Effect of Internal Control Systems on Operational Performance of Bralirwa Manufacturing Industry, Rwanda

Eugene Niyitegeka[1], & Dr. Thomas K Tarus[2*]

[1]*Master's Students (MBA/Accounting and Finance), Graduate School, University of Kigali, Rwanda*
[2]*Lecturer, Graduate School, University of Kigali, Rwanda*
**Corresponding author*

***Abstract*: The general aim of this study was to establish the effect of internal control systems on the operational performance of Bralirwa. Specific research objectives are to analyse the effect of control environment on the operational performance of Bralirwa; to determine the effect of control risk assessment on the performance of Bralirwa; to assess the effect of control activities on the performance of Bralirwa; to evaluate the effect of control information and communication on performance of Bralirwa and to determine the effect of monitoring and evaluation on the performance of Bralirwa. The researcher states the problems that the insufficient reliable and relevant internal control reports have caused institutions to collapse they fall into failure because of their liabilities far outweigh the general assets they even fail to satisfy their internal controllers. The lack of effective policy meant that most of the company's performance was unplanned but has been practiced mostly as informal sector operations beyond the government framework. The researcher consulted related theories including agency, company control, institutional practices, and the decomposed theory of planned behavior. Data analysis used both descriptive and inferential statistics. The adopted statistical regression was designed in formal linear function (linear regression model) which was used for the analysis of data collected using a questionnaire. The study sample size was 145 respondents as employees of Bralirwa, the sample of respondents were chosen through a simple random sampling technique. The results revealed that there is a positive correlation between Control environments, Control risk assessment, Control activities, Control information and communication, Control information and communication, and Monitoring and evaluation of financial performance, objectives achievement, and customer satisfaction.**

***Keywords*: Internal control, systems, performance, manufacturing industries, Bralirwa**

I. INTRODUCTION

The interactions between components of internal control systems and the effectiveness of manufacturing industries' performance is in view of the recent global recession of the economy, and when investments made by manufacturing industries proved safe and manufacturing development that required strong input and investment by most democratic governments, the need for internationally regulated and well-controlled manufacturing industries has greater than ever become necessary, therefore international manufacturing industries in the developed countries such in the USA, in Europe like England, German, France, Belgium, etc, all have started to concentrate on internal management teams that conduct regular control self-assessments. Internal control systems progress the importance paramount within the manufacturing industry as a service to management (Drogalas, 2017).

In European countries, the implementation of company performance is inherently complex, partly due to the need to satisfy multiple internal controllers. In the USA, internal control in companies contributes to decision-making as a democratic right (Weber, 2016). Internal control systems are one of the most important activities and decisions that organization faces for company managers to manage their activities and services effectively to remain competitive in the market today by improving performance at a considerable level. The Asian States like Japan, China, Indonesia, and India, etc; internal control is aided by a range of skills, tools, and techniques used to manage time when accomplishing specific goals of companies. Initially, internal control referred to just companies' aims or work activities, but eventually, the term broadened to include personal activities as well (Pretty, 2015).

The difficulty faced by the management team in dealing with companies e.g., a manufacturing company, arises from the uncertainty in planning the deliverables and controlling the progress of the company, fragility, and clarity in requirements, and dynamisms characteristics in such type (Roy, 2007). Having a successful company needs a management process that balances between activities that add values, and the ones that do not add value but are essential and eliminates activities that neither adds values nor core for other processes (Reed, 2018).

In Asian developed countries as well as China, Japan, South Korea, etc; internal control systems is a designed combination of processes, tools, techniques, and methods. Internal control is usually a necessity in any company development as it determines the company completion time and scope. Internal control deals primarily with the oversight and management of materials and services inputs, management of the companies who provide inputs, and support of the process of acquiring those inputs (Pretty, 2015).

The African manufacturing industries as well as in South Africa, Nigeria, Ghana, Tunisia, Kenya, and Rwanda; set methods, designed and controlled by senior controllers to provide limited assurance regarding the reliability of their compliances. The main aim for manufacturing industries is to continuously track the compatibility of manufacturing practices and operations with international appraisal standards (Maciariello, and Kirby, 2014).

Rwandan manufacturing industries and other businesses in the dairy sector are facing competition in the current markets which have created the need for internal control systems. The Government of Rwanda mentioned the administration board and executive management and promoted high standards of ethics and integrity, establishing a company culture highlighting and demonstrating all organizational levels through internal control systems. All employees of manufacturing industries operating in Rwanda must be actively involved in this process. The system should be always kept under control and supervision since manufacturing industries tend to think about their interests more rather than the interests of the corporation (Chenhall, 2016).

In Rwanda, the internal control for example in Bralirwa includes creating an environment conducive to effectiveness; setting priorities; carrying out activities around prioritization. Bralirwa implements internal control in relation to different concepts such as company management where internal control can be companies' controllers' subset and is more commonly known as company planning and company scheduling. Internal control has also been identified as one of the core functions identified in company management and attention management that relate to the management of cognitive resources, and in particular, the time that humans allocate their minds to conduct some activities. Bralirwa's internal control helps in the planning of identifying, valuing, and reducing time and cost wastage within the company (Bralirwa, 2020).

In Bralirwa, internal control systems work as a set of procedures, mechanisms, and policies governing the chain of activities carried out by Bralirwa as well as the hierarchical checks needed at every level so that fraud, and embezzlement. Internal control systems ensure every stage of activities and clearly indicate who does what and who authorizes each process of operations conducted in the firm (Bralirwa, 2018). Therefore, the study seeks to establish the effect of internal control systems on the performance of the Bralirwa Manufacturing Industry in Rwanda.

Background To The Study

The interactions between components of internal control systems and effectiveness of manufacturing industries' performance is in view of the recent global recession of economy, and when investments made by manufacturing industries proved safe and manufacturing development that required strong input and investment by most democratic governments, the need for internationally regulated and well controlled manufacturing industries has greater than ever become necessary, therefore international manufacturing industries in the developed countries such in USA, in Europe like England, German, France, Belgium, etc, all have started to concentrate on internal management teams that conduct regular control self-assessments. Internal control systems progress the importance paramount within the manufacturing industry as a service to management (Drogalas, 2017).

Rwandan manufacturing industries and other businesses in the dairy sector are facing competition in the current markets which have created need for internal control systems. The Government of Rwanda mentioned the administration board and executive management and promoted high standards of ethics and integrity, establish a company culture highlighting and demonstrating all organizational levels through internal control systems. All employees of manufacturing industries operating in Rwanda must be actively involved in this process. The system should be always kept under control and supervision since manufacturing industries tend to think about their interests more rather than the interests of the corporation (Chenhall, 2016).

In Bralirwa, internal control systems work as a set of procedures, mechanisms, and policies governing the chain of activities carried out by Bralirwa as well as the hierarchical checks needed at every level so that fraud, and embezzlement. Internal control systems ensure every stage of activities and clearly indicate who does what and who authorizes each process of operations conducted in the firm (Bralirwa, 2018). Therefore, the study seeks to establish the effect of internal control systems on the performance of the Bralirwa Manufacturing Industry in Rwanda.

Statement Of The Problem

The global manufacturing crisis highlighted the functioning and healthy manufacturing sector for macro stability. The main reasons for manufacturing failures that result in major manufacturing loss and even bankruptcy are high risks affecting the company management on an excessive scale and the inability of controlling them. The primary problem of internal control is to achieve all goals within the given constraints. The main constraints are scope, time, quality, and prepared budget. Internal controllers are no longer solely interested in organizational activities and outputs, but than ever interested in actual institutions results. The insufficient reliable and relevant internal control reports have caused institutions to collapse they fall into failure because of their liabilities far outweigh the general assets they even fail to satisfy their internal controllers. The lack of effective policy meant that most of the company's performance was unplanned but has been practiced mostly as informal sector operations beyond the government framework, therefore unable to mobilize financial support from the government and its great external donors funded.

The companies are not successful because of a lack of sufficient resources, this problem is a large extent to blame for the usually inadequate rules and regulations of company plans (Tracinski, 2017).

Over the past many years in Rwanda, many manufacturing industries, have continuously reported losses. As a result, manufacturing services have increased, operational borders have expanded, and new manufacturing markets have emerged. Poor management and insufficient control of risks originated in manufacturing crises. The initial domestic crises spread throughout the world through globalization, in a short period of time. Bralirwa recorded a revenue decrease from 2019 to 2020 at 0.2% due to a decrease in soft drink volume of 19.1% and a beer volume increase of 7.2% (Bralirwa, 2021). Company decreases or increases of revenues may result from various factors, including internal control effectiveness is included. For the Bralirwa case, the researcher has interested to know whether its internal control is well functioning and its share in the overall performance of the organization. In the other case, the researcher intends to evaluate whether measures of internal control in place were followed. Thus, the researcher intends to conduct this research by establishing the effect of internal control systems on the operational performance of Bralirwa.

Objective of the study

The general objective is to establish the effect of internal control systems on the operational performance of the Bralirwa Manufacturing Industry, in Rwanda. Specific objectives are: To analyze the effect of the control environment on the operational performance of Bralirwa, to determine the effect of control risk assessment on the operational performance of Bralirwa, to evaluate the effect of control activities on the operational performance of Bralirwa, to measure the effectiveness of control information and communication on the operational performance of Bralirwa and to determine the effect of monitoring and evaluation on the operational performance of Bralirwa.

Research hypotheses

$H_0$1: Control environment has no significant effect on the operational performance of Bralirwa.
$H_0$2: Control risk assessment has no significant effect on the operational performance of Bralirwa.
$H_0$3: Control activities have no significant effect on the operational performance of Bralirwa.
$H_0$4: Control information and communication have no significant effect on the operational performance of Bralirwa.
$H_0$5: Control monitoring and evaluation have no significant effect on the operational performance of Bralirwa.

II. LITERATURE REVIEW

The researcher presents the meaning of the main key variables including Internal control systems; control procedures; control environment; control activities' risk assessment and company performance, as follows:

Internal control systems

Kenton (2019) A system that system of internal control is the policies combined with procedures created by management to protect the integrity of assets and ensure the efficiency of operations. The system prevents losses and helps management maintain an effective means of performance.

Internal controls are the mechanisms, rules, and procedures implemented by a company to ensure the integrity of financial and accounting information, promote accountability, and prevent fraud. Besides complying with laws and regulations and preventing employees from stealing assets or committing fraud, internal controls can help improve operational efficiency by improving the accuracy and timeliness of financial reporting (Will Kenton, 2019).

Internal control is designed, implemented, and maintained to address identified business risks that threaten the achievement of any of the entity's objectives that concern the reliability of financial reporting, effectiveness, and efficiency of operations, and compliance with laws and regulations. Internal controls can provide only reasonable assurance that things won't go sideways, according to the presenters. The reality is that human judgment can be faulty and that mitigates the controls, they said (Will Kenton, 2019).

The Committee of Sponsoring Organizations has an integrated framework for internal control, the components of which are: Control Environment; Risk Assessment; Information and Communication; Control Activities; and Monitoring. Even the smallest of organizations have internal controls of one form or another, according to the presenters. Here are the controls: Strong tone at the top; Leadership communicates the importance of quality; Accounts reconciled monthly; Leaders review financial results; Log-in credentials; Limits on check signing; Physical access to cash, Inventory; Invoices marked paid to avoid double payment; and Payroll reviewed by leaders (Kenton, 2019).

Control environment

A control environment is a set of standards, structures, and processes that provide the foundation for performing internal control systems within the entity. The control environment expresses it in management style, corporate culture, values, philosophy and operating style, organizational structure, human resources policies, and procedures (Kenton, 2019).

A controlled environment is made up of a compilation of an entity's organizational structure, processes, policies, and standards that are utilized to maintain control across the organization (Will Kenton, 2019). The Institute of Internal Auditors' control environment definition states that the control environment is the "foundation on which an effective system of internal control is built and operated in an organization that strives to (1) achieve its strategic objectives, (2) provide reliable financial reporting to internal and external stakeholders, (3) operate its business efficiently and effectively, (4) comply with all applicable laws and regulations, and (5) safeguard its assets (Kenton, 2019)."

A control environment is made up of a compilation of an entity's organizational structure, processes, policies, and standards that are utilized to maintain control across the organization. The board of directors and executive

management of a business establish the company culture and attitude regarding the importance of maintaining controls and set the expectations of standards of conduct within the organization often referred to as "the tone at the top." A failure to have internal controls in place results in front-page news stories that no company wants to be a part of. Enron, WorldCom, and Equifax are a few examples of organizations that made news headlines due to a lack of internal control. Similarly, there are dozens of cases each year of companies that privately lose millions of dollars due to control failures, fraud, and misconduct (Kenton, 2019).

All these outcomes are the result of a weak internal control system and highlight the importance of internal control to the success of an organization. Having a strong internal control environment can provide management and stakeholders reasonable assurance that the organization is operating in accordance with company policies, industry standards, and regulatory requirements (Kenton, 2019).

Control risk assessment

Control risk assessment is an act performed on the direction of managerial risks as directed by the companies' strategies and procedures, to mitigate the assessment through processes used to identify risks (Sundem, G. and Stratton, W., 2015). Modern businesses face a diverse collection of obstacles, competitors, and potential dangers. Risk control is a plan-based business strategy that aims to identify, assess, and prepare for any dangers, hazards, and other potentials for disaster—both physical and figurative that may interfere with an organization's operations and objectives. The core concepts of risk control include: (1) Avoidance is the best method of loss control. For example, after discovering that a chemical used in manufacturing a company's goods is dangerous for the workers, a factory owner finds a safe substitute chemical to protect the workers' health (Stratton, 2015).

(2) Loss prevention accepts a risk but attempts to minimize the loss rather than eliminate it. For example, inventory stored in a warehouse is susceptible to theft. Since there is no way to avoid it, a loss prevention program is put in place. The program includes patrolling security guards, video cameras, and secured storage facilities. Insurance is another example of risk prevention that is outsourced to a third party by contract. (3) Loss reduction accepts the risk and seeks to limit losses when a threat occurs. For example, a company storing flammable material in a warehouse installs state-of-the-art water sprinklers for minimizing damage in case of fire (Sundem, 2015).

(4) Separation involves dispersing key assets so that catastrophic events at one location affect the business only at that location. If all assets were in the same place, the business would face more serious issues. For example, a company utilizes a geographically diverse workforce so that production may continue when issues arise at one warehouse. (5) Duplication involves creating a backup plan, often by using technology. For example, because an information system server failure would stop a company's operations, a backup server is readily available in case the primary server fails. (6) Diversification allocates business resources for creating multiple lines of business offering a variety of products or services in different industries. A significant revenue loss from one line will not result in irreparable harm to the company's bottom line. For example, in addition to serving food, a restaurant has grocery stores that carry its line of salad dressings, marinades, and sauces (Sundem, 2015).

Control activities

Control activities are the policies, procedures, techniques, and mechanisms that help ensure that management's response to reduce risks identified during the risk assessment process is carried out. In other words, control activities are actions taken to minimize risk (Stratton W., 2015). The following internal control activities can be found in the workplace. All employees fit into the organizational picture of internal control, whether their job responsibilities are directly related to these example activities. (1) Segregation of Duties: Duties are divided among different employees to reduce the risk of error or inappropriate actions. For example, responsibilities for receiving cash or checks, preparing the deposit, and reconciling the deposit should be separated. (2) Authorization and Approval: Transactions should be authorized and approved to help ensure the activity is consistent with departmental or institutional goals and objectives. For example, a department may have a policy that all purchase requisitions and invoice vouchers must be approved by the director. It is important that the person who approves transactions have the authority to do so and the necessary knowledge to make informed decisions (Anderson, 2015).

(3) Reconciliation and Review: Performance reviews of specific functions or activities may focus on compliance, financial, or operational issues. Reconciliation involves cross-checking transactions or records of activity to ensure that the information reported is accurate. For example, revenue and expense activity recorded on accounting reports should be reconciled or compared to supporting documents to ensure that the transactions are recorded in the correct account and for the right amount. (4) Physical Security: Equipment, inventories, cash, checks, and other assets should be physically secured and periodically counted and compared with amounts shown on control records. For example, the periodic confirmation of equipment by individual departments is a physical security control (Anderson, 2015).

Control information and communication

Information and communication are the systematic planning, implementing, monitoring, and revision of all the channels of publication within an organization and between organizations; it also includes the organization and dissemination of new communication directives connected with an organization, network, or communications technology. Aspects of information and communication include developing corporate communication strategies, designing internal and external communications directives, and managing the flow of information, including online communication. It is a mere

process that helps an organization to be systematic as one within the bounds of communication (Sundem, G., 2015).

Information and communication are closely linked together. Since communication is the process of information exchange between two or people and management include managers that basically give out information to their people. Moreover, Information and communication literally go hand in hand. It is the way to extend control, the fundamental component of project management. Without the advantage of a good information and communication system, the cycles associated with the development of a task from start to finish can be genuinely compelled. It also gives the fundamental project integrity needed to give information help among all individuals from the team. This information must stream descending, upward and horizontally inside the association. Moreover, it is both Master and servant of project control. It is the action component, the integrator of the process toward assembling the project. As project management is both a craftsmanship and a science, the project manager leads the multidiscipline of the plan and construct team (Sundem, G., 2015).

Monitoring and evaluation

Monitoring and evaluation comprise two distinct but complementary activities, there is a causal relationship between these two elements: monitoring provides information about where a project is at a given time within the project implementation dateline, and evaluation gives evidence as to why project objectives were or were not achieved (Görgens and Rist, 2019). Just as control activities help to ensure that risk management actions are carried out, monitoring helps to ensure that control activities and other planned actions to effect internal control are carried out properly and in a timely manner and that the result is an effective internal control (Will Kenton, 2019).

Company operational performance

The company operational performance is the ability of firm to use its resources to generate revenues more than its expenses. In other words, this is a company's capability of generating profits from its operations. It is the measurement of efficiency and ultimately company's success or failure. The efficiency, solvency, and market prospects, where practicing efficiency is a core aspect of running on effective profitability, it can help to ensure companies that have the resources they need when and where they need them and can help increase profits (Melissa H., 2019).

Company performance variously refers to "on time, within budget, to specification" completion; success of the product produced; or success in achieving the business objectives of the company. Based on this framework, company performance is the highest level achieved at any point of reflection (Gash, 2018). (1). Measuring performance: Knowing how the different areas of your business are performing can help you to assess where your business is strong, where it is weaker and factors you can change for the better. This should help you to manage your performance proactively and efficiently. You should measure non-financial targets as well as considering financial ones. Some other areas you could consider are (Melissa, 2019):

Customers: e.g., how many you have, how often they use you and how many customers you have lost or gained; customer service: e.g., waiting times for assistance, complaints, or reasons customers have complained; market share: e.g., whether your share of the market increased or decreased against competitors; staff: e.g., satisfaction levels, work quality or attendance records.

(2). Measuring your financial performance: Your business success can depend on developing and implementing sound financial and management systems. Many businesses fail because of poor financial management or planning. A review of your financial performance can help you reassess your business goals and plan effectively for improving the business. When conducting a financial review of your business, you might want to consider the following:

Cashflow: this is the balance of all the money flowing in and out of your business. You should ensure that your forecast is regularly reviewed and updated. Working capital: have your requirements changed? If so, research the reasons for this movement and assess how this compares to the industry standard. If necessary, take steps to source additional capital. Cost base: keep your costs under constant review. Make sure that your costs are covered in your sale price-but don't expect your customers to pay for any business inefficiencies. Borrowing: what is the position of any overdrafts or loans? Are there more appropriate or cheaper forms of finance you could use? Growth: do you have plans in place to adapt your financing to accommodate your business's changing needs and growth (Gash, 2018)?

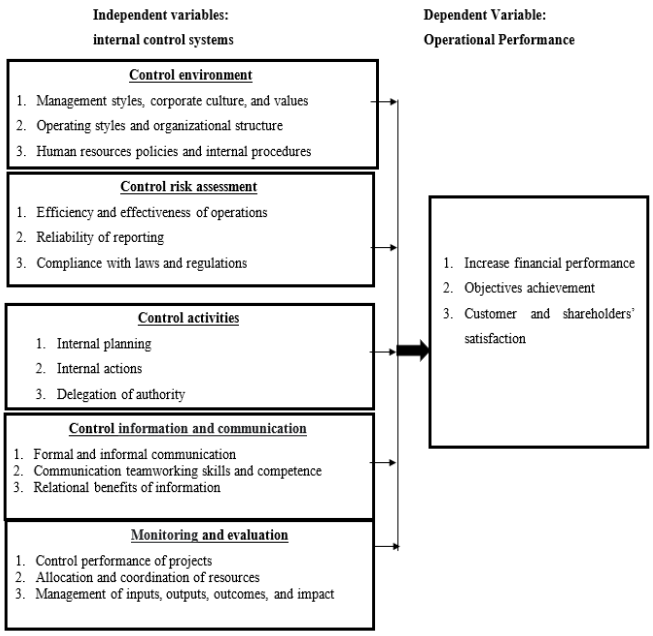
Measuring your profitability: One of the most important areas of your finances you should review is your profitability. Most growing businesses ultimately target increased profits, so it's important to know how to measure profitability. The key standard measures are:

Gross profit margin: how much money is made after direct costs of sales have been considered, or the contribution as it is also known. Operating margin: this lies between the gross and net measures of profitability. Overheads are considered, but interest and tax payments are not. For this reason, it is also known as the EBIT (earnings before interest and taxes) margin. Net profit margin: this is a much narrower measure of profits, as it takes all costs into account, not just direct ones. All overheads, as well as interest and tax payments, are included in the profit calculation. Return on capital employed: this calculates net profit as a percentage of the total capital employed in a business. This allows you to see how well the money invested in your business is performing compared with other investments you could make with it, like putting it in the bank (Melissa, 2019).

The purpose of the study was to establish the effect of the internal control system on the operational performance of the Bralirwa Manufacturing industry. The independent variable

was control environment, control risk assessment, control activities, control information, and communication and monitoring and evaluation while dependent variables were financial performance, objectives achievement, and customer and shareholder satisfaction as illustrated in Figure 2.1

Fig:2.1: Conceptual framework



Source: Researcher; Own Conceptualization, July 2022.

III. DATA AND METHODOLOGY

Churchhill (2017). Research design and methods ae different but closely related, because good research design ensures that the data that researchers obtain help them answer their research questions more effectively. Research design is a specification of methods and procedures for acquiring the information needed.

Primary and secondary sources are ways in which data can be retrieved. Serakan (2016) stated, "Primary data refer to information obtained by the researcher on the variables of interest for the specific purpose of the study". To respond to the questions, various pieces of evidence suggest what methods of primary research were conducted. A descriptive research design is a method that was used in this study to describe, analyze, and interpret the collected data. Therefore, this attempted to present the relationship among the variables.

Target population

The study population is a subset of the target population from which the sample is selected. It is broader than the concept sample frame. It may be appropriate to say that the sample frame is an operationalized form of the study population. The entire population is 227 employees of Bralirwa

Sample size

To determine the sample size, the following mathematical formula designed by Yamane (1967) is used; where, n is the sample size; N is the size of the population and e is marginal error or level of confidence.

General scientific formula: $= \frac{\mathbf{N}}{\mathbf{1+N\,(e)^2}}$;

$n = \frac{227}{1+227\ (0.05)^2}$;

$n = \frac{227}{1.5675} = 144.816$; then the sample of employees is 145 respondents.

The sample size constituted 145 employees who were selected randomly according to their divisions' (departments) duties in Bralirwa.

Data processing

For some unclear responses which required the editing, the researcher must go back to the respondents to make them clarify their responses. The coding process was used to summarize data by classifying different responses, which was put into categories for easy interpretation and analysis. The frequency distribution tables were used after editing and coding of data.

Data analysis

The statistical, analytical, descriptive and synthetical research methods for data analysis offered the opportunity to measure and quantify research findings; therefore, these research analyses facilitated quantifying and numbering and presenting information in the tables, and SPSS was used.

Inferential Statistics

Correlation analysis

The purpose of this section is to find if there is a correlation between internal control systems and operational performance where the statistical (numerical) data allow the researcher to highlight the direct relationship between variables.

Table 4.1: Correlation analysis

		Control environment	Control risk assessment	Control activities	Control information and communication	Monitoring and evaluation	Operational Performance
Control environment	Pearson Correlation	1	.322**	.150	.104	.143	.130
	Sig. (2-tailed)		.000	.002	.015	.005	.018
	N	145	145	145	145	145	145
Control risk assessment	Pearson Correlation	.322**	1	.184*	.017	.038	.151
	Sig. (2-tailed)	.000		.026	.038	.048	.000
	N	145	145	145	145	145	145
Control activities	Pearson Correlation	.150	.184*	1	.029	.004	.039
	Sig. (2-tailed)	.002	.026		.031	.002	.042
	N	145	145	145	145	145	145
Control information and communication	Pearson Correlation	.104	.017	.029	1	.653**	.047
	Sig. (2-tailed)	.015	.038	.031		.000	.007
	N	145	145	145	145	145	145
Monitoring and evaluation	Pearson Correlation	.143	.038	.004	.653**	1	.093
	Sig. (2-tailed)	.005	.008	.002	.000		.004
	N	145	145	145	145	145	145
Operational Performance	Pearson Correlation	.130	.151	.039	.047	.093	1
	Sig. (2-tailed)	.008	.000	.042	.007	.004	
	N	145	145	145	145	145	145

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Source: Field data, 2022

Legend:

[-1.00 - 0.00 [: Negative correlation.
[0.00 - 0.25 [: Positive and very low correlation.
[0.25 - 0.50 [: Positive and low correlation.
[0.50 - 0.75 [: Positive and high correlation and
[0.75 - 1.00] : Positive and very high correlation.

Thus, as explained in table 4.12, control environment contributes 13.0% in operational performance (r=0.130 and p=0.018). Control risk assessment contributes 15.1% in operational performance (r=0.151 and p=0.000). Control activities contributes 3.9% in operational performance (r=0.039 and p=0.042).

Control information and communication 4.7% in operational performance (r=0.047 and p=0.007), And monitoring and evaluation 9.3% in operational performance (r=0.093 and p=0.004. All obtained p-values are less than 0.05 or 5% level of significance, which signify that the correlation between tested variables, is also statistically significant at 5%. And gives power to the researcher to conclude that, there is a positive and statistically significant effect of the internal control system on the operational performance of the Bralirwa manufacturing industry.

Hypothesis Testing

In this section, the researcher presents and analyzes the results through alternative research hypotheses showing how indicators including control environment; control risk assessment; control activities; control information and communication, and control monitoring and evaluation have a significant relationship with the performance of Bralirwa. Thus, the following results were obtained as defined in table 4.13.

a) Relationship between control environment and performance of Bralirwa

Ho: states that there is no relationship between the control environment and the operational performance of Bralirwa.

H_1: there is a relationship between the control environment and the operational performance of Bralirwa

The more important p-value is that for excluding if this p-value is not small enough to reject the hypothesis that each, the linear model is not useful for predicting. suppose we choose α =0.05 or 5%. The p-value of the control environment coefficient is 0.012 which is less than 0.05. We, therefore, reject the null hypothesis (Ho) and conclude that there is a relationship between the control environment and the performance of Bralirwa. It means that the control environment has a significant effect on the performance of Bralirwa.

b) Relationship between control risk assessment and performance of Bralirwa

Ho: states that there is no relationship between Control risk assessment and the operational performance of Bralirwa

H_1: states that there is a relationship between Control risk assessment and the operational performance of Bralirwa

The p value of control risk assessment coefficient is 0.006 which is less than 0.05. We, therefore, reject the null hypothesis (Ho) and conclude that there is relationship between Control risk assessment and performance of Bralirwa .It means that Control risk assessment has significant effect on performance of Bralirwa.

c) Relationship between control activities and performance of Bralirwa

Ho: states that there is no relationship between control activities and operational performance of Bralirwa

H_1: states that there is relationship between control activities and operational performance of Bralirwa

The p value of control activities coefficient is 0.000 which is less than 0.05. We therefore reject the null hypothesis (Ho) and conclude that there is relationship between control activities and performance of Bralirwa . It means that control activities has significant effect on performance of Bralirwa.

d) Relationship between control information and communication and performance of Bralirwa

Ho: states that there is no relationship between control information and communication and the operational performance of Bralirwa.

H_1: states that there is a relationship between control information and communication and operational performance of Bralirwa.

The p-value of the control information and communication coefficient is 0.041 which is less than 0.05. We, therefore, reject the null hypothesis (Ho) and conclude that there is a relationship between control information and communication and the performance of Bralirwa. It means that

control information and communication have a significant effect on the performance of Bralirwa.

e) Relationship between monitoring and evaluation and performance of Bralirwa

Ho: states that there is no relationship between monitoring and evaluation and the operational performance of Bralirwa.

H_1: states that there is a relationship between monitoring and evaluation and operational performance of Bralirwa

The p-value of the monitoring and evaluation coefficient is 0.000 which is less than 0.05. We, therefore, reject the null hypothesis (Ho) and conclude that there is a relationship between monitoring and evaluation and the operational performance of Bralirwa. It means that monitoring and evaluation has a significant effect on the performance of Bralirwa.

Table 4.2: Presentation of regression model coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	6.827	.287		2.883	.004
Control environment	.098	.039	.109	2.529	.012
Control risk assessment	.113	.041	.120	2.770	.006
Control activities	.160	.035	.202	4.599	.000
Control information and communication	.033	.016	.102	2.050	.041
Monitoring and evaluation	.567	.044	.658	12.802	.000

Source: Field data, 2022

Model summary

Table 4.14 show the linear regression model data were taken from all mean of independent variable indicators to the summarized mean of all independent variable indicators. And the results are as follows: R Square (R^2) is a measure of the goodness of fit of a model. In regression, the R Square (R^2) coefficient of determination is a statistical measure of how well the regression predictions approximate the real data points. An (R^2) of 1 indicates that the regression predictions perfectly fit the data. This shows that the analyzed model feet at 82.5% as (R^2) is equal to 0.82588. R is also equal to 0.909 meaning that, X_1: Control environment; X_2: Control risk assessment; X_3: Control activities; X_4: Control information and communication and X_5: Monitoring and evaluation each contribute 90.9% to the Performance of Bralirwa (financial performance, objectives achievement, and customer as well as stakeholders' satisfaction).

Table 4.3: Linear regression model summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.909a	.82588	.8236	.1028

a. Predictors: (Constant), X_1: Control environment; X_2: Control risk assessment; X_3: Control activities; X_4: Control information and communication and X_5: Monitoring and evaluation

Source: Field data, 2022

ANOVA table summary

The following table 4.15, the results show that the model had an F ratio of 6.094 and the P value was 0.000<0.05, signifying that the F ratio was statistically significant, therefore the overall regression model for all the variables tested was statistically significant and can be used for prediction at 5% significant level. This further indicates that the predictor's variables (X_1: Control environment; X_2: Control risk assessment; X_3: Control activities; X_4: Control information and communication and X_5: Monitoring and evaluation) used in this study are statistically significant to the operational performance of Bralirwa. Therefore, the model is fit to the predicted study variables.

Table 4.4: Linear regression model ANOVA table summary

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.774	3	.258	6.094	.000[b]
	Residual	12.949	306	.042		
	Total	13.722	309			
a. Dependent Variable: Performance of Bralirwa						
b. Predictors: (Constant), X_1: Control environment; X_2: Control risk assessment; X_3: Control activities; X_4: Control information and communication and X_5: Monitoring and evaluation						

IV. RECOMMENDATION

The current researcher would like to provide partial recommendations regarded to further researchers who can be willing to carry out their research, thus they are suggested to take reference to this Research Dissertation to improve their research and information as findings. Therefore, future researchers are suggested to work on the following research topics:

(1) The impact of control environment on the performance of companies, (2) The effect of control risk assessment on the operational performance of companies, (3) The influence of

V. CONCLUSION

The results about the factors that afford the effectiveness of the performance of Bralirwa. The results showed an overall strong mean of 4.025 which provides a strong approximation. The first spot showed that the financial performance is the factor that affords the effectiveness of the operational performance of Bralirwa, and it proves that respondents strongly agreed with a mean of 4.31 respected by positive with a very high correlation standard deviation of .927672; the second item showed that the achievement of the objectives are the factors that afford the effectiveness of operational performance of Bralirwa, and it proves that respondents are agreed with mean of 4.03 respected by positive and high correlation standard deviation of .703962.

The third item showed that customer and shareholders' satisfaction is the factor that affords the effectiveness of operational performance of Bralirwa, and it proves that respondents agreed with a mean of 4.06 and it is respected by positive and high correlation as the standard deviation of .708724.

Therefore, according to findings provided in previous analyses, the researcher can conclude that Bralirwa has significantly performed by basing on the extent of its financial performance; objectives achievement and customer and shareholders' satisfaction as main indicators that afforded the effectiveness of operational performance of Bralirwa during the period from 2017 up to 2021.

REFERENCES

[1] Aksoy, Y., (2017). Companies Branding and Relationships: Internal control systems and Evaluation. Journal of Management, Vol. 8 No.3 PP. 218-230.

[2] Bralirwa, (2018). How to plan a baseline of internal control systems in manufacturing industries? Internal control systems guidelines. Kigali-Rwanda.

[3] Davis, F., and Cobb, D., (2010). Measuring progress towards internal control systems of companies' development. Company development indicators for the European Union.

[4] Drees, B., & Heugens, V., (2013). Dimensions of internal control systems performance, International development, department partnership study program. The University of Birmingham City.

[5] Egan, Y., and Burkman M., (2015). The implementation based on internal control systems and M&E: Identifying likely adopters via internal control systems and M&E process networks.

[6] Grinnell, B., (2010). Research Methods in Data Analysis: Qualitative and quantitative methods. 3rd edition. Alta Mira Press, Walnut Creek, California.

[7] Hillman, (2019). The company planning and internal control systems. American Management Association, Philadelifia.

[8] Kenton, K., (2019). Communicating internal control systems for manufacturing industries. Define internal control systems at Dictionary.com. New York: M.E. Sharpe.

[9] Lowe Ernest, A., (2018). On the idea of a management control system: integrating accounting and management control. Journal of management studies.

[10] Margaret, J., (2020). Financial relationship and integration: Towards a model of the company performance. International Journal of Financial Management.

[11] Melissa Horton, J., (2019). Role of Financial Resources Information Systems in Organization. Journal of Advanced Management Science.

[12] Merchant, Kenneth H., (2017). Management control systems: performance measurement, evaluation, and incentives. Harlow, England.

[13] Mueller J., (2019). "A Resource based Analysis of Financial Competition: the case of the bearing industry". Strategic Management Journal, 14, 551-568.

[14] Ozten, C., et al., (2017). Dimensions of internal control systems, international development, department partnership study program. The University of Birmingham City.

[15] Pretty L., (2015). The policy programs, economic and environmental gains of internal control systems policy initiatives.

[16] Robert, M., (2014). Fundamentals of Research Methodology. The series of papers On the Social Sciences Research Network.

[17] Sharif & Yeoh (2014). The internal control systems planning and process: A practical, systematic internal control systems approach for community. Sudbury, MA: Jones and Bartlett Publishers.

[18] Sundem, G. and Stratton, W., (2015). Introduction to Management Accounting. New Jersey, Pearson.

[19] Weygandt, L., (2016). Measuring progress of financial indicators of companies.

[20] Will Kenton, K., (2019). Internal control systems planning and process: A practical, systematic companies approach for community. Sudbury, MA: Jones and Bartlett Publishers.