The Impact of Control Environment on Revenue Generation in County Governments of Western Kenya

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Abstract- This study investigates the impact of control environment on revenue generation in county governments of Western Kenya. The control environment is a crucial component of an organization's internal control system, setting the foundation for ethical conduct and effective financial management. However, many county governments in Kenya face challenges in meeting their revenue targets, partly due to weaknesses in their control environments. Using a descriptive research design and purposive sampling, this study collected data from 228 employees in the revenue and internal control departments of four county governments. The findings reveal that integrity and ethical values, management's commitment to competence, organizational structure, and assignment of authority and responsibility have significant positive effects on revenue generation. The study concludes that a strong control environment plays a vital role in enhancing revenue generation performance and recommends that county governments prioritize the development and implementation of robust policies, procedures, and practices to strengthen their control environments. This research contributes to the understanding of internal controls and revenue generation in the context of devolved governments in developing countries.

Indexed Terms- Control Environment, Revenue Generation, County Governments

I. INTRODUCTION

Control environment is a critical component of an organization's internal control system, forming the foundation upon which all other controls are built. It encompasses the policies, procedures, and structures that influence an organization's control consciousness and sets the tone for ethical conduct and integrity (COSO, 2013). In the context of county governments in Kenya, a strong control environment is essential for effective revenue generation and financial management.

Revenue generation is a vital function for county governments, enabling them to fund public services, development projects, and operations. However, many county governments in Kenya face challenges in meeting their revenue targets. According to reports from the Controller of Budget, county governments have consistently fallen short of their projected revenue collection since the inception of devolution in 2013 (Office of the Controller of Budget, 2021). This underperformance in revenue generation hinders the ability of county governments to implement their budgets and provide essential services to citizens.

While various factors contribute to the revenue shortfalls, weaknesses in internal control systems, particularly the control environment, have been identified as a significant issue. The Auditor General's reports have highlighted instances of weak control environments in county governments, characterized by inadequate policies, lack of adherence to procedures, and insufficient oversight (Office of the Auditor General, 2020). These deficiencies create opportunities for fraud, revenue leakage, and inefficiencies in revenue collection processes.

Given the critical role of control environment in safeguarding public resources and promoting effective revenue generation, it is important to examine its impact on the revenue performance of county governments in Kenya. Therefore, this study aims to investigate the effect of control environment on revenue generation in county governments of Western Kenya. The specific objectives of the study are:
1. To assess the influence of integrity and ethical values on revenue generation in county governments of Western Kenya.
2. To examine the effect of management's commitment to competence on revenue generation in county governments of Western Kenya.

3. To determine the impact of organizational structure on revenue generation in county governments of Western Kenya.
4. To evaluate the effect of assignment of authority and responsibility on revenue generation in county governments of Western Kenya.

The findings of this study will have significant implications for county governments, policymakers, and stakeholders in Kenya. By understanding the relationship between control environment and revenue generation, county governments can prioritize the strengthening of their control environments to enhance revenue collection and financial performance. The study will provide valuable insights and recommendations for improving policies, procedures, and practices related to control environment in county governments.

Furthermore, the study will contribute to the existing body of knowledge on internal controls and revenue generation in the public sector, particularly in the context of devolved governments in developing countries. The findings will serve as a reference for future research and inform policy discussions on strategies for enhancing county government revenue generation in Kenya.

II. LITERATURE REVIEW

- Theoretical Framework

This study is anchored on two main theories: agency theory and reliability theory. Agency theory, propounded by Jensen and Meckling (1976), focuses on the relationship between principals (owners) and agents (managers), where the principals delegate decision-making authority to the agents. The theory highlights the potential conflicts of interest that may arise due to information asymmetry and divergent goals between principals and agents. In the context of county governments, citizens can be viewed as principals who entrust the management of public resources to county officials (agents). A strong control environment helps align the interests of county officials with those of citizens, reducing the risk of opportunistic behavior and promoting accountability (Amutu, 2017).

Reliability theory, on the other hand, deals with the probability of a system or component performing its intended function adequately for a specified period under stated conditions (Gavrilov & Gavrilova, 2001). In the context of internal controls, reliability theory suggests that the effectiveness of the control environment depends on the reliability of its components, such as policies, procedures, and personnel (Ayom, 2013). A reliable control environment provides reasonable assurance that the organization's objectives will be achieved, including effective revenue generation.

- Empirical Review

International Studies

Several international studies have explored the relationship between control environment and revenue generation. Aramide and Bashir (2015) investigated the impact of internal control systems on the financial performance of small and medium enterprises in Nigeria. They found that a strong control environment, characterized by adherence to ethical values and management's commitment to competence, had a significant positive effect on revenue generation. Similarly, Njeri (2015) examined the effect of internal control systems on financial performance in Kenya's transport sector and found that a robust control environment enhanced revenue collection and financial performance.

In a study conducted in Ghana, Oppong, Owiredu, Abedana, and Asante (2016) explored the relationship between internal control systems and financial performance in public sector organizations. Their findings revealed that a strong control environment, with clear policies and procedures, had a significant positive impact on revenue generation and financial performance. These international studies highlight the importance of a strong control environment in promoting effective revenue generation in various contexts.

- Regional Studies

Studies conducted in the East African region have also examined the link between control environment and revenue generation. In Uganda, Mwakimasinde, Odhiambo, and Byaruhanga (2014) investigated the effect of internal control systems on revenue collection in the country's local government authorities. They found that a robust control environment, with well-defined organizational structures and segregation of duties, had a significant positive influence on revenue collection performance.

In a study focused on Rwandan public institutions, Niyonsenga and Abuya (2017) explored the relationship between internal control systems and financial performance. Their findings indicated that a strong control environment, characterized by management's commitment to integrity and ethical values, had a significant positive effect on revenue generation and financial performance. These regional studies emphasize the significance of a robust control environment in enhancing revenue generation within the East African context.

- Local Studies in Kenya

Several studies have been conducted in Kenya to examine the relationship between control environment and revenue generation in various sectors. Muraleetharan (2013) investigated the impact of internal control on financial performance in the country's public sector organizations. The study found that a strong control environment, with effective policies and procedures, had a significant positive influence on revenue generation and financial performance.

Kamau (2015) explored the effect of internal control systems on revenue collection in Machakos County. The findings revealed that a robust control environment, characterized by management's commitment to integrity and competence, had a significant positive impact on revenue collection performance. Similarly, Mutua (2018) examined the relationship between internal control systems and financial performance in Kenyan county governments. The study found that a strong control environment, with clear assignment of authority and responsibility, had a significant positive effect on revenue generation.

- Research Gaps

Despite the existing studies on control environment and revenue generation, there are still research gaps that warrant further investigation. First, most studies have focused on the broader concept of internal control systems, with limited emphasis on the specific role of control environment in revenue generation. Second, there is a scarcity of studies that have examined the effect of control environment on revenue generation in the specific context of county governments in Kenya, considering their unique challenges and opportunities.

Furthermore, previous studies have not adequately explored the influence of specific components of control environment, such as integrity and ethical values, management's commitment to competence, organizational structure, and assignment of authority and responsibility, on revenue generation in county governments. This study aims to address these research gaps by focusing specifically on the impact of control environment on revenue generation in county governments of Western Kenya, providing a more comprehensive understanding of the relationship between these variables in this context.

III. METHODOLOGY

- Research Design

This study adopted a descriptive research design to investigate the effect of control environment on revenue generation in county governments of Western Kenya. Descriptive research design is appropriate when the aim is to describe the characteristics of a population or phenomenon and collect data that answer the questions of who, what, where, when, and how (Kothari, 2004). This design allowed the researcher to gather data on the current state of control environment and revenue generation in the selected county governments, providing a basis for analysis and drawing conclusions.

- Target Population and Sampling Procedure

The target population for this study comprised of employees working in the revenue and internal control departments of the four county governments in Western Kenya: Kakamega, Bungoma, Busia, and Vihiga. These employees were considered to have the relevant knowledge and experience regarding the control environment and revenue generation processes in their respective county governments. The target population consisted of 535 employees across various positions, including County Executive Committee Members for Finance, Chief Officers Finance, and Directors for Revenue, Accountants, Internal Auditors, Revenue Collectors, and ICT Officers.

The study employed a purposive sampling technique to select the respondents. Purposive sampling involves deliberately choosing participants based on their characteristics, knowledge, or experience relevant to the research objectives (Tongco, 2007). This technique was appropriate for this study as it allowed the researcher to select respondents who were directly involved in revenue generation and internal control processes, ensuring that the collected data was relevant and informative. A sample size of 228 respondents was determined using Yamane's formula, with a confidence level of 95% and a precision level of 5%.

- Data Collection Methods and Procedures

Primary data was collected using self-administered questionnaires. The questionnaire was designed to capture information on the respondents' perceptions of the control environment and revenue generation in their respective county governments. The questionnaire consisted of closed-ended questions, utilizing a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The questionnaire was divided into sections covering the study variables, including integrity and ethical values, management's commitment to competence, organizational structure, assignment of authority and responsibility, and revenue generation.

The researcher obtained the necessary approvals from the county governments and relevant authorities before commencing data collection. The questionnaires were distributed to the selected respondents using a drop-and-pick method, allowing them sufficient time to complete the questionnaires at their convenience. The researcher provided clear instructions and assured the respondents of the confidentiality of their responses. Completed questionnaires were collected by the researcher for analysis.

- Validity and Reliability of Research Instruments

To ensure the validity of the research instrument, the questionnaire was reviewed by a panel of experts in the field of accounting and public finance. The experts assessed the questionnaire's content validity, ensuring that the questions adequately covered the study variables and were aligned with the research objectives. The questionnaire was also pilot-tested on a small sample of respondents to identify any ambiguities or difficulties in understanding the questions. Feedback from the pilot test was used to refine the questionnaire before administering it to the main study sample.

The reliability of the research instrument was assessed using Cronbach's alpha coefficient. Cronbach's alpha measures the internal consistency of a set of scale items, indicating the extent to which the items are measuring the same underlying construct (Tavakol & Dennick, 2011). A Cronbach's alpha value of 0.7 or higher is considered acceptable for reliability (Nunnally, 1978). The reliability test was conducted on the pilot test data, and any items that did not meet the reliability threshold were revised or removed from the final questionnaire.

- Data Analysis Methods

The collected data was analyzed using both descriptive and inferential statistics. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize the respondents' demographic characteristics and their perceptions of the study variables. Inferential statistics, particularly correlation and regression analysis, were employed to examine the relationships between the control environment variables and revenue generation.

Pearson's correlation coefficient was used to determine the strength and direction of the relationships between the study variables. Multiple regression analysis was conducted to assess the effect of the control environment variables on revenue generation. The regression model was specified as follows:

$$RG = \beta 0 + \beta 1IEV + \beta 2MCC + \beta 3OS + \beta 4AAR + \varepsilon$$

Where:

RG = Revenue Generation

IEV = Integrity and Ethical Values

MCC = Management's Commitment to Competence

OS = Organizational Structure

AAR = Assignment of Authority and Responsibility

$\beta 0$ = Constant term

$\beta 1$, $\beta 2$, $\beta 3$, $\beta 4$ = Regression coefficients

ε = Error term

The regression analysis results were used to test the study hypotheses and determine the significance of the relationships between the control environment variables and revenue generation. A significance level of 0.05 was used for all statistical tests. The data analysis was conducted using Statistical Package for Social Sciences (SPSS) software.

IV. RESULTS AND FINDINGS

Descriptive Analysis of Respondent Demographics

The study collected data from a sample of 228 employees working in the revenue and internal control departments of four county governments in Western Kenya. The respondents' demographic characteristics were analyzed using descriptive statistics, including frequencies and percentages.

Gender: The sample consisted of 132 male respondents (57.9%) and 96 female respondents (42.1%), indicating a relatively balanced gender distribution.

Age: The majority of the respondents (45.6%) were in the age bracket of 31-40 years, followed by 28.9% in the 41-50 years category. Those aged 21-30 years and above 50 years constituted 18.4% and 7.1% of the sample, respectively.

Education Level: Most of the respondents (53.5%) held a bachelor's degree, while 28.9% had a diploma. Those with a master's degree and higher qualifications accounted for 14.5% of the sample, and 3.1% had secondary education.

Work Experience: A significant proportion of the respondents (39.5%) had work experience of 6-10 years, followed by 28.9% with 11-15 years of experience. Those with 1-5 years and more than 15 years of experience constituted 21.1% and 10.5% of the sample, respectively.

Descriptive Analysis of Control Environment Variables

The study assessed four key variables of the control environment: integrity and ethical values, management's commitment to competence, organizational structure, and assignment of authority and responsibility. Respondents rated their perceptions of these variables on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Descriptive statistics, including mean scores and standard deviations, were used to analyze the responses.

Integrity and Ethical Values: The overall mean score for integrity and ethical values was 4.12 (SD = 0.78), indicating a high level of perceived integrity and ethical conduct in the county governments. The highest-rated item was "The county government has a code of ethics that guides employee behavior" (M = 4.35, SD = 0.71), while the lowest-rated item was "Ethical violations are promptly addressed and disciplined" (M = 3.89, SD = 0.92).

Management's Commitment to Competence: The overall mean score for management's commitment to competence was 3.96 (SD = 0.84), suggesting a relatively strong perception of management's dedication to staff competence. The highest-rated item was "The county government provides regular training and capacity building opportunities for employees" (M = 4.21, SD = 0.76), while the lowest-rated item was "The county government attracts and retains highly skilled and competent staff" (M = 3.75, SD = 0.98).

Organizational Structure: The overall mean score for organizational structure was 4.08 (SD = 0.81), indicating a clear and well-defined organizational structure in the county governments. The highest-rated item was "The county government has a clear chain of command and reporting lines" (M = 4.29, SD = 0.73), while the lowest-rated item was "The organizational structure promotes effective communication and coordination among departments" (M = 3.92, SD = 0.89).

Assignment of Authority and Responsibility: The overall mean score for assignment of authority and responsibility was 3.89 (SD = 0.88), suggesting a moderate level of clarity in assigning roles and responsibilities. The highest-rated item was "Employees are aware of their roles and responsibilities in revenue generation" (M = 4.11, SD = 0.82), while the lowest-rated item was "The county government holds employees accountable for their performance in revenue generation" (M = 3.68, SD = 0.96).

Correlation Analysis between Control Environment and Revenue Generation

Pearson's correlation analysis was conducted to examine the relationships between the control environment variables and revenue generation. The results revealed significant positive correlations between all four control environment variables and revenue generation.

Integrity and Ethical Values: There was a strong positive correlation between integrity and ethical values and revenue generation ($r = 0.68$, $p < 0.01$), indicating that higher levels of perceived integrity and ethical conduct were associated with better revenue generation performance.

Management's Commitment to Competence: A moderate positive correlation was found between management's commitment to competence and revenue generation ($r = 0.57$, $p < 0.01$), suggesting that a stronger commitment to staff competence was related to improved revenue generation.

Organizational Structure: The correlation between organizational structure and revenue generation was positive and moderate ($r = 0.62$, $p < 0.01$), indicating that a clear and well-defined organizational structure was associated with better revenue generation performance.

Assignment of Authority and Responsibility: A moderate positive correlation was observed between assignment of authority and responsibility and revenue generation ($r = 0.55$, $p < 0.01$), suggesting that clarity in assigning roles and responsibilities was related to improved revenue generation.

Regression Analysis on Impact of Control Environment on Revenue Generation

Multiple regression analysis was conducted to assess the impact of the control environment variables on revenue generation. The four control environment variables (integrity and ethical values, management's commitment to competence, organizational structure, and assignment of authority and responsibility) were entered as independent variables, while revenue generation was the dependent variable.

The regression model was statistically significant ($F(4, 223) = 68.92$, $p < 0.001$), with the control environment variables explaining 55.3% of the variance in revenue generation ($R^2 = 0.553$, Adjusted $R^2 = 0.546$).

Integrity and Ethical Values: Integrity and ethical values had a significant positive impact on revenue generation ($\beta = 0.36$, $p < 0.001$), indicating that a one-unit increase in perceived integrity and ethical conduct was associated with a 0.36-unit increase in revenue generation, holding other variables constant.

Management's Commitment to Competence: Management's commitment to competence had a significant positive impact on revenue generation ($\beta = 0.19$, $p < 0.01$), suggesting that a one-unit increase in management's commitment to staff competence was associated with a 0.19-unit increase in revenue generation, holding other variables constant.

Organizational Structure: Organizational structure had a significant positive impact on revenue generation ($\beta = 0.28$, $p < 0.001$), indicating that a one-unit increase in the clarity and definition of organizational structure was associated with a 0.28-unit increase in revenue generation, holding other variables constant.

Assignment of Authority and Responsibility: Assignment of authority and responsibility had a significant positive impact on revenue generation ($\beta = 0.22$, $p < 0.01$), suggesting that a one-unit increase in the clarity of assigning roles and responsibilities was associated with a 0.22-unit increase in revenue generation, holding other variables constant.

These findings suggest that all four control environment variables significantly contribute to revenue generation performance in the county governments of Western Kenya, with integrity and ethical values having the strongest impact, followed by organizational structure, assignment of authority and responsibility, and management's commitment to competence.

CONCLUSIONS AND RECOMMENDATIONS

Summary of Key Findings

The study investigated the effect of control environment on revenue generation in county governments of Western Kenya. The key findings of the study are as follows:

1. Integrity and ethical values had a significant positive effect on revenue generation in the county governments. Employees who perceived a strong emphasis on integrity and ethical behavior in their organizations reported higher levels of revenue generation.
2. Management's commitment to competence was found to have a significant positive influence on revenue generation. County governments where management demonstrated a strong commitment to staff competence and professional development had better revenue generation performance.
3. Organizational structure was positively and significantly associated with revenue generation. County governments with clear and well-defined organizational structures, including appropriate segregation of duties, experienced improved revenue generation.
4. Assignment of authority and responsibility had a significant positive impact on revenue generation. County governments that clearly assigned authority and responsibility to employees and held them accountable for their actions reported enhanced revenue generation.

Conclusions Based on Objectives

Based on the study objectives, the following conclusions can be drawn:

1. Integrity and ethical values play a crucial role in promoting revenue generation in county governments. Cultivating a strong ethical culture and emphasizing integrity in all operations can significantly enhance revenue generation performance.
2. Management's commitment to competence is essential for effective revenue generation. County governments should prioritize staff competence and provide opportunities for professional development to improve revenue generation outcomes.
3. Organizational structure is a significant determinant of revenue generation in county governments. Establishing clear and well-defined structures, with appropriate segregation of duties, can substantially improve revenue generation performance.
4. Assignment of authority and responsibility is critical for successful revenue generation. County governments should ensure that authority and responsibility are clearly assigned to employees, and mechanisms are in place to hold them accountable for their actions.

Recommendations for County Government Policy and Practice

Based on the study findings and conclusions, the following recommendations are made for county government policy and practice:

1. County governments should develop and implement robust policies and procedures that promote integrity and ethical behavior among employees. Regular training and awareness programs on ethical conduct should be conducted to reinforce these values.
2. County governments should prioritize staff competence and allocate adequate resources for employee training and professional development. Competency frameworks should be established to guide staff recruitment, performance management, and capacity building efforts.
3. County governments should review and streamline their organizational structures to ensure clarity of roles, responsibilities, and reporting lines. Adequate segregation of duties should be maintained to minimize the risk of fraud and errors in revenue generation processes.
4. County governments should establish clear guidelines for the assignment of authority and responsibility to employees involved in revenue generation. Performance targets and accountability mechanisms should be put in place to monitor and evaluate employee performance regularly.
5. County governments should strengthen their internal control systems, with a specific focus on the control environment. Regular assessments of the control environment should be conducted to identify and address any weaknesses or gaps.

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