FACTORS AFFECTING REVENUE COLLECTION BY COUNTY GOVERNMENTS IN
KENYA: A CASE OF HOMA BAY COUNTY

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A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF ECONOMICS,
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AGRICULTURE AND TECHNOLOGY.

2020
DECLARATION

I hereby declare that the work presented in this Research Project is my own and certify that any secondary material used herein has been acknowledged and listed in the reference and that to the best of my knowledge not been accepted for an award of degree or other certificate to any university or examination body.

Signature: __________________    Date: __________________

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HDB 336-C016-4150/2016

This research project has been submitted for examination with my approval as the University Supervisor.

Signature __________________    Date __________________

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DEDICATION

I dedicate this Research project to my mother Janet Anyango Owando and my Son Shawn. They have been and will always be the inner circles of my life.
ACKNOWLEDGEMENT

My sincere thanks go firstly to Kenya School of Revenue Administration for giving me the privileged opportunity to undertake my studies in this area, secondly to my supervisor, Dr. Peter Magero, who properly guided and instructed me till I was able to formulate a focused, concise and precise statement of the problem on which this research is grounded. I greatly appreciate his effort. I also acknowledge the important contribution by Dr. Martin Mati; for the class seminar presentation on the subject matter of this paper and for assisting me to understand how to go about various research methods part of which guided this work. During the class presentations, I gathered valuable insights for writing a proper Research Project. I am so grateful I was in your class.

My appreciation also goes to the panelists for their positive criticism, KESRA human resource for their true hospitality and my fellow classmates. And more so to Collins, Brenda, Calister and Dr. Isaiah Nyagah who were very instrumental during coursework studies.

I am also immensely indebted to Mr. George Olweny, for helping me acquire useful techniques that gave me the courage to begin writing this paper and for understanding that I was a student. Special thanks also goes to brothers Simeon Uginga, Alex Omondi, sister Peninah and Mama Sisi for without them this research would have been impossible and fieldwork coordination by brother Binaisa who assisted me in carrying out data collection, Homa Bay County Secretary and HR Office for their vital assistance that made fieldwork a success.

Lastly and most important, may I thank the Almighty God for keeping me alive and guiding me all throughout this period.
The county governments’ efficient operations require adequate revenue. Revenue sources largely come from the National government. These devolved County governments also have the constitutional mandate to raise their own sources revenue to help meet their growing county expenditures. However, County governments have continuously experienced suboptimal revenue collections and over rely on National government that is heavily indebted with a growing deficit year on year. Although county revenue have grown to over Kshs.30 billion annually, counties are still heavily dependent on the revenue share from the National government. Homa Bay County like most counties in Kenya has been experiencing revenue collection challenges. Homa Bay County finds it difficult to raise adequate revenue which is essentially vital for sustained growth and development. Recent statutory allocation from the Kenyan National government accounted for more than 84% of revenue received by Homa bay County. Continuous developments on the own source revenue collection has seen a steady decline in the same. Revenue targets are also low and hardly met despite the county’s potential. The purpose of this study therefore was to examine the possible factors affecting revenue collection in Homa Bay County. The study sought to establish the effect of Technological innovation challenges, Inter-governmental consultation constrains, Institutional arrangement concerns and Tax base factors on revenue collection by County government of Homa Bay. It was limited to Finance departments and Sub-departments (Revenue) in four of the 8 sub-counties in Homa Bay County. The study used descriptive research design. It also targeted 141 Sub County Officials such as Revenue officers, Finance Officers and Revenue collection Clerks. The accessible population was 105 respondents including 4 Chief Officers in the Revenue and Finance departments of the county government. Stratified random sampling was used to select 105 departmental staffs from the sub counties. Primary data was collected using self-administered structured questionnaires. Secondary data was drawn from the existing past county revenue performance records and at the County Headquarter Offices for 2013-2019 periods. Data analysis was administered with the help of Statistical Package for Social Sciences (SPSS) version 20 and Excel. Data was presented using tables, charts and graphs. Two-tailed tests were carried for hypothesis testing. The study adopted correlation analysis and Regression model in analyzing the fieldwork data. The study findings disclosed that all the study factors significantly affected revenue collection by county government of Homa Bay. Specifically, F-Statistics (171.316) revealed that the relationship between all the independent variables and dependent variable was significant; R (0.945) reflected a strong and near-perfect association between the dependent variable and predictor variables; R² (89.3%), indicated that variations in predictor variables accounted for variations in the dependent variable. Regression Analysis revealed that there was statistically significant and positive relationship between technological innovation and revenue collection ($\beta_1=1.083, p<0.05$), inter-governmental consultations and revenue collection ($\beta_2=0.71, p<0.05$), institutional arrangement and revenue collection ($\beta_3=1.058, p<0.05$) and tax-base and revenue collection ($\beta_4=0.934, p<0.05$). Therefore this study established that technological innovation mostly affected the revenue collection by county government of Homa Bay, followed by institutional arrangement, tax-base and Intergovernmental consultations factor respectively.
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ABBREVIATIONS AND ACRONYMS

APSC  Air Passengers Service Charge
CAMIS  Cargo Management Information System
CBR  Controller of Budget Report
CMA  Capital Market Authority
COSIS  Customs Oil Stock Information System
COSR  Counties Own Sources Revenue
CRA  Commission on Revenue Allocation
DA  Direct Assessment
DI  Development Initiatives
EAC  East African Community
ETR  Electronic Tax Registers
FY  Financial/Fiscal Year
GOK  Government of Kenya
GDP  Gross Domestic Product
ICMS  Integrated Customs Management System
ICPAK  Institute of Certified Public Accountants of Kenya
ICT  Information and Communication Technology
IFMIS  Integrated Financial Management and Information System
IMF  International Monetary Fund
IT  Information Technology
ITMS  Integrated Tax Management System
JKIA  Jomo Kenyatta International Airport
KIPPRA  Kenya Institute of Public Policy Research and Analysis
<table>
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<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>KRA</td>
<td>Kenya Revenue Authority</td>
</tr>
<tr>
<td>Kshs</td>
<td>Kenyan Shillings</td>
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<tr>
<td>MCAs</td>
<td>Members of County Assembly</td>
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<tr>
<td>MMS</td>
<td>Manifest Management System</td>
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<tr>
<td>MTEF</td>
<td>Medium Term Expenditure Framework</td>
</tr>
<tr>
<td>OCOB</td>
<td>Office of the Controller of Budgets</td>
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<tr>
<td>PEOU</td>
<td>Perceived Ease of Use</td>
</tr>
<tr>
<td>PFM</td>
<td>Public Financial Management</td>
</tr>
<tr>
<td>PU</td>
<td>Perceived Usefulness</td>
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<tr>
<td>RARMP</td>
<td>Revenue Administration Reform and Modernization Programme</td>
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<td>REI</td>
<td>Revenue Enhancement Initiatives</td>
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<td>SNGs</td>
<td>Sub National governments</td>
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<td>SST</td>
<td>Social Shaping Technology</td>
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<td>TAM</td>
<td>Technology Acceptance Model</td>
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<td>TRA</td>
<td>Theory of Reasoned Action</td>
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<td>VAT</td>
<td>Value Added Tax</td>
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DEFINITION OF TERMS

Counties Own sources Revenue

Revenue generated by county governments from local sources in the form of taxes, charges and fees (Di-Kenya, 2018).

Government Budget deficit

Refers to when government outlays, that is, government purchases plus transfer payments exceeds government revenue (McEachern, 2006).

Fiscal Policy

This refers to government purchases, transfer payments, taxes, and borrowing as they affect macroeconomic variables such as real GDP, employment, the price level, and economic growth (McEachern, 2006).
CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Fiscal decentralization—the devolution of revenue mobilization and spending powers to lower levels of government has become a main theme of local governance in recent years (Fjeldstad & Heggstad, 2012). As an outcome of discontent with the performance of centralized systems, reformers turned to decentralization to split the hold of central government and induce broader participation in democratic governance. Many countries have devolved government for the purpose of enhancing service delivery to their citizens (Kosaye, 2018).

Further, it is in the same spirit that the Kenyans promulgated a new Constitution of Kenya on August 2010 which brought with it a new system of governance leading to formation of 47 counties, each distinct but interdependent with the National government. This development has brought the need for better service delivery at County level (Kosaye, 2018). Moreover, (Adenya & Muturi, 2017) argue that for good governance and effective delivery of service, County governments require sufficient and reliable sources of revenue and the Constitution of Kenya 2010 provides a framework for county funding through own revenue.

A report by (World Bank Group-Kenya, 2014), submits that Sub-National governments (SNGs) took over the delivery of devolved services with a starting expenditure layout of 5.4 percent of GDP or 20 percent of total expenditure in fiscal year 2013/2014. Transfers to County governments were budgeted at 4.3 percent of GDP (comprising of the equitable share, donor funded projects, conditional grants to Level 5 hospitals, and the Equalization Fund) and were projected to remain at the same level during the Medium Term Expenditure Framework (MTEF) period (2015-2017). The report also shows National government expenditure averaged 22 percent of GDP, County
government budgets had an initial revenue projection of 1.2 percent of GDP, bringing the total subnational expenditure outlay to 5.4 percent of GDP.

Notably, counties have since then complained of inadequacy of these funds and sought ways to have the funds raised including calls for referendum and recent disputes on how the revenue allocation funds should be shared. However, a report on revenue collection, (County Government of Kitui, 2016) and (Ndunda, Ngahu, & Wanyoike, 2015) contend that since the establishment of the County Governments in Kenya in April, 2013, County governments have been depending largely on the National Treasury for financial support yet this is against the backdrop of their agitation to have more government functions including security to be devolved. This revelation is further evidenced in Commission on Revenue Allocation (CRA) observation that although county revenue has grown to over Kshs 35 billion annually, counties are still dependent on the revenue share from the National government.

1.1.1 National government fiscal gaps affecting transfers to County governments

The fiscal gaps limiting the ability of the National government to transfer reasonably acceptable level of budget proportions to counties stem from the current National budgets and annual revenue collection constrains caused by hard economic environment, ballooning public debts and unrealistic budget estimates by the National Treasury.

Today, (according to public information) the total public debt stands at Kshs.6 trillion with debt ceiling moved to Kshs. 9 trillion. (KIPPRA, 2018), observes that in the last decade, Kenya’s nominal public debt has increased from 43.6% of GDP in 2007 to 57.2% of GDP as at December 2017. Moreover, the upward trend is mainly attributed to increased government spending on
infrastructure projects from Kshs 60.6 billion in 2007 to Kshs 285 billion in 2017, which was largely financed through borrowing KIPPRA (2018). More specifically, Kenya’s external debt increased from 21.7% of GDP in 2007 to 29.8% in 2017. Comparably, the share of external debt in total public debt has surpassed that of domestic debt which stands at 27.4%. This growth in debt has generated a lot of debate on its sustainability. Contrastingly, (KIPPRA, 2018) avers that despite concerns about the sustainability of the country’s public debt, expert analysis shows that the present value of Kenya’s debt to GDP ratio of 49% is still below the 74% that is the global benchmark for lower middle-income countries and East African Community (EAC) convergence criterion level of 50%. This trend is worrying regardless.

The situation has also been exacerbated by Kenya Revenue Authority (KRA) having failed to meet its revenue targets in the recent years. More recently, with just three months left for FY 2018/2019, KRA only managed to collect just Kshs 900 billion against a downward revised target of Kshs 1.6 trillion. By the end of FY 2018/19, its revenue underperformance was by Kshs.91 billion. However, despite the becoming perennial deficits KRA made a historic landmark in FY 2018/19 that saw Domestic taxes collection exceeded Kshs.1 trillion while customs revenue exceeded Kshs.500 billion for the first time with actual grand total revenue at Kshs.1.58 billion(Ksh1, 580,062). The perennial shortfall menace saw the treasury impose new tax measures in the FY 2019/20 to bridge the tricky budget deficit.

However, the Country’s leading revenue collection agency was once again forced to scale down a revenue budget (for FY 2019/20), since it views it as over-ambitious and unrealistic. This has seen the National Treasury cuts the country’s economic growth forecasts by an amount in the region of Kshs 400 billion. (ICPAK, 2016), submits that the debate on how realistic Kenya’s budgeting framework is has also ensued with the record failure by the revenue collector, the Kenya Revenue
Authority, to meet their revenue targets for the Financial year (FY) 2014/15 and the first quarter of FY 2015/16.

According to information at KRA website, in FY 2015/16 KRA managed to attain revenue to GDP ratio of 18.2% for total revenues and 17.3% for exchequer revenues. Kenya’s fiscal revenue for the FY 2017/18 upped by 6.2 % (Kshs 86.6 billion) compared to the previous fiscal year at Kshs 1.66 trillion (16.8 % of GDP). However, there was a 10.4% shortfall to the set target of Kshs 1.7 trillion (19.1% of GDP). This according to the public opinion was partly caused by underperformance in ordinary revenues more so excise tax which was 9.4% below the target in that year.

Again, fiscal expenditure in FY 2017/18 increased by about Kshs 1.48 billion (0.1%) , reaching Kshs 2.1 trillion including about Kshs 1.32 trillion and Kshs 485.7 billion as recurrent and development expenditure, respectively.

The inter-governmental system of fiscal transfer is normally based on equalization fund, shareable revenue and taxes, conditional and unconditional grants and county borrowing that is limited and must be approved by the National Treasury. Figure 1.1 below helps illustrates these flows of revenues for county governments. However, with the 2019 population census results out, county population factor has solicited heated debates and mixed reactions by parliament as to whether it should to be an important basis of determining specific county transfers to the 47 counties in new formula proposed by the CRA expected to be approved by the parliament.
1.1.2 Revenue collection developments and challenges in Kenya

Many developing countries face significant hurdles in raising tax revenue. In particular, weak legal frameworks and tax policies in some low-and lower-middle level-income countries (LLMICs) are flawed and inconsistent in their development objectives (IMF, 2016). Moreover, poor fiscal transparency and accountability are also concerns. These problems are also often compounded by inadequate tax administration, which leads to poor compliance and deficiencies in integrity (IMF, 2016). According to IMF (2010) and Westman (2004) as cited in (Ngotho & Kerongo, 2014), revenue collection in developing countries is increasing. Most developing countries are emerging from crisis with their fiscal prospect broadly intact, but with many still facing a fundamental need to raise more revenue from their own tax bases.

(Moiy & Ronge, 2006) notes that poor quality of basic data to estimate optimal taxation, forecast revenues adequately, undertake micro-simulations and tax modeling and an unfriendly political economy that is not amenable to rational tax policy may prevent significant tax reforms in a
developing country like Kenya. In Kenya, the agency that is mandated to collect revenue nationally is Kenya Revenue Authority (KRA). Revenue collection was not a challenge for the government in the first decade of independence until the energy crisis of 1970 which necessitated tax reforms to collect more revenue (KIPPRA, 2006).

Faced with the challenges posed by manual processes, KRA in its second corporate plan recommended a strategy to address the identified challenges due to manual system of operation through the Revenue Administration Reform and Modernization Programme (RARMP) which commenced in 2004/05. The goal was to transform KRA into a modern fully integrated and client focused tax administration unit. Key initiatives introduced with the RARMP were; the Integrated Tax Management Systems (ITMS) for domestic revenue that initiated the E registration, Electronic Tax Registers (ETR’s) to be used by VAT registered tax payers (introduced in January 2005) and the Simba 2005 System (S2005S) to automate over 90% of customs operations (Ochieng, Wawire, Manyasa, & Thuku, 2014).

In March 2017, a new integrated customs management system (ICMS) for automated clearance of goods was set to be piloted at the Jomo Kenyatta International Airport (JKIA). This system was to consolidate all the existing customs systems under one access point. Thus it was to replace the Simba 2005 System, Customs Oil Stock Information System (COSIS), Cargo Management Information System (CAMIS), Air Passengers Service Charge (APSC), Direct Assessment (DA) and Manifest Management System (MMS). These reforms were geared towards minimizing revenue collection challenges in the country as was evidenced before due to the pitfalls of previous systems. Therefore and as (Gitaru, 2017) automation study reveals, KRA portrays the spirit of an organisation of keeping tandem with the technological upgrades in order to meet emerging need.
KRA has in recent years introduced a number of initiatives to make paying taxes easier and facilitate compliance, namely: implementation of an online platform; iTax, for filing and paying income tax and the standards levy; improved customer service as well as transformation of KRA initiatives by enhancing digitization. Additionally, there have been concerted efforts to combat tax evasion and fraud using intelligence and risk-based forward-looking enforcement. Through these Revenue Enhancement Initiatives (REI) programmes, KRA revenue collection for the FY 2017/2018 was Kshs 1.435 trillion in spite of the tough economic environment. The revamped iTax platform saw 6.7 million taxpayers registered on iTax compared to 5.4 million enrolled the previous year (Capital Business, 2019).

1.1.3 County governments’ own sources revenue and collection trends

Own revenue sources, including tax and non-tax instruments such as fees and charges, bring adequacy in revenue collection, just like transfers.

There has been much reluctance at some County levels to use own sources. However, own revenues uniquely offer an element of horizontal accountability of public officials to their constituents, on the revenue side of the budget. This accountability is fundamental to create a fiscal culture of expenditure efficiency – not wasting resources and providing what is needed and wanted by local residents, and of fiscal responsibility – providing limits to an otherwise unabridged appetite for public spending with continuous pressure for more central transfers and/or public debt (UN-HABITAT, 2015).

Some of the sources of County governments’ revenues include: taxation, license fees, permit fees, CESS and other sources. According to (CRA [Strategic Plan 2017-2022], p. 16), the Commission
on Revenue Allocation (CRA) will continue to work with all 47 County governments to develop sustainable, own source revenue mechanisms and reduce over-reliance on National government.

![Diagram of County governments' Own-Sources Revenue](image)

Source: (Researcher, 2020)

Figure 1.2: Annual County governments' Own-Sources Revenue for FY 2013/14-2018/19

The above figure 1.2 shows the annual own source revenue for County governments. The Counties Own Sources Revenue (COSR) has consistently been increasing underlining the potential in revenue collection in the 47 counties until FY 2016/17 when it declined. Again, in FY 2018/19, it increased to new high of 40.3 billion. This is clearly seen as well in Homa Bay County in the figure 1.3 except that, in the latter, the decline persisted even in FY 2018/19.

(DI-Kenya, 2018) points that the limited available literature attributes COSR mobilization decline to poor revenue collection practices and significant revenue leakages. This therefore goes to show that the kind of institutional arrangement adopted by the County governments has its effect on revenue collection efficiency. This study also indicates that COSR has been low in volume and as a percentage of the National Gross Domestic Product with a perpetual decline since FY 2016/17. From the first year of fiscal decentralization, FY 2013/14 to FY 2017/2018 COSR was less than 1% of the National GDP. Impressively, FY 2014/15 saw the amount of COSR collected
by the 47 counties increased by 29.1%. In FY 2015/16, however, the increase was only by 3.5%. COSR eventually declined by 7.1% and 0.1% for FY 2016/17 and FY 2017/18 respectively.

In FY 2018/19, County governments had an aggregate annual own-source revenue target of Kshs 53.86 billion. However, a total of 40.3 billion was generated. This was 74.8 per cent of the annual target and an increase of 24 per cent compared to Kshs.32.49 billion generated in a similar period of FY 2017/18, which was 66 per cent of the annual revenue target.

**Figure 1.3: Homa Bay County, Trend in Annual County Own-Sources Revenue collection from FY 2013/14 to FY 2018/19**

**Source:** Homa Bay County Treasury & OCOB (2019)

1.1.4 Revenue collection challenges in County governments

County governments of Kenya have their powers provided for in Articles 191 and 192, and in the Fourth Schedule of the Constitution of Kenya and the County Governments Act of 2012. These governments are responsible for county legislation, executive functions, functions transferred from the National government, functions agreed upon with other counties and establishment and staffing of a county public service.
In order to collect more taxes these counties need transferred functions from the National government, and accordingly, Article 207(1) of the Constitution of Kenya states that there shall be established a Revenue Fund for each County government into which shall be paid all money raised or received by or on behalf of the county government, except money reasonably excluded by an Act of Parliament. However these functions are limited. (Bird, 2011; Smoke, 2013) as cited in (Kundt, 2017) attests that revenue autonomy of Sub National governments(SNGs) is often limited by the Central government due to concerns over national fiscal policy management and capacity concerns, as well as a reluctance to possibly give up own revenue positions. According to (Mutua & Wamalwa, 2017) part of the challenges especially for local governments is dependency on transfers from central governments.

Often Own Sources Revenue (OSR) especially for local governments in developing countries constitutes a small proportion of their total revenue is due to limited taxing powers. (Kosaye, 2018), discusses that the county governments raise their revenues from the consolidated funds and locally generated funds from levies which has not been sufficient to meet the huge mandate bestowed to County governments. The author points out that most of these county governments were not able to meet half of their revenue targets in the financial year 2014/2015 due to increased loopholes in collection systems, as per Controller of Budget report (CBR) on county spending for the 2014/2015 financial year. CBR indicated that out of the 47 devolved governments, less than half of them collected local revenue of above 50 per cent. The County governments in the financial year 2014/15 raised Kshs. 33.9 billion against a target of Kshs. 50.4 billion which is a performance rate of 64 percent. This trend of collection bellow set target has continued to be witnessed annually.
In spite of these outlined revenue sources amongst others, the counties have been facing shortfalls of revenues to fund their operations. These are attributed to different factors that respective counties face. Bird (2013) avers that, shortcomings in revenue collections are mostly caused by inadequate administrative staff with mandatory skills, and ignorance among taxpayers and tax collectors. The author further laments that, hiring of tax officials who don’t know the tax laws in governance and accounting that are necessary in order to analyze returns has been a great obstruction in revenue collection. Tax administration requires qualified tax workforces with essential abilities needed in order to uphold these systems and work them to their fullest potential.

According to Di John & Putzel, 2009; Everest-Phillips, 2009; Jagger & Shively, 2014; Slack, 2013, as cited in (von Haldenwang, 2015) effective taxation at County governments can be hampered by political settlements where local politics or tax administrations are captured by powerful groups and any decision to tax is taken in the light of the political costs it entails. Simiyu (2010) in a study titled “challenges affecting collection of turnover tax in Nairobi County, Kenya”, reveals that tax officers took bribes when presented to them to reduce tax obligation and demand for enticements. This point coincides with many findings that see corruption as one of the biggest obstacles to raising more taxes in Kenya. Ismail (2016) indicates that the main challenges in revenue collection rotate around revenue collection system.

The proceeding phenomena have remained a threat to realizing revenue collection targets. These foregoing challenges also highlight part of the problems facing most counties; county of Homa bay is no exception. However this study will focus on Technological Innovation, Intergovernmental consultations, Institutional arrangement and Tax base issues as factors affecting Homa Bay County revenue collection. This county collects revenue which amongst others includes: Bus park fees, land rates, market dues, business permits, plot rents, livestock cess and liquor licensing.
1.2 Statements of the Problem

Today, most county governments have not been able to mobilize resources effectively resulting to under development and poor service delivery that do not meet citizens’ expectations, with key services such as health care, water, sanitation, education, and agricultural extension services remaining dismal (Kimutai, 2017). The push to collect more own source revenues is driven by growing pressure on National budgets and the need to reduce government deficits. County governments however, still over-rely on National government for transfers. The latter is consequently over burden by these increased demands while development in the former stagnates due to delayed fund transfers.

County governments have transferred power to bring services closer to citizens in the hope for better service delivery. However, part of this power to impose, collect taxes and non-tax revenue locally has been ineffective. There are weak capacity for revenue forecasting, many counties are not fully automated with revenue collection still done in cash on a daily basis, inappropriate institutional arrangements for revenue collection, narrow tax bases and inadequate information sharing at Intergovernmental levels exist. (National Treasury, 2016) notes that previous statistics on county own source revenue reveal that a large number of the counties have not been meeting their revenue targets. Reports by the Office of the Controller of Budget (OCOB) showed counties locally raised Kshs. 33.85 billion in FY 2014/15, which was 67.2 per cent of the total annual local revenues target of Kshs.50.38 billion and an increase from Kshs. 26.3 billion generated in FY 2013/14. But, in subsequent years especially from 2016/17 most counties have underperformed.

In Homa Bay County, (OCOB, 2018) identified two major challenges that affected budget implementation: (1) Under-performance in own source revenue collection which declined by 25.8
per cent from Ksh.144.13 million in FY 2016/17 to Kshs.106.94 million in the reporting period.

(2) Weak budgetary control as evidenced by expenditure above approved budget allocation in some county departments. Moreover, going by the Homa Bay Annual Development Plan-2018/2019, in the FY 2018/19, the County Government of Homa Bay was expected to collect Kshs 172,996,417 as internal revenue, including an Appropriation in Aid from the County Departments. However, a total of Kshs.58.27 million from own revenue sources in the first nine months of FY 2018/19 was collected. Again, it is not certain whether County governments have been able to utilize all the sources assigned to them and whether such utilization is to the extent of maximum potential or not.

Several Kenyan studies done point fingers at poor revenue collection practices, significant revenue leakages due to corruption, tax evasion, political pressure on the tax administration to relax on revenue collection and measures as causes. However, they did not give adequate attention if any on how tax base, inter-governmental consultations, institutional arrangements affect revenue collection in counties creating scanty of literature. Relative to this, it was vital to examine the factors that affect revenue collection by County government of Homa Bay with the intention of finding recommendations that if implemented would help raise more revenue.

1.3 Study Objectives

1.3.1 General Objective
The general objective of the study is to examine factors affecting revenue collection by County governments in Kenya, a case of Homa Bay County.

1.3.2 Specific Objectives
The study was guided by the following specific objectives:
i. To examine the effect of technological innovation on revenue collection by County government of Homa Bay

ii. To determine the effect of inter-governmental consultations on revenue collection by County government of Homa Bay

iii. To establish the effect of institutional arrangement on revenue collection by County government of Homa Bay

iv. To establish the effect of tax base on revenue collection by County government of Homa Bay

1.4 Research Hypothesis

i. \( H_0 : \) There is no significant relationship between technological innovation and revenue collection by County government of Homa Bay

ii. \( H_0 : \) There is no significant relationship between inter-governmental consultations and revenue collection by County government of Homa Bay

iii. \( H_0 : \) There is no significant relationship between institutional arrangement and revenue collection by County government of Homa Bay

iv. \( H_0 : \) There is no significant relationship between tax base and revenue collection by County government of Homa Bay

1.5 Justification of the study

This study should contribute to the existing literature in revenue collection. The findings also could be used by Counties personnel like Governors, County Executive Committee members, members of county assemblies, and the revenue collection agents such as chief officers, Head of revenue in counties, Accountants, Auditors, revenue collectors and other staff members running
County governments’ affairs pertaining to budgets and Budgetary controls in Kenya. To the National government, the findings could help in assisting the County governments to overcome their own sources revenue collection challenges. Thus, this ease pressure of having to allocate huge transfer funds that eat on the country’s GDP especially when the country is fiscally hurt.

1.6 Scope of the study
This study was carried out in Homa Bay County in four categorized sub-counties’ Finance departments and Revenue Sub-departments to examined factors affecting revenue collection by County governments in Kenya. It used secondary data to examined factors affecting revenue collection for 2013-2019 periods. Primary data was used in establishing the factors affecting revenue collection in the county. The study focused on the effect Technological Innovation, Inter-governmental consultations, institutional arrangement and tax base on revenue collection by county government of Homa Bay. The decision to use this county as a case study was based on ideas that it represented quite well counties in Kenya with similar challenges. Again, cost of doing the research in this county seemed relatively lower to the researcher compared to others, owing to the researcher’s familiarity with the County.

1.7 Limitations of the study
This study faced a host of limitations. The constraint in time allocated to collect data is one of the challenges the research faced especially when it had to be rescheduled a longer timeframe than anticipated. This was due to matters that arose and out of researcher’s hands, coupled with fixed and constrained financial budget that had to be effectively and efficiently implemented to bring out quality report. Moreover, some respondents were unwilling to take the questionnaires. Some suspicious that it was an ill motive sort of investigation. Luckily I was able to persuade most of them in later attempts.
CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

The chapter presents the theoretical and conceptual framework of the study. This chapter also presents theoretical review of literature on factors affecting revenue collection mainly within Kenya. These include Technological Innovation factors, Inter-governmental consultation factors, Institutional arrangement and Tax-base concerns as well as empirical review and the research gaps from related past studies in Kenya.

2.2 Theoretical Review

The theoretical review explains the main theories selected to guide this research and their relation to the study. This research adopts the following five theories; Optimal Taxation Theory, The benefit theory, Ability to Pay Theory, Fiscal Policy and Technology Acceptance Model.

2.2.1 Optimal Taxation Theory

The standard optimal taxation theory posits that a tax system should be chosen to maximize a social welfare function subject to a set of constraints (Mankiw, Weinzierl, & Yagan, 2009). According to Ramsey (1927) and Mirrlees (1971), as explained by (Omolo, 2012) the optimal taxation theory seeks to determine how government can maximize social welfare through taxes and transfers, without increasing the sacrifice on the part of tax payers. Thus, its primary objective is to ensure fair redistribution of welfare.

(Tenhunen, 2007), argues that justification for taxation might be purely efficiency, when taxation is unambiguously welfare improving. But when the justification for tax policy is based on considerations of equality or paternalistic objectives, the optimality of such taxation becomes
more of a question of values. Moreover, (Waris, 2007) opines that it is nearly impossible to choose theoretically the best taxation system. Government has to conceptualise the various problems while working out the best possible system and will generally settles for a compromise between conflicting considerations and therefore in the end settles for a sub-optimum tax system.

(Sørensen, 2010), asserts that the classical economists rarely discussed the trade-offs between the various goals of tax policy. The study points out that, they did not pay much attention to the trade-off between redistribution and economic efficiency, because they typically ruled out redistributive progressive taxation as a matter of principle, seeing it as a fundamental threat to property rights. Creedy (2009, p. 2) as cited in (Sørensen, 2010) opines that the denouncement of any deviation from proportional taxation was vividly expressed by McCulloch (1845) who argued that the moment you abandon the cardinal principle of exacting from all individuals the same proportion of their income or of their property, you are at sea without rudder or compass, and there is no amount of injustice and folly you may not commit.

Theory of optimal taxation therefore goes to offer useful advice on the proper differentiation of tax rates, in terms of qualitative and quantitative aspects. County government more so can have the information and the administrative capacity to implement the tax rules prescribed by the optimal taxation theory. This means that optimal taxation theory helps identify key lessons policymakers might take from the theorem on how taxes ought to be designed to realize maximum revenue collection at fair dealings.

2.2.2 The benefit Theory

This theory is known to have been developed by Erik Robert Lindahl in 1919. According to the benefit theory, the state should levy taxes on individuals according to benefit offered to them.
Therefore, the more benefits a person receives from the operations of the state, the more he or she should pay to the government. This implies that, the theory seeks to ensure that every individual’s tax obligations are as much as possible attached to the benefits that one receives from the enjoyment of public services offered.

The benefit theory has been vehemently critiqued because it allows the state to make a certain linkage between the benefits offered and the benefits received thereby being in contradiction of the basic principle of the taxation. The basic principle of taxation posits that a tax is an obligatory contribution done to the public authorities to meet the expenditures of the government and the supplies of general benefit to all citizens (see Booker, 2004). Thus, there is no direct quid pro quo in the case of a levy as the theory would want us assume. In addition, the benefit theory has it that most of the expenditure suffered by the state is for the general benefit of its citizens. It is not possible to estimate the benefit enjoyed by each individual on a year on year basis. Furthermore, if this principle is applied in practice as it is, the poor will have to carry the heaviest tax burden, because they benefit more from the services of the state. Thus, if we get more from the poor by way of taxes, it is against the principle of taxation. Again, if individuals get some advantage by paying taxes, there would be free-rider problem, which according to (Brautigam, 2004) as explained by (Gituma, 2017), is the primary disapproval given for limiting the scope of the subsidy principle such that each individual can lower his tax cost by under reporting his aids derived from the public good or service.

Accordingly, the relation of this theory to this study is that County government of Homa bay may collect duty from the County residents in areas such as Bus stand or market place, and later on expend the duties in developing some social facilities which brings about social benefit to all residents of the county.
2.2.3 Ability to Pay Theory

This theory was developed by Slade Kendrick in 1939. This theory is the most popular and commonly accepted theory of equity in taxation because it considers tax obligation in its true form, a compulsory payment to the state without quid pro quo. It is known to have been developed due to the inadequacies in the benefit theory of taxation.

According to Ability to pay theory, an individual is to pay taxes because the individual is able and his or her relative share in the total tax burden is to be determined by his or her relative paying capacity. (Emslie, Davis, Hutton & Olivier, 2001:2; Chigbu, Eze & Ebimobowei, 2012:31) in (Chauke, Sebola, & Mathebula, 2017) also add, the theory propagates that people should be asked to pay taxes according to their ability to pay and assessment of their taxable capacity should be made primarily on the basis of income and property.

Unlike the benefit theory, Ability to pay theory enjoys support from socialist thinkers and non-social thinkers because of its concurrence with the norms and concepts of justice and equity thus becomes part of theory of welfare economics. The underlying principle or concept of this theory is that the tax burden should be shared by the members of society say, County residents, on the principles of justice and equity and that these principles necessitates that the tax burden is apportioned according to their relative ability to pay taxes within the county.

However, there exist some difficulties in this theory when dealing with ownership of property. An interesting scenario is that, it may be argued that ownership of property is a perfect basis for measuring ability to pay tax.

Ordinarily, this idea may be refuted on a point that if a person earns huge returns but does not spend on buying any property, he might then be escaping taxation. On other hand, if another
person earning low returns buys property; he will be facing taxation. This undoubtably could trigger a concern that it is not fair that a person earning large income is exempted from taxes while another person with low income is paying taxes.

The same argument will hold for people spending more against those spending less with respect to the size of the family. It appears therefore that income as a basis of determining ability to pay tax is a fair and just criterion for determining taxation. Finally, the relevance of this theory is that, it helps ascertain ratepayers in Homa Bay County who have different capabilities of paying rates and other taxes irrespective of the benefits they receive from the same County government, in terms of services.

2.2.4 Fiscal Policy Theory

The Fiscal policy is normally used by National governments although all levels of governments affect the economy.

(Hyman, 2011) refers to Fiscal Policy as the use of the government budget to stabilize the economy which consequently can help move the economy back to full employment during recessions. (McEachern, 2006), defines this policy as government purchases, transfer payments, taxes, and borrowing as they affect macroeconomic variables such as real GDP, employment, the price level, and economic growth.

An application of Fiscal Policy is where the president of a nation pushes through a tax cuts to have the country economically moving or in the case of Kenya, to have the Kenyan government, through Parliament and The National Treasury, cuts taxes and increase spending with sole objective of stimulating its troubled economy. The latter avers that fiscal tools of the Fiscal Policy sort into two categories namely; Automatic Stabilizer and Discretionary Fiscal Policy.
Accordingly, Automatic Stabilizers may be defined as the revenue and expenditure activities from the National government Budget (as normally the case) which automatically adjust with the fluctuations in the economy effected to stabilize disposal income, and as a result, consumption and real GDP of a country. Discretionary Fiscal Policy, on the other hand, are deliberate measures such as manipulation of government taxes, purchases, transfers and other relevant variables to foster macroeconomic objectives namely; price stability, full employment, economic stability and economic growth.

(McEachern, 2006) further noted that the federal income tax is an automatic stabilizer because (1) once adopted, it requires no congressional action to operate year after year, so it’s automatic, and (2) it reduces the drop in disposable income during recessions and reduces the jump in disposable income during expansions so it’s a stabilizer. The author also analogized that the former U.S. President G.W. Bush’s famous tax cuts typify discretionary fiscal policy and portrayed some discretionary policies as temporary, such as a boost in government spending to fight a recession.

The Fiscal Policy theory suggests that governments raise revenues and use the collected resources to finance public investment spending for the provision of public goods and targeted development projects (Omolo, 2012). The means of financing government-provided services can vary with local desires when government is decentralized. Communities with strong interests in encouraging certain types of development, such as housing or new industry, can adapt their tax structures to provide incentives to achieve those goals. Similarly, insofar as notions of fairness in taxation vary across jurisdictions, a decentralized system of government can adjust its tax structure to attain those objectives (Hyman, 2011, p. 713).

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2.2.5 Technology Acceptance Model (TAM)

According to (Sondakh, 2017), technology Acceptance Model (TAM) theory was first introduced by Davis (1986) and was developed from Theory of Reasoned Action (TRA) by Azjen and Fisbein (1980) to explain computer-usage behavior.

TAM is an information systems model that prototypes how users come to accept and use a technology (Gituma, 2017). Accordingly, the model states that when users are given a new technology, various aspects influence their choice about how and when they will use the technology. The two main aspects are Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). Davis (1989), defines PU as is the perceived likelihood that a system can help users perform their tasks more easily than if the system is not used and PEOU as the degree to which a person believes that using a particular system would be free from effort (Development Initiatives-Kenya, 2018).

(Sondakh, 2017, p.53; parag.1) observes that the higher likelihood of perceiving usefulness from on-line tax filing system would make taxpayers perceive that the system can increase the tax filing efficiency and convenience. On the other hands, the convenience and promptness that on-line tax filing system brings will increase taxpayers’ perception of tax filing efficiency. Taxpayers will then have positive attitude toward on-line tax filing behavior.

According to (Warkentin et al., 2002), taxpayers will know the advantages of the system only if it is easy to operate. A number of researchers on this model noted that owing to new machineries such as personal computers being complex and an element of doubt usually exist in the minds of users with respect to positively putting them to use, people form attitudes towards trying to study and use the newly-invented technology before making efforts towards using them; also see
Bagozzi, Davis and Warsaw (1989) in (Jaeger & Matteson, 2009). Furthermore, the critiques of this model take note of its doubtful heuristic value and simplistic explanation of how it works.

2.3 Stocks and Bonds as Other Sources of County Revenue

Borrowing by county governments has always been limited. However, in recent development and report by CRA (2019), County governments, going forward, will be allowed to source for finance in the capital market. Their financial operations in the market will be regulated by the capital Market Authority (CMA) as well. This would help fill the gap that any revenue collection locally would always leave – a supplementing gap.

According to (UN-HABITAT, 2015), in order to effectively address the challenge of mobilizing adequate financial resources, urban authorities in developing countries should consider using mechanisms such as municipal bonds, bank loans, municipal development funds, funds from institutional investors (such as pension funds), corporate bonds, equity markets and public–private partnerships (PPP). However, (UN-HABITAT, 2015) highlights that borrowing from capital markets is an alternative way to mobilize financial resources for municipalities. Yet in order to borrow, cities must first demonstrate that they are creditworthy. The same is true for counties as envisaged by CRA (2019) & Kimutai (2017) who hints that raising revenue from stocks and bonds by county governments will open local authorities to a more elevated amount of investigation than they are used to as no private firms will loan to a local authority whose funds are overseen without clarity.
2.4 Conceptual Framework

The conceptual framework diagrammatically illustrates the relationship between dependent variable and independent variable. In this study, the dependent variable was the revenue collection while the independent variables were technological innovation, inter-governmental consultations (at both national and other county governments level), institutional arrangement (departments and outsourcing) and tax base (broadening tax base). The figure 2.1 below shows the conceptual framework of the study. It shows the relationship between these various factors affecting revenue collection and how they relate to revenue collection by the county government.

**INDEPENDENT VARIABLES**

**TECHNOLOGICAL INNOVATION**
- Automation of tax collection
- Non-automated payment system

**INTER-GOVERNMENTAL CONSULTATIONS**
- National government
- County governments

**INSTITUTIONAL ARRANGEMENT**
- Departments
- Outsourcing

**TAX BASE**
- Broadening Tax base

**DEPENDENT VARIABLE**

**REVENUE COLLECTION**
- Growth/decline
- Targets

**Figure 2.1:** Conceptual framework of factors affecting revenue collection in the county
2.4.1 Technological Innovation and Revenue collection

Most recent reforms in tax collection efficiency center on Information and Communication Technology (ICT). The manual and semi-automated revenue collection system constrained COSR by creating loopholes for significant revenue leakages. Most County governments are adopting ICT-enabled revenue collection systems e.g. – M-pesa payment systems albeit not all have fully automate their systems. IFMIS and other PFM systems are geared towards establishing a secure, reliable, efficient, effective, and fully integrated public financial management system in National and County governments.

The use of ICT-enabled system and subsequent fully automation of revenue collection has seen counties involved enhance opportunities to increase COSR, improve transparency and thereby improved the willingness to pay duties since it has made the payment process simpler, user-friendly and faster. It has also facilitated effective keeping of tax information for future revenue target projections.

However, like in any challenge, there is often no ‘one-size-fits-all’ solution and automation is not the end in matters technology. Technology needs further updating and improvements with change in trends. (Mugambi, 2018), in the statements of (Ngugi, 2016) discloses that despite the adoption of technology by County government in Kenya, much need to be done. This is drawn from the fact that the experience in automation of revenue collection system has come with the system breakage or failure to function properly or rapid changes in technology applications. (Development Initiatives-Kenya, 2018)(DI-Kenya, 2018) moreover asserts that, the automation is hampered by unstable power supply and internet connectivity, especially in rural areas, as well as the initial high cost of developing effective revenue collection and management infrastructure. The study also reveals that this is exacerbated by the incomplete rollout of the National government’s
Integrated Financial Management Information System (IFMIS) to counties to facilitate revenue collection.

Technological Innovation therefore should serve to improve and keep abreast with frequent changes in technology or tackle problems that spontaneously arise. (Mackenzie & Wajeman, 1999) reference to social shaping of technology (SST) analogy meant that what matters is not technology itself, but the social or economic system in which it’s embedded. Notably, (Gituma, 2017) contends that technological innovation has been significant matter in tax and revenue collection. The introduction of new mechanisms to support industries further affects ways in which taxes and revenues are collected. Information Technology (IT) keep changing at a very high rate that the existing fiscal systems become obsolete over a short period of time. (Bird, 2007), posited that no modern tax administration can perform its tasks efficiently without using IT. The same study however added that, in many developing countries the expectation of greater effectiveness from computerization has not materialized. This has remained the case even with the advent of County governments in Kenya.

2.4.2 Inter-Governmental consultations and Revenue collection

County governments may seek the guidance and support of another county government or National government. (WORLD BANK-KENYA, 2012), noted that intergovernmental relations will be more important in Kenya than in many other devolved systems. This extends to revenue collection matters. (Fjeldstad & Heggstad, 2012), argue that consultations and co-operation between the Central government revenue administration and Local government authorities are generally limited. The
authors further note that lack of coordination has allowed the emergence of a high degree of arbitrariness and abuse in local tax systems, while little attention is paid to economic efficiency.

(Intergovernmental Relations Act 2012) in (WORLD BANK-KENYA,2012), highlights consultation; dispute resolution; sharing information on county performance; considering matters of common interest; formulating inter-county agreements and monitoring them; and facilitating capacity building that is part of the forum of meeting for Council of County governance. This should help in tapping tax collection information and better administration strategies amongst others involving County governments’ revenue officers in order to conceal revenue leakages. The sharing of such tax information and their proper implementation through co-operation with relevant agencies is more likely to have a positive effect on revenue collection efficiency.

In the absence of external institutional arrangement (outsourcing) for revenue collection and in instances where the goal of County government and the National government or other County government is common, consultation with an aim to establish proper strategies of raising revenue collection efficiency is ordinarily a viable approach.

2.4.3 Institutional arrangement and Revenue collection

Revenue collection structures vary from county to county — while other counties use revenue departments, located within the Treasury or the County Secretary’s office, others have established semi-autonomous authorities. Yet other counties have outsourced collection of specific revenue streams to private firms (National Treasury, 2016).

According to (Treasury National, 2019), 29 Counties have been recommended to use departments as their revenue administration structures. Homa Bay County is one such county. The report gives
the rationale for this to be in cases where revenue is still relatively low i.e. with no predominant revenue streams and where economic justification is low for investment in advanced and costly revenue administration systems. The 7 counties that have been recommended to establish an autonomous county revenue authorities or corporation are Embu, Uasin Gishu, Laikipia, Kajiado, Isiolo, Samburu and Taita Taveta. The rationale given is that these counties have potentially significant revenue, requiring only modestly complex administration and due to narrow concentration of the most important revenue streams e.g. park entry fees. Moreover, 8 counties (Nairobi, Mombasa, Kisumu, Kiambu, Nakuru, Narok, Machakos and Nyeri) have been recommended to contract KRA services. The reason being that it would be easier to for KRA to collect revenue from more urbanized Counties with large formal sectors. That this would allow KRA to fully apply its professional skills, personnel and technical resources.

Further, contracting private firms and other agents was a recommendation to 3 counties (Kakamega, Kisii, Bungoma, Meru). Either, the report points that, contracting private firms by these counties could benefit them. Contracting KRA would be a medium term option. The benefits would also be from professionalized revenue administration and reduced costs, albeit with progressively enhanced revenue collection.

In many developing cities, local governments are increasingly looking to outsourcing tax collection to private companies to improve the efficiency of tax collection. However, whilst private companies may in some cases be better resourced and incentivised to expand tax revenues, there are significant risks associated with outsourcing collection. Private firms can charge overinflated costs and high premiums, and farming out collection may undermine the legitimacy of local government (Collier, Glaeser, Venables, Priya, & Blake, 2018).
In a number of counties, collection of revenue in specific sectors appears to have been decentralized to respective departments within the County Government structure. For example, in many counties, collection from health facilities in the form of user fees is handled directly by respective Health Departments, with little reporting to the County Executive Committee Member for Finance. The impact of such arrangements has been loss of control by County Treasuries of the revenue collection function. In addition, it has led to weak coordination of OSR collection within the County Governments. Moreover, this has created room for spending of revenue at source, in contravention of the PFM Act, 2012 (National Treasury, 2016). This implies that the appropriateness of an institutional arrangement in a county affects revenue collection in that county, with inappropriate arrangement having a negative effect.

Therefore, in terms of administrative arrangements for revenue collection and management, the PFMA allows the CEC Member for Finance to pursue four possible institutional arrangements. The four options are: internal revenue administration; establishment of an autonomous revenue authority (or County Corporation); contracting the Kenya Revenue Authority; or contracting a private firm or other agent (National Treasury, 2016).

2.4.4 Tax base and Revenue collection

Broadening the tax base within the scope of the county can help county governments to reduce their budget deficits as well as revenue collection targets. (Waruiru , 2017) notes in his presentation that some of the ways to broaden tax base entails identifying the ideal tax bases, increase the economic activity subject to tax, introduction of environment taxes, reduction of excessive tax incentives that act as tax expenditures to the system even if it increases revenue since it is not a tax base broadener, reintroduction of inheritance tax, establishing a simpler and
more equitable tax code and transparency about expenditure of tax revenue, eliminating tax loopholes, removal of preferential regimes and revenue-neutral tax reforms.

According to (Bahl & Wallace, 2008) other preferential treatments that harm the tax base includes the exemption of government properties and the provision of an overgenerous boundary lines for low income properties. Further, the study contends that, the Local government officials are close to the political power structure. And since wealthy individuals and business usually represent a large component of the potential tax base, elected local politicians may find it difficult to bring aggressive enforcement measures against delinquents. Moreover, they may be subject to considerable pressure to provide exemptions to the politically powerful.

Bahl & Wallace (2008) concurs with (Ali, Fjeldstad, & Katera, 2017) which elucidates that a narrow tax base is due to a large proportion of informally owned properties and a range of legal exemptions and preferential treatment to different types of properties or different groups of society and may create a disproportionate burden on taxpayers or localities that do not get such exemptions. However, (Collier et al., 2018) argues that though there may be reduced incentives at the local level to enforce collections on politically powerful individuals, strict monitoring of collection at a central level can mitigate this effect.

(Vazquez & Sepulveda, 2011), argues that a tax that is not acceptable either to the taxpayers or to a significant portion of the political class might simply be impossible to implement. Moreover, even if the tax is implemented, in order to be successful, it requires a high degree of co-operation of all relevant agents and institutions. Failing to reach this co-operation might result in low voluntary compliance, inadequate or unrealistic laws, and deficient enforcement. This therefore implies that when County government intends to expand a tax base or introduce new tax measures
it must ensure such co-operation through proper consultation and assurance that the expansion of tax base benefit outweighs the sacrifice.

2.5 Empirical Review

In several studies both within and abroad, empirical evidences give mixed results on factors affecting revenue collection and in some cases the evidences are inconclusive. For instance, a study by Fisman and Gatti (2012) on disparity between revenue generation and expenditure in the United States revealed that larger centralized removals are related with high rates of sentence for abuse of public office, which marries with the idea that soft-budget constraints created by National government transfers are potentially problematic.

Another study in Tanzania by Fjeldstad (2011) about the relations between local bureaucrats, politicians and donors in local government revenue enhancement established that fiscal administrations in many counties are highly corrupt. This, the study revealed, was due to high degree of discretionary fiscal power wielded by local officials and poor or nonexistent monitoring from above. However, the association of donors via engagements that gives development aid on the basis of corresponding funds from the local government may encourage increased tax effort at the expense of accountability, responsibility and democratic development.

Kosaye (2018) studied the factors affecting revenue collection in County government of Marsabit. This study used descriptive survey design and adopted stratified random sampling with a sample size of 69 from the total population of 182 County staffs. This study found that automation of revenue collection will save on cost and time spends in revenue collection, County government does not ensure that its revenue collection staff has relevant skills in revenue collection. It also
established that the internal audit report address weaknesses in the internal control system and independent reconciliations of revenue collection on a regular basis is done.

Mugambi & Wanjohi (2018) narrowed on factors affecting implementation of revenue collection systems in Meru County. The researchers found out that revenue collection systems used have achieved expected revenue targets and revenue collection system available have improved taxpayers’ compliance in a greater extent. Adenya & Muturi (2018) in their study about factors affecting revenue collection efficiency in Kiambu County found out significant relationship between revenue collection as a dependent variable and all the independent variables namely: personnel capacity, technology, internal controls, and enforcement of laws. The findings on Internal controls tally with the establishments in Maxwell (2005) & as Pashev (2008) that linked inadequate monitoring techniques with high cases of corruption.

( Owino, Otieno, & Odoyo , 2017), in a comparative study of Migori and Homa Bay County governments, used a correlation study research design whose focus was comparative analysis of the influences of ICT on revenue collection. It had a target population of 864(848 revenue clerks and 16 revenue officers) employees from both Migori and Homa Bay county governments with a sample size of 86 respondents selected using stratified sampling technique and purposive sampling. The result was a strong and near-perfect association between ICT systems adopted in the counties and the revenue collection. The application of ICT explained that 91.9% variation in revenue collection efficiency in the county governments. The application of ICT systems in Homa Bay County explained up to 46.1% variation in revenue collection efficiency in the county government and 57.5% variation in revenue collection efficiency in Migori. However, this study focused only on ICT as the study variable for comparative analysis affecting county revenue collection. It did not analyse any other factors that presently affect county governments.
Gituma (2017) focuses on the determinants of effective revenue collection by Embu County. The study established that government policy, rules and regulations had the greatest effect on the optimal revenue collection, followed by corruption, then employee qualification, skills and training while technology and information systems had the least effect to the optimal revenue collection. The study employed regression analysis and correlation analysis to establish the relationships between the variables concerned. However, this study recommended a new study be conducted in the county has it did not meet all its crucial objectives. This study acknowledged that its findings on corruption gives big discrepancy with vast number of scholars such as (Pashev, 2008, Fjeldstad, 2011 and Maxwell, 2005) who established that the lack of sufficient monitoring and reporting tools are vital in giving chances for corruption. Moreover, the study findings on technology does not show a strong relationship with revenue collection as with Kosaye (2018), Adenya & Muturi (2018) and several other similar studies that tie a strong positive linear relationship between Technology and revenue collection by County governments in Kenya.

(Karori, Muturi, & Mogwambo, 2016), focused on the influence of revenue collection efficiency on the operational performance of Kisii County Government. The study showed that benchmarking strategy through proper planning and budgeting influences revenue collection which affects operational performance and that the Supervisory systems influence revenue collection and in turn influences operational performance. The study concluded that Kisii County Government has the potential to collect more revenue if it improves its supervisory systems, fully utilize the computerized systems in place and ensure that targets are being achieved.

Fjeldstad & Heggstad (2012) did a study titled “Local government revenue mobilisation in Anglophone Africa”, which made emphasis on urban settings. The study’s analysis included
various cases from across Anglophone Africa. The study’s general conclusion was that local revenues mobilized in most local government authorities in Africa are necessary but not sufficient to develop and supply adequate services for the fast-growing population.

2.6 Research Gaps

Most studies done do focus on inadequacy of revenue collection at County governments. Few studies if any focus on inter-governmental consultations between County governments themselves, County governments and National government or other agencies as a way of mapping out more taxpayers and sharing revenue mobilizing information. There is a dearth in literature on Institutional arrangement as a factor affecting revenue collection. Moreover, empirical review on County tax base as a factor affecting County revenue collection efficiency in view of recent fiscal reforms to enhance Counties own sources revenue collection is limited. This study therefore seeks to bridge this gap by adding to existing literature and empirical analysis.
CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter draws from the study methodology. The Research design, targeted population, sample size and sampling techniques, research tools, data collection trials and approaches of data analysis are explored.

3.1.1 Area of Study

This study was conducted in Homa Bay County. According to (Homa Bay County Integrated Development Plan), the county is located in South Western Kenya along Lake Victoria where it boarders Kisumu and Siaya counties to the North, Kisii and Nyamira counties to the East, Migori county to the South and Lake Victoria and the Republic of Uganda to the West. Homa Bay County lies between latitude 0°15’south and 0°52’south, and between longitudes 34° East and 35° East and covers an area of 4,267.1 Km², inclusive of the water surface which on its own covers an area of 1,227 Km². The county head quarter is in Homa Bay Town. The County is divided into eight political constituencies namely; Rangwe, Homa Bay Town, Ndhiwa, Suba, Mbita, Karachuonyo, Kasipul and Kabondo/Kasipul constituencies. It is further divided into 40 Electoral Wards, 86 Locations and 211 Sub-Locations.

Source: GOK (2013)

Figure 3.1: Homa Bay County Map
3.2 Research Design

A research design is a plan, structure and strategy of investigation so conceived as to obtain answers to research questions or problems (Kumar, 2011). This study adopted descriptive research design in order to bring out an in-depth analysis of the situations and describe things as they really are in real life context such as behavior, attitude, character and value in accordance with (Kothari, 2008) assertion.

3.3 Target Population

Population is a well-defined set of people, services, elements, and events, group of things or households that are being investigated (Kothari, 2004). As such the population of interest is homogeneous. The target population constituted all 141 County of Homa Bay staffs across four of the eight Sub counties which included 56 Revenue clerks, 25 Revenue Officers and 60 Finance Officers. The accessible population was a total of 105 comprised of the Revenue Officers, Finance Officer, and Revenue Clerks from the four categorized sub-counties namely: Homa Bay Town, Rangwe, Ndhiwa and Mbita. This included 4 Chief Officers for the respective departments/Sub-departments in the Sub-counties.

Table 3.1: Target Population

<table>
<thead>
<tr>
<th>Sub-County</th>
<th>Department/sub-department</th>
<th>Number of staffs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homa Bay Town</td>
<td>Finance</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Revenue</td>
<td>20</td>
</tr>
<tr>
<td>Rangwe</td>
<td>Finance</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Revenue</td>
<td>18</td>
</tr>
<tr>
<td>Ndhiwa</td>
<td>Finance</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Revenue</td>
<td>22</td>
</tr>
<tr>
<td>Suba North(Mbita)</td>
<td>Finance</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Revenue</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>141</strong></td>
</tr>
</tbody>
</table>
3.4 Sample Size and Sampling Technique

Sample size was found using Slovin’s formula in Gituma (2017) as shown in equation 3.1 below.

\[ n = \frac{N}{[1+N(e)^2]} \]  

Equation 3.1

\[ n = \frac{141}{[1 + 141(0.05)^2]} = 105 \]

Where; \( n \) = Sample size, \( N \) = Total population, \( e \) = is the margin error of 0.05 based on 95% confidence level.

This study used stratified sampling technique. Sampling is suitable when it is not possible to involve the whole population under study. Stratified sampling technique identifies subgroups (strata) in the population and their proportions and selects from each subgroup (stratum) to form a sample. The researcher categorized respondents (County revenue clerks, Revenue officers and Finance officers from the Department/Sub-departments of Finance & Economic Planning) in 4 strata. These categories of respondents are relatively heterogeneous as a total sample. Random sampling was then conducted in each stratum where the respondents were assumed to be homogenous. Following (Ngicuru, Muiru, Riungu, & Shisia, 2017), stratified random sampling is considered appropriate since it gives every respondent in the target population an equal chance of being selected as a study respondent and thus it has no bias and eases generalization of the gathered findings. This is shown in table 3.2 below.

<table>
<thead>
<tr>
<th>Sub-County</th>
<th>Department/Sub-department</th>
<th>Number of staffs</th>
<th>Sample Size</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homa Bay Town</td>
<td>Finance</td>
<td>16</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Revenue</td>
<td>20</td>
<td>17</td>
<td>27</td>
</tr>
<tr>
<td>Rangwe</td>
<td>Finance</td>
<td>13</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Revenue</td>
<td>18</td>
<td>14</td>
<td>23</td>
</tr>
<tr>
<td>Ndhiwa</td>
<td>Finance</td>
<td>16</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Revenue</td>
<td>22</td>
<td>19</td>
<td>30</td>
</tr>
<tr>
<td>Suba North</td>
<td>Finance</td>
<td>15</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>(Mbita)</td>
<td>Revenue</td>
<td>21</td>
<td>15</td>
<td>25</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>141</strong></td>
<td><strong>105</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
3.5 Data Collection Instruments

Primary data sources were largely used with secondary data sources supplementing the study. The advantage of using primary data is that, they are more reliable because they come from the original sources and are collected essentially for the purposes of the study. The primary data sources entailed information that were gathered from the questionnaires administered to the respondents. Questionnaires are easy to administer. Besides, they reduce bias since the researcher’s own ideas would not influence the responses in a certain manner unlike if it were a face to face interview. Some of the questions in the questionnaires were closed-ended questions while the others were open-ended. The closed-ended questions were expected to aid the researcher in obtaining the precise information sought for. Open-ended questions on the other hand were framed to elicit information on opinions, attitudes and beliefs of the respondents about the study’s objectives.

3.6 Data collection procedure

The researcher sought consent of the Homa Bay County government officials after the approval of the research proposal. The researcher subsequently drafted a data collection schedule and visited the County offices to get the executives permission to administer the instruments. This aided the researcher in getting acquainted with the respondents. The researcher assured the respondents of strict confidentiality in handling their responses. This happened before any questionnaires were administered to the respondents and ostensibly enabled them respond free from fear of disclosure of guarded information. The researcher finally administered written questionnaires to the respondents which were later successfully collected.
3.7 Pilot testing

Pilot testing was done at the County government of Homa Bay. The researcher engaged 23 of the respondents to perform a small scale study that represented the intended research. The pilot testing was conducted to validate the accuracy of the research tools. The researcher employed factor analysis to facilitate content validity. In factor analysis, the more variance is explained by factors arising from the factor analysis, the more powerful the instrument is in measuring what is supposed to measure. Results from pilot testing enabled some alterations to questionnaire items to validate data for the actual research study.

3.7.1 Reliability

Reliability is the extent to which a measuring instrument contains variable errors, that is, errors that appear inconsistently from observation to observation during any one measurement attempt or that vary each time a given unit is measured by the same instrument (Mtasiwa, 2013). The researcher adopted Cronbach’s alpha (\(\alpha\)) to measure internal reliability. This reliability coefficient (\(\alpha\)) varies from 0 to 1. Reliability coefficient of 0 indicates no internal reliability, that of 1 shows there is a perfect internal reliability. Therefore, an alpha (\(\alpha\)) of 0.7 or more implies a higher reliability of data and thus raises assurance. The pretesting on the data reliability indicated a result (Table 3.3) close to alpha of 0.7. Since the study did not establish negative alpha on any of the scales to suggest extremely low reliability, some grounds of assurance to use the data for actual study was gained.

<table>
<thead>
<tr>
<th>Table 3.3: Cronbach's Alpha Reliability Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scale</td>
</tr>
<tr>
<td>Technological Innovation</td>
</tr>
<tr>
<td>Inter-governmental consultations</td>
</tr>
<tr>
<td>Institutional Arrangements</td>
</tr>
<tr>
<td>Tax Base</td>
</tr>
<tr>
<td>Revenue collection</td>
</tr>
</tbody>
</table>
3.7.2 Validity

Content validity was tested using factor analysis. The researcher collected many questionnaire items relating to actual research variables. The researcher engaged 23 of the respondents to perform a small scale study that represented the intended research in a pilot testing. Groups of variables with loadings above variation of 0.5 were considered valid.

Furthermore, advice given by experts, supervisor and friends helped determined the validity of the research instruments.

3.8 Data Processing and analysis

The qualitative data analysis technique was used for content analysis. For quantitative data, the researcher used descriptive statistics and inferential statistics in analyzing part of the research and where data was synthesized to calculate the sum, mean, standard deviation or variances. These data were largely drawn from the close-ended questions in the questionnaire.

The data was mainly analyzed using Statistical Package for Social Sciences (SPSS) and MS Excel. The qualitative data obtained from open-ended questions in the questionnaire was analyzed after making a summary of set of observations obtained from the respondents using content analysis. These common set of observations was allotted numerical value and entered into the SPSS system. The analyzed findings were therefore presented using tables, charts and graphs.

3.8.1 Likert Scales and Multiple Linear Regression Model

The questions relating to predictor variables and dependent variables were designed by use of Likert scales of 5-1. The 5-1 scale was represented as: 5- Strongly Agree, 4-Agree, 3-Neutral, 2-Disagree and 1- Strongly Disagree. The total sum of Likert scores for all respondents per question guiding these variables was obtained and regression analysis was conducted with the help of SPSS.
The Multi linear Regression Model was used to establish how predictor variables affects revenue collection.

The Multiple Linear Regression Model adopted in this study is:

\[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon \]  \hspace{1cm} \text{Equation 3.2}

Where; \( Y \) is the county revenue collection as the total sum of Likert scores, \( \beta_0 \) is the constant or coefficient of intercept, \( X_1 \) is technological innovation as the total sum of Likert scores, \( X_2 \) is inter-governmental consultations as the total sum of Likert scores, \( X_3 \) is institutional arrangement as the total sum of Likert scores and \( X_4 \) is tax base as the total sum of Likert scores. The \( \beta_1 \) to \( \beta_4 \) represent the corresponding coefficients of respective independent variables (\( X_1 \) to \( X_4 \)) and \( \epsilon \) is the error term. The overall significance of the model was tested using F-statistics at 95% confidence level. The coefficient of determination \( R^2 \) showed the contribution of independent variables on the dependent variable.

### 3.8.2 Hypothesis Testing

The study hypothesis test to establish the relationship between the independent variables and dependent variable was:

i. \( H_0: \) Relationship between \( X_1 \) and \( Y \) is not significant.

ii. \( H_1: \) Relationship between \( X_1 \) and \( Y \) is significant

iii. \( H_0: \) Relationship between \( X_2 \) and \( Y \) is not significant.

iv. \( H_1: \) Relationship between \( X_2 \) and \( Y \) is significant

v. \( H_0: \) Relationship between \( X_3 \) and \( Y \) is not significant.

vi. \( H_1: \) Relationship between \( X_3 \) and \( Y \) is significant

vii. \( H_0: \) Relationship between \( X_4 \) and \( Y \) is not significant.

viii. \( H_1: \) Relationship between \( X_4 \) and \( Y \) is significant

Where; \( H_0 \) is the null hypothesis, \( H_1 \) is the alternative hypothesis at significant level \( \alpha = 5\% \)
CHAPTER FOUR
RESEARCH FINDINGS AND DISCUSSIONS

4.1 Introduction
This Chapter presents and analyses the data gathered from the field. The research findings from both primary and secondary data were analyzed using descriptive and inferential statistics. This chapter also presents and discusses the results obtained. Tables, bar graphs and pie charts are used to help illustrate these results.

4.2 Data Collection Duration
The data collection process took a period of three weeks. This was possible since prior notice to departments had been issued concerning the same.

4.3 Missing Value
(Hair et al., 2010) in Kimutai (2017) defines missing data as unavailability of suitable value on one or more variables for data analysis. There were two unfiled responses of ‘Yes’ or ‘No’ in two Questionnaires that the researcher entered in the SPSS as 999 to tackled the missing value problem. However, this did not significantly weaken overall responses as the direction of the responses in the questionnaires an unambiguously moved largely in one particular way in the ‘Yes’ or ‘No’ responses. Moreover, the composition of the affected responses was insignificant (below 1% of the responses, other variables being intact) in these cases. However, SPSS automatically deleted them. (Hair et., 2010) notes that 50% of missing value would require deletion as long as there is adequate sample. Therefore, the total number of sample was reduced by one in each of the two cases as shown in Table 4.7.

4.4 Response rate
The total number of questionnaires administered on sampled respondents was 105. However, a total of 87 questionnaires were successfully filled and collected for analysis. This represents an
average of 80% response rate as shown in table 4.1 below. Babbie (2007) in Kimutai (2017) asserts that a response rate of 60% is good and 70% is very good. This therefore, at the very least, a very good response.

Table 4.1: Response rate of Administered Questionnaires

<table>
<thead>
<tr>
<th>Sub-County</th>
<th>Targeted respondents</th>
<th>Actual respondents</th>
<th>Response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homa Bay Town</td>
<td>27</td>
<td>24</td>
<td>85</td>
</tr>
<tr>
<td>Ndhiwa</td>
<td>23</td>
<td>18</td>
<td>75</td>
</tr>
<tr>
<td>Rangwe</td>
<td>28</td>
<td>26</td>
<td>87</td>
</tr>
<tr>
<td>Suba North (Mbita)</td>
<td>27</td>
<td>19</td>
<td>73</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>27</strong></td>
<td><strong>22</strong></td>
<td><strong>80</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>105</strong></td>
<td><strong>87</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Field Survey (2019)

4.5 General information

The researcher sought to establish the general information of the respondents which forms the basis for the analyzing and presenting the fieldwork findings. The demographic information was vital in helping explain clearly some issues that might be important in understanding the findings. These included respondents’ gender, age bracket, current position, length of service, education level, Sub County of work.

4.5.1 Respondents’ gender

The respondents’ gender was to help know the composition of respondents in terms of gender.

Table 4.2 and figure 4.1 below give further details.

Table 4.2: Respondents' gender

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>50</td>
<td>57.5</td>
<td>57.5</td>
<td>57.5</td>
</tr>
<tr>
<td>Female</td>
<td>37</td>
<td>42.5</td>
<td>42.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>87</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
From the data obtained in Table 4.2 and figure 4.1 above, 57.5% of the respondents are male while 42.5% are female. This shows that female gender is still below their male counterpart in public jobs within the county government of Homa Bay.

### 4.5.2 Respondents’ age distribution

It was important to know the respondents’ age brackets distribution since it helps understand how age ‘flows’ with responses in the questions asked.

**Table 4.3: Respondents' Age brackets**

<table>
<thead>
<tr>
<th>Age Bracket</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 25 years</td>
<td>3</td>
<td>3.4</td>
<td>3.4</td>
<td>3.4</td>
</tr>
<tr>
<td>25-35 years</td>
<td>45</td>
<td>51.7</td>
<td>51.7</td>
<td>55.2</td>
</tr>
<tr>
<td>36-45 years</td>
<td>31</td>
<td>35.6</td>
<td>35.6</td>
<td>90.8</td>
</tr>
<tr>
<td>Above 45 years</td>
<td>8</td>
<td>9.2</td>
<td>9.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>87</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
Majority of respondents, 51.7% are of 25-35 years age bracket while those Below 25 years age bracket being the least at 3.4%. This tells that County employs mostly productive age bracket to ensure work is carried for longer periods. This also means that retirement in the coming short periods will likely involve only 9.2%, those above 45 years age bracket. Those at 36-45 years age bracket, 35.6% are to assume senior staff responsibilities thereafter.

### 4.5.3 Respondents academic qualifications

Education level is known to be a function of ones reasoning and conceptual ability. The education level was therefore vital in weighing in responses of the respondents.

<table>
<thead>
<tr>
<th>Valid</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary</td>
<td>5</td>
<td>5.7</td>
<td>5.7</td>
<td>5.7</td>
</tr>
<tr>
<td>Certificate/Diploma</td>
<td>41</td>
<td>47.1</td>
<td>47.1</td>
<td>52.9</td>
</tr>
<tr>
<td>Undergraduate</td>
<td>33</td>
<td>37.9</td>
<td>37.9</td>
<td>90.8</td>
</tr>
<tr>
<td>Postgraduate</td>
<td>8</td>
<td>9.2</td>
<td>9.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>87</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 4.2: Respondents' Percentage Age Distribution**
Figure 4.3: Respondents' Education Level

In seeking to establish the education level of the County staffs, the study established that majority (47.1%) of the staffs had attained Certificate and Diploma level. It was followed by first degree holders at 37.9%. Post graduate level represented 9.2% of the respondents. It was further revealed that 5.7% of the remaining respondents had attained Secondary education. The study therefore established that the County staffs had necessary education to understand the county revenue collection challenges.

4.5.4 Respondents’ current position experience

It was critical to know the respondents position experience in order to understand how they influence their responses to the questions asked. This explained how deeply they understood the revenue collection challenges the county faced based on information received over the length of time they have served.

Table 4.5: Respondents' years served in current position

<table>
<thead>
<tr>
<th>Valid</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5 years</td>
<td>25</td>
<td>28.7</td>
<td>28.7</td>
<td>28.7</td>
</tr>
<tr>
<td>5-10 years</td>
<td>51</td>
<td>58.6</td>
<td>58.6</td>
<td>87.4</td>
</tr>
<tr>
<td>10-15 years</td>
<td>10</td>
<td>11.5</td>
<td>11.5</td>
<td>98.9</td>
</tr>
<tr>
<td>over 15 years</td>
<td>1</td>
<td>1.1</td>
<td>1.1</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>87</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
Figure 4.4: Respondents’ years served in current position

The study findings (table 4.5 and figure 4.4), show that majority (58.6%) of respondents were between 5-10 years of service. This implies that the respondents were highly conversant with the factors affecting revenue collection in Homa Bay County. The findings also disclosed that 28.7% of the respondents had 0-5 years of experience at the current job position, while respondents who had 10-15 years of experience in the same represents 11.5%. The respondents who have had over 15 years of experience at the current job constitutes the remaining 1.1%. This means that only a few employees were retained from the now defunct municipal and local councils arrangement after the County government came into operation in 2013.

4.5.5 General Opinion on County automated tax collection from Revenue Officers

County Revenue officers were asked their opinions or views on automation in the County. The respondents views or opinions analyzed included: complete automation, collection automation level if not completely automated, whether satisfied with the automation level, whether County still engage on cash collection on a daily basis and if so, why. Further details are given in table 4.6 below.
From the table 4.6 above that summarises the study’s findings on automation, it can be observed that the county has not completely automated its revenue collection (97% of respondents’ opinions). As to the level of automation, majority (45.5%) of the respondents agreed that the county is ‘50% automated’. This is followed by ‘Below 60%’ from the 33% of the respondents. Further it was revealed that 21.2% of respondents acknowledged the county is ‘At least 60% automated’ while no respondent agreed to both ‘Below 50%’ and Zero automated levels.

### 4.5.6 General Opinion on County Departments as Institutional arrangement

The study sought to establish opinions on Departments as an appropriate institutional arrangement for county revenue collection. Finance Officers were asked their opinions or views on a set of questions with a ‘Yes’ or ‘No’ responses. The table 4.7 below gives a summary of their responses.
Table 4.7: Finance Officers’ Opinions on County Departments as an institutional arrangement

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent %</th>
</tr>
</thead>
<tbody>
<tr>
<td>County government uses departments to collect revenue</td>
<td>Yes 29</td>
<td>96.7%</td>
</tr>
<tr>
<td></td>
<td>No 1</td>
<td>3.3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>30</strong></td>
<td><strong>100%</strong></td>
</tr>
<tr>
<td>Revenue collection decentralized to respective departments</td>
<td>Yes 30</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>No 0</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>30</strong></td>
<td><strong>100%</strong></td>
</tr>
<tr>
<td>Decentralization of revenue collection has led to loss of control by county treasury</td>
<td>Yes 15</td>
<td>50.0%</td>
</tr>
<tr>
<td></td>
<td>No 15</td>
<td>50.0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>30</strong></td>
<td><strong>100%</strong></td>
</tr>
<tr>
<td>Decentralization of revenue collection has led to weak coordination of local revenue</td>
<td>Yes 19</td>
<td>65.5%</td>
</tr>
<tr>
<td></td>
<td>No 10</td>
<td>34.5%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>29</strong></td>
<td><strong>100%</strong></td>
</tr>
<tr>
<td>County departments reports mostly to CEC members / controlled directly by county treasury</td>
<td>Yes 26</td>
<td>89.7%</td>
</tr>
<tr>
<td></td>
<td>No 3</td>
<td>10.3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>29</strong></td>
<td><strong>100%</strong></td>
</tr>
<tr>
<td>Department is appropriate institutional arrangement for County government to ensure</td>
<td>Yes 20</td>
<td>66.7%</td>
</tr>
<tr>
<td></td>
<td>No 10</td>
<td>33.3%</td>
</tr>
</tbody>
</table>
| **Total**                                                                                 | **30**    | **100%**  

County of Homa Bay uses departments as its institutional arrangement (96.7% of respondents agreed). With its revenue collection decentralized to respective departments (100% approval). The respondents also agreed that: decentralization of revenue collection has led to weak coordination of local revenue collection in county; County departments reports mostly to CEC members or controlled directly by county treasury; and that department is an appropriate institutional arrangement for County government to ensure revenue collection efficiency at 65.5%, 89.7% and 66.7% respectively. However, the respondents were sharply indifferent as to whether decentralization of revenue collection has led to loss of control by county treasury of revenue function with each opposing sides approving or disapproving the statement evenly (50% each).

4.5.7 General Opinion on County Tax Base from Revenue Clerks

County Revenue Clerks were asked their opinions or views on County tax base. The respondents views or opinions addressed include existence of up dated data on Land and Property and their tax
liable owner, useful of data in avoiding revenue losses, whether County government has done enough to expand County tax base, whether reduction in County waivers or exemptions will help enhance more revenue collection, mode of payment County revenue clerks’ clients predominantly use to remit their revenue dues and the ranking of given challenges on County revenue collection in Homa Bay County. The findings (Tables 4.8 and 4.9) are shown below.

**Table 4.8: Revenue Clerks' Opinions on County Tax Base**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent %</th>
</tr>
</thead>
<tbody>
<tr>
<td>There exist updated information on land and properties and their tax liable owners</td>
<td>Yes</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>24</strong></td>
</tr>
<tr>
<td>Updated information on land, property and their tax liable owners has helped in avoiding revenue losses</td>
<td>Yes</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>24</strong></td>
</tr>
<tr>
<td>County government has done enough to expand tax base</td>
<td>Yes</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>17</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>24</strong></td>
</tr>
<tr>
<td>Reducing waiver or exemptions will help expand county tax base thus enhance more revenue collection</td>
<td>Yes</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>24</strong></td>
</tr>
<tr>
<td>Mode of payment most of your clients are using to pay for their revenue dues</td>
<td><strong>Cash payment</strong></td>
<td>10</td>
</tr>
<tr>
<td></td>
<td><strong>Bank</strong></td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Mobile money payment</strong></td>
<td>9</td>
</tr>
<tr>
<td></td>
<td><strong>Online payment</strong></td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>24</strong></td>
</tr>
</tbody>
</table>

The study unraveled that 83.3% of Revenue Clerks agreed that there exists updated information on land and properties and their tax liable owners, 58.3% of these respondents agreed that the updated information on land, property and their tax liable owners has helped in avoiding revenue losses, 75% of them also agreed that reducing waiver or exemptions will help expand county tax base thus enhance more revenue collection. However, 70.8% of Revenue Clerks did not agree the County government has done enough to expand tax base. Either, it was noted that vast majority of respondents’ clients use cash payments as their mode to settle revenue dues (41.7% of respondents
agreed), Mobile Money payment mode was second (37.5 of respondents agreed) while the approval of Bank which was third and Online which was forth were at 20.8% and 0% respectively.

4.5.8 Ranking of County Challenges

The study also sought to establish the opinions or views of County revenue clerks on how they would rank the given four challenges in table 4.9 below. The ranks were scaled into first (1st), second (2nd), third (3rd) and fourth (4th). This was to depict the most to the least hindering challenge on County revenue collection amongst the four given factors namely Tax base, Technological Innovation, Inter-governmental consultation and Institutional arrangement of the County. The results are shown and explained below.

<table>
<thead>
<tr>
<th>Table 4.9: Revenue Clerks’ Opinion on ranking County challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rank</td>
</tr>
<tr>
<td>-------------------</td>
</tr>
<tr>
<td>Ranking Technological Innovation challenge</td>
</tr>
<tr>
<td>1st</td>
</tr>
<tr>
<td>2nd</td>
</tr>
<tr>
<td>3rd</td>
</tr>
<tr>
<td>4th</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Ranking Inter-governmental Consultations Challenge</td>
</tr>
<tr>
<td>1st</td>
</tr>
<tr>
<td>2nd</td>
</tr>
<tr>
<td>3rd</td>
</tr>
<tr>
<td>4th</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Ranking Institutional arrangement Challenge</td>
</tr>
<tr>
<td>1st</td>
</tr>
<tr>
<td>2nd</td>
</tr>
<tr>
<td>3rd</td>
</tr>
<tr>
<td>4th</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Ranking Tax base</td>
</tr>
<tr>
<td>1st</td>
</tr>
<tr>
<td>2nd</td>
</tr>
<tr>
<td>3rd</td>
</tr>
<tr>
<td>4th</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Ranking other</td>
</tr>
<tr>
<td>1st</td>
</tr>
<tr>
<td>2nd</td>
</tr>
<tr>
<td>3rd</td>
</tr>
<tr>
<td>4th</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>
From the table 4.9 above, it can be noted that all respondents ranking inter-governmental consultations challenge totaled 21 instead of 24 as with ranking three other county challenges (Technological innovation, Institutional arrangements and Tax base). This is because some of these respondents (3 in total) pegged their opinions and rank on other factors at the expense of inter-governmental consultations factor (as the fourth challenge) to county revenue collection. However, Inter-governmental consultations challenge still ranked forth and therefore the least factor, amongst the four study factors, of the County revenue collection menace. Technological innovation, institutional arrangements and tax base challenges were ranked first, second and third challenges in that order by 75.0%, 54.2% and 58.3% of respondents respectively.

4.5.9 Homa Bay County OSR for first nine months FY 2013/14 to FY 2019/20

In the first nine months of FY 2019/20, the county collected a total of Kshs.90.55 million as own-source revenue. This when compared to amount collected, Kshs.58.9 million, in the same period of FY 2019/20, represented an increase of 55.4% and a 62.5% of the annual target. This was the first time the revenue increased since the last time in FY 2015/16 when it was at boom.

Source: Homa Bay County Treasury & OCOB (2019)
Figure 4.5: Homa Bay County Own-Sources Revenue for Nine months FY 2019/20
4.6: Descriptive Statistics

This section keenly explores and narrates on the descriptive findings regarding the study’s objectives. The objectives are presented in a summary of tables with minimum and maximum scores, means (central tendencies), standard deviation (dispersion) and variances.

4.6.1 Technological Innovation

This study sought to establish the effect of technological innovation on revenue collection by County government of Homa Bay. The table 4.10 below illustrates the findings.

Table 4.10: Summary Statistics for Technnological Innovation

<table>
<thead>
<tr>
<th>Description</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>Var.</th>
</tr>
</thead>
<tbody>
<tr>
<td>County government has adopted necessary machines/equipment for revenue collection</td>
<td>87</td>
<td>2.00</td>
<td>5.00</td>
<td>3.87</td>
<td>0.79</td>
<td>0.623</td>
</tr>
<tr>
<td>Machines/equipment have replaced manual or cash payment system</td>
<td>87</td>
<td>1.00</td>
<td>5.00</td>
<td>3.52</td>
<td>0.93</td>
<td>0.857</td>
</tr>
<tr>
<td>Machines/equipment usage is hampered by unstable power &amp; internet connectivity, high initial outlay or rapid technological change.</td>
<td>87</td>
<td>2.00</td>
<td>5.00</td>
<td>3.95</td>
<td>0.81</td>
<td>0.649</td>
</tr>
<tr>
<td>The tools usage enable timely report on revenue collection</td>
<td>87</td>
<td>1.00</td>
<td>5.00</td>
<td>3.74</td>
<td>0.92</td>
<td>0.848</td>
</tr>
<tr>
<td>The tools usage has led to efficient and improved revenue collection</td>
<td>87</td>
<td>1.00</td>
<td>5.00</td>
<td>4.07</td>
<td>0.91</td>
<td>0.832</td>
</tr>
</tbody>
</table>

From above table 4.10, it indicates that most respondents agreed (mean =4.07, std. dev = 0.91) that tools usage has led to efficient and improved revenue collection. The respondents also agreed that county government has adopted necessary machines or equipment for revenue collection (mean =3.87, std.dev =0.79), machines or equipment usage is hampered by unstable power & internet connectivity, high initial outlay or rapid technological change (mean = 3.95, std.dev = 0.81), tools usage enable timely report on revenue collection (mean = 3.74, std.dev = 0.92). Moreover, respondents agreed (mean = 3.52, std.dev = 0.93) that machines (or equipment) have replaced manual or cash payment system.
The findings concur with Karori, Muturi & Abuga (2016) that found that computerized systems on revenue collection efficiency increase revenue collection which in turn increase operational performance. The study summary descriptive statistics analysis, is also in lines with Oduor, Sevilla, Wanyoike and Mutua (2016) in Kosaye (2018) that focused on ascertaining the impact of adopting automated revenue collection tools and its effects on governance and service delivery in Kiambu County. However, the County is yet to fully automate it revenue collection system with level of automation expected to be at least 70 percent (away from its current 50%) in county’s next automation transition plan. This is despite some sub-counties having abandoned manual or cash payments. Adenya & Muturi (2017) noted that this technology gap that exists should bridge revenue collection process and the efficiency.

4.6.2: Inter-governmental consultations

The study sought to establish the effect of inter-governmental consultations on revenue collection by County government of Homa Bay. Table 4.11 avails a summary of the study findings.

<table>
<thead>
<tr>
<th>Table 4.11: Summary Statistics for Inter-governmental consultations</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>Var.</th>
</tr>
</thead>
<tbody>
<tr>
<td>County has Inter-governmental consultations with National or other county governments for enhancing revenue collection</td>
<td>87</td>
<td>1.00</td>
<td>5.00</td>
<td>3.67</td>
<td>0.84</td>
<td>0.71</td>
</tr>
<tr>
<td>Consultation and co-operation have yielded vital information useful for raising revenue collection</td>
<td>87</td>
<td>2.00</td>
<td>5.00</td>
<td>3.46</td>
<td>0.80</td>
<td>0.65</td>
</tr>
<tr>
<td>Consultation and co-operation have helped in successfully concealing any revenue leakages</td>
<td>87</td>
<td>1.00</td>
<td>5.00</td>
<td>2.11</td>
<td>1.17</td>
<td>1.36</td>
</tr>
<tr>
<td>Consultation and co-operation have assisted in setting realistic local revenue forecasts</td>
<td>87</td>
<td>1.00</td>
<td>5.00</td>
<td>2.37</td>
<td>0.97</td>
<td>0.93</td>
</tr>
<tr>
<td>Consultation and co-operation have improved efficiency in local tax collection</td>
<td>87</td>
<td>1.00</td>
<td>5.00</td>
<td>3.44</td>
<td>0.94</td>
<td>0.88</td>
</tr>
</tbody>
</table>
The findings (table 4.11) reveal that the respondents agreed (mean = 3.67, std.dev = 0.84) with the statement that County has inter-governmental consultations with National or other County governments for enhancing revenue collection. However, the respondents were neutral (mean = 3.46, std.dev = 0.80) that consultation and co-operation have yielded vital information useful for raising revenue collection, and that, consultation and co-operation have improved efficiency in local tax collection (mean = 3.44, std.dev = 0.94). Respondents disagreed (mean = 2.37, std.dev = 0.97) that consultation and co-operation have assisted in setting realistic local revenue forecasts. Again, the respondents disagreed (mean = 2.11, std.dev = 1.17) that consultation and co-operation have helped in successfully concealing any revenue leakages.

This disapproval in inter-governmental consultations in the county was mainly due to the facts that County government has low consultation levels with National or other County governments regarding revenue collection. It was also for the reason that the County had not implemented most recommendations from the National or other County governments’ advices to the fullest. This finding is in line with (Fjeldstad & Heggstad, 2012) that noted that consultations and co-operation between the Central government revenue administration and Local government authorities are generally limited. The authors further indicated that lack of coordination has allowed the emergence of a high degree of arbitrariness and abuse in local tax systems, while little attention is paid to economic efficiency.

4.6.3: Institutional Arrangement

The study sought to determine the effect of institutional arrangement on revenue collection by County government of Homa Bay. The study’s finding shown in table 4.12.
Table 4.12: Summary Statistics for Institutional Arrangement

<table>
<thead>
<tr>
<th>Description</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>Var</th>
</tr>
</thead>
<tbody>
<tr>
<td>Departments are appropriate for local revenue collection</td>
<td>87</td>
<td>2.00</td>
<td>5.00</td>
<td>4.32</td>
<td>0.64</td>
<td>0.41</td>
</tr>
<tr>
<td>County has decentralized departments in collection of revenue</td>
<td>87</td>
<td>2.00</td>
<td>5.00</td>
<td>4.14</td>
<td>0.59</td>
<td>0.35</td>
</tr>
<tr>
<td>Departments have little reporting to County Executive committee</td>
<td>87</td>
<td>1.00</td>
<td>5.00</td>
<td>2.22</td>
<td>1.00</td>
<td>1.01</td>
</tr>
<tr>
<td>County Treasury has a direct control over its department on revenue collection function</td>
<td>87</td>
<td>1.00</td>
<td>5.00</td>
<td>3.84</td>
<td>0.93</td>
<td>0.86</td>
</tr>
<tr>
<td>Outsourcing or other semi-autonomous authorities would be more effective than departments</td>
<td>87</td>
<td>1.00</td>
<td>5.00</td>
<td>3.00</td>
<td>1.28</td>
<td>1.63</td>
</tr>
</tbody>
</table>

As shown by the study findings (table 4.12), a majority of respondents agreed (mean =4.32, std.dev = 0.64), with the statement that departments are appropriate for county revenue collection by County government. Further, the respondents agreed (mean =4.14, std.dev =0.59) that County has decentralized departments in collection of revenue and that County Treasury has a direct control over its department on revenue collection function (mean=3.84, std.dev=0.93). However, respondents disagreed with the statement that departments have little reporting to County Executive committee (mean=2.22, std.dev=1.00), while other respondents were neutral (mean=3.00, std.dev=1.28) that outsourcing or other semi-autonomous authorities would be more effective than departments.

The findings contradict the National Treasury (2016) report that most county governments in Kenya have inappropriate institutional arrangements, with weak control over of their departments on revenue collection functions and little reporting to the County Treasury and County Executive Committee. However, the study findings that departments are appropriate institutional arrangement for the County concurs with recommendation indicated in (National Treasury, 2019)
that recommended establishment of internal revenue administration departments in 29 counties Homabay County included. The findings also suggest that despite the County’s decentralized departments being viewed an appropriate institutional arrangement, there is weak coordination of local revenue collection in the county, a situation that is in line with National Treasury (2016) report titled ‘Draft National Policy to support enhancement of County governments’ Own-Source Revenue’.

4.6.4: Tax Base

The study sought to determine the effect of tax base on revenue collection by County government of Homabay. Table 4.13 gives a summary of the findings.

**Table 4.13: Summary Statistics for Tax Base**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>Var.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Widening county tax base is crucial to</td>
<td>87</td>
<td>3.00</td>
<td>5.00</td>
<td>4.78</td>
<td>0.44</td>
<td>0.20</td>
</tr>
<tr>
<td>improving revenue collection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>County has had exemption of</td>
<td>87</td>
<td>1.00</td>
<td>5.00</td>
<td>3.14</td>
<td>0.79</td>
<td>0.63</td>
</tr>
<tr>
<td>government properties and provision of an</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>over-generous boundary lines for low</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>income properties</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>County is treated to a large proportion</td>
<td>87</td>
<td>2.00</td>
<td>5.00</td>
<td>3.82</td>
<td>0.62</td>
<td>0.38</td>
</tr>
<tr>
<td>of informally owned properties</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Informally owned property has contributed</td>
<td>87</td>
<td>1.00</td>
<td>5.00</td>
<td>3.53</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>to less revenue per unit compared to</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>formally owned</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reducing county tax preferential treatment</td>
<td>87</td>
<td>1.00</td>
<td>5.00</td>
<td>3.41</td>
<td>1.24</td>
<td>1.55</td>
</tr>
<tr>
<td>helps expand tax base and increase</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>revenue collection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From the study findings (table 4.13), a majority of respondents agreed (mean =4.78, std.dev = 0.44), with the statement that widening county tax base is crucial to improving revenue collection. The respondents further agreed that county is treated to a large proportion of informally owned properties (mean = 3.82, sd.dev = 0.62), informally owned property has contributed to less
revenue per unit compared to formally owned (mean =3.53, std.dev =1.00). However, the respondents were neutral (mean =3.41, sd.dev =1.24) that reducing county tax preferential treatment helps expand tax base and increase revenue collection, and also that, county has had exemption of government properties and provision of an over-generous boundary lines for low income properties (mean = 3.14, std.dev = 0.79).

The findings showed that the county tax base has a large proportion of informally owned properties which has contributed less revenue per unit compared to formally-owned. This is despite it being viewed that widening county tax base would raise revenue collection.

4.7 Inferential Statistics

The study used correlation and multiple-liner regression model to analyse the relation between independent variables and dependent variable.

4.7.1 Correlation between Technological Innovation and Revenue Collection

The study (table 4.14) found a strong positive correlation (r = 0.688) between technological innovation and county revenue collection, p-value being 0.000 that’s, less than 0.005 (α=5%) which reflects a statistically significant relationship.

<table>
<thead>
<tr>
<th>Table 4.14: Technological Innovation and Revenue Collection Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue Collection</td>
</tr>
<tr>
<td>Technological Innovation Pearson Correlation   .688**</td>
</tr>
<tr>
<td>Sig.(2-tailed)                                              .000</td>
</tr>
<tr>
<td>N                                                          87</td>
</tr>
</tbody>
</table>

This revelation concurs with the findings in (Mutisya, 2014) that established that implementation of integrated revenue collection system influenced revenue collection positively much as in Maina (2013) in Karori, Muturi & Abuga (2016) that the revenue collectors appreciated the role of information technology in ensuring effective revenue collection.
4.7.2 Correlation between Inter-governmental Consultations and Revenue Collection

Table 4.15 below shows the relationship between Inter-governmental consultations and revenue collection. This study found a weak but positive correlation ($r = 0.385$) between Inter-governmental consultations and revenue collection. Moreover, the relationship was statistically significant, p-value also being 0.000 that’s less than 0.05.

Table 4.15: Inter-governmental Consultations and Revenue Collection Correlation

<table>
<thead>
<tr>
<th>Revenue Collection</th>
<th>Inter-governmental Consultations</th>
<th>Pearson Correlation</th>
<th>Sig.(2-tailed)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>.385**</td>
<td>.000</td>
<td>87</td>
</tr>
</tbody>
</table>

4.7.3 Correlation between Institutional Arrangements and Revenue Collection

Table 4.16 shows the relationship between Institutional arrangements and revenue collection. It was established that the two variables had a moderate positive correlation ($r = 0.557$). The relationship statistically significant, p-value being 0.000, that’s less than 0.05.

Table 4.16: Institutional Arrangement and Revenue Collection Correlation

<table>
<thead>
<tr>
<th>Revenue Collection</th>
<th>Institutional Arrangement</th>
<th>Pearson Correlation</th>
<th>Sig.(2-tailed)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>.557**</td>
<td>.000</td>
<td>87</td>
</tr>
</tbody>
</table>

4.7.4 Correlation between Tax Base and Revenue Collection

From the study findings (table 4.17) the correlation between Tax Base and Revenue Collection was a weak positive correlation ($r =0.295$). The relationship was statistically significant, p-value being 0.006, that’s less than 0.05. This finding concurs with studies which associated tax base expansion with more revenue collection.

Table 4.17: Tax Base and Revenue Collection Correlation

<table>
<thead>
<tr>
<th>Revenue Collection</th>
<th>Tax Base</th>
<th>Pearson Correlation</th>
<th>Sig.(2-tailed)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>.295**</td>
<td>.006</td>
<td>87</td>
</tr>
</tbody>
</table>
4.8 Regression Model

The study used Regression Model to determine County factors influencing revenue collection. These factors are indicated in table 4.21. Regression model is usually faced with the problems of multi-collinearity. The study conducted a multi-collinearity testing using correlation coefficient matrix, the results shown in table 4.18 below.

4.8.1 Testing multi-collinearity

The assumption underlying Multiple Regression Model is that independent variables are not correlated with each other. Multi-collinearity simply refers to a case whereby two or more of the independent variables are highly correlated. For instance, where there is a simultaneous movement of two or more predictor variables in the same direction and almost at the same time. When this occurs, it is very difficult to isolate the effect of each one of these on the dependent variables. Thus, an adverse effect on the results of the model can materializes, i.e. Model’s coefficient estimates could erratically vary with small variations in the data or model.

If a correlation coefficient matrix with all the independent variables indicates correlations of 0.75 or higher (Oxford, 2011 as cited in Lumenya, 2014), then there may be a problem with multi-collinearity. The study (Table 4.18) shows that all independent variables had a correlation of less than 0.75 and therefore were within the acceptable range hence no multi-collinearity found.

Table 4.18: Correlation Coefficient Matrix

<table>
<thead>
<tr>
<th>Variables</th>
<th>Technological Innovation</th>
<th>Inter-governmental Consultations</th>
<th>Institutional Arrangement</th>
<th>Tax Base</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technological Innovation</td>
<td>1.000</td>
<td>0.175</td>
<td>0.157</td>
<td>-0.170</td>
</tr>
<tr>
<td>Inter-governmental Consultations</td>
<td>0.175</td>
<td>1.000</td>
<td>0.100</td>
<td>-0.257</td>
</tr>
<tr>
<td>Institutional Arrangement</td>
<td></td>
<td>0.100</td>
<td>1.000</td>
<td>-0.038</td>
</tr>
<tr>
<td>Tax Base</td>
<td>-0.170</td>
<td>-0.257</td>
<td>-0.038</td>
<td>1.000</td>
</tr>
</tbody>
</table>
4.9 Regression Model Summaries and Findings

The study model summarises the findings (in table 4.19). The R, R-square, adjusted R-square, standard error of the estimate, Durbin-Watson statistics (independence of error term), analysis of variance and coefficients of regression model are also discussed.

Table 4.19: Model Summary

<table>
<thead>
<tr>
<th>R</th>
<th>R-square</th>
<th>Adjusted R-square</th>
<th>Std. Error of the estimate</th>
<th>Change statistics</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.945a</td>
<td>0.893</td>
<td>0.888</td>
<td>1.737</td>
<td>0.893</td>
<td>171.316</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td>82</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.626</td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Tax Base, Technological Innovation, Institutional Arrangement, Inter-governmental Consultations
b. Dependent Variable: Revenue Collection

4.9.1: R, R-Square, Adjusted R-Square and Standard Error of Estimate

From the Table 4.19, R is 0.945. This reflects a strong and near-perfect association between the predictor variables and the dependent variable. R-square is 89.3%. This means that technological innovation, inter-governmental consultations, institutional arrangement and tax base account for 89.3% variations in revenue collection within the county, with 10.7% accounted for by other factors. Adjusted R-square is 88.8%. This shows that the adopted study model can be relied upon to improve revenue collection in this county up to 88.8%. Thus, the model is good for establishing these factors under study since it reflects a strong goodness of fit. The standard error of the estimate is 1.737. A bigger R-square indicates a smaller standard error of estimate between the variables in the study. A larger sample size, moreover, tends to indicate lower standard error of estimate than a smaller sample size. Therefore, the larger the sample size or the bigger the R-square, the more precise the regression estimates will be.
4.9.2: Independence of Error terms

Independence of the error term was important for the study model. If the error terms are not independent, it may reveal serial or auto correlation which in real sense would imply that, the study data is time series, an important variable has been excluded from the study or even worse, a nonlinear model should have been used in lieu of the study multi-linear model.

The study (table 4.19) used Durbin-Watson statistics to measure independence of the error term. The study indicates that the errors are independent of one another since the Durbin Watson statistic (1.626) lies between 1 and 3.

4.9.3: Analysis of Variance

The study used the F statistics at $\alpha = 0.05$ (5% level of significance) to explain the hypothesis that the relationship between all the independent variables($X_1$, $X_2$, $X_3$ and $X_4$) and dependent variable($Y$) is not significant. The F Statistics is the ratio which compares the explained sum of square (Sum of square due to regression) and the unexplained sum of square (Sum of square due to residual).i.e., 171.316 ($516.895/3.017$).This is shown in table 4.20 below.

<table>
<thead>
<tr>
<th>Table 4.20: Analysis of Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ANOVA$^a$</strong></td>
</tr>
<tr>
<td><strong>Model</strong></td>
</tr>
<tr>
<td>Regression</td>
</tr>
<tr>
<td>Residual</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

The analysis of variance (table 4.20) indicates that the critical F value is 0.000.Since the computed F (171.316) was greater than F critical, the study null hypothesis ($H_o$) was rejected and alternative hypothesis ($H_1$) accepted. Therefore, the relationship between all the independent variables and dependent variable is significant. The overall model is significant, implying that all the results coefficients derived are true ones. With significance being less than 0.05, the study independent variables accounted for variation in the dependent variable, revenue collection.
4.9.4 Coefficients of Regression Model

The coefficients of the study Model in relation to factors affecting revenue collection are presented in table 4.21 below.

Table 4.21: Coefficients of Regression Model

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>#</td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>3.881</td>
<td>2.763</td>
<td>1.405</td>
<td>0.164</td>
</tr>
<tr>
<td>Technological Innovation</td>
<td>1.083</td>
<td>0.071</td>
<td>0.564</td>
<td>15.229</td>
</tr>
<tr>
<td>Inter-governmental Consultations</td>
<td>0.714</td>
<td>0.078</td>
<td>0.346</td>
<td>9.110</td>
</tr>
<tr>
<td>Institutional Arrangement</td>
<td>1.058</td>
<td>0.086</td>
<td>0.449</td>
<td>12.255</td>
</tr>
<tr>
<td>Tax Base</td>
<td>0.934</td>
<td>0.085</td>
<td>0.410</td>
<td>10.980</td>
</tr>
</tbody>
</table>

The coefficients of regression model (Table 4.21) give summary results that the study used for the formulation of the overall multi-linear regression function from the equation 3.2

\( Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon \) earlier adopted. The model shows that \( \beta_0 \) (constant) equals 3.881, \( \beta_1 \) (technological innovation coefficient) equals 1.083, \( \beta_2 \) (Inter-governmental consultations coefficient) equals 0.714, \( \beta_3 \) (institutional arrangement coefficient) equals 1.058 and \( \beta_4 \) (tax base coefficient) equals 0.934. Therefore, substituting the above corresponding values into equation 3.2 we obtain equation 4.1 as shown below.

\( Y = 3.881 + 1.083X_1 + 0.714X_2 + 1.058X_3 + 0.934X_4 + \epsilon \) ...........Equation 4.1

From the overall constructed regression function (equation 4.1), holding all factors; technological innovation, inter-governmental consultations, institutional arrangement factors and tax base constant, the effect on revenue collection by this County government will be by 3.881 unit of change. Notably, the model also implies that one unit change (either increase or decrease) in technological innovation will result in 108.3 unit change in revenue collection, one unit change in inter-governmental consultation will result in 71.4 unit change in revenue collection, one unit change in institutional arrangement will lead to 105.8 unit change in revenue and finally, one unit
change in tax base factor will bring about 93.4 unit change in revenue collection. Therefore, technological innovation change tends to bring about the largest change amongst the four study factors affecting revenue collection (by a paltry difference of 2.5 units), followed by institutional arrangement, tax-base and inter-governmental consultations respectively.
5.1 Introduction
This chapter presents the summary of the study findings, conclusion based on the findings as well as recommendations and suggestions.

5.2 Summary of the Study findings
The aim of this study was to determine factors affecting revenue collection by County governments in Kenya, with specific emphasis on County Government of Homa Bay. The objective findings are summarized as follows.

5.2.1 Technological Innovation
From the study findings, technological innovation had a strong positive correlation. It reflects that it ($\beta_1 = 1.083, p < 0.05$) affects revenue collection by County government of Homa Bay. The county had adopted necessary machines or tools necessary for revenue collection although it was hindered to have more by exorbitant costs associated with their acquisitions amongst other factors. The authors also revealed that 74% of respondents were satisfied with the automated revenue collection. This corresponds with the tools usage approvals in Homa Bay County noted to have led to efficient and improved revenue collection with an overwhelming mean of 4.07.

This implied that county was unable to collect more revenue with few machines and the technological gap that still subsists due to mentioned problem such as higher acquisition cost of machines and equipment, unstable power supply and internet connectivity, incomplete automation amongst others compounded revenue collection challenges. This was supported by 75% of respondents raking the technological challenge as the most hindering, while inter-governmental consultations, institutional arrangements and tax base ranked 4th, 2nd, and 3rd respectively.
5.2.2 Inter-governmental Consultations

The research findings showed that, inter-governmental consultations ($\beta_2=0.714, \rho<0.05$) affect revenue collection by the county government. It was found that County has had inter-governmental consultations with National or other County governments for enhancing revenue collection. However, it is doubted as to whether these have yielded vital information useful enough for raising revenue collection leave alone whether it improved efficiency in local tax collection. Further, it was indicated that there was disagreement as to consultation and co-operation having assisted in setting realistic local revenue forecasts, as well as having helped in successfully concealing any revenue leakages. This was attributed mainly to less inter-governmental consultations and co-operation.

2.5.3 Institutional Arrangements

The research findings further revealed that, institutional arrangement ($\beta_3=1.058, \rho<0.05$) affects revenue collection, with an overwhelming affirmation that departments are appropriate for local revenue collection. It was also strongly affirmed that the county has decentralized departments in revenue collection function, and that, County Treasury has a direct control over its department on revenue collection function. However, the County respondents disagreed that departments have little reporting to County Executive Committee, while it was doubted whether, outsourcing or other semi-autonomous authorities would be more effective than departments.

2.5.4 Tax Base

In regards to results on tax base effect, it was found that, tax base affects ($\beta_4=0.934, \rho<0.05$) revenue collection locally. The study overwhelmingly affirmed that widening county tax base is crucial to improving revenue collection. Moreover, it was averred that the county is treated to a large proportion of informally owned properties, and that, informally-owned properties have
contributed to less revenue per unit compared to formally-owned. However, it was doubted that county had had exemption of government properties and provision of an over-generous boundary lines for low income properties. Again, the results showed that respondents were indifferent as to whether reducing the county tax preferential treatment helps expand tax base and thereby increase revenue collection.

5.3 Conclusion

The study concludes that technological innovation, inter-governmental consultations, institutional arrangement and tax base are factors that are crucial for enhancing county governments’ revenue collection. To begin with, there is an overwhelming affirmation that technological innovation has enabled the County government of Homa Bay to improve its revenue collection over the last seven years. However, the serious problems this study intimated to have derailed the effective application of technological innovation in revenue collection remain potential threats to reverse the influence of these devices. This is more so in the rural areas where these are intense.

Secondly, inter-governmental consultations and co-operation though important have been viewed to be inadequate and thus has not quite well helped as it should. Moreover, department as institutional arrangement has been agreed to be appropriate for the county of Homa bay with huge doubts on outsourcing or semi-autonomous arrangement. However, there is need to address the weak coordination issues within county departments that have adversely affected effective revenue collection.

Finally, results for tax base points the need to expand the tax base as it’s widely viewed to be crucial in improving revenue collection at county level. Up to date information on property tax and liabilities should be maintained. The digitalization of all land and property records at the county is also essential part of boosting a robust land and property tax bases.
5.4 Recommendations

The study established that despite County departments being an appropriate institutional arrangement, there exists weak coordination within these departments, of revenue collection. It’s imperative to strengthen this coordination. This is to eliminate possible challenges in reconciliation of revenue statements by collecting and reporting all sources. Internal control system be strengthened, elimination of weak revenue collection systems and cases of undercharging of revenue.

The county should ensure complete automation of its revenue collection systems within the county. In order for the county to ensure efficiency and effectiveness of revenue collection, it should intensify use of machine or equipment because they are easier, convenient and faster. Rural areas should also be accessible enough to facilitate further developments such as more electrification and internet connectivity with strong boosters around.

Fiscal discipline is needed. There should be minimal wastage of County resources in order to maximize their potential use. Revenue collected at source should always be subjected to proper accounting treatments and its expenditure at source eliminated. Otherwise, failure to which, may create loopholes for spending of revenue at source, in contravention of the PFM Act, 2012.

There is need to identify innovative ways of raising more revenue that will ensure the tax base is broaden or expanded. Exploiting bonds and stock markets, as well as other investment arrangements from donors and investors are future viable options. This implies that any revenue leakages should be eliminated, transparency and accountability as well upheld, for this to work and to attract the aforesaid sources. Under developed tourism sector can also be exploited to pump in more revenue. Also, elimination of disadvantageous tax preferential treatments, waivers and exemptions that only serve to limit the county revenue potential is paramount. Enabling a wider
public participation can also help to allow for the newly innovative ways of raising tax be accepted and adopted successfully. The study established that there exist low levels of inter-governmental consultations and co-operation for enhancing more own sources revenue collection. In order to gather more expertise, advices and harmonized cross jurisdictional policies between different levels of governments for revenue collection enhancements, the inter-depending counties and governments need friendly, regular and frequent consultations between or amongst themselves.

Finally, the County should take stock of significance of the autonomous revenue collection agencies such as KRA in helping collect revenue for the county. Despite the study mentioning of cost attached to outsourcing of these expertise services, such overinflated costs, high premiums and farming out collection to have a potency of undermining the legitimacy of county government, KRA still remains the best institution in the Country to optimally help collect revenue base on its unequivocal experience and expertise. The study therefore recommends the County to seek for KRA assistance in revenue collection.

5.4.1 Suggestions for further Research studies
The study suggests that a similar study be done to establish more about the factors affecting revenue collection in this county of Homa Bay. This should be done taking into consideration the aforementioned study limitations. Further, in view of the importance of mobilizing more revenue within the county governments in Kenya, other studies should be conducted base on additional factors to those given by researcher to help inform more on approaches for improving revenue collection by County governments in Kenya. There is also the need to investigate the effect of accountability of revenue collection at source to revenue collection performance by county governments in Kenya. To this end, such studies may help give the true picture of challenges that may hinder revenue collection outside the departments that eventually manifest themselves at departmental levels.
REFERENCES


Lumenya , J. J. (2014). *Assessment of the performance in revenue collection from fresh water fishes at Nyamanga Municipal Council in Mwanza, Tanzania*. A dissertation for the award of Master of Science degree(at Sokoine University of Agriculture,Tanzania), Mwanza(Tanzania).


APPENDICES

APPENDIX I: QUESTIONNAIRE FOR COUNTY REVENUE OFFICERS

INTRODUCTION
My name is Boniface Andega Owandho. I am a student at Kenya School of Revenue Administration (KESRA) pursuing a post graduate diploma in tax laws and administration. I am doing a research project titled “Factors affecting revenue collection by County governments in Kenya, a case of Homa Bay County”.

I chose you as part of my respondents. In order to complete this research, I kindly ask for a spare of your time to answer questions in this questionnaire. I assure you that your responses will be treated with utmost confidentiality and used only for the purpose of this research.

QUESTIONNAIRE SERIAL NO………………….. Date...../...../2019

PART A
BACKGROUND INFORMATION
(Please tick appropriately or fill additional information in the space provided).
1(i) Indicate your gender
   Male [ ] Female [ ]
(ii) Indicate your age bracket
   Below 25 years [ ] 25-35 years [ ]
   36-45 years [ ] above 45 years [ ]
(iii) What is your current position?
   ______________________________________
(iv) How long have you served in the current position?
   0-5 years [ ] 5-10 years [ ]
   10-15 years [ ] over 15 years [ ]
(v) What is your highest formal education Level?
   [ ] Primary [ ] Secondary Certificate/Diploma
   [ ] Undergraduate [ ] Post graduate [ ] Other (specify)________________________

PART B
2. (i) Do you have all your system for locally own sources revenue collection completely automated?
   [ ] Yes or [ ] No
(ii) If no, what is the level of system automation?
   [ ] at least 60% automated [ ] 50% automated [ ] Zero
   [ ] below 60% [ ] below 50%
(iii) Are you satisfied by this level of automation in helping collect revenue efficiently?
   [ ] Yes or [ ] No
(iv) Do you still engage in cash collection of revenue on a daily basis?
   [ ] Yes or [ ] No
(v) If yes, why is it so?
   …………………………………………………………………………………………………
   …………………………………………………………………………………………………
   …………………………………………………………………………………………………
PART C
TECHNOLOGICAL INNOVATION CHALLENGES

Please use the scale 5-1 (given below) to indicate the extent to which you agree or disagree with the statements in the table below. Use a tick or mark in the spaces provided for each statement.

5 -Strongly agree: 4 - Agree: 3 - Neutral: 2 - Disagree: 1 - Strongly disagree

<table>
<thead>
<tr>
<th>Technological Innovation statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. County government has adopted necessary technological equipment/machines for collection of revenue</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. This machines/equipment have replaced the manual or cash payment system</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Machines/equipment usage is hampered by events such as unstable power supply &amp; internet connectivity, high initial outlay or rapid technological changes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. The use of the machines/equipment enables timely report on revenue collection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. The use of machines/equipment has led to efficient and improved revenue collection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PART D
INTER GOVERNMENTAL CONSULTATION CHALLENGES
Please use the scale 5-1 (given below) to indicate the extent to which you agree or disagree with the statements in the table below. Use a tick or mark in the spaces provided for each statement.
5 - Strongly agree: 4 - Agree: 3 - Neutral: 2 - Disagree: 1-Strongly disagree

<table>
<thead>
<tr>
<th>Inter-governmental Consultation statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. This County government has an Inter-governmental consultation platform with National or other county governments for enhancing revenue collection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. These consultation and co-operation platform have yielded vital information useful for raising revenue collection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. These consultation and co-operation have helped in successfully concealing any revenue leakages</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. These consultation and co-operation have assisted in setting realistic local revenue forecasts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Consultation and co-operation have improved efficiency in local tax collection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

76
**PART E**  
**INSTITUTIONAL ARRANGEMENT**

Please use the scale 5-1 (given below) to indicate the extent to which you agree or disagree with the statements in the table below. Use a tick or mark in the spaces provided for each statement.

5 - Strongly agree: 4 - Agree: 3 - Neutral: 2 - Disagree: 1 - Strongly disagree

<table>
<thead>
<tr>
<th>Institutional Arrangement statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. County government’s departments are appropriate for local revenue collection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. County has a decentralized departments (e.g. a collection from health facilities in the form of user fees is handled directly by respective Health Departments) in collection of revenue</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. departments have little reporting to County Executive committee</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. County Treasury has a direct control over its department on revenue collection function</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Outsourcing or other semi-autonomous authorities for specific revenue stream would be more effective than County departments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**PART F**

**TAX BASE CHALLENGES**

Please use the scale 5-1 (given below) to indicate the extent to which you agree or disagree with the statements in the table below. Use a tick or mark in the spaces provided for each statement.

<table>
<thead>
<tr>
<th>Tax Base statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Widening County tax base is crucial to improving revenue collection efficiency</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. County government has had exemption of government properties and provision of an overgenerous boundary lines for low income properties</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. County is treated to a large proportion of informally owned properties</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Informally owned property has contributed to less revenue per unit compared to formally owned</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Reducing County tax preferential treatment helps expand tax base and thus increase revenue collection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**THANK YOU**
APPENDIX II: QUESTIONNAIRE FOR COUNTY FINANCE OFFICERS

INTRODUCTION
My name is Boniface Andega Owandho. I am a student at Kenya School of Revenue Administration (KESRA) pursuing a post graduate diploma in tax laws and administration. I am doing a research project titled “Factors affecting revenue collection by County governments in Kenya, a case of Homa Bay County”.
I chose you as part of my respondents. In order to complete this research, I kindly ask for a spare of your time to answer questions in this questionnaire. I assure you that your responses will be treated with utmost confidentiality and used only for the purpose of this research.

QUESTIONNAIRE SERIAL NO……………………….. Date…../…../2019

PART A
BACKGROUND INFORMATION
(Please tick appropriately or fill additional information in the space provided).
1(i) Indicate your gender
   Male [ ]   Female [ ]
(ii) Indicate your age bracket
     Below 25 years [ ]   25-35 years [ ]
     36-45 years [ ]   above 45 years [ ]
(iii) What is your current position?
     ________________________________
(iv) How long have you served in the current position?
     0-5 years [ ]   5-10 years [ ]
     10-15 years [ ]   over 15 years [ ]
(v) What is your highest formal education Level?
     [ ] Primary [ ] Secondary [ ] Certificate/Diploma
     [ ] Undergraduate [ ] Post graduate [ ] Other (specify)

PART B
2(a) County government of Homa Bay uses department to help collect local revenue?
    [ ] Yes or [ ] No
(b) If no, kindly tick below if the current institutional arrangement is any of them
    [ ] Outsourcing e.g. Private firm [ ] If other specify
    [ ] Semi-autonomous authority e.g. KRA ______________________________
(c) If yes, are your collections of revenue in some sectors decentralized to respective departments within the County Government structure (e.g. Collection from health facilities in the form of user fees is handled directly by respective Health Departments)?
    [ ] Yes or [ ] No
(d) If yes again, do you think the impact of this arrangement has led to loss of control by county treasury of revenue function?
    [ ] Yes or [ ] No
(e) If yes in (c), do you think this has led to weak coordination of local revenue collection within the county government?
    [ ] Yes or [ ] No
(f) If no in (c), these county departments reports mostly to County Executive Committee Member for Finance or are directly controlled by county treasury?

[ ] Yes or [ ] No

(g) In your opinion, do you think department is an appropriate Institutional arrangement for this County government to ensure revenue collection efficiency?

[ ] Yes or [ ] No

(h) What are the challenges of your institutional arrangement?

……………………………………………………………………………………
……………………………………………………………………………………
……………………………………………………………………………………

PART C
TECHNOLOGICAL INNOVATION CHALLENGES
Please use the scale 5-1 (given below) to indicate the extent to which you agree or disagree with the statements in the table below. Use a tick or mark in the spaces provided for each statement.

5 - Strongly agree: 4 - Agree: 3 - Neutral: 2 - Disagree: 1 - Strongly disagree

<table>
<thead>
<tr>
<th>Technological Innovation statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. County government has adopted necessary technological equipment/machines for collection of revenue</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. This machines/equipment has replaced the manual or cash payment system.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Machines/equipment usage is hampered by events such as unstable power supply &amp; internet connectivity, high initial outlay or rapid technological changes.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. The use of the machines/equipment enables timely report on revenue collection.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. The use of machines/equipment has led to efficient and improved revenue collection.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**PART D**

**INTER GOVERNMENTAL CONSULTATION CHALLENGES**

Please use the scale 5-1 (given below) to indicate the extent to which you agree or disagree with the statements in the table below. Use a tick or mark in the spaces provided for each statement.

<table>
<thead>
<tr>
<th>Inter-governmental Consultation statement</th>
<th>Strongly Agree 5</th>
<th>Agree 4</th>
<th>Neutral 3</th>
<th>Disagree 2</th>
<th>Strongly disagree 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. This County government has an Inter-governmental consultation platform with National or other county governments for enhancing revenue collection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. These consultation and co-operation platform have yielded vital information useful for raising revenue collection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. These consultation and co-operation have helped in successfully concealing any revenue leakages</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. These consultation and co-operation have assisted in setting realistic local revenue forecasts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Consultation and co-operation have improved efficiency in local tax collection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

THANK YOU
APPENDIX III: QUESTIONNAIRE FOR COUNTY REVENUE CLERKS

INTRODUCTION

My name is Boniface Andega Owandho. I am a student at Kenya School of Revenue Administration (KESRA) pursuing a post graduate diploma in tax laws and administration. I am doing a research project titled “Factors affecting revenue collection by County governments in Kenya, a case of Homa Bay County”.

I chose you as part of my respondents. In order to complete this research, I kindly ask for a spare of your time to answer questions in this questionnaire. I assure you that your responses will be treated with utmost confidentiality and used only for the purpose of this research.

QUESTIONNAIRE SERIAL NO…………………….. Date….../…../2019

PART A

BACKGROUND INFORMATION

(Please tick appropriately or fill additional information in the space provided).

1(i) Indicate your gender

Male [ ] Female [ ]

(ii) Indicate your age bracket

Below 25 years [ ] 25-35 years [ ]
36-45 years [ ] above 45 years [ ]

(iii) Current revenue collection area

(iv) How long have you served in the current position?

0-5 years [ ] 5-10 years [ ]
10-15 years [ ] over 15 years [ ]

(v) What is your highest formal education Level?

[ ] Primary [ ] Secondary [ ] Certificate/Diploma
[ ] Undergraduate [ ] Post graduate [ ] Other (specify)

PART B

2. (i) Are there up-to-date information both on characteristics of land and properties, and on those liable for taxation?

[ ] Yes or [ ] No

(ii) If no, what are some of the plans to ensure this happen are?

……………………………………………………………………………………………...
………………………………………………………………………………………………
………………………………………………………………………………………………

(iii) If yes, have the up-to-date information help in avoiding significant loss of county revenue from land and property taxes due?

[ ] Yes or [ ] No

(iv) In your understanding have the tax base significantly been expanding or have they been relatively fixed? Why?

……………………………………………………………………………………………...
………………………………………………………………………………………………
………………………………………………………………………………………………

(v) Which mode of payment your clients are mostly using to pay for their revenue dues?

[ ] Cash payment [ ] Mobile money payment
[ ] Bank [ ] Online payment
(vi) Briefly explain why this is so?
……………………………………………………………………………………………………
……………………………………………………………………………………………………
(vii) The following challenges given below are some of the possible factors affecting efficient revenue collection by the county government. Please tick them and indicate their rank from the most to the list (i.e. 1\textsuperscript{st}, 2\textsuperscript{nd}, etc.)

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technological Innovation factors</td>
<td>[ ]</td>
</tr>
<tr>
<td>Inter-governmental consultation constraints</td>
<td>[ ]</td>
</tr>
<tr>
<td>Inappropriate Institutional arrangement</td>
<td>[ ]</td>
</tr>
<tr>
<td>Narrow Tax-base</td>
<td>[ ]</td>
</tr>
<tr>
<td>Please specify if any other</td>
<td></td>
</tr>
</tbody>
</table>
PART C
TAX BASE CHALLENGES
Please use the scale 5-1 (given below) to indicate the extent to which you agree or disagree with
the statements in the table below. Use a tick or mark in the spaces provided for each statement.

<table>
<thead>
<tr>
<th>Tax Base statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Widening County tax base is crucial to improving revenue collection efficiency</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. County government has had exemption of government properties and provision of an overgenerous boundary lines for low income properties</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. County is treated to a large proportion of informally owned properties</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Informally owned property has contributed to less revenue per unit compared to formally owned</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Reducing County tax preferential treatment helps expand tax base and thus increase revenue collection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

THANK YOU
APPENDIX IV: Annual County governments Own-Sources Revenue collections

<table>
<thead>
<tr>
<th>Financial Year (FY)</th>
<th>County governments Own Sources Revenue totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013/14</td>
<td>26,296</td>
</tr>
<tr>
<td>2014/15</td>
<td>33,849</td>
</tr>
<tr>
<td>2015/16</td>
<td>35,022</td>
</tr>
<tr>
<td>2016/17</td>
<td>32,522</td>
</tr>
<tr>
<td>2017/18</td>
<td>32,490</td>
</tr>
<tr>
<td>2018/19</td>
<td>40,300</td>
</tr>
<tr>
<td>2019/20 (first nine months)</td>
<td>28,040</td>
</tr>
</tbody>
</table>

Source: (Researcher, 2020 & CRA [Strategic Plan 2017-2022])
APPENDIX V: School Letter of Request

KEF: KESRA/NRB/406

13th Sept, 2019

TO WHOM IT MAY CONCERN

RE: REQUEST FOR RESEARCH PERMIT
RONDACE ANDEGA OWANDHO - REG. NO. HB/3536-CRB-4158C2016

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

The named student is undertaking Research on “Factors affecting Revenue Collection by County Governments in Kenya: A case of Homabay County.”

The purpose of this letter is to request your good office to assist the above student with the information required to enable him finalize his project.

Thank you.

Dr. Marion Nekesa PhD,
Head, Research
KESRA

KENYA SCHOOL OF REVENUE ADMINISTRATION (KESRA)
P. O. BOX 20202 - 00100
NAROBI

Tulipe Ushuru Tujitegemei!
APPENDIX VI: County Authorization Letter

OFFICE OF THE GOVERNOR
HUMAN RESOURCE MANAGEMENT
DEPARTMENT
P. O. BOX 469-40100, HOMA BAY

REPUBLIC OF KENYA
HOMA BAY COUNTY

Date Ref: MB/CTV/WF/12/VOL.1/1 (154)

Mr. Boniface Bundia Angoga
P.O.S.G. 27975719

RE: PERMISSION TO UNDERTAKE RESEARCH MR. BONFACE ASHELA
OWANDRO - REG. NO. HURORI - CRU-1802385.

Following your request to undertake a research study within the County Government of Homa Bay to investigate the Factors affecting revenue collection by the County Government in Kenya, a case of Homa Bay County, I am pleased to inform you that your request has been approved.

You may proceed to conduct the research with effect from 1st October, 2019. You will be expected to furnish us with a copy of the research findings at the end of the study to enable us improve our performance.

I would be grateful if you would report to the Chief Officer, Finance and Economic Planning - Kindly write the person to

Copy to: The Chief Officer, Finance and Economic Planning - Kindly write the person to Conduct research in your Department for academic purposes in a ...

C.R. MOTI AJUMA
COUNTY DIRECTOR
HUMAN RESOURCE MANAGEMENT

Date 30th September, 2019

[Signature]

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