

## **ASSESSMENT OF INTERNAL CONTROL AND THE PERFORMANCE OF GATSIBO DISTRICT, RWANDA**

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### **ABSTRACT**

The study entitled “assessment of internal control and the performance of GATSIBO District” was conducted with the general objective of assessing the impact of internal control on the performance of GATSIBO District. The research applied descriptive design. Correlation was also used to measure the relationship between internal control system and performance of GATSIBO District. The researcher used universal sampling by taking all the staff of GATSIBO District to participate in the study. Instruments for data collection included questionnaires, interview and documentation. The major components of internal control assessed included control environment and control activities. The cumulative mean for all the components of internal control assessed was 3.7787. As it was found, the Spearman Rho correlation between internal control and district performance was 0.701, meaning that there is a high correlation between internal control and performance of GATSIBO District.

Using Pearson Chi-square Test, it was found that the test statistic  $\chi^2_{calculated}$  was greater than  $\chi^2_{tabulated}$ . Then, the null hypothesis was rejected. Basing our decision on the p-value, we found that p-value (.000) was less than the alpha (0.05) (significance level). Therefore, the null hypothesis was also rejected. This means that variables are highly correlated; therefore there is a relationship between internal control and the performance of Gatsibo District with logical impact of the first on the last.

**Key words:** Internal control, GATSIBO District, performance.

## **INTRODUCTION**

The proper functioning of internal control is a key factor to the achievement of organizational objectives, hence, organizational performance. According to COSO (2011), effective internal control provides reliable and relevant information to support the management decision making. An organization establishes a mission, set strategies, establishes the objectives to be achieved, and formulates strategies for achieving them. According to Keshav (2009), internal control helps the management to prepare and implement effective plans by providing correct and fact information. According to Mawanda(2008), organizations establish systems of internal control to help them achieve performance and organizational goals, prevent loss of resources, enable production of reliable reports and ensure compliance with laws and regulations.

According to Deshmukh (2004), each organization defines components of internal controls differently, though there are a number of similarities. As he says, the components defined by COSO and adopted by the AICPA are comprehensive and include control environment, risk management, control activities, monitoring, information

and communication, and information and communication technology. Control environment signifies attitudes of people in-charge of the organization toward the controls. Risk management involves analyzing these threats and taking proactive and reactive steps to mitigate risks. Control activities, as COSO (2011) mentions, are policies and procedures that help to ensure that the management's directives are carried out. Monitoring involves evaluating internal controls periodically or continuously to assure that they are functioning as intended by the management. Information and communication involves identifying, capturing, processing, and reporting appropriate information, which may be financial or operational. Information and communication technology may be essential to support management pursuit of the entity's objectives, and to better control the organizations' objectives (COSO, 2011, Deshmukh , 2004).

However, at the international level, as Elias (2014) observes, municipalities, local authorities and other government entities have been faced with substantial reductions in their operating budgets. Even across

Africa, cases of accounting scandals have been recorded. These scandals emphasize the need to evaluate, scrutinize, and formulate systems of checks and balances to guide corporate executives in decision-making.

In Rwanda an internal audit Charter was developed and issued in 2011 pursuant to Article 29 of the Ministerial Order N° 002/09/ of 12/02/2009 setting out Regulations for Internal Control and Internal Audit in Government. The Charter describes the purpose, authority, and responsibility of internal audit function in Government of Rwanda.

However, some public entities in Rwanda, including Districts are reported to perform poorly. Even the President of the Republic of Rwanda, His Excellency Paul KAGAME in his speech on the presentation of IMIHIGO evaluation report( 2013/2014) wondered why some districts appear as if they had inherited the last rank because they always rank last during IMIHIGO evaluation.

It is against this framework that this paper sets out to assess the system of internal control in GATSIBO District as a District which ranked last during IMIHIGO evaluation of 2013/2014 and how it can affect its performance.

The performance will be measured in terms of performance-based contracting (locally known as *IMIHIGO*). According to Myslewicz (2008), performance based contracting typically emphasizes results related to output, quality, and outcomes. As Richard et.al (2009) mention, the contexts that frame organizational performance as a dependent variable lay specific emphasis on how it is operationalized and measured. In this regard, *IMIHIGO*, a performance management initiative, is one of the unique Rwandan innovations adopted in 2006 to improve the delivery of public services with attention on area-specific, short and medium term priorities focused on Vision. Development priorities include the 4 strategic pillars: economic development, social welfare, and good governance and justice pillars for vision 2020.

This paper therefore attempts to investigate into the relationship between the internal control systems applied in GATSIBO District and its performance. Based on the internal control components suggested by Deshmukh (2004), as stated above, the researcher will major two among them, that is, control environment and control activities as independent variables. The performance of GATSIBO District, as dependent variable,

will be measured in terms of two pillars of development, namely economic development and social development. The reason behind the selection of some variables to be measured among other components of internal control and two pillars among dependent variables is that the researcher wants their in-depth analysis which would otherwise be impossible in this paper if he took all the variables involved.

## **Methods**

This study is qualitative and quantitative by design. Saunders *et al.* (2007) defines research design as the conceptual structure within which research is conducted. Regarding the target population, Yount (2006) explains that it consists of all the population the researcher wants to study. The targeted population for this study comprises all permanent staff at district level GATSIBO district, because they are all concerned with internal control and performance, either directly or indirectly, and their total number amounts to 46.

As for sampling procedure, the researcher used universal sampling. That is, all the staff were planned to participate in the study, as their total number is not too big to manage.

According to Khotari (2004), universal sampling takes all the population targeted (called universe) to participate in the study.

This study used questionnaire and interview) to collect data from the field as well as documentation to collect secondary data. The researcher used Likert four point scales (Agree, tend to agree, tend to disagree and disagree). According to Vanek (2012), Likert scale is quite useful for evaluating a respondent's opinion. As for interview, the researcher interviewed all Directors (Director of Finance, Director of administration and the Director of planning, monitoring and evaluation) to provide supplementary information to questionnaires already filled, and this helped the researcher to deeply probe into the responses given through questionnaires.

With regard to validity and reliability, the pilot study was conducted in RWAMAGANA District by selecting 15 respondents for questionnaire pre-testing. According to Kothari (2004), validity is the extent (the degree) to which a test measures what it is supposed to measure, i.e., the exact measure of the concept under study, while reliability is the degree to which a test consistently measures whatever it measures.

The test of reliability is therefore shown in the table below:

**Table 1: Reliability Statistics**

Cronbach's Alpha	Number of Items
.902	85

As displayed through table 1, the number of items means 85 questions which were administered for questionnaire pre-testing. Given the coefficient of 0.902, that is  $\geq 0.9$ , it is noticed that the internal consistency of the questionnaire is excellent (whereby,  $\alpha \geq 0.9$ = Excellent;  $0.8 \leq \alpha < 0.9$ = Good;  $0.7 \leq \alpha < 0.8$ = Acceptable;  $0.6 \leq \alpha < 0.7$ = Questionable;  $0.5 \leq \alpha < 0.6$ = Poor;  $\alpha < 0.5$ = Unacceptable).

Statistical treatment of data was based on both descriptive and inferential statistics. Descriptive statistics was used to major respondents' perceptions in terms of percentage, frequencies, means and standard deviation. Mean was used to draw conclusions about the general tendency of variables. Standard deviation was used to measure differences in dispersion between variables. The interpretation of the mean and standard deviation was based on Franklin and

Alan Agresti's (2008) theories whereby:  $1 < \text{Mean} < 2.49$ : weak;  $2.5 < \text{Mean} < 3.49$ : moderate;  $3.5 < \text{Mean} < 4$ : High. As for standard deviation,  $\text{Std} \leq 0.5$  means Homogeneity of responses and  $\text{Std} > 0.5$  means Heterogeneity of responses.

Inferential statistics were used to measure the correlation between internal control and district performance. The researcher used the Spearman's rank order correlation coefficient ( $\rho$ ) as follows:  $\rho = 1$  : Perfect correlation;  $0.9 \leq \rho < 1$  : Strong correlation;  $0.7 \leq \rho < 0.9$  : High correlation;  $0.5 \leq \rho < 0.7$  : Moderate correlation;  $\rho < 0.5$  : Weak correlation; and  $\rho = 0$  : Absence of correlation. Unlike Pearson's correlation coefficient, Spearman's correlation does not require the assumption that the relationship between the variables is linear, nor does it require the variables to be measured on interval scales (Hauke, J&Kossowski, 2011).

Pearson Chi-square Test was used for hypothesis testing. The processing of data followed three main stages, namely editing, coding and tabulation; and SPSS was used in this exercise.

**RESULTS AND DISCUSSION**

This section discusses findings obtained from primary data and comprises respondents’ perceptions of internal control, respondents’ perceptions of District performance, the correlation between internal control and the

performance of GATSIBO District. It is important to note that among the target population (amounting to 46 as mentioned earlier), 3 were given interview, and 43 were given questionnaires, but 2 among them did not return the questionnaires.

**Table 2: Perceptions of respondents on control environment**

<b>Control environment</b>	<b>Mean</b>	<b>Std. Dev</b>	<b>Comment</b>
Regular integrity	3.7561	.43477	High, homogeneity
Ethical behavior	3.8293	.38095	High, homogeneity
Clear philosophy	3.8537	.35784	High, homogeneity
Clear mission	3.7561	.43477	High, homogeneity
Clear vision	3.7317	.44857	High, homogeneity
Clear objectives	3.6341	.53647	High, homogeneity
Clear goals	3.7805	.41906	High, homogeneity
Clear organizational structure	3.7073	.46065	High, homogeneity
Oversight of District Council	3.7561	.43477	High, homogeneity
Audit committee operates well	3.7073	.46065	High, homogeneity
Regular training of internal audit department staff	3.8048	.40121	High, homogeneity
<b>Grand mean</b>	<b>3.7561</b>		<b>High</b>

Source: primary data, 2014

As table 2 shows, all the items assessed are perceived as high, and this strength is perceived by the majority of respondents. The items assessed include regular integrity (with a mean of 3.7561, and a standard

deviation of 0.43477), ethical behavior (with a mean of 3.8293 and standard deviation of 0.38095), clear philosophy (with a mean of 3.8537, and a standard deviation of 0.35784), clear mission (with a mean of 3.7561, and a standard deviation of

0.43477), clear vision (with a mean of 3.7317, and a standard deviation of 0.44857), clear objectives (with a mean 3.6341, and a standard deviation of 0.53647), clear goals (with a mean of 3.7805, and a standard deviation of 0.41906, clear organizational structure (with a mean of 3.7073, and a standard deviation of 0.46065), oversight of District Council (with a mean of 3.7561, and a standard deviation of 0.43477), audit committee operation ( with a mean of 3.7073, and a standard deviation of 0.46065), and regular training of internal audit department staff ( with a mean of 3.8048, and a standard deviation of 0.40121).

As observed from table 2, the grand mean of all variables assessed is 3.7561, suggesting that the overall level of perception of respondents over the component of control environment in GATSIBO District is high. It can also be noted that the standard deviation for each variable assessed is inferior to 0.5 which suggests homogeneity of responses. As the mean is high, it can be noticed that GATSIBO District has made considerable efforts to improve the control environment which is the basis for other elements of internal controls. This is with reference to Deshmukh (2004) who says that the control environment is a foundation of internal controls.

**Table 3: Control activities**

<b>Control activities</b>	<b>Mean</b>	<b>Std. Dev</b>	<b>Comment</b>
Clear policy for authority delegation	3.8295	.38097	High, homogeneity
Clear policy for cash disbursement	3.8294	.38096	High, homogeneity
Clear policy of asset management	3.7805	.41906	High, homogeneity
Cash disbursement policy well implemented	3.7561	.43477	High, homogeneity
Assets management policy well implemented	3.7560	.43476	High, homogeneity
Clear policy of human resource management	3.7805	.41906	High, homogeneity
Clear policy of promotion and reward	3.8294	.38095	High, homogeneity
Clear policy of recruitment	3.8283	.38085	High, homogeneity
Recruitment policy well implemented	3.8293	.38095	High, homogeneity
Clear tax collection policy	3.8294	.38096	High, homogeneity
Tax policy well known by taxpayers	3.8049	.40122	High, homogeneity
Clear customer care policy	3.8048	.40121	High, homogeneity
Customer care policy well implemented	3.7805	.41906	High, homogeneity
Customer care policy well known by the public	3.7806	.41907	High, homogeneity
<b>Grand mean</b>	<b>3.8013</b>		<b>High</b>

Source: primary data, 2014

From table 3, descriptive statistics results show that all the sub-variables assessed under the variable of control activities are perceived by respondents as high and with standard deviations showing homogeneity of responses. These sub-variables include clear policy for authority delegation (with a mean

of 3.8295, and a standard deviation of 0.38097, clear policy for cash disbursement (with a mean of 3.8294 with a standard deviation of 0.38096), clear policy of asset management (with a mean of 3.7805 and a standard deviation of 0.41906), cash disbursement policy well implemented (with a mean of 3.7561 and a standard deviation of 0.43477), assets management policy well

implemented (with a mean of 3.7560, and a standard deviation of 0.43476), clear policy of human resource management (with a mean of 3.7805, and a standard deviation of 0.41906), clear policy of promotion and reward (with a mean of 3.8294, and a standard deviation of 0.38095), clear policy of recruitment (with a mean of 3.8283, and a standard deviation of 0.38085), recruitment policy well implemented (with a mean of 3.8293, and a standard deviation of 0.380953), clear tax collection policy (with a mean of 3.8294, and a standard deviation of 0.38096), tax policy well known by taxpayers (with a mean of 3.8049, and a standard deviation of 0.40122), clear customer care policy (with a mean of 3.8048, and a standard deviation of 0.40121), customer care policy well implemented (with a mean of 3.7805, and a standard deviation of 0.41906), customer care policy well known by the public (with a mean of 3.7806, and a standard deviation of 0.41907).

As the table shows, the grand mean of all variables assessed is 3.8013, implying that the overall perception of respondents on the level of control activities in GATSIBO district is high. It can also be noted that the sub-variable having the highest score is clear policy for authority delegation. This implies

that GATSIBO district has made a considerable progress in delegating power and responsibility, and this is very good because it facilitates the process of decision making within the District.

This is consistent with results from the interview conducted with some districts officials which also confirmed that the internal control system strategies applied in GATSIBO District consist of all strategies aimed at delegating powers of decision making to District staff in order to help the District in achieving its targets commonly called IMIHIGO and ensuring that the targets set are achieved through continuous control activities. As they said, the team work spirit helps them to share relevant information as they take some time commonly called *kwinegura* to discuss what they have achieved and what is left to be done, measures to be taken, risks involved and proactive measures to mitigate them.

On the other hand, the sub-variable with the lowest mean is asset management policy implementation. Even though it has high score, there is need to strengthen policies of control activities to ensure that assets are adequately managed through increased efforts in the inspection of how Districts

assets are managed. In line with this, COSO (2011) suggested that policies, procedures, operations must be well implemented to cope with management's objectives.

### Perceptions of respondents about GATSIBO District's performance

The basis for performance measurement was some of the pillars of development, namely economic development and social development.

**Table 4: Assessment of GATSIBO District's performance in terms of economic development**

Economic development	Mean	Std. Dev	Comment
Land use consolidation implemented	3.4146	.49878	High, homogeneity
New roads constructed	3.3902	.49386	High, homogeneity
At least each village is connected to electricity	3.3659	.48765	High, homogeneity
Tax revenues collection well executed	3.7805	.41906	High, homogeneity
At least one modern market in each sector	3.7561	.43477	High, homogeneity
Good operation of UMURENGE Sacco	3.7805	.41906	High, homogeneity
Commercial center with modern building	3.7317	.44857	High, homogeneity
One cow per family	3.7561	.43477	High, homogeneity
<b>Grand mean</b>	<b>3.6219</b>		<b>High</b>

Source: primary data, 2014

As shown from table 4, respondents perceive fair implementation of land use consolidation program (with a mean of 3.4146 and a standard deviation of 0.49878), new constructed roads (with a mean of 3.3902 and a standard deviation of 0.49386), connection to electricity for each village

(with a mean of 3.3659, and a standard deviation of 0.48765), execution of tax revenue collection (with a mean of 3.7805 and a standard deviation of 0.41906), at least one modern market in each sector (with a mean of 3.7561 and a standard deviation of 0.43477), good operation of one UMURENGE SACCO at least in each sector (with a mean of 3.7805 and a standard

deviation of 0.41906, commercial center at least in each cell with modern building (with a mean of 3.7317 and a standard deviation of 0.44857), and one cow per family (with a mean of 3.7561 and a standard deviation of 0.43477).

As it can be observed, the overall mean is 3.6219, meaning that the economic development pillar in GATSIBO district is perceived by respondents as high with homogeneity of responses. However, as it can be noticed, the implementation of land use consolidation program, new roads construction and connection to electricity for

each village have lower scores (moderate) compared to other variables assessed under this pillar which are perceived as high. A look at IMIHIGO evaluation reports in GATSIBO District justifies lower scores given to these areas. As it is found on the appendices, there are targets in some areas such as land use (irrigation system), road construction (feeder roads), and households connected to electricity which have not been achieved. That is to say, there is more to be done in GATSIBO District to raise their economic development in some priority areas such as agriculture (land consolidation), infrastructure (construction of roads).

**Table 5: GATSIBO District’s performance in terms of social development**

<b>Social development</b>	<b>Mean</b>	<b>Std. Dev</b>	<b>Comment</b>
Nine years basic education is progressing well	3.7805	.41906	High, homogeneity
Socio-economic integration of people living with disability	3.8780	.33129	High, homogeneity
Socio-economic integration of youth and women	3.8293	.38095	High, homogeneity
Number of health centers increasing	3.7805	.41906	High, homogeneity
Mutuelle de santé wellpaid	3.8537	.35784	High, homogeneity
<b>Grand mean</b>	<b>3.8244</b>		High

Source: primary data, 2014

As table 5 shows, respondents perceive the progress of nine years basic education as high (with a mean of 3.7805 and a standard

deviation of 0.41906), socio-economic integration of people living with disability (with a mean of 3.8780 and a standard deviation of 0.33129), socio-economic integration of youth and women (with a mean of 3.8293 and a standard deviation of 0.38095), the increase of the number of health centers (with a mean of 3.7805 and a standard deviation of 0.41906), and the payment of *mutuelle de santé* (with a mean of 3.8537 and a standard deviation of 0.35784).

As results show, the variable that has the highest score is the social integration of people living with disability. In fact, this is justified by the fact that the Government has put the integration and promotion of people with disabilities among its priorities and asked all the institutions both public and private to put in place strategies to give special care to people living with disability. On the other hand, the variables having the lowest scores are the progress of nine years basic education and the increase of health centers which have the same cores, and this suggests the need for select Districts to improve the nine years basic education program, and to increase the number of health centers.

In general, respondents perceive the performance of GATSIBO Districts in terms of social development as high with a grand mean of 3.8244 and with homogeneity of responses. This implies that the Districts performing well with regard to the social development pillar.

This corroborates with results from interview with some district officials who confirmed that GATSIBO district's performance is good because they try to achieve their performance contract (*mihigo*) set beforehand. As they said, these *imihigo* are set according to the four pillars as indicators of performance. In the economic development pillar, they set targets aimed at implementation of major economic priorities, such as land use consolidation, and infrastructure development through effective district's revenue collection and proper utilization of available funds. In social development pillar, set targets aimed at promoting social development such as access to education and health care and socio-economic integration of vulnerable groups, such as historically marginalized group, persons with disabilities, women and youth.

### **Test of hypotheses**

Spearman Rho correlation was used, as well as Pearson Chi- square to reject or to confirm our null hypothesis.

**Table 6: Correlation between internal control and district performance**

		Internal Control	Performance
Spearman's rho	Internal Control	Correlation Coefficient	1.000
		Sig. (2-tailed)	.701**
		N	.000
	Performance	Correlation Coefficient	.701**
		Sig. (2-tailed)	1.000
		N	.000
		N	41

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

Source: primary data, 2014

As table 6 shows, the correlation between internal control and district performance is 0.701, meaning that there is a high correlation between internal control and performance of GATSIBO district with logical impact of the first on the last. In other words, the internal control applied in Gatsibo District influence positively its performance.

**Table 7: Pearson Chi-square Test**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	41.000 <sup>a</sup>	1	.000
Likelihood Ratio	43.156	1	.000
Linear-by-Linear Association	40.000	1	.000
N of Valid Cases	41		

a. 1 cells (25, 0%) have expected count less than 5. The minimum expected count is 1.98.

As table 7 provides, the test statistic  $\chi^2_{calculated} = 41.000$  whereas the  $\chi^2_{tabulated} = 3.841$  Comparing both chi-square calculated and chi-square tabulated, we notice that  $\chi^2_{calculated} > \chi^2_{tabulated}$ . Then, the null hypothesis is rejected. This means that variables are correlated i.e, there is a relationship between internal control and district performance with logical impact of the first on the last. Basing our decision on the p-value, we find that p-value (.000) is less than the alpha (0.05) (significance level). Therefore, the null hypothesis is rejected.

These results confirm other results from different researchers who found that internal control is positively related to organizational performance. Among these, we can mention

Tseng (2007), Kratz (2008), Olatunji (2009), Onawa (2013), and Muraleetharan (2013).

### Conclusions

Considering the results from this study, we can conclude that GATSIBO district has made much effort in improving their internal control systems, and this is very important given the role internal control plays in the performance of an organization. In fact, the internal control applied in this district helped it to enhance its performance in terms of economic and social pillars considered as very important for the development of districts in particular and the country in general. Thus, a high positive correlation (0.701) between internal control and the

performance of GATSIBO District was established.

As the general observation, the fact that it ranked last, was relative to other districts, because even by looking at IMIHIGO evaluation report, it was found that the scores they were given were high (more than 70%).

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