technology adoption	.205	.074	.323	2.767	.008
Human capital management strategies	.155	.070	.251	2.214	.031

a. Dependent Variable: Revenue collection efficiency
b. Predictors: (Constant), Human capital management strategies, Technology adoption, Revenue diversification

Source: Research Data (2022)

The study tested for significance of the model variable using t-Statistics. The rule of thumb is that there is significant effect when the t-Statistics ≤ t-critical otherwise t-Statistics > t-critical there is insignificant effect (Kingoriah, 2004). According to Table 19, the degree of Freedom (DF) for regression is 3 while that of the residual in 52. So, the study tested significance on effect of the IV at $t(52)_{.0.05}$. According to t distribution Table Statistics Table, t-critical $(52)_{.0.05}$ = 1.675 However, based on results in Table 17, the tested the significance on effect of each IV.

As regards revenue diversification, $t(52)_{.0.05}$. =2.589. But 2.589 is greater than 1.675. This shows $t(52)_{.0.05}$ is greater than t-critical $(52)_{.0.5}$. Therefore at 0.05 significance level, there is sufficient prove that Revenue diversification has a statistically significant effect on revenue collection efficiency. More so, Table 17 show that p=0.012 which is less than 0.05. Thus, revenue diversification is a appropriate predictor of revenue collection efficiency.

With technology adoption, $t(52)_{.0.05}$. = 2.767. But 2.767 is greater than 1.675. This shows $t(52)_{.0.05}$ is greater than t-critical $(52)_{.0.5}$. Therefore at 0.05 significance level, there is sufficient prove that Revenue diversification has a statistically significant effect on revenue collection efficiency. More so, Table 17 show that p=0.012 which is less than 0.05. Thus, technology adoption is a apposite predictor of revenue collection efficiency

As concerns, human capital management strategies $t(52)_{.0.05}$. = 2.214. But 2.214 is greater than 1.675. This shows $t(52)_{.0.05}$ is greater than t-critical $(52)_{.0.5}$. Therefore at 0.05 significance level, there is sufficient prove that Revenue diversification has a statistically significant effect on revenue collection efficiency. More so, Table 17 show that p=0.012 which is less than 0.05. Thus, human capital management strategies is a fit predictor of revenue collection efficiency.

Since it was clear that the IV; revenue diversification, technology adoption and human capital management strategies are predictors of revenue collection efficiency in Machakos County, at 5% significance level, the regression coefficients in Table 18 are hopeful in establishing the predictive model. Based on such a linear regression model as derived from the equation;

$$Y = \beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} + \beta_3 X_{i3} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{(ii)}$$

Where:

Y = Revenue collection efficiency

β_0 = is a constant, which is the value of dependent variable when there are no other variables present

β_1 - β_3 = Beta coefficients of independent variables

$X_1 – X_3$ = Independent Variables affecting the performance of revenue collection i.e

X_1 = Revenue diversification

X_2 = Technology adoption

X_3 = Human capital management strategies

From the regression analysis on the fitted residuals, the following function was derived,

$$Y= 0.830 + 0.258 X_1 + 0.205 X_2 + 0.155 X_3 \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{(iii)}$$

Thus;

Predicted revenue collection efficiency (Y) = 0.830 cons + 0.258 revenue diversification (X1) + 0.205 technology adoption (X2) + 0.155 human capital management strategies (X3)

These fitted model show that the revenue collection efficiency in Machakos County increases by 0.830 units regardless of whether the explanatory variables for administrative strategies are present or not. It as well shows the effect the exploratory variables of administrative strategies have on the revenue collection efficiency in Machakos County. One unit change in the revenue diversification (X1) leads to a 0.258unit rate change in the revenue collection efficiency of the County Government in the same direction. So, One unit increase in the revenue diversification (X1) leads to a 0.258 unit rate of increase in the revenue collection efficiency of the County Government and One unit decrease in the revenue diversification (X1) leads to a 0.258 unit rate decrease in the revenue collection efficiency of the County Government Also, one unit change in technology adoption (X2) leads to a 0.205 unit rate of change in the revenue collection efficiency in Machakos County in the same direction. A one unit increase in human

capital management strategies (X3) leads to a 0.155-unit rate of increase in the revenue collection efficiency in Machakos County while A one unit decrease in human capital management strategies (X3) leads to a 0.155 unit rate of decrease in the revenue collection efficiency in Machakos County.

Table 18 results show that each of; revenue diversification, technology adoption, and human capital management strategies had positive coefficients, which show that they are directly proportional to revenue collection efficiency in County Government of Machakos. This means that an increase in any of IVs; revenue diversification, technology adoption, and human capital management strategies leads to increase in revenue collection efficiency in County Government of Machakos and any decrease in any of them lead to decrease on Revenue collection efficiency.

TABLE 18

Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.589[a]	.3475	.3098	.39813

a. Predictors: (Constant), Human capital management strategies, Technology adoption, Revenue diversification

Source: Research Data (2022)

According to the results in table 14 show that the coefficient of determination (R^2) of 0.3098, which implies that 30.98% of change in revenue collection efficiency in County Government of Machakos is explained by the three IV's; revenue diversification, technology adoption, and human capital management strategies with other variables having 69.02% impact on the revenue collection efficiency in Machakos County

4.7 Hypothesis Testing

Using results in Table 17, hypothesis generated in section 2.3.1, 2.3.2 and 2.3.3 were tested where the research sough to establish significance the relationship already established. Thus far, it is clear that IVs are useful for determining the level of the dependent variable. So, the research tested the hypotheses;

Hypothesis 1

H_0: Revenue diversification do not significantly affect revenue collection efficiency in Machakos County.

H_α: Revenue diversification significantly affect revenue collection efficiency in County Government of Machakos.

The results in Table 17, (T= 2.589; p-value= 0.012) show that p-value= 0.018 which less than 0.05 hence rejection of the null hypothesis (H_0) and accepting the alternative hypothesis (H_α). This indicates that there exists enough evidence to confirm a significant relationship between revenue diversification and revenue collection efficiency. It also means that at $\alpha = 0.05$ (5%level of significance), there is sufficient evidence that revenue diversification is a useful estimator of revenue collection efficiency in County Government of Machakos.

Study Hypotheses 2

H_0: Technology adoption does not significantly affect revenue collection efficiency in Machakos County.

H_α: Technology adoption significantly affects revenue collection efficiency in County Government of Machakos.

According to the results, (T= 2.767; p-value = 0.008), it can be noted that the p-value is less than 0.05 which implies that the H_0 is rejected and the H_α accepted. This means that there exists a significant relationship between Technology adoption and revenue collection efficiency. At $\alpha = 0.05$, 5% significance level there is sufficient evidence that the technology adoption are useful estimators of revenue collection efficiency in County Government of Machakos.

Study Hypothesis 3

H_0: Human capital management strategies do not significantly affect revenue collection efficiency in Machakos County.

H_α: Human capital management strategies significantly affect revenue collection efficiency in County Government of Machakos.

Based on these results, (T= 2.214; p-value= 0.031), the p-value is less than 0.05 which means that the H_0 is rejected and the H_α accepted, this means there is enough evidence to support that there is a significant relationship between Human capital management strategies and revenue collection efficiency. At $\alpha = 0.05$, 5% significance level there is enough evidence that the human capital management strategies is a useful estimator of revenue collection efficiency in County Government of Machakos.

There was an Analysis of Variance (ANOVA) to establish whether the coefficients of the IVs are all zero that is the beta value; $\beta_1 = \beta_2 = \beta_3 = 0$ (which implies insignificance in estimating revenue collection efficiency in Machakos County) or at least one coefficient is not zero (that is $\beta_i \neq 0$) which translates to a significant model in estimating revenue collection efficiency in Machakos County.

Thus, when p-value >.05 (at 5% level of significance) H_0 is accepted and H_α is rejected and when the p-value <=.05 (at 5% level of significance) then H_0 is rejected and H_α is accepted. When H_0 is accepted it means that model is rejected since it is not useful in explaining the study. However, when H_α is accepted then the model is accepted since it is deemed suitable for estimating the study results based on the explanatory variables.

The ANOVA yielded Table 19.

TABLE 19

ANOVA

ANOVA[a]

	Sum of Squares	df	Mean Square	F	Sig.
Regression	4.389	3	1.463	9.231	.000[b]
Residual	8.243	52	.159		
Total	12.632	55			

a. Dependent Variable: revenue collection efficiency
b. Predictors: (Constant), human capital management strategies , technology adoption, revenue diversification
Source: Research Data (2022)

The results (F= 9.231, P<0.01), show a value of p<0.01 which is as well less than 0.05 (p<0.05). in that $p < 0.05$, then at 5% significance level ($\alpha = 0.05$), there is enough evidence to conclude that at least one of the; revenue diversification, technology adoption, and human capital management strategies) is useful explaining revenue collection efficiency in Machakos County. According to the results, ($F_{3,52} = 9.231$, $p < .001$), provide sufficient evidence to conclude that the model is significant since ($F_{3,52} = 9.231$ is greater than (F-critical$_{4,123} = 2.445$). Since F-test is significant, then R-squared does not equal zero and the correlation between the model and dependent variable is statistically significant. this is to say that at 5% significance level, there is evidence that; revenue diversification, technology adoption, and human capital management strategies are estimators of revenue collection efficiency in Machakos County

Since p-value < 0.05, H_0 is rejected and H_α is accepted, implying that at 5% significance level ($\alpha = 0.05$), there is enough evidence to conclude that at least one of the study predictors; revenue diversification, technology adoption, and human capital management strategies is useful explaining revenue collection efficiency in Machakos County.

Based on these findings, the study concludes that;

i. Revenue diversification have a positively significantly moderate effect on revenue collection efficiency in County Government of Machakos and the effect is moderate.

ii. Technology adoption has a positively significantly moderate effect on revenue collection efficiency in County Government of Machakos and the effect is moderate.

iii. Human capital management strategies have a positively significantly moderate effect on revenue collection efficiency in County Government of Machakos and the effect is moderate.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter provides the conclusions from the study findings as well as the recommendations based on the findings. It further highlights the research gaps which the researcher felt should be filled by further research.

5.2 Summary of Study Findings

The study findings are summarized based on the research objectives, which were to; establish the influence of revenue diversification on the revenue collection efficiency in Machakos County, establish the influence of technology adoption on revenue collection efficiency in Machakos County and establish the influence of human capital management strategies on revenue collection efficiency in Machakos County.

5.2.1 Findings on Effect of Revenue diversification on Revenue collection efficiency

The study established that revenue diversification adopted by County Government of Machakos moderately affected revenue collection efficiency. More specifically, Revenue diversification have a significantly moderate positive effect on revenue collection efficiency in County Government of Machakos (r=0.421;; p=0.012). The study found that revenue diversification adopted by County Government of Machakos moderately affected the county's revenue collection efficiency. The revenue diversification were not reliably identifying diverse revenue sources as it also averagely encouraged investments on income generating projects. The county rarely ensured efficient utilisation of all financial resources such as minerals and natural resources as it also

rarely partnered with other stakeholders in creating income for the county. Thus, the county was relaxed in ensuring accessibility of the revenue sources and as a result there was limited monitoring and controlling performance of all revenue sources.

5.2.2 Findings on Effect of Technology adoption on Revenue collection efficiency

The study found that technology adoption would have moderate influence on the revenue collection efficiency in Machakos County. Precisely, technology adoption moderately and significantly affects revenue collection efficiency in Machakos County positively (r= .432; p=0.008). This effect is due to implementation of information technology infrastructure for revenue collection by the county coupled with development revenue collection automation strategies. This strengthened by utilization of a complete revenue collection automation. In addition, there is need to adopt billing automation for revenue collection which is supported by employment of electronic payment for all revenue collection processes and operations. Machakos County should importantly instill revenue collection controls so as to improve its revenue collection efficiency.

5.2.3 Findings on Effect of Human capital management strategies on Revenue collection efficiency

The study found that human capital management strategies have moderate effect of spurring revenue collection efficiency in Machakos County. This means that designing effective human capital management strategies has a significantly and moderately positive effect on the revenue collection efficiency in Machakos County. This appropriate human capital management strategies require careful consideration of ensure that the revenue collection section acquires academically qualified revenue staff moderately affected the revenue collection and further ensure that their revenue staff obtain high professional qualifications. This is supported by ensuring that the

revenue staff gain sufficient experience in revenue collection and also they staff is properly facilitating to undertake their revenue collection duties to ensure that the staff deliver effectively in revenue collection, the should be facilitated in target-oriented training on revenue collection, this training should through training needs. An important consideration is improving the work environment to advance staff morale and this can be coupled with effective revenue staff development and growth opportunities as well provisions for revenue staff.

5.2.4 Findings on revenue collection efficiency

The study established that revenue collection efficiency by County Government of Machakos is moderate in which case e the County is not always collecting revenue that is in accordance with their budget estimates. This implies that there is revenue shortfall necessary for meeting the budget requirements making the County to rarely achieve its revenue collection targets. The study found that sometimes the County revenue collection targets is not achieved because of revenue leakages, mainly caused by "at source spending" this is whereby revenue collected is not banked but spent on other County projects on the same day. It was also found that the sometimes the County revenue collection efficiency is not achieved because of non-adherence to the stipulated tariff structure, this is mainly attributed to re-negotiation of dues so as to prompt taxpayer compliance and lack of accurate transaction records.

5.2.5 Summary of Inferential Statistics

The study established that at a 0.05 level of significance, revenue diversification, technology adoption, and human capital management strategies are positively significant to revenue collection efficiency in Machakos County, where each variable has a moderate influence. Thus, they moderately influence revenue collection efficiency in County Government of Machakos. The study also established that 30.98% of change in revenue collection efficiency in County

Government of Machakos is explained by its revenue diversification, the technology adoption and human capital management strategies.

5.3 Conclusions

The study concludes that revenue diversification have a positive and moderately significant effect on revenue collection efficiency in County Government of Machakos. The moderate effect is occasioned by ensuring that the revenue collection section identifies diverse revenue sources, encourages investments on income generating projects, utilizes all financial resources effectively, encourages partnership with other stakeholders for the purpose of creating income, always ensure accessibility of the revenue sources and has in place judicious monitoring and control processes of all source

The study also concludes that the technology adoption moderately affects revenue collection efficiency in Machakos County positively. This is characterized by implementation of information technology infrastructure in revenue collection, development revenue collection automation strategies and utilisation of a complete revenue collection automation, adoption of billing automation for revenue collection, employment of electronic payment for all revenue collection processes and operations, and importantly instilling collection controls at every stage of revenue processing.

The study concludes that human capital management strategies has moderate positive and significant effect on revenue collection efficiency in Machakos County. This is caused by recruiting and retaining revenue staff with high academic qualification, staff with high professional qualifications and sufficient experience in revenue collection as well as facilitating staff revenue collection duties which ensures that staff deliver effectively in revenue collection. human capital management strategies require considering; frequent target-oriented training on

revenue collection, training needs analysis, advocating for good the work environment, staff development and growth opportunities, and having staff welfare to advance staff morale.

Finally, the study revealed that, at 0.05 level of significance, there is a positive significant relationship between revenue diversification, technology adoption and human capital management strategies on the revenue collection efficiency in Machakos County with each explanatory variable having a moderate influence. The study also indicates that 30.98% of change in revenue collection efficiency in County Government of Machakos is explained by its revenue diversification, the technology adoption in place and human capital management strategies of the County staff. The study reveals that at 5% significance level, each of; revenue diversification, technology adoption, and human capital management strategies has a moderate significant influence on the revenue collection efficiency in County Government of Machakos.

5.4 Recommendations

5.4.1 Policy and practical implications

Owin to moderate revenue collection efficiency by County Government of Machakos, this study recommends that the County Government should improve on the reliability of revenue diversification having the capability to generate sufficient revenue required for meeting the expected targets. Such Sources should have the capacity for the generating sustainable cash flows that are easily accessible to the County Government.

Firstly, the study recommends that the County Government of Machakos should strengthen its revenue diversification through creatively and innovativeness establishing diverse and productive revenue diversification, which will also include fostering for investments on income generating projects such as minerals and natural resources. The County Government of Machakos should as review its partnership to encourage more stakeholders on to board so as to

creating income streams. There is need to review its monitoring and control policies that the protect diversified revenue sources.

Secondly, the study recommends the County Government of Machakos should appreciate the power in technology and therefore invest significantly in technology adoption There is need to ensure that its information technology infrastructure is used effectively in the revenue collection process, with development modern revenue collection automation functions and always utilizing revenue collection automation. There is need for adoption of billing automation for entire revenue collection process. The County Government of Machakos should instill effective collection controls at every stage of revenue processing.

Lastly, the study recommends that County Government of Machakos should invest significantly in human capital management. The county should enhance its human capital management policies to ensure provision for acquiring and retaining revenue staff with high academic qualification, high qualified, experienced and professional staff while also providing for adequate training (both target-oriented training and normal training). These polices should provide for ensuring conducive work environment, staff development and growth opportunities, and also staff welfare.

5.4.2 Limitations of the Study

The study relied on primary ordinal data, so the methodology was restricted to collecting data using structured questionnaire which deprived the research the ability to address qualitative limitations in the research. So, the same research should be carried out, but this time data should be gathered from secondary sources and via interviews

Also, the research was confined to Machakos County, which was no representative of the 47 Kenya counties. This limited the generalisation of the findings to Machakos County.

The assessment was constrained by the fact that it was confined to administrative strategies; revenue diversification; technology adoption, and human capital management strategies in a developing economy. Equally important, comparative studies comparing (various varieties) of administrative strategies and revenue collection in similar regions and disciplines are also required to determine whether administrative strategies has a comparative advantage due to any unique al traits.

5.4.3 Recommendations for future Research

The study used data collected from County Government of Machakos, thus limiting the scope and generalisation to just on County out of the 47 Kenyan counties in Kenya. Since Kenyan counties face different revenue collection challenges, the same study should be conducted other counties due to the different nature of challenges experienced in other areas.

The study found that 30.98% of change in revenue collection efficiency in County Government of Machakos is explained by the revenue diversification, the technology adoption in place, and human capital management strategies of the staff meaning that other variables account for the remaining 69.02%. The study therefore, recommends that other studies should be conducted to establish what contributes to the 69.02% variation in the revenue collection efficiency in Machakos County.

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APPENDICES

APPENDIX I: LETTER TO RESPONDENTS

MARK YAWATHA MUTIO
REG. 18/06789
KCA University
Main Campus,
NAIROBI

Dear Respondent,

RE: ACCEPTANCE LETTER

I am a student at KCA University undertaking a Master's degree in Corporate Management. I have chosen your firm to participate in this research on effect of administrative strategies on revenue collection efficiency in Machakos County. Your responses will be used for the research purpose only and your identity treated with a lot of confidentiality.

Kindly respond sincerely to the issues in the questionnaire. Please read and answer the questions by ticking the correct answer (choice) to the questions given.

Thanking you in advance of your response.

Yours truly,

MARK YAWATHA MUTIO
REG. 18/06789
KCA University

APPENDIX II: QUESTIONNAIRE

EFFECT OF ADMINISTRATIVE STRATEGIES ON REVENUE COLLECTION EFFICIENCY IN MACHAKOS COUNTY

This Questionnaire is meant to collect data among the staff of Machakos county. Any information provided in this Questionnaire will be used for purposes of research only and will not be divulged or availed to unauthorized persons.

Please take a few minutes to complete this questionnaire.

Please answer the questions correctly and as accurate as possible.

Tick the correct answer in the boxes provided against the questions where provided.

SECTION A: BACKGROUND INFORMATION

1. What is your sex? Please tick (√) as appropriate

   Male ( ) Female ( )

2. Position held in the county? Please tick (√) as appropriate

   Chief Executive Officer ( )

3. Highest education level attained. Please indicate your highest academic qualifications

   Primary School ( ) Secondary School ( )

   College ( ) Undergraduate degree ( )

   Masters Degree ( ) PhD Degree ( )

   Other ( ) specify ……..

4. **Professional qualifications.** Please indicate your highest professional qualifications

   None ..... ( )

   Diploma (e.g. CPAI) ..... ( )

Professional Level I ..... ( )

Professional Level II ..... ( )

Professional Level III..... ( )

5. Number of Employees at the moment: Kindly tick (√) the correct answer only

0 – 10	( )	11 – 20	( )
21 – 30	( )	31-40	( )
40 and above			

6. Years of experience: kindly tick (√) the correct answer only

0 – 10	( )	11 – 20	( )
21 – 30	( )	30 and above	( )

Section B: Effects of Revenue diversification

7. Please indicate in your own opinion on the level of influence of each of the following revenue diversification variables on revenue collection efficiency. Please tick (√) on the space corresponding to the correct answer in each indicator.

Scale: Not at All = 1; Low = 2; Moderate = 3; High = 4; Very High = 5

	Revenue diversification Indicator	**5**	**4**	**3**	**2**	**1**
(a)	Identifying diverse revenue diversification and streams					
(b)	Encouraging Investments on income generating projects					
(c)	Ensuring efficient utilisation of all financial resources such as minerals and natural resources					
(d)	Partnering with other stakeholders in creating income for the county					
(e)	Ensuring accessibility of the revenue diversification strategies					
(f)	Monitoring and controlling performance of all revenue diversification strategies.					

Section C: Technology adoption

8. Please indicate in your own opinion on the level of influence of each the following indicators of technology adoption on revenue collection efficiency in your place of work, by ticking (√) on the space corresponding to the correct answer in each question below.

Scale: Not at All = 1; Low = 2; Moderate = 3; High = 4; Very High = 5

	Technology adoption Indicator	**1**	**2**	**3**	**4**	**5**
(a)	Implementing information technology Infrastructure for revenue collection					
(b)	Developing revenue collection automation strategies					
(c)	Adopting billing automation for revenue collection					
(d)	Utilizing a complete revenue collection automation					
(e)	Employing electronic payment for all revenue collection processes and operations					
(f)	Instilling collection controls at every stage of revenue					

	processing					

Section D: Influence of human capital management strategies

9. Please indicate in your own opinion on the level of influence of each the following indicators of human capital management strategies on revenue collection efficiency in your place of work by ticking (√) on the space corresponding to the correct answer in each question below.

Scale: Not at All = 1; Low = 2; Moderate = 3; High = 4; Very High = 5

	Human capital management strategies Indicator	**5**	**4**	**3**	**2**	**1**
(a)	County obtaining academically qualified revenue staff					
(b)	Ensuring revenue staff obtain high professional qualifications					
(c)	Ensuring that revenue staff gain sufficient experience in revenue collection					
(d)	Properly facilitating staff to undertake their duties					
(e)	Facilitating target-oriented training on revenue administration as per the training needs analysis.					
(f)	Improving the work environment to advance staff morale.					
(g)	Providing revenue staff with development and growth opportunities					
(h)	Providing for revenue staff (employee) welfare					

Section F: <u>Revenue collection efficiency</u>

10. In your own opinion, please indicate the level of agreement or disagreement with each of the following statements on revenue collection efficiency in your place of work. Please tick **(√)** the appropriate box for each statement below to indicate.

Scale: Strongly Disagree = 1: Disagree= 2: Neutral = 3: Agree = 4: Strongly Agree = 5

	Statement	**1**	**2**	**3**	**4**	**5**
(a)	Our revenue collection always complies to budget estimates					
(b)	The revenue collection sometimes exceeds the budget estimates in our county					
(c)	The revenue is collected in time in our county					
(d)	Revenue enforcement strategies are effective in achieving taxpayer compliance					
(e)	The county maintains accurate records for revenue collected and banked					
(f)	Revenue collections have continued to grow year after year					

Thank you for your cooperation.

APPENDIX III: DATA COLLECTION LETTER

Thika Road, Ruaraka
P.O. Box 56808-00200 Nairobi Kenya
Pilot Line: +254 20 8070408/9

Tel: +254 20 3537842
Fax: +254 20 8561077
Mobile: +254 734 888022, 710 888022
Email: kca@kca.ac.ke
Website: www.kca.ac.ke

SCHOOL OF GRADUATE STUDIES

KCA/SGS/Oct.22/1 3rd October 2022

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

RE: MARK YAWATHA MUTIO REG. 18/06789

It is my distinct pleasure to introduce to you Ms. Mark Mutio who is a student in our institution pursuing a Master of Business Administration at the School of Business.

Mark is conducting a research on a topic titled: ***"Effect of Administrative Strategies On Revenue Collection Efficiency in Machakos County"*** which is part of the requirements of the program he is pursuing. The research as well as the data procured thereof shall be used for academic purposes only.

Any assistance accorded to him is highly appreciated.

In case of further inquiry, do not hesitate to contact the undersigned.

Yours faithfully,

Dr. Nyaribo Misuko
Dean, School of Graduate Studies

APPENDIX IV: NACOSTI PERMIT

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **952025**

Date of Issue: **18/October/2022**

RESEARCH LICENSE

This is to Certify that Mr.. MARK YAWATHA MUTIO of KCA University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Machakos on the topic: EFFECTS OF ADMINISTRATIVE STRATEGIES ON REVENUE COLLECTION EFFICIENCY IN MACHAKOS COUNTY for the period ending : 18/October/2023.

License No: **NACOSTI/P/22/20968**

952025

Applicant Identification Number

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.

See overleaf for conditions

THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013 (Rev. 2014)

Legal Notice No. 108: The Science, Technology and Innovation (Research Licensing) Regulations, 2014

The National Commission for Science, Technology and Innovation, hereafter referred to as the Commission, was the established under the Science, Technology and Innovation Act 2013 (Revised 2014) herein after referred to as the Act. The objective of the Commission shall be to regulate and assure quality in the science, technology and innovation sector and advise the Government in matters related thereto.

CONDITIONS OF THE RESEARCH LICENSE

1. The License is granted subject to provisions of the Constitution of Kenya, the Science, Technology and Innovation Act, and other relevant laws, policies and regulations. Accordingly, the licensee shall adhere to such procedures, standards, code of ethics and guidelines as may be prescribed by regulations made under the Act, or prescribed by provisions of International treaties of which Kenya is a signatory to
2. The research and its related activities as well as outcomes shall be beneficial to the country and shall not in any way;
    i. Endanger national security
    ii. Adversely affect the lives of Kenyans
    iii. Be in contravention of Kenya's international obligations including Biological Weapons Convention (BWC), Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO), Chemical, Biological, Radiological and Nuclear (CBRN).
    iv. Result in exploitation of intellectual property rights of communities in Kenya
    v. Adversely affect the environment
    vi. Adversely affect the rights of communities
    vii. Endanger public safety and national cohesion
    viii. Plagiarize someone else's work
3. The License is valid for the proposed research, location and specified period.
4. The license any rights thereunder are non-transferable
5. The Commission reserves the right to cancel the research at any time during the research period if in the opinion of the Commission the research is not implemented in conformity with the provisions of the Act or any other written law.
6. The Licensee shall inform the relevant County Director of Education, County Commissioner and County Governor before commencement of the research.
7. Excavation, filming, movement, and collection of specimens are subject to further necessary clearance from relevant Government Agencies.
8. The License does not give authority to transfer research materials.
9. The Commission may monitor and evaluate the licensed research project for the purpose of assessing and evaluating compliance with the conditions of the License.
10. The Licensee shall submit one hard copy, and upload a soft copy of their final report (thesis) onto a platform designated by the Commission within one year of completion of the research.
11. The Commission reserves the right to modify the conditions of the License including cancellation without prior notice.
12. Research, findings and information regarding research systems shall be stored or disseminated, utilized or applied in such a manner as may be prescribed by the Commission from time to time.
13. The Licensee shall disclose to the Commission, the relevant Institutional Scientific and Ethical Review Committee, and the relevant national agencies any inventions and discoveries that are of National strategic importance.
14. The Commission shall have powers to acquire from any person the right in, or to, any scientific innovation, invention or patent of strategic importance to the country.
15. Relevant Institutional Scientific and Ethical Review Committee shall monitor and evaluate the research periodically, and make a report of its findings to the Commission for necessary action.

National Commission for Science, Technology and Innovation(NACOSTI),
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