BUSINESS AUTOMATION SYSTEM AND TAX REVENUE GROWTH IN KENYA

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ABSTRACT

Tax reform is the process of changing the way taxes are collected or managed by the government. It may involve the adoption of a Value Added Tax (VAT), the expansion of the VAT, the elimination of stamp and other minor duties, the simplification and broadening of personal or corporate income or asset taxes, or the revision of the tax code to enact comprehensive administration and criminal penalties for evasion. itax system provides efficient way of improving revenue collection and transparency in fiscal administration (otieno John,2021). Institutional aspects of tax reform involve the Semi-Autonomous Revenue Authority Model, where traditional line departments are separated from the National Treasury and granted the legal status of semi-autonomous authorities. Tax reform involves broad issues of economic policy as well as specific problems of tax structure design and administration. KRA has been allocated more budgetary support to enhance pay structures of revenue Officers, attract and retain professional staff as well as establishing structures for identifying and dismissing incompetent and corrupt staff. This was necessary since efficient revenue collection was seen as a means to lower Government borrowing and easing pressure on inflation and interest rates as well as increasing Government revenues to meet both recurrent and capital expenditure. The study was based on Optimum income tax theory and focused on measures undertaken by KRA to bring reforms that have enhanced Tax revenue growth in Kenya in the recent few years. The scope of the study was KRA's five (5) regional offices namely; Nairobi, Mombasa, Nakuru, Nyeri and Kisumu. The target population was 562 where a sample of 157 respondents was drawn using stratified random sampling technique. Both primary and Secondary data was collected using questionnaires which were both closed ended and open ended. Quantitative data was analyzed using SPSS where descriptive statistics were used and regression analysis was run to predict the role Business Automation System on Tax Revenue growth in Kenya. ANOVA test was conducted to test the significance of the overall model and a correlation analysis was used to determine the strength of relationship between Independent and Dependent variables. The study found that Business Automation system at KRA influences Tax revenue growth in Kenya significantly. The study recommended that for itax platform in KRA to be efficient, the same should be improved and upgraded to suit both government and citizens which should enhance Tax revenue collection and spur the Nation's economic growth. The research findings were expected to benefit other researchers in public finance, KRA, County Governments as well as other Government revenue collection agents.

Keywords: Business Automation System, Itax Platform, Electronic Tax Payment, E-Filing, Tax Reform, Tax Revenue Growth..

INTRODUCTION

Tax reform is the process of changing the way taxes are collected or managed by the government. It may involve the adoption of a Value Added Tax (VAT), the expansion of the VAT, the elimination of stamp and other minor duties, the simplification and broadening of personal or corporate income or asset taxes, or the revision of the tax code to enact comprehensive administration and criminal penalties for evasion (Sundet & Moen, 2019). Institutional aspects of tax reform involve the Semi-autonomous Revenue Authority Model, where traditional line departments are separated from the Ministry of Finance and granted the legal status of semi-autonomous authorities. Tax reform involves broad issues of economic policy as well as specific problems of tax structure design and administration. At the theoretical level, tax reforms are initiated either following an economic crisis or as a response to international pressure (Mahon, 2017).

Kefela (2019) reported that few developing countries have managed to establish their tax systems in such a way as to achieve an appropriate level of revenue and to keep tax-generated mis-allocations within tight bounds. In most other countries, neither has it been possible to ensure the financing of public expenditure nor have the tax systems operated in conformity with economic policy objectives. Although there have been some changes in tax policies along the predicted lines, to date these changes on the level of collections, the composition of revenues, the convergence in tax rates have been minimal, even when present. While the economics of these changes may well be plausible, the process by which they occur seems slow, erratic, and uncertain, and disentangling the empirical evidence remains difficult. Faced with these difficulties, some analysts have applied a standard tax competition model to globalization issues (Zodrow & Mieszkowski, 2016).

According to Bird (2009), developing countries often face difficulties when dealing with the tax administration. Many of the difficulties with the tax authorities are the consequence of poorly conceived tax policies. Complaints about complexity and/or ambiguity of the tax laws, high tax rates and a lack of an integrated fiscal strategy that determines the overall burden placed on businesses community are numerous (Olayemi, 2009). Complexity of the tax system leads to non-compliance with tax laws, since taxpayers find it hard to meet their tax obligations (Shekidele, 2009). One of the key reasons for undertaking tax reforms in Kenya was to address issues of inequality and to create a sustainable tax system that could generate adequate revenue to finance public expenditures.

Unlike many other Sub-Saharan countries, Kenya is a high tax-yield country with a tax-to-GDP ratio of over 20%. Kenya is able to finance a large share of its budget, while external donor finances are used to cover a much smaller share than in other countries of the region. Like most developing countries, it has had to challenge with the common problems of tax systems with rates and structures that are difficult to administer and comply with; that are unresponsiveness both to growth and discretionary tax measures hence offering low tax productivity; that raise little revenue but introduce serious economic. They attempt to use income taxation to address equity objectives; however, Kenya fell into the same trap as many other countries that had hoped to use income taxation for redistributing purposes (Karingi & Wanjala, 2005).

In Kenya, taxation is the single largest source of government budgetary resources. Between 1995 and 2004, tax revenue constituted 80.4% of total government revenue (including grants). Given its central role, taxation has been applied to meet two objectives. First, taxation is used to raise sufficient revenue to fund public spending without recourse to excessive public sector borrowing. Second, it is used to mobilize revenue in ways that are equitable and that minimize its disincentive effects on economic activities, (Glenday, 2002). Revenue mobilization was not a challenge for the government in the first decade of independence until the energy crisis of 1970 which necessitated tax reforms to mobilize more revenue (KIPPRA, 2006).

One of the key reforms during this era was the adoption of the Income Tax Act, Cap 470 in 1973 (AFDB, 2010). Since then, there have been three distinct phases of tax reform measures. According to a study by African Development Bank Group (AFDB, 2010), the initial measures were aimed at widening the tax base by way of introducing the sales tax in 1973 and the capital gains tax in 1975. These were reactive strategies aimed at mitigating the decline in duty revenues brought about by the imports substitution and industrialization policies.

Subsequently in the third decade, additional tax reforms were instituted. The World Bank study of 1985 on Kenya's economic policy led to drafting of Sessional Paper No. 1 of 1986. Under the theme – Economic Management for Renewed Growth – the Sessional Paper underscored the necessity to boost local revenue to fund economic development. In the period 1986 and 2002, through policy framework on Tax Modernization Programme (TMP), there was an effort to entrench tax reforms by: improving revenue raising capacity from 22 to 28 % of GDP, improving economic efficiency of the tax system through lowering and rationalization of tax rates, enhancing greater reliance on self-assessment system supported by selective tax audits, improving administrative efficiency through computerization, and lastly address constraints in existing tax structures as well as overreliance on direct taxes.

Statement of the problem

Nada and Jack (2009) examined tax reforms in Kenya particularly in regard to policy and administrative issues. The study acknowledges that tax system in Kenya has undergone perpetual reform over the past two decades. For instance, from the policy perspective there has been rationalization and simplification of rate schedules, a new value-added tax introduced, and external tariffs brought on board in order to tally with those of East African countries. It is observed that it is imperative to have continued reform of both policy instruments and both administrative and enforcement capacity of the tax system.

However, Kenya's performance effectiveness indicators suggest that whilst the tax effort is high, there is potential to increase tax revenue collection as a percentage of GDP by reducing the tax gap. Given the destabilizing effects of the budget deficits and the fact that they were becoming unsustainable, the Kenya Government came up with measures to address this

problem the most notable fiscal policy proposals adopted being the Tax Modernization Programme (TMP) and the Budget Rationalization Programme (Murith & Moyi, 2009).
Kenya's Budgets estimates have grown over a period of years with ksh 508b being budgeted for the year 2006/2007, ksh 540b for financial year 2007/2008, ksh 693billion for financial year 2008/2009, ksh 760 Billion for financial year 2009/2010, ksh 867billion for financial year 2010/2011, 997 billion for financial year 2011/2012, Ksh 1.15 trillion for financial year 2012/2013, ksh 1.45 trillion for financial year 2013/2014 and, ksh 1.6 trillion for financial year 2014/2015, (KRA, 2016)

The budget for the FY 2015/2016, the fifth (5th) annual budget under the Constitution of Kenya 2010, saw the release of a KES 2.2 Trillion budget figures. The sheer size of growth of these budgets has occasioned discussions regarding the country's capability to raise the revenue to fund the expenditure plans given the level of the national debt book, previous performances and overall budget absorption capacity at both levels of government. The debate on how realistic Kenya's budgeting framework is has also ensued with the recorded failure by the revenue collector, the Kenya Revenue Authority, to meet the revenue targets, (KRA 2016)
In spite of the efforts by the Government of Kenya there are still a myriad of problems militating against effective and efficient tax system in Kenya and hence affecting the tax revenue collected by the Kenya government at the National level. It was therefore against this background that the researcher sought to examine effect Business Automation System on Tax Growth in Kenya.

Objectives of the study

The general objective of the study was to examine effect of Business Automation system on tax revenue growth in Kenya.

Theoretical Review

Optimum Income Tax Theory

The optimum income taxation theory was pioneered by Mirrlees (1971) though in the recent past there are a number of theorists who have examined it including Creedy (2009), O'Brien (2009) and Sorensen (2010). The theory postulates that in any economic system where equality is valued, the assumption is, income taxation would be a vital instrument of policy. It is further stated that the redistributive progressive taxation is often linked to a man's income. Mirrlees observed that, due to the use of people's economic performance as evidence of their economic potentialities, absolute equality of social marginal utilities of income ceases to be desirable for the tax system that would bring about that result would completely discourage unpleasant work. The foregoing observation leads to a number of queries regarding the kind of principles that are supposed to govern optimum income tax, the nature of the tax schedule, and the degree of inequality upon the establishment of the tax schedule.

Recent advances in optimal tax theory have made the theory far much easier to apply and could possibly facilitate to explain some of the current trends in international tax policy (Sorenson, 2010). According to O'Brien (2009), the classical political economists came up with a normative analysis of tax policy which tended to follow a principles-oriented approach where it was stated that a good tax system ought to satisfy certain desirable criteria. According to this theory, tax system should be productive, computable, popular, equal, frugal, divisible, and incorruptible. It is exemplified that in the event that the social welfare issues implied by the current tax system are not monotonically decreasing with the taxpayer's level of income, it would presumably be difficult to defend such a system and as such reforming the system would be considered. The optimum income taxation theory can be adopted to explain the necessity of reforming the customs system with a view of maximizing tax revenue.

Empirical Review

Business Automation System

According to Harold (2011), computer generated returns, transmitted electronically, generally are easier to process than paper returns; since the information on the forms doesn't have to be keyed in, number by number, by IRS staff into the Service's computers hence there is less chance of errors. Electronic transmittal is instantaneous, bypassing the frustrating vagaries of the postal system and the client receives confirmation within a day or two that the return not only was received by the IRS, but was received accurately. However, from an American experience, electronic tax systems‘ biggest advantage, from the taxpayer's point of view, is that it shortens the time for refunds from an average of 12weeks to about 3 weeks. Refunds can even be deposited directly into taxpayers' bank accounts.

As an added incentive, some vendors that provide electronic filing services for tax preparers also offer a service in which clients due a tax refund can apply for an immediate bank loan equal to the expected IRS check. As a result, a client could receive the refund (less bank and preparer fees) within three days of the filing (Harold, 2011). Different literatures points out ICT use to be extremely beneficial; Mugisha, (2001) attests that, the use of ICT enhances timely access to accurate and relevant information, which is a prerequisite for good planning, programming, implementation as well as monitoring and evaluation which forms the key component in development.

Suluo, (20013) shows that, ICT use has lead to high level organizational growth and yet Crede,(2008) reveals two facts, first ICT has the capacity to increase productivity and create more cost effective output with the same or less inputs and second Development of ICT applications for business use alter the approach organizations function and eventually, improve their services as well as products. What these scholars are trying to emphasize is that the spread of ICT use in various sectors brings new opportunities for economic growth and development. New organization design, new markets, new products and improved services are been created which brings with them new sources of revenue.

Sagas, Nelimalyani and Kimaiyo (2015), did an assessment of the impact of electronic tax register on revenue collection by Kenya Revenue Authority western region, Kenya. Findings from their study indicated that indicated that 75% of the respondents were of the opinion that ETR machines have helped to curb cases of tax evasion 86% of the respondents were of the opinion that ETRs have helped increase revenue collection due to their efficient nature. Wang‘ombe (2009) did a study on the revenue productivity and some administrative factors of the Kenyan tax system for the period 2001–2008. The result of this study came up with buoyancy estimates of the total tax system as 1.26 while elasticity was 1.27. The study thus concluded that the tax system in general was both elastic and buoyant implying that tax reforms had greatly improved productivity. Discretionary tax measures had a very small effect on tax productivity implying improved efficiency.

Wamathu (2013) studied the effects of electronic taxation on financial performance of audit firms in Kenya. From the finding the study found that there has been timely filing of returns since inception of i-Tax, there has been a reduction in audit period due to introduction of i-Tax respondents were quite knowledgeable, system failure when login were less, i-Tax was user manual friendly , i-Tax system was reliable and that I-tax was not user friendly, i-Tax system cost effective, i-Tax system was cost effective and respondent were aware of that i-Tax system was electronic cash register and electronic signature device. She recommended that there is need for the Kenya Revenue Authority to invest on technology in order to reduce the system failure as the study revealed that system failure affects system logins. System failure discourages use of technology.

In his study titled Influencing Tax Compliance in SMEs through the Use of ICTs Lubua (2014) argued that Revenue collection is an important determinant of the economy of any country. The adequacy of government revenues allows the government to support its operations ranging from administrative activities, infrastructure constructions and service provision. The study aimed to show how e-transparent services address the challenge of voluntary tax compliance by SMEs in the republic of Tanzania. The study observed the following factors to influence voluntary compliance: Awareness of tax laws, business experience, the integrity of employees, low frequency of visitation by tax officers and training needs. Recommendations read that the revenue authority must use relevant ICT tools to positively promote these factors; as the result, the position of taxpayers to voluntarily file their tax returns will be enhanced.

Tax Revenue Growth in Kenya

A number of studies both locally and internationally have been done on the role Information Technology plays in Tax compliance. For instance a study of South Korea and Turkey on User evaluation of tax filing web sites was done by Lee et al. (2013), to compare the design and the complexity of the web sites and the ease with taxpayers are able to file tax returns and queries on their tax status. While Turkey had a complex online system, to the contrary Turkish users did not find tax filing system difficult to use and that was attributable to the fact that they relied on accounting professionals to do their tax returns online.

On the other hand, South Korean system was considered less complex but few taxpayers were using it as expected. Having in place an electronic tax filing system is one thing, but being able to be used by taxpayers is another thing. This has influence on the current study in a way that the tax website ease of usage must be considered before such a system is rolled out to taxpayers. Other factors to be considered should also be the capacity of the system and the efficiency (Lee et al., 2013).

For many decades, Kenya has been unable to balance its budget and therefore, meet its financial requirements to fund its development projects. Some people blame the deficit on the growth in spending by the government, as is the case of conservatives in the U.S., while others counter that an insufficiently progressive tax system is failing to raise adequate revenues needed for valuable government projects, as it is the case with the liberals in the U.S. Karl Marx also observed that progressive tax systems alone are very inefficient in an economy. The persistent budget deficits could therefore, be due to a clash between those opposing a raise in taxes and those opposing a cut in government expenditures or it could be something deeper, a structural problem with the very nature of the budgeting process, (Gruber, 2005). This study sought to examine effect of tax policy reforms on National Public revenue growth in Kenya.

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Conceptual framework

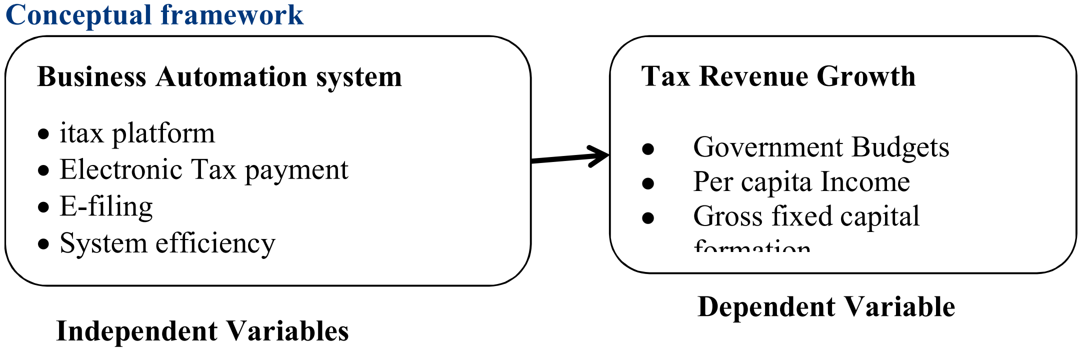

Figure 1: Conceptual Framework

RESEARCH METHODOLOGY

Research Design

The study adopted descriptive research design. This enabled the researcher to deeply analyze the phenomena with a view to generalization about a wider population which would have been suitable for finding out the effects of taxation on tax revenue growth. According to Mugenda and Mugenda (2003), a descriptive research design is flexible and it provides an opportunity to examine all aspects of a problem and it captured all the characteristics of the target population. The major purpose of adopting descriptive design method is that it measures the accuracy of the variables. Descriptive design is further justified because it focuses on complex analysis to bring out the correlation of variables. Descriptive research was restricted to facts findings and may result in formulation of important principles of knowledge and solutions to significant problems. It's more than collection of data and it involves measures, classification, analysis and interpretation (Kothari, 2008). The researcher considered this design as appropriate because of the purpose of the study, topical scope, researcher involvement, time period over which the data was collected, nature of data to be collected and the type of analysis to be performed.

Research Philosophy

Based on previously observed, explained realities and their interrelationships, it is then possible under positivism research philosophy to make predictions. Hatch and Cunliffe (2006) asserts that positivism research philosophy can be used to investigate what truly happens in organizations through scientific measurement of people and system behaviors. Moreover, any knowledge that is not based on positivist thought is unscientific and invalid. This research philosophy can be used to examine the effect of tax policy reforms on national public revenue growth in Kenya. Interpretivism research philosophy is mostly applied in social sciences. In fact, Hatch and Cunliffe (2006), refers to interpretivism as anti-positivist indicating the difference between positivism and interpretivism.

Under interpretivism, it is assumed that individuals and groups make sense of a situation based on their individual experiences, expectations and memories. Thus, individual experiences are the basis in which meaning is constructed. Given that people have different experiences, there are many different interpretations of reality. This therefore calls for an understanding of factors that affect how things are interpreted by different individuals. In other words, interpretivism looks for details of the situation with the aim of understanding the reality behind the situation. Saunders et al. (2007) asserts that interpretivism is highly contextual and its wide generalization is limited because the analyst relies on how people feel and think in order to understand the meanings and interpretations of individuals from their point of view (Eriksson & Kovalainen, 2008).

On the other hand, realism is based on the belief that reality exists and is independent of human consciousness. Realism recognizes that peoples' perception of their world is influenced by social objects and phenomena that are external to, or independent of them (Saunders et al., 2007). Realist belief that reality is pre-interpreted and it may exist whether it is proven or not. This implies that under realism research philosophy, reality may exist without science or observations. Therefore, understanding peoples' socially constructed meanings and interpretations requires broader understanding of social forces that influence peoples' views and behaviors (Saunders et al., 2007).

Given these three research philosophies, the choice of the research philosophy was based on the hypothesis that the researcher intended to test. In this regard, the research philosophy that best fits the objectives of this study was positivism. Under positivism research philosophy, it is possible to test hypothesis and generalize the findings. However, to test the hypothesis, there is need to translate the underlying concepts into measurable forms (Saunders et al., 2007). The study reflects the philosophy of positivism which is an approach that seeks facts or causes of social or business phenomena, with little regard to the subjective state of the individual. Considering the purpose of this study, the type of investigation, the extent of researcher involvement, the time period over which data will be collected and the type of analysis, the philosophical foundation guiding this study is positivism. This is because the researcher is independent from what is being observed. By adopting a positivism view, this study focused on theory testing wherein theory was first adopted as the framework for developing and testing hypotheses. This emphasizes the deductive orientation adopted in this study.

Target Population

The target population was the employees of Kenya Revenue Authority in all the 5 regional Offices across the country. The interest of this target population was driven by the fact that KRA requires very highly skilled workers to deliver on their respective mandates as well as vision 2030. The target population comprised of workers from Risk Management & Internal Audit Department, Ethics & Internal Audit Department, Information Communication Technology Department, Finance Department, Administration & Logistics Department, Research & Corporate Planning Department, Human Resource Department, Compliance, Risk & Quality Management Department and Kenya school of Revenue Administration. The categories of staff that were selected for the study included; Risk managers, Internal Audit officers, and Information communication technology officers, Finance Officers, Administrative Officers, Logistic Officers, Compliance & Quality managers, corporate tax managers and Human resource Officers.

Sampling Population

This study sampled 157 employees of KRA from five (5) regional offices. The choice of the five regional offices was informed by the fact that KRA is segmented into the five regions representing the whole country in matters of collection and administration of tax. The sample was selected randomly from each stratum and sample size of 532 employees represented 28% of the target population. This percentage was used because according to Creswell (2011) and Sekaran (2006) an ideal sample size of 5-20% of population is considered acceptable for most research purposes as it provides the ability to generalize for a population. The sample size was derived using the formula provided by Kothari (2008) based on 95% confidence level and 5% margin of error as follows;

$n= z^2.p.q.N/e^2(N-1)+z^2.p.q$

Where; N=Size of the sample

P=Sample population=-p

Z= the value of the standard variate at a given confidence level.

N = the estimate of the population size.

$$n=\frac{1.96*1.96*0.5*562}{0.05*0.05(562-1)+1.96*0.5*0.5}=157$$

The Researcher used stratified random sampling method to pick a sample element. Baird (2007) observed that, stratified sampling technique produces estimates of overall population parameters with greater precision and ensures that a more representative sample is drawn from a relatively heterogeneous population.

For the purpose of this study, the sampling frame was sourced from KRA's regional Offices across the Country. This therefore constituted of all the employees who were in the middle and senior management. These categories of employees were selected because they are core, have expertise and more technical knowledge in tax policies and could have participated in tax policy reforms over the period under study.

Table 1: Sampling Frame

Officer category/Regional Office	**Nairobi H.Q**	**Mombasa**	**Kisumu**	**Nakuru**	**Nyeri**	**Total.**	**Percentage**
Risk managers	10	3	3	3	3	22	3.9
Internal audit officers	35	18	12	10	6	81	14.4
ICT officers	28	20	17	18	15	98	17.4
Finance officers	30	20	18	10	9	87	15.5
Admin & logistic officers	28	18	15	10	8	79	14.1
Compliance & quality officers	36	22	18	18	10	104	18.5
Corporate Tax Officers	28	17	10	8	8	71	12.6
Human Resource Officers	6	5	3	3	3	20	3.6
Total	**201**	**123**	**96**	**80**	**62**	**562**	**100**
Percentage	**35.8**	**21.9**	**17.1**	**14.2**	**11**	**100**	

The study generated forty (40) strata derived from derived from eight (8) categories of employees namely; Risk managers, Internal audit officers, Information Communication Technology Officers, Finance Officers, Administration & Logistic officers, Compliance & quality managers, Corporate Tax managers and Human Resource Officers From five (5) Regional Offices

Data Collection

Questionnaires consisting of structured and non-structured questions were used to collect data from the top management, middle level management and operational staff of the Kenya Revenue Authority in the five regional Offices. The structured questions were used to collect quantitative and qualitative data. The structure of the questionnaire included structured and semi-structured questions as this provided the flexibility for specific and unique responses to some of the questions. The questionnaires contained open ended and closed ended questions all briefly stated and well-focused in recognition of the busy schedule of the participants. The structured questions are normally closed ended with alternatives from which the respondent is expected to choose the most appropriate answer.

The researcher asked for permission to carry out the research from the Human Resource manager KRA head Office. The researcher then engaged five (5) research assistants. The researcher’s own opinions did not influence the respondent to answer questions in certain who were trained on data collection. The study administered the questionnaire individually to all respondents of the study. The study exercised care and control to ensure all questionnaires issued to the respondents were received and to achieve this, the study maintained a register of questionnaires, which were sent, and which were received. The questionnaire was administered using a drop and pick later method. In addition to the primary data, secondary data was used and collected through desk top research technique as this is most appropriate for literature and materials. The researcher started by explaining to all participants in the study the role they were expected to play and the importance of providing honest information through a cover letter forwarding the questionnaire.

Validity and Reliability of Research Instruments

To ensure that there was consistency in the data resulting from this study, measures such as isolating respondents to ensure that answers to specific questions are not discussed, was employed during data collection to limit interference with the integrity of the results. Content validity which was employed by this study is a measure of the degree to which data collected using a particular instrument represented a specific domain or content of a particular concept. Cronbach’s alpha was used to test the reliability of the measures in the questionnaire (Cronbach, 2013). In this study, the questionnaire was tested on 16 respondents drawn from the sample to ensure that it was relevant and effective. Reliability was tested using questionnaire duly completed by randomly selected respondents. These respondents were not included in the final study sample in order to control for response biasness. Cronbach’s alpha coefficient was generated to assess reliability. The closer Cronbach’s alpha coefficient is to 1, the higher the internal consistency reliability. A coefficient of 0.7 is recommended for a newly developed questionnaire.

Data Analysis and Presentation

Data was analyzed using both descriptive and inferential statistics. Descriptive statistics of means, standard deviation and percentage was used on raw data. The inferential statistic of linear regression was used. A computer package, Statistical Package for Social Science (SPSS) version 21 for window was used to do analysis. Descriptive statistics enables researcher to describe a distribution of measurement (Mugenda & Mugenda, 1999). Inferential statistics deals with analysis, interpretation and decision on the basis of results (Nassiuma & Mwangi, 2004).

$$TRG = \beta 0 + BAS + Bi + \varepsilon$$

Where;

TRG= Public revenue growth

β_0 = Constant

β_i = Coefficient for X_i

BA = Business Automation System.

ε = error term.

On the other hand, qualitative data collected from the open-ended questions was analyzed using content analysis. This is because according to Scruggs and Mastropieri (2006), if research is subjective in nature and requires interpretation of views and perception of others, content analysis method was suitable. Qualitative research method is a technique used for objective interpretation of content of text data through systematic classification process of coding and identifying themes of patterns. Transcription of the qualitative data was done. This was done by tallying up responses, computing percentages of variations in response as well as describing and interpreting the data in line with the study objectives and assumptions through use of SPSS. Quantitative data was displayed using tables, pie charts and diagrams. To test the significance of the overall model, hypothesis was tested using analysis of variance (ANOVA). Using the *p* value from the ANOVA table, the researcher rejected the H0 if the *p* value is less than alpha meaning that tax policy reforms play a significance role in public revenue growth.

RESEARCH FINDINGS AND DISCUSSIONS

Descriptive Analysis

The study established that business automation system has a moderating influence on National Public revenue growth in Kenya. Business automation system in KRA has an enormous effect on public revenue growth in Kenya. itax has contributed to tax revenue growth at KRA, itax platform has enhanced improved efficiency at KRA, KRA has a performing ICT system and iTax platform has enhanced KRA service delivery. Business automation system provides efficient and effective services to taxpayers and public and reduce interaction with staff, improve tax collection, facilitate seamless sharing of information across KRA and relevant third parties for data-matching purposes in order to detect non-compliance and to facilitate combined enforcement actions.

Table 2: Descriptive Statistics

	Tax Administration	Tax enforcement	Human resource revitalization	Business automation system
Mean	3.789997	1.970207	2.459200	4.470847
Std. Dev.	2.332717	0.586685	0.185677	0.498405
Skewness	-0.179995	1.667759	-1.390814	1.544514
Kurtosis	2.064406	5.093524	3.961077	4.581320
Jarque-Bera	1.507395	3.26278	2.99169	1.06399
Probability	0.470623	0.000009	0.001510	0.000120
Observations	36	36	36	36

Inferential Analysis

Analysis of Variance

The Analysis of variance (ANOVA) was used to determine whether there was a regression relationship between tax policy reform and public revenue growth. The F-ratio in the ANOVA table tested whether the overall regression model was good and fit for the data. The results obtained are presented in Table 9

Table 3: ANOVA Test Results

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	8.44	4	2.11	2.912	0.000
Residual	103.68	144	0.72		
Total	112.12	148			

The results indicate that F=2.912, and is significant since p<0.001which is less than p value, p =0.05. The critical values for F-test (4, 66, at 0.05 alpha is 2.51) which is less than the computed F-value (2.912). This therefore shows that the model is fit for finding out the relationship between the dependent and independent variables.

Chi-Square Hypothesis Tests

The study used Chi-square statistics to identify the relationship that is derived from tax policy reforms on national public revenue growth. The calculated Chi-square was computed and then compared with the critical points of the theoretical Chi-square distribution to produce an estimate of how likely or unlikely this calculated value was if the two variables were in fact independent. Any decision to reject the null hypothesis was based on the probability or the observed significance level. If the analysis finds that the null hypothesis (i.e. that the coefficient of interest does not in fact equal zero), then that variable had a significant effect on the dependent variable (Y).

Conclusions

The study concludes that tax reforms have significant influence on public revenue growth. The study concludes that growth of national public revenue shows an indifferent change as a result of tax policies at KRA.Business automation system provides efficient and effective services to taxpayers and public and reduce interaction with staff, improve tax collection, facilitate seamless sharing of information across KRA and relevant third parties for data-matching purposes in order to detect non-compliance and to facilitate combined enforcement actions.

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Recommendations

From the results and conclusions, the efficiency of business automation system in KRA should be improved and upgraded to suit both government and citizens. A good tax system should be responsive to economic growth. This means that as the economy grows, tax revenue should also grow. This is because tax revenue is a function of national income/GDP.

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