

# Internal Control System and Financial Performance in Banking Industry: A case of Guaranty Trust Bank-Rwanda

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**Abstract-** The study examined the contribution of internal control system on financial performance in banking sector taking a case of Guaranty Trust Bank Ltd. The specific objectives were to determine the effect of control environment, control activities, and risk assessment. Results would be useful in terms of not only knowing the impact of internal control system to. This study would be made accessible in library of Mount Kenya University. For methods, a descriptive research design was adopted where both qualitative and quantitative approaches were used. A sample size of 167 respondents selected among 287 employees. The simple random sampling and purposive sampling techniques were used to select respondents and key informants. Primary data was gathered using questionnaire. The study used descriptive statistics to determine frequency, percentage, mean and standard deviation while inferential statistics were used to establish correlation and regression statistics for effect size and level of significance between variables. Content analysis was used for qualitative data analysis. Results on correlation between control environment and performance show a negative significant correlation between ethical values and return on equity since the  $r= 0.197^*$  and  $p\text{-value}= 0.012$ . Results from correlation analysis demonstrated that there is significant correlation between competency of personnel and return on equity ( $r=0.160^*$ ,  $p\text{-value} = 0.041$ ). Results from correlation analysis between control activities and financial performance show that rigorous policies were positively correlated with return on equity ( $r=0.325^{**}$ ,  $p\text{-value}=0.002$ ). Physical control is positively correlated with return on equity ( $r=0.374^{**}$ ,  $p\text{-value} = 0.037$ ), and physical control is correlated return on asset ( $0.274^{**}$ ,  $p\text{-value} =0.045$ ). The study concludes that GTB has effective internal control system and financial performance because internal control have significance important on the financial performance of the studied Bank. The study recommends that control environment, control activities, and risk assessment should be enhanced to further improve the financial performance of the Bank. Management should focus on separation of duties, supervision, approval transaction, budget review, communication channel, and management of high risk and should take measure to mitigate risks. Once a strong internal control is established will enhance operational efficiency and effectiveness and improve the financial performance of the Bank.

**Index Terms-** Internal Control System, Commercial Banks, Risk Assessment, Control Activities, Financial Performance.

## I. INTRODUCTION

Despite guidelines of central bank of Rwanda governing banks, there has been many cases of bank failure in performance owing to lack of proper internal control systems (National Bank of Rwanda [BNR], 2020). This is well evidenced in the financial report (2020) which revealed inadequate liquidity, misuse of resources, frauds, errors and irregularities. For example between 2008 and 2009, nine microfinance institutions were put under receivership and closed owing to what the central bank termed as inadequate banking practices (Niyonsenga & Abuya, 2017). Another case, the Bank d'Or du Rwanda (Bancor) was sold to Access Bank while the Fina Bank was sold to GT Bank to owing to what the regulator termed as unsafe financial conditions, inadequate liquidity, delayed compliance to timely reporting, making losses, lack of suitable accountability, fraud and misuse of assets, thus leaving the questions of gaps that exists within banking internal control systems (Mugisha et al., 2015).

Takahiro and Jia (2012) studied the impact of internal control systems on the financial performance of private hospitals in Kenya. This study however, did not take into account the commercial banks. Nyakundi et al. (2014)

assessed the effect of internal control activities on liquidity incorporating risk assessment. This study did not review in details all the internal control system aspects. Ejoh and Ejoh (2014) assessed the correlation between internal control activities and financial performance of universities in Nigeria. This study failed to show the direct impact of internal control systems on financial performance. Ayagre et al. (2014) investigated the adequacy of internal control on Ghanaian banks and only focused on environment and monitoring. Locally, Niyonsenga and Abuya (2017) studied on internal control and bank success in Rwanda with reference to I&M Bank by interrogating upon the role of internal control system on risk management, while Uwingabiye (2019) assessed internal control system component and financial performance in public institutions in Rwanda and focused on monitoring, control environment, information and communication.

According to BNR report (2016), poor internal control systems affect performance of banking institutions and, FINA Bank Plc has not been exception. Poor internal control systems have led to the reduction of its market share from 7.6% to 4.78% in 2015. This has leads to the reduction of its bank operations, leaving FINA Bank to be finally rebranded to Guaranty Trust Bank (GT Bank) after the Nigerian-based bank completed a 70 per cent share acquisition of the Kenyan bank early 2014(New Times, 2014).

The takeover deal, worth about \$100m (Rwf67.5b) will see both clients and workers of the bank benefit both in terms of products and service delivery, officials from the bank said. The above BNR report concurs with financial statements of Guarantee Trust Bank between 2012 and 2015, which revealed that the bank has been making losses (GT Bank, 2016).

Majority of the reviewed studies show that internal control systems have a link with and affect financial performance of commercial banks, using descriptive design methodology to bring out the relationship between the variables. This methodology cannot be used to determine the relationship between variables. Appropriate methodology could be correlation design which gives the magnitude and direction of the relationship among the research variables. The present study incorporated three components of internal control systems for this study. Other scholars used correlation design but in different sectors apart from banking sector. Most of researches on the same area have been looked at from the broad perspective i.e. commercial banks' financial performance. The present study narrowed the study to GT Bank in the study of Kigali. The researcher adopted correlation and causal designs as the research methodology to bring out clearly the relationship, and effect between variables. Further, this study sought to fill this gap by examining the contribution of internal control systems on financial performance of commercial banks in Rwanda using Guaranty Trust Bank as a case.

### **1.1 Research Objectives**

- i. To determine how Guaranty Trust Bank Ltd-Rwanda has ensured proper control environment for effective operations to improve its financial performance.
- ii. To assess how Guaranty Trust Bank Ltd-Rwanda has established enhanced control activities to improve its financial performance
- iii. To analyze how Guaranty Trust Bank Ltd-Rwanda undertakes risk assessment for effective operation to improve its financial performance.

## **II. LITERATURE REVIEW**

### **2.1 Review of Empirical Studies**

Basically the internal control system improves and it is involved the introduction and enhancement of introduction environment, accounting system and control project. The law governing banking activities have to respect even in complicated conditions. Internal control system breaks down findings, effective internal control mitigates illegal behaviours (Olumbe, 2012).

The small scale of internal control the business increased personnel want to be aware of objectives and buildings up the term more on bank rules and regulations. Adequate internal control is defined as the problem identification and this lead to the adequacy of banking operations and increased the quality of information of data management, directors and beneficiaries or customers (Pekuri, et al., 2011). Therefore, the bank low financial performance happened due to the fact that they did not construct a control element to link with the banking mission of their founding members.

According to Arwinge (2013), controls are designed and adopted so that legitimacy is achieved and the survival prospects are met. This theory agrees with the corporate governance and the provisions of Sarbanes-Oxley. The Act

of 2002 related to Sarbanes-Oxley which resulted from Enron scandal demands that companies need to give report concerning effectiveness of their internal controls during reporting of their performance and position as part of the general attempt to manage fraud and restore integrity in the process of financial reporting.

Likewise, Mawanda's focused on two components that's, control environment and control activities. The two studies did not incorporate the five components of internal control systems so as to make their studies look complete. Nyaga's research was done in Uganda while Mawanda's was done in Kenya. Olumbe (2012), sought to establish whether internal control and corporate governance related in commercial banks in Kenya. The variables included; equity structure, enterprise, internal supervision and external supervision vacancy, the board of directors and board of supervisors.

The study adopted a descriptive research design as the research methodology. The researcher gathered primary data with the help of questionnaires, structured and an interview guide which was unstructured. Data analysis was done by the scholar using linear regression model. The scholar found out that internal control was related to corporate governance. The researcher's study focused only on two components of internal control systems and their relationship with each other but did not touch on the relationship that each component had with financial performance of banks. Both Olumbe and Mawanda did their study in the same country, Kenya.

In the study done by Magara (2013), the findings revealed that independent variables positively and strongly correlated with the dependent variable. The researcher sought to establish whether internal controls had an effect on Kenyan SACCOs' financial performance.

The scholar took independent variables as control environment, risk assessment, control activities and monitoring. The scholar collected both primary and secondary data for data analysis. Secondary data was obtained by the scholar from the annual reports that were provided by the SACCOs. The scholar used multiple regression models to analyze data and thereafter concluded that independent variables had a positive contribution to SACCOs' financial performance in Kenya. Both Magara and Olumbe analyzed their data using multiple linear regression models. Magara incorporated the four components of internal control systems leaving out one of the components that's, information and communication. Magara looked on internal controls in relation to financial performance of SACCOs but Olumbe focused on internal controls in relation to corporate governance in commercial banks, Kenya. None of the two studies focused on financial performance of branches of commercial banks.

A study by Channar, et al. (2015) on internal control effectiveness and its correlation with financial performance in Pakistan indicated that internal control system effectiveness is strongest in private banks and weakest in Islamic banks, although the difference is not statistically large, but slight variation exists. Furthermore, private banks were more likely to perform better than public banks. A study by Barra (2010), was done to determine if internal controls and the penalties had an effect on employees' attempts to act fraudulently. The researcher used analytical method and focused on control activities and monitoring. Collection of data was done by the scholar from managerial and non-managerial employees. The scholar's findings revealed that availability of control activities including separation of duties led to high cost of engaging in fraudulent behaviors on the part of employees.

Ejoh and Ejom (2014), carried out a research to check if internal control activities had impact on Nigerian tertiary institutions' financial performance. The scholars measured the performance using indicators including accountability, liquidity and reporting. The primary data and secondary data sources were used by the scholars to collect data which was used in the study. Primary data was collected by the scholars through structured questionnaires and interviews. Secondary data on the other hand was collected by the scholars from College publications, text books and journals. Presentation of data was achieved by the scholars with the help of tables and percentages. Furthermore, findings revealed that financial information which was valuable could be accessed by an individual staff without the permission given by the other staff. Generally, their findings as per the study indicated that Nigerian tertiary institutions' financial performance was not significantly related to internal controls.

Wu and Rezende (2014), studied on supervision and its effect on performance of banks. They used Return on Equity and Net Interest Margin to indicate performance of bank in their study. Their results suggested that frequent examination of banks encouraged reduction of risk by way of safer assets being held, and that reduced the loss on loan provisions and that it boosted profitability whose measurement was Return on Equity. On the contrary, their results showed that the frequent examinations did not affect net interest margins. Wu and Rezende, like some of the scholars in the studies reviewed focused on one component of internal controls. To make it far much insignificant to justify the conclusion that internal controls systems affect or do not affect financial performance of banks, Wu and Rezende focused on a single sub-component of control activities whose conclusion was based.

A study was conducted by Adagye (2015), on internal control system and its effectiveness in the Nasarawa State tertiary educational institutions for efficiency, where the scholar took a case of Nasarawa State Polytechnic, Lafia. The study methodology adopted by the scholar was a survey design and a simple closed ended questionnaire was used to collect data. The scholar used judgmental sampling procedure. Data analysis was achieved by the scholar through the use of a CHI-square. The researcher presented data in form of tables and simple percentages. The scholar's study showed that the assets of the institution were physically secured, segregation of duties was fair, transactions were correctly calculated and responsible officer authorized the business transactions appropriately. Similarly, Ejoh and Ejom (2014), Kariuki (2017), Kimotho (2015), Mensah (2014) and Mwangi (2012) studies focused on a single component of internal control system which could not be sufficient to justify the conclusion whether internal control systems affect financial performance or not. Ngari (2017) and Oyoo (2014) studies were similar as both focused on micro-financial institutions with an exception that Ngari did the study across the whole country Kenya while Oyoo narrowed the study to Kisumu County, Kenya. Like Mwangi (2014), Oyoo (2014) and Kimotho (2015) studies, Ngari's study adopted descriptive research design methodology. Ngari's study findings were similar to the findings by the various scholarly work reviewed with an exception of Ejoh and Ejom (2014) findings which revealed otherwise in the tertiary institutions of learning.

Ejoh and Ejom (2014) undertook a research on internal control system and financial performance in Nigeria, where findings revealed a dimension of internal control system and financial performance in Nigeria were found to be positively related to performance measured in terms of liquidity, accountability and reporting. Nyakundi et al. (2014) analysed the internal control system and financial performance in Kenya. The research reveals existence of a positive correlation between internal control system and the growth rate for earning. Furthermore, the study evidenced the level of skills, the degree of awareness of the staff within internal control system is also correlated with the probability and the level of awareness in internal control system to the increased income( $r=0.988$ ).

A study carried out by Ayagre et al. (2014) on the elements of internal control system and its effect on financial performance of commercial banks, indicate that, tough controls system was established where control environment and monitoring activities are felt to be the main elements control system of banks in Ghana and these two elements have been extremely evidenced by the respondent's with the mean of 4.72 and 4.66 respectively. Uwaoma (2015) explored the role of internal control system on financial performance using a case of production in Nigeria. Results demonstrated a positive correlation between internal control system and effective utilization of organization funds with a positive correlation with 0.9345. Furthermore, for R squared of 0.87330 demonstrated that 87.33% of the total adjustment in financial management are disseminated to appropriate money in the bank.

A study by Kimotho (2015), revealed that credit risk management procedures influenced profitability of the bank positively. The researcher conducted a research to establish whether credit risk management practices had the effect on Kenyan commercial banks' financial performance. The scholar adopted a descriptive research design and collected the primary data using a semi-structured questionnaire. The data was analyzed by the same scholar with the help of Statistical Package for Social Sciences (SPSS) version 20. Kimotho's research design was similar to the study design by Mwangi (2014). Both adopted descriptive research design.

Kimotho also, like Olumbe and Mwangi focused on one component of internal control system, the risk management which was insufficient to justify the conclusion that systems of internal control have an effect on commercial banks' financial performance. Babatunde (2013) assessed the internal control system on financial control system on financial managements and impact of the performance of District. A positive correlation was found to exist between internal control system and organizational performance through direction of relationship between internal and organizational performance. Niyonsenga and Abuya (2017) investigated the internal control system and financial performance in financial institution. Results evidenced that internal control had a significant correlation between internal control and financial performance of I&M bank Ltd.

## 2.2. Theoretical Framework

The study was guide Agency Theory which presents in the course of firm's existence, it is therefore availed necessary to set a control that reduce opportunistic actions of agents. It also takes into consideration the asymmetric of information between the principal and the agent when implementing their duties and this is described as adverse selection and moral hazard (Hayali, et al, 2012). This therefore call for establishment of control system to ensure that agents perform their tasks better. This model is positively related to this research as internal control is established with Guarantee Trust Bank Ltd-Rwanda to ensure that each employee implement its assigned duties to enhance

productivity, effective and efficient use of assets to achieve the banks goals and objectives as well as developing a state of accountability among its employees.

Stewardship model emanated from psychology and sociology as evidenced by Doyle and McVary (Fatihudin & Mochklas, 2018) as a steward defends and optimizes shareholders' wealth via organization success, owing to the stewards' pertinent role is optimized. Not like agency theory, this theory focuses bot on the position of individualism (Hayali, et al, 2012) but rather on the importance of top managers being as stewards, incorporating their objectives as part of the bank. The theory proposes that stewards are contented and interested when an institutional success is achieved. Fatihudin and Mochklas (2018) denote that while agency theory considers workers or persons as an economic that overturns a personal's own intentions, on the other hand (Hayali, et al, 2012) evidenced that the this theory acknowledges the role of agencies that enable the steward and provides optimum independence constructed on it.

### **Attribution Theory**

The attribution mode emanates from social psychology in order to assess how persons analyze grammar events and attitude and the manner in which they specify roots to the effects and attitude. Suggestions of Simiyu (2011) has employed this model in assessing evidences in social environment to describe events and attitudes. The attribution theory therefore, advances that auditors have to reveal fraud for internal control efficiency and effectiveness to the success of any organization. Auditors are deemed to obtain a good awareness of the internal control in place, determine the plan and execution of internal control systems and examine the functioning efficiency of internal controls. The attribution model proposes that when fraud appears, revealed parties must be responsible and auditors being the regulators are also responsible when supervisors assess substandard audit services are given (Michino, 2011). The attribution theory was relevant to the present study because it seeks auditors to be prominent in revealing fraud risk when it appears. The above theories enabled the researcher to establish the conceptual framework as follows:

### **2.3 Conceptual Framework**

The conceptual framework is presented in Figure 1 academic research since it enables researchers to make clear research questions and objectives.

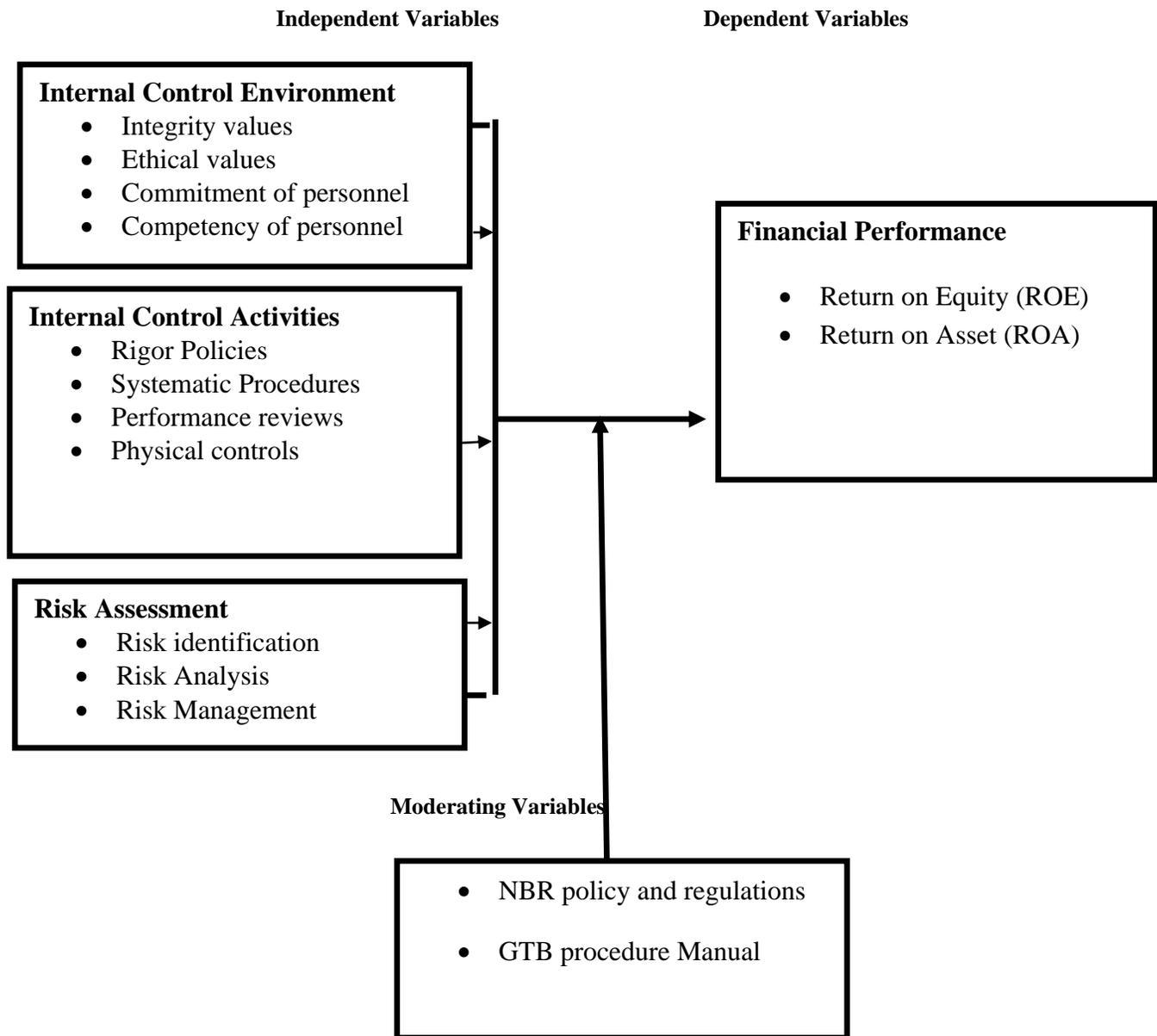


Figure 1 represents the direct link between independent variables; control environment, control activities, and risk assessment with the financial performance of commercial banks which is an independent variable which is return on equity and return on asset as variables. Control environment referred to as the starting point of remaining other parts of internal control. Control environment was conceptualized by integrity values, ethical values, and commitment of personnel and competency of personnel.

Control activities that are policies, guidelines, procedures techniques and mechanisms that ensure the bank to overcome risks. It is study the control activities were conceptualized by procedures, performance reviews, information processing, physical controls and segregation of duties. Risk assessment implies systematic procedure that intends to detect potential risks that could impede the realization of organization goals and their effects before they happen, establishing measures clarifying manner by which problems need to be solved within an entity. This was conceptualized by risk identification, risk analysis and risk management. The dependent variable for the present study was financial performance of commercial banks that was conceptualized using return on asset (ROA) and return on

equity (ROE) at GT Bank. The intervening variable is expressed in terms of the existence of BNR policy, regulations and GT Bank manual procedures.

### III. RESEARCH METHODOLOGY

The study used a descriptive design with a correlation regression size effect. Descriptive statistics find out and assess causes and effects relationship variables with mean and standard deviation and correlational design. The study used descriptive which facilitated the researcher to gather in depth evidence about the population being studied. The descriptive also gave adequate propositions and suggestions to the board of directors of Guaranty Trust Bank Ltd-Rwanda for appropriate financial performance. In this study, the target population comprises of 287 Guaranty Trust Bank Ltd-Rwanda employees from its 14 branches in the country. The descriptive statistics were used by presenting responses in terms of frequencies, percentages, figures and tables with mean and standard deviation. A correlation was used for Pearson Product Moment Correlation to show the link between variables. This consideration of error term is essential to represent other factors not mentioned in the model that normally in one way or another influence banks financial performance.

### IV. RESULTS AND DISCUSSION

#### **4.1 Effect of Control Environment on Financial Performance of GT Bank Plc**

Table 1 presents the views on effect of Effect of Control Environment on Financial Performance of GT Bank Plc

**Table 1: Correlation Analysis on Control Environment and Financial Performance of GT Bank Plc**

		Integrity values	Ethical values	Commitment of Personnel	Competency of personnel	Increased return Equity	Increase on return on asset
Integrity values	Pearson Correlation	1	.129	.104	.084	.027	.094
	Sig. (2-tailed)		.100	.186	.284	.035*	.030*
	N	164	164	164	164	164	164
Ethical values	Pearson Correlation	.129	1	.150	.444	.197	.064
	Sig. (2-tailed)	.100		.054	.000	.012*	.044*
	N	164	164	164	164	164	164
Commitment of personnel	Pearson Correlation	.104	.150	1	.111	.007	.090
	Sig. (2-tailed)	.186	.054		.158	.095*	.025*
	N	164	164	164	164	164	164
Competency of personnel	Pearson Correlation	.084	.444	.111	1	.160	.035
	Sig. (2-tailed)	.284	.000	.158		.041*	.064*
	N	164	164	164	164	164	164
Increased Return on Equity	Pearson Correlation	.027	.197	.007	.160	1	.419
	Sig. (2-tailed)	.035*	.012*	.095*	.041*		.000*
	N	164	164	164	164	164	164
Increased return on asset	Pearson Correlation	.094	.064	.090	.035	.419	1
	Sig. (2-tailed)	.030*	.044*	.025*	0.64*	.000	
	N	164	164	164	164	164	164

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

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

Results from correlation analysis demonstrated a positive and significant correlation between integrity values and ROE ( $r=0.027$ ,  $p\text{-value}=0.035$ ), integrity values and ROA ( $0.094$ ,  $p\text{-value}=0.030$ ). For ethical values, the study found a positive and significant correlation between ethical values and return on equity since the  $r= 0.197^*$  and  $p\text{-value}= 0.012$ . This correlation is statistically positive since the  $p$  value was  $<0.05$  showing that an increase in ethical values affects positively ROE, and vice versa. There is a positive and significant correlation between ethical values and return on assets ( $r= 0.064$ ,  $p\text{-value}=0.044$ ) since the  $p$  value is less than  $0.05$ . Results for commitment of personnel, the study found a positive and significant correlation between commitment of personnel and return on equity ( $r= 0.007^*$ ,  $p\text{-value} = 0.095$  and return on asset( $r=0.090$ ,  $p\text{-value} =0.025$ ).These correlations are statistically positive and significant since all  $p$ -values are  $<0.05$  meaning that an increase in commitment of personnel affects positively and significantly ROE, ROA and vice versa. Results from correlation analysis demonstrated that there is a positive and significant correlation between competency of personnel and ROE ( $r=0.160^*$ ,  $p\text{-value}=0.041$ ) and competency of personnel and ROA ( $0.035$ ,  $p\text{-value}=0.064$ ) since all  $p$  values are less than  $0.05$ .

#### 4.2 Effect of Control Activities on Financial Performance of GT Bank Plc

Table 2 depicts views on the Control Activities and Financial Performance of GT Bank Plc.

**Table 2: Correlation between Control Activities on Financial Performance of GT Bank Plc**

		Rigors policies	Systematic procedures	Performance review	Physical control	Increased Return on Equity	Increase on return on asset
Rigor policies	Pearson Correlation	1	.411**	.251**	.290**	.325**	.126
	Sig. (2-tailed)		.000	.001	.000	.002	.009
	N	164	164	164	164	164	164
Systematic procedures	Pearson Correlation	.411**	1	.125*	.134	.057	.127
	Sig. (2-tailed)	.000		.111	.087	.467	.106
	N	164	164	164	164	164	164
Performance reviews	Pearson Correlation	.251**	.125	1	.192*	-.096	-.109
	Sig. (2-tailed)	.001	.111		.014	.022	.066
	N	164	164	164	164	164	164
Physical control	Pearson Correlation	.290**	.134	.192*	1	.374**	.274**
	Sig. (2-tailed)	.000	.087	.014		.037	.045
	N	164	164	164	164	164	164
Increased Return on Equity	Pearson Correlation	.325**	.057	.096	.374**	1	.419**
	Sig. (2-tailed)	.002	.467	.022	.037		.000
	N	164	164	164	164	164	164
Increased Return on asset	Pearson Correlation	.126	.127	.109	.274**	.419**	1
	Sig. (2-tailed)	.009	.106	.066	.045	.000	
	N	164	164	164	164	164	164

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

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

A correlation analysis between control activities and financial performance variables was performed in this regards. For the rigor policies, there is a positive and significant correlation with ROE ( $r=0.325^{**}$ ,  $p\text{-value}=0.002$ ) and ROA of GT Bank ( $r=0.126^*$ ,  $p\text{-value}=0.009$ ) since the  $p\text{-value}$  less than 0.05. There were insignificant correlations between systematic procedures and ROE ( $r=0.057$ ,  $p\text{-value}=0.467$ ), with ROA ( $r=0.127$ ,  $p\text{-value}=0.106$ ). There were significant correlations between performance review and ROE ( $r=-0.096$ ,  $p\text{-value}=-0.022$ ), performance review and ROA ( $r=0.109$ ,  $p\text{-value}=0.066$ ). Finally, physical control is significantly correlated with ROE ( $r=0.374^{**}$ ,  $p\text{-value}=0.037$ ) and ROA ( $0.274^{**}$ ,  $p\text{-value}=0.045$ ). The physical control is significantly correlated with ROA and ROE since the  $p\text{-value}$  is less than 0.05. This study argued that the respondents also posited that their banks had incorporated strong internal control system and added that significant positive association exists between internal control and corporate governance.

### 4.3 Effect of Risk Assessment on Financial Performance of GB Bank Plc in Rwanda

Table 3 illustrates the views on the effect of risk assessment on financial performance of GB Bank Plc in Rwanda

**Table 1: Effect of Effect of Risk Assessment on Financial Performance of GB Bank Plc in Rwanda**

		Risk identification	Risk analysis	Risk management	Increased return on Equity	Increased return on asset
Risk identification	Pearson Correlation	1	.026	.161	.060	.039
	Sig. (2-tailed)		.738	.040	.044	.016
	N	164	164	164	164	164
Risk analysis	Pearson Correlation	.026	1	.003	.067	.041
	Sig. (2-tailed)	.738		.970	.092	.098
	N	164	164	164	164	164
Risk management	Pearson Correlation	.161	.003	1	.027	.011
	Sig. (2-tailed)	.040	.970		.034	.090
	N	164	164	164	164	164
Increased Return on Equity	Pearson Correlation	.060	.067	.027	1	.419
	Sig. (2-tailed)	.044	.092	.034		.000
	N	164	164	164	164	164
Increased Return on asset	Pearson Correlation	.039	.041	.011	.419	1
	Sig. (2-tailed)	.016	.098	.090	.000	
	N	164	164	164	164	164

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

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

Results show a Positive and significant correlation between risk identification and ROE ( $r=.060$  p-value= $0.044$ ). They also show a positive and significant correlation between Risk identification and ROA ( $r=-0.039^{**}$ , p-value= $0.016$ ) given that all p values were  $<0.05$  implying that the variation in risk identification significantly produce a variation in ROA and ROE and vice versa. Results show a positive and significant correlations between risk analysis and ROE ( $r=0.067$ , p-value= $0.092$ ), risk analysis and ROA ( $r=0.041$ , p-value = $0.098$ ) given that all p values were  $<0.05$  implying that the variation in risk analysis significantly produce a variation in ROA and ROE and vice versa. Results show a positive and significant correlation between risk management and ROE ( $r=0.027$ , p-value= $0.034$ ), they also show a positive and significant correlation between risk management and ROA ( $r=0.011$ , p value = $0.090$ ) given that all p values were  $<0.05$  implying that the variation in risk management has significant change in ROA and ROE and vice versa. Results evidenced that there is a positive and significant correlation between risk assessment and financial performance of GT bank, since all three components assessed, show that there is a positive and significant correlation between them and the financial performance of the GT-Bank plc.

## V. DISCUSSION OF THE RESEARCH FINDINGS

The first objective was to assess the effect of control environment on financial performance of commercial banks in Rwanda. The present study did not contradict the findings of Abdullahi and Muturi (2016) internal control systems is an organization system that encompasses all internal control processes established to make sure that both effective and efficient operation of an organization are achieved. Furthermore, internal control system concerns all techniques adopted by a firm to attain organization objectives. Results from correlation analysis demonstrated that there is significant correlation between competency of personnel and ROE ( $r=0.160^*$ ,  $p\text{-value}=0.041$ ) since the  $p$  value is less than 0.05, again there is significant correlation between competency of personnel and ROA (0.035,  $p\text{-value}=0.064$ ). This study agrees with the findings of Bayyoud and Sayyad (2015) contended that assessment of internal control system stimulated the control environment of the effects of new banking reformation system and regulations on the risk assessment.

The findings from the present study concur with the observation of Channar, et al.(2015) who carried out a research on internal control effectiveness and its correlation with financial performance in Pakistan indicated that internal control system effectiveness is strongest in private banks and weakest in Islamic banks, although the difference is not statistically large, but slight variation exists. Furthermore, private banks were more likely to perform better than public banks. This study concurs of Bayyoud and Sayyad (2015) where they contended that assessment of internal control environment stimulated the identification of the effects of new banking reformation system and regulations on the risk assessment. Results from the above study evidenced that the general internal control and risk management system in Palestine had an importance in the banking qualitative and quantitative performance.

The second objective of the study was to determine the effect of control activities on financial performance of GB Bank in Rwanda. This present study was in line with a survey done by Babatunde (2013) on the role of effective internal control on financial accountability in the Nigerian public sector. The study denoted that distribution of information among entity's stakeholders plays a significant role to the management of information between managers themselves and subordinates is among the main good indicators of advanced of effective level of management. A correlation analysis between control activities and financial performance variables was performed in this regards. This study did not contradict with Olumbe (2012) by showing that the most of banking financial institutions established different control activities to evaluate the level internal control system and entity performance. The author argued that the respondents also posited that their banks had incorporated strong internal control system and added that significant positive association exists between internal control and corporate governance. The results on coefficients of correlation show that rigors policies are affecting return on equity, it implies that an increase by unit in adopting rigors policies would produce an increase in return on equity by 32.3% at GT Bank. This study is relevant with a research done by Uwaoma (2015) explored the role of internal control activities on financial performance using a case of production in Nigeria. Results demonstrated a positive correlation between internal control system and effective utilization of organization funds with significant correlation of 0.034.

The third specific objective was to establish the effect of risk assessment on financial performance of GT Bank in Rwanda. Information demonstrated responses collected on the most commonly applied internal control risk management at GT Bank in Rwanda. In this regards, GT Bank has introduced adequate practices for the identification of risk affecting its activities as strongly confirmed by mean 4.184, standard deviation 0.941, meaning that have agreed with the statement. Reconsidering the report of Babatunde (2013), the risk assessment, every bank, focusing on scope, encounters a different risk from internal and external environment that would be approved and responded to. This study is relevant with the observation of Niyonsenga and Abuya (2017) investigated the internal control system and financial performance in financial institution. Results evidenced that internal control had a significant correlation between internal control and financial performance of I&M bank Ltd. A regression analysis was done to produce a model summary, analysis of variance and coefficient model for all dependent variables.

From findings, the value of R squared demonstrated that the variation in ROE in GT Bank was resulted from adjust risk assessment for clarifying the proportion of difference in dependent variable financial performance as specified by the independent variables. Ejoh and Ejom (2014) undertook a research about the impact of internal control on financial performance of Universities in Nigeria. However, the present research did not go far enough in explaining how and why risk assessment works, and the conditions that facilitate its effectiveness. This study also did not cover points like causes of persistent weakness in internal control system which is a significant gap that this study tends to bridge.

## VI. CONCLUSION AND RECOMMENDATIONS

It is evident from the findings that the dimensions of internal control thus control activities, control environment and risk assessment have a significance effect on the financial performance of GT Bank Plc in Rwanda.

Therefore, to the first research question, the study was to investigate the internal control and financial performance of GT Bank Plc in Rwanda. This objective was achieved through a questionnaire survey. Internal control involves financial control set up by the management in order to ensure achievements of its planned objectives. According to above findings, the following conclusion can be drawn; the internal control environment affects positively the financial performance of banking industry.

To the second research question, the study concluded that GT Bank Plc in Rwanda has effective internal controls and financial performance because the component of internal control thus control activities, control environment, risk assessment have a significance important on the financial performance of GT Bank Plc in Rwanda. It was indicated that control activities were carried out regularly by most GT Bank Plc in Rwanda. This is supported by clear separation of duties, supervision, approval transaction, budget review, communication channel, and how management focus on high risk and how took measure to mitigate risks.

To the third research question, the study concluded that internal control system adopted by GT Bank as studied were control activities, control environment, risk assessment. The correlation analysis felt that the adoption of rigor policies significantly, contribute to the increase of return on equity while physical control is significantly correlated with ROE and ROA.

The results of the study show positive significant correlations between all measurements of risk assessment with ROE and ROA. Finally, positive and significant correlations were found between risk identification, risk identification and ROA given that all p values were  $<0.05$  implying that the variation in risk assessment significantly produce a variation in ROA and ROE and vice versa. Results evidenced that internal control system had significant correlation between internal control and financial performance. In accordance with results and gaps left out by previous researchers in relation the researcher recommends that the components of the ICS (control environment, control activities, and risk assessment) should be enhanced to further improvement of the financial performance of GT Bank Plc in Rwanda. Management should emphasize in clear separation of duties, supervision, approval transaction, budget review, communication channel, and management would focus on high risk and should take measures to mitigate risks.

There is a need for management to fully understanding their obligations and take necessary actions in ensuring financial performance of their commercial banks, Management in the Banking industry must increase awareness of employees in order to change their core beliefs and help to ensure efficient and effective operations to achieve the objectives of GT Bank Plc in Rwanda. Management should work to improve cost and expenses control as for the moment, even if current ratio was better, management need to significantly reduce operating expenses. Management needs to identify the major cost and expenses drivers. Management should identify and assess the utilization of assets to generate money; GT Bank Plc in Rwanda's debt to equity ratio was increased over the three years. GT Bank Plc in Rwanda's solvency is still need improvement management should seem to be taking all the right measures to steer the bank towards improved financial outcomes. The study recommends that assessment of risk associated with institutions, objective is carried out regular so that the management can know whether or not the institution objective will be met.

Management should make sure that they involve their staff in the process of assessment for thorough and effective risk identification and prevention internal control is a right significant aspect with regard to safety of financial performance of any organization. To The officers entitled with the authority to incur and approve expenditure need also to be accountable for every resource utilized and the Bank gets value for its investments. To the Employees also have a right to identify risk in their department and they put in place a control mechanism there is need for the employees responsible for preparation of financial statements and reporting to be transparent and honest and also be held accountable for any misreporting. Therefore, one strong internal control established would enhance operational efficiency and effectiveness and improve the financial performance of GT Bank Plc in Rwanda .

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