

**ST. MARY'S UNIVERSITY**  
**SCHOOL OF GRADUATE STUDIES**



**ASSESSMENT OF THE EFFECTIVENESS OF INTERNAL  
CONTROL PRACTICES: THE CASE OF FRIGORIFICO BORAN  
FOODS PLC**

**BY**  
**GENET ASHAGRIE DERIBEW**  
**SGS/0209/2013A**

**MARCH 2023**

**ADDIS ABABA, ETHIOPIA**

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**ADDIS ABABA, ETHIOPIA**

## DECLARATION

I, the undersigned, declare that this thesis is my original work, and it has not been presented for another degree in any other university and that all sources of materials used for the thesis have been duly acknowledged.

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**ST. MARY'S UNIVERSITY  
SCHOOL OF GRADUATE STUDIES  
GENERAL BUSINESS ADMINISTRATION PROGRAM**

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**APPROVED BY BOARD OF EXAMINERS**

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## **LIST OF ABBREVIATIONS AND ACRONYMS**

COSO	The Committee of Sponsoring Organizations of the Treadway Commission
GDP	Gross Domestic Product
INTOSAI	The International Organization of Supreme Audit Institutions
MBA	Master of Business Administration
NASC	National Association of State Comptrollers
NPC	National Planning Commission
PLC	Private Limited Company
SD	Standard Deviation
SPSS	Statistical Package for the Social Sciences
USD	United States Dollar

## ABSTRACT

*Internal control can provide the company's management an access to a reasonable assurance regarding the reliability and accuracy of financial information, compliance to rules and regulations, safeguarding of assets from fraud and theft, efficiency of resource management, and achievement of organizational goals. As a result, the appropriate implementation of an internal control system can be crucial in ensuring organizational goals are met. The present study aimed at assessing the internal control practice at Frigorifico Boran Foods PLC. The research followed a descriptive design. Data was obtained from both primary and secondary sources. The primary data was obtained from Frigorifico Boran employees using a semi-structured questionnaire developed using the five-point Likert scale approach. Data for this research was obtained from 131 employees working at Frigorifico Boran Foods PLC. Data was analyzed using IBM SPSS Version 28.0.1.0 software. The outcome of the present study indicates that there is a moderately appreciable internal control system implemented in Frigorifico Boran Foods PLC. The internal control systems are serving as a moderately effective mechanism to protect the company from fraud and fraudulent activities. However, overall documentation practices require improvement and the adequacy of the implemented internal control system should be periodically assessed. Moreover, the company could benefit from improvements in communication of risk assessment policies and findings communication and other policies and procedures to staff. Although the internal control system monitoring activities at Frigorifico Boran Foods PLC are moderately appreciable, they require revision to promote effective evaluation of the implemented internal control system. Despite the indications that internal control system implementation practices in Frigorifico Boran Foods PLC are moderately good, the response from the respondents indicates that improvements are required to ensure organizational goals are met.*

**Keywords:** *Internal control, Control environment, Risk assessment, Control activities, Information and communication, Monitoring*

# 1. INTRODUCTION

## 1.1. Background of the Study

The Committee of Sponsoring Organizations of the Treadway Commission (COSO) defines internal control as “a process, effected by an entity’s board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives relating to operations, reporting, and compliance” (COSO, 2013). Internal control involves a set of measures set by management to help accomplish an organization’s objectives and goals, and provide reasonable assurance associated with the control and management of risks.

Establishment of an internal control system can provide a company’s management with reasonable assurance that financial information is accurate and reliable; that the company complies with laws, regulations, and policies; that assets are safeguarded against loss and theft; resources are efficiently used; and that established objectives and goals can be met (Fadzil et al., 2005). Therefore, effective internal control system is vital for effective risk management via identification and elimination of errors and frauds in a company (Lakis & Giriūnas, 2012).

Internal control systems are applicable to each company and is the responsibility of all managers in an organization. Managers in every level are responsible to promote and ensure compliance with internal rules, policies, and regulations applicable to their activity. Therefore, to be effective, an internal control system must cover the entire activity of the company, from accounting and financial to strategic management of operations, personnel, and quality, while putting into consideration the company’s tasks, objectives, and goals (Lakis & Giriūnas, 2012).

Internal control not only focuses on accounting mistakes and implementation of prevention mechanisms, but also identifies appropriate management of the control processes in the constantly evolving manufacturing sector. An effective internal control system can act as the first line defense in safeguarding assets and detecting and preventing fraud, errors, and theft. Among the major problems that hinder the effective implementation of internal control system includes management overriding internal control system for the sake of manipulating financial aspects; collusion of personnel to overcome control; and human errors (Oseifuah & Gyekye, 2013).

Failure to implement an effective internal control system in an organization can have dire consequences. This has been demonstrated in the collapse of global companies such as Enron, Ahold, and Parmalat, where failure to implement an effective system of internal control has been reported to greatly contribute to the collapse (Bava & Devalle, 2012; De Jong et al., 2005; Deakin & Konzelmann, 2004). Although an effective internal control may not be an absolute solution, it can greatly reduce the risk of misstatements and errors in a company's financial statement (INTOSAI, 2004).

The rapidly growing manufacturing business, advancement of technologies, and globalization can potentially expose businesses to increased incidences of risk, theft, and fraud. An effective internal control system, therefore, has become crucial for companies in the manufacturing sector to properly achieve their goals and objectives. The manufacturing sector in developing economies like Ethiopia significantly contributes to physical and human capital buildup and can accelerate robust and inclusive growth. A strong manufacturing sector can strengthen a country's external account balance through import substitution and export diversification.

Ethiopia is working towards becoming a lower-middle-income country by 2025. The Government of Ethiopia recognizes the benefit of the manufacturing industry in building national technological capacity, industrial capability, creating job opportunities, and improving income (NPC, 2016). Therefore, implementation of effective internal control in the manufacturing sector is not only essential for organizations to meet their objectives and goals, but also vital for the country to achieve the objective of reaching the lower-middle-income country category by 2025.

Meat and meat products have been contributing to the foreign export earnings and gross domestic product (GDP) growth of Ethiopia. The meat processing sector, however, has not reached its full potential. Ethiopia projected to earn 114 million dollars from the export of meat and meat products in the 2019/20 operational year. However, Ethiopia earned only 68.4 million dollars from meat export in 2019/20 (FEED, 2021). It is with this background that the researcher decided to assess the effectiveness of the internal control system implemented at Frigorifico Boran Foods PLC, the largest meat processing plant in Ethiopia.

## **1.2. Statement of the Problem**

Ethiopia is a country currently working towards transitioning from agricultural to manufacturing led economy, and becoming a lower-middle-income country by 2025. The country's transition is accompanied by the implementation of several big manufacturing projects. Therefore, implementation of effective internal control in the manufacturing sector is not only essential for organizations to meet their objectives and goals, but also vital for the country to achieve the objective of reaching the lower-middle-income country category by 2025.

The manufacturing sector's importance for GDP, export, productivity, and growth is well documented, particularly in developing countries (Manyika et al., 2016). However, the financial performance of the manufacturing sector is dependent on efficient and effective internal control systems (Kumuthinidevi, 2016). Internal control systems require regular review to ensure financial and operating information quality, compliance with policies, laws, and regulations, as well as asset control and employee assessment. For internal control systems to be effective, employees must understand their company's mission, vision, objectives, and responsibilities (Gamage et al., 2014).

Meat and meat products contribute significantly to Ethiopia's foreign export earnings and GDP growth. However, the meat-processing sector has not reached its full potential. Although Ethiopia projected to earn 114 million dollars from meat and meat products export in the 2019/20 operational year, earning was only 68.4 million dollars. Frigorifico Boran Foods PLC, as the largest slaughterhouse and meat exporter in Ethiopia, plays a crucial role in meeting meat and meat products export objectives. Therefore, the effectiveness of the company's internal control system is paramount to its operational efficiency, which will directly impact Ethiopia's ability to meet its economic goals.

This study aims to assess the effectiveness of the internal control system of Frigorifico Boran Foods PLC. The assessment will not only provide insights into the company's current operation but will also inform strategies for its future success. Moreover, given the limited research conducted on internal control practices in the manufacturing sector in Ethiopia, this study will help fill the existing knowledge gap.

### **1.3. Research Questions**

This research aims to assess the effectiveness of the internal control practices implemented at Frigorifico Boran Foods PLC, and will be guided by the following research questions.

- How does the control environment at Frigorifico Boran Foods PLC contribute to the effectiveness of its internal control system?
- How does Frigorifico Boran Foods PLC conduct risk assessment to ensure the effectiveness of its internal control system?
- How does Frigorifico Boran Foods PLC ensure effective information and communication throughout the organization in relation to its internal control system?
- How does the control activities implemented by Frigorifico Boran Foods PLC ensure the effectiveness of its internal control system?
- How does Frigorifico Boran Foods PLC monitor the implementation of its internal control system to ensure its effectiveness?

### **1.4. Objectives of the Study**

#### **1.4.1. General Objective**

The general objective of this study is to assess the effectiveness of the internal control practices implemented at Frigorifico Boran Foods PLC.

#### **1.4.2. Specific Objectives**

- Assessing the components of the control environment at Frigorifico Boran Foods PLC to determine how they contribute to the effectiveness of the internal control system.
- Analyzing the risk assessment practices at Frigorifico Boran Foods PLC to evaluate its effectiveness in identifying and mitigating risks to the internal control system.
- Evaluating the quality of information and communication flows at Frigorifico Boran Foods PLC to identify opportunities for improving their effectiveness in relation to the internal control system.



- Examining the design and implementation of control activities at Frigorifico Boran Foods PLC and assess their effectiveness in ensuring compliance and reducing the risk of errors or fraud.
- Evaluating the monitoring mechanisms used by Frigorifico Boran Foods PLC to assess the effectiveness of the internal control system.

### **1.5. Significance of the Study**

The manufacturing sector is rapidly growing in Ethiopia. However, an increase in number of companies doesn't exactly mean all manufacturing companies are succeeding. Several manufacturing companies perform poorly because of poor management commitment, inefficient management, poorly designed or implemented internal control, fraud, and resource misuse among others. With poor internal control, the large capital budget allocated for large manufacturing projects can be wasted without achieving the objectives set. This study will have a significant input on the proper internal control mechanism, and its influence on the successful implementation of manufacturing projects.

The success or failure of mega projects is highly influenced by how a project is managed. However, in most cases, internal control gets little to no attention. As a result, even when a great internal control system is designed, it doesn't get to be implemented leading to poor or failing projects. This study, therefore, is vital as it provides insight on the effective implementation of internal control which ultimately affects the success of manufacturing companies.

This study can also provide a valuable input to the management of Frigorifico Boran Foods PLC by identifying areas of improvement for the successful implementation of the internal control system. In addition, this study will pave the way to future research that expand the view on the implementation of effective internal control in diverse set of sectors.

### **1.6. Scope of the Study**

The critical factors that influence the effective implementation of an internal control system may vary from sector to sector. This scope of this study is to assess the effectiveness of the internal control system at Frigorifico Boran Foods PLC. The study emphasizes on the components of internal control system such as control environment, risk assessment, control

activity, information and communication, and monitoring. Although there are several meat processing companies in Ethiopia, this study focuses on internal control practices at Frigorifico Boran Foods PLC. Therefore, data should be interpreted accordingly with the utmost care.

### **1.7. Organization of the Study**

The present study is organized in five chapters. The first chapter introduces the context of the study by providing an introduction, background of the study, statement of the problem, research questions, objectives of the study, significance of the study, and scope of the study. The second chapter provides the review of available theoretical and empirical literatures relevant to the topic of the study. The third chapter presents the research design and methodology used in the study. The data analysis and interpretation are presented in the fourth chapter. Finally, summary of the findings, conclusions, and recommendations are provided in the last chapter.

## **2. LITERATURE REVIEW**

### **2.1. Background of the Organization**

The manufacturing plant of Frigorifico Boran Foods PLC is set up in Adami Tulu, Ethiopia. The company has a capacity to slaughter 3,000 cattle and 6,000 goats daily. This Indian company is part of the Allana Group that represents an investment of 80 billion USD worldwide. The plant was erected with an investment capital of 1.8 billion birr.

The company has already a presence in more than 70 countries, which makes it one of the leading meat processing industries in the world. The company operates on a motto that states “at Frigorifico Boran Foods, our only un-used bi-product is the sound!”. As such the company is exemplary in resource efficiency and practice of circular economy. Blood is dried to make chicken feed; horns and hooves are ground up also for animal feed; hides are salted and sold as inputs to the Ethiopian leather industry; the grass in the animal intestines is burned as fuel; inedible organs like lungs are solar dried and sold as pet food.

Local slaughter of animals also has benefits for end consumers of meat in terms of quality. If animals travel 20 - 30 days or more (as can be the case in export to Egypt and Saudi Arabia), the animal is very stressed by the time it goes for slaughter, and this affects the quality of the meat. With chilling and freezing, no additional preservative is required to keep the meat. Currently the company has over 200 employees but has the capacity to employ up to 2,000 people.

### **2.2. Theoretical Literature Review**

#### **2.2.1. Definition of Internal Control**

Several definitions have surfaced about internal control over the years. Internal control was defined by the Committee of Sponsoring Organizations as a process effected by an entity's board of directors', management, and other personnel (COSO, 1992). Internal control is not solely a procedure or policy that is performed at a certain point in time, but rather it is continually operating at all levels (Basel, 1998). Internal control serves as the first line of defense in safeguarding a company's assets; preventing and detection of errors and reducing possibilities of fraud.

A robust internal control system is a powerful management tool and a means for a business to achieve performance and profitability targets, and to prevent loss of resources. This system will help ensure reliable financial reporting and compliance with laws and regulations. Internal control is an integral part of risk management framework in any corporation. Corporate internal control is simply the effective integration of activities, policies, plans, and efforts of employees working together in an organization to achieve its goals (Ho, 2012).

Generally, there is no specific department or individual in charge of conducting internal controls on behalf of the management. Therefore, internal control is the responsibility of all managers in the organization. Managers at every level are expected to promote, create access to, and ensure compliance with internal control policy, rules, and regulations.

An effective internal control system enhances accountability and professionalism. In addition, it also attracts the best talent rather than an over bloated system. Effective internal control systems are an important element of risk management (Dietz & Snyder, 2007). Effective internal controls help companies protect and enhance shareholder value and reduce the possibility of unexpected losses or damage to its reputation.

Poor internal controls can lead to increased bureaucracy, reduced productivity, increased complexity, increased time to process transactions, and increased non-value activities (Tjueza, 2018). Poor internal controls also interfere with the accomplishment of the unit's goals and objectives and allow for misuse or abuse of assets.

### **2.2.2. Objectives of Internal Control**

It is necessary to work towards ensuring continuous monitoring of internal controls to make sure that there are real controls, and that they are working properly to achieve organizational objectives (COSO, 2012). These includes protecting assets from theft, embezzlement, and misuse; ensuring the utilization of organizational resources efficiently and effectively without waste; achieving operational efficiency and effectiveness; reliability of financial reporting; and compliance with applicable laws and regulations.

According to (Moorthy et al., 2011), the objectives of effective internal control system includes safeguarding organizational assets, verifying the accuracy and reliability of accounting data, promoting operational efficiency, fostering adherence to the prescribed managerial policies, and ensuring compliance with laws and regulations.

The objectives of internal control system also include efficiency and effectiveness of operations, internal financial control, and compliance with applicable laws and regulations. Performance and profitability goals as well as safeguarding of resources are the major objectives to be attained to have effective and efficient operations. It also relates to the preparation of reliable published financial statements, including interim and condensed financial statements and selected financial data derived from such statements. An organization is required to comply with laws and regulations governing its existence. (COSO, 1992).

### **2.2.3. Types of Internal Control Systems**

Different authors and professional associations come with different types of internal control systems as each one has their own insight as to what internal control is. However, the popularly agreed upon types of internal controls include preventive control, detective control, and corrective control.

#### **2.2.4. Preventive Control**

Preventive controls are a type of internal control system that aims to prevent undesirable events from happening. These types are proactive measures that help prevent a loss. Examples of preventive controls are physical control of assets, proper authorization, adequate documentation, and separation of duties (COSO, 2009).

These control measures are put in place by management to prevent unwanted problems from occurring. For example, a company might instruct the installation of a firewall to prevent unauthorized personnel from accessing the company's network and doing damage, thereby preventing the exposure, alteration, or destruction of sensitive information from external hackers. Then, management must establish these controls to minimize the risk of each problem they identify (Obert & Munyunguma, 2014).

#### **2.2.5. Detective Control**

Unlike preventive control measures that take proactive approaches, these types of control uncover violators of internal controls structures within an organization after performing a random check to validate transactions and compliance practices. This forms the basis of the work of internal and external auditors who perform reviews to ascertain quality and reliability of accounting and financial events that have occurred within an accounting year (Lartey et al., 2020).

Detective controls are control mechanisms that are initiated to identify problems and keep management informed timely about deviations in any process or activity. They don't prevent unforeseen events but rather investigate the unwanted activities that already exist within an organization. Any breach of internal control procedures such as fraudulent recording can only be discovered after occurring but not prevented and therefore many scholars prioritize preventive controls over these detective controls (Jimmieson et al., 2017).

The most common detective controls are the reconciliation of the accounting ledgers and the bank statements to discover discrepancies. Detective controls also include physical inventories, audits, and variance analysis. It is an action related to the role of internal and external auditors' review of whole accounting systems and operations. Traditionally, the technique is associated with daily compliance to standards and practically focused on daily goals and objective (Chang et al., 2014). Detective controls play a crucial role providing evidence that implemented preventive controls are efficiently function and preventing losses.

#### **2.2.6. Corrective Control**

The third type of internal control system is the procedure that a company uses to solve or correct a problem. A good example might be a change to the company's procedures for creating backup copies of important business files. Corrective controls are measures established by a company to remedy problems it discovers by the detective controls. Examples of corrective control are disciplinary actions, reports filed, software patches or modifications, and new policies prohibiting practices such as employee tailgating.

#### **2.2.7. Components of Internal Control System**

An effective internal control system must fulfill the following key components; control environment, risk assessment, control activities (actions), information and communication system, and monitoring and evaluation system (COSO, 1992).

**Table 1.** The 5 components and 17 principles of internal control under the COSO framework.

<b>Internal Control Components</b>	<b>Principles</b>
Control Environment	<ol style="list-style-type: none"> <li>1. Organization demonstrates commitment to integrity and ethical values.</li> <li>2. Board of directors demonstrates independence from the management and exercises oversight of the development and performance of internal control.</li> <li>3. Management establishes structures, reporting lines, and appropriate authorities and responsibility to pursue organizations objectives.</li> <li>4. Organization demonstrates commitment to attract, develop, and retain competent individuals in alignment with its objectives.</li> <li>5. Organization holds individuals accountable for their internal control responsibilities.</li> </ol>
Risk Assessment	<ol style="list-style-type: none"> <li>6. Organization specifies objectives with sufficient clarity to enable the identification and assessment of risks relating to the objectives.</li> <li>7. Organization identifies risks affecting the fulfilment its objectives and analyzes risks as a basis for determining how they should be managed.</li> <li>8. Organization considers the potential for fraud in assessing risks affecting the achievement of its objectives.</li> <li>9. Organization identifies and assesses changes that could significantly impact the system of internal control.</li> </ol>
Control Activities	<ol style="list-style-type: none"> <li>10. Organization selects and develops control activities that will mitigate risks affecting the achievement of its objectives to acceptable levels.</li> <li>11. Organization selects and develops general control activities using technology to support the achievement of objectives.</li> <li>12. Organization deploys control activities through policies that establish what is expected and procedures that put policies into action</li> </ol>
Information and Communication	<ol style="list-style-type: none"> <li>13. Organization obtains, generates, and uses relevant, quality information to support the functioning of internal controls.</li> <li>14. Organization internally communicates information necessary to support the functioning of IC, including its objectives and responsibilities.</li> <li>15. Organization communicates with external parties regarding matters affecting the functioning of internal control.</li> </ol>
Monitoring Activities	<ol style="list-style-type: none"> <li>16. Organization selects, develops, and performs ongoing and/or separate evaluations to ascertain whether the components of internal control are present and functioning.</li> <li>17. The organization evaluates and communicates IC deficiencies in a timely manner to those parties responsible for taking corrective action, including senior management and the board of directors.</li> </ol>

### **2.2.8. Control Environment**

Control environment refers to “the general attitude of directors, management, and their awareness and actions related to the internal control system and its importance for the entity” (Badara & Saidin, 2013). It includes what is considered by the management as control procedures to enhance their ability to face with risks and ensure its effectiveness in achieving their specific goals (Frazer, 2012; Pickett, 2010). Control environment provides structure and discipline while encompassing commitment and technical competence.

The COSO framework suggest that the foundation of an effective system of internal control is a strong control environment where the management and organization’s governing body are committed to competence, integrity and valuing the assignment of responsibility over internal control. This is the conducive operating environment provided by the management, which sets the tones of an organization and influences the control consciousness of its people.

Control environment encompasses the ethical values of the staff, corporate philosophy and operating style, assignment of authority and responsibility, and includes but not limited to,

- a) Existence and implementation of code of conduct,
- b) Financial reporting attitudes,
- c) Degree of emphasis on meeting performance targets,
- d) Entity’s organizational structure,
- e) Methods of assigning authority and responsibility,
- f) Human resource policies and practices,
- g) Entity’s commitment to competence, through training and retraining,
- h) Formal and informal job descriptions,
- i) Employees’ reward and sanctions procedure,
- j) Membership and operation of the board’s audit committee, and
- k) The presence and responsibilities of an internal audit function.



### **2.2.9. Risk Assessment**

Risk refers to anything that endanger the achievement of a set objective. Risk assessment is a process is a process utilized to identify, analyze, and manage potential risks. According to (Oseifuah & Gyekye, 2013), risk assessment is the identification of factors that threaten the achievement of an organization's objectives and goals. It involves identifying risks to the effectiveness and efficiency of operations, reliability of financial reporting, and compliance with laws and regulations. It is a systematic process for integrating professional judgment regarding probable adverse conditions and events, and assessing the likelihood of possible financial and non-financial losses resulting from these events.

The operations of businesses can face danger and the objective will remain unattained by uncontrolled risk taking. Therefore, the management must assess all risks and risk assessment will prove to be effective if the management helps to determined what the risks are, and what controls should be in place and how to manage the risks (COSO, 1992).

The management of the organization should carry out a comprehensive risk identification. The risk identification should address all risks and cover all department and activities associated with the organization's objectives. The organization can employ several techniques including management conferences, strategic planning, periodic review, etc. Once all possible risks are identified through a department-wide risk evaluation, the management must perform risk analysis to establish the significance of each risk, the likelihood and frequency of each risk happening, and ways to manage the risk. Following the risk analysis, the management must figure out a way to manage the risks. Although the ways the risks are managed may differ, solutions should be designed to maintain the risks within levels deemed acceptable by the management. The management must constantly monitor for changes and accordingly ensure the risk is managed to acceptable levels, thereby maintaining the risk management dynamic. (Spira & Page, 2003)

### **2.2.10. Control Activities**

Control activities are the policies and procedures implemented by organizations with an aim to ensure management directives are effectively implemented. Control activities help confirm that necessary measures are taken to address risks in order to achieve the organization's objectives.

Internal control activities cover policies, procedures, mechanisms, devices, and instruments that fit each enterprise, activity, or operation, expanded, and implemented for the effective management of the identified risk performance (Muceku, 2014). Control activities occur across all levels and functions of the organization. Control activities are generally grouped under three categories, i.e., operations, compliance, and financial reporting. The control activities under these categories include verifications, authorizations, approvals, reconciliations, performance reviews, segregation of duties, and security of assets. (Fadzil et al., 2005)

Managers of companies choose and develop control processes that add to the mitigation of risk and improvement of the standard. Managers of firms choose and develop general control activities above technology to assist in the attainment of business goals. The leader of a company deploys control activities through policies that establish expectation and procedures that put policies into action (COSO, 1992).

Leaders of companies are responsible for the establishment of internal control policies. The right application of principles of internal control may help an enterprise to either mitigate the risk identified or reduce the effect of the risk on the entity. Control activities are both automated and manual. Control activities established by leaders should be effective and efficient. Business leaders should consider cost when designing internal control activities. Lowest cost is important and not exceeds control activity if an adverse event occurs. Corporate leaders should consider control activities in the design of processes and systems. Resource allocation takes priority in the possible occurrence of risk (Gyebi & Quain, 2013).

### **2.2.11. Information and Communication**

(Oseifuah & Gyekye, 2013) state that, "information is the vehicle by which control policies and procedures are introduced and reinforced and communication is the context within which employees become aware of management's commitment to internal controls." For organizations to effectively and efficiently run, a reliable communication system is required to transfer financial and non-financial information associating with internal and external events.

Managers of companies require information to guide their strategies on internal control. The managers pass information within, including goals and functions for internal control, necessary to assist the working of internal control (COSO, 1992). Effective communications encourage the involvement of employees. Organizations should provide in-house trainings whenever new internal control procedures and policies are developed or existing ones are revised. Internal control systems should be part of orientation of new employees.

The managers must also pass information to external parties concerning matters affecting the workings of other parts of internal control. The company's communication system should allow an up and down communication to transfer information about organizational plans, risks, control activities, control environment, and performance related issues. Supervisors must communicate duties and responsibilities to their staff. The staff and middle management should be able to timely alert management about potential problems. Administration and staff should communicate expectations and requirements to each other. Properly designed internal controls set out specific responsibilities and authorities to individual staffs. (NASC, 2010)

#### **2.2.12. Monitoring and Evaluation**

The purpose of monitoring, the final component of the internal control system is to assess the quality of the internal control system over time by conducting ongoing activities and separate evaluations. Ongoing monitoring activities, such as supervision of employees are conducted daily whereby others such as audits of internal control structure and accounting records are performed periodically. Monitoring is a review of an organization's activities and transactions to assess the quality of performance over time and determine whether controls are effective. Management should focus monitoring efforts on internal control and achievement of organizational objectives. For monitoring to be most effective, all employees need to understand the organization's mission, objectives, and responsibilities and risk tolerance levels (Tjiueza, 2018).

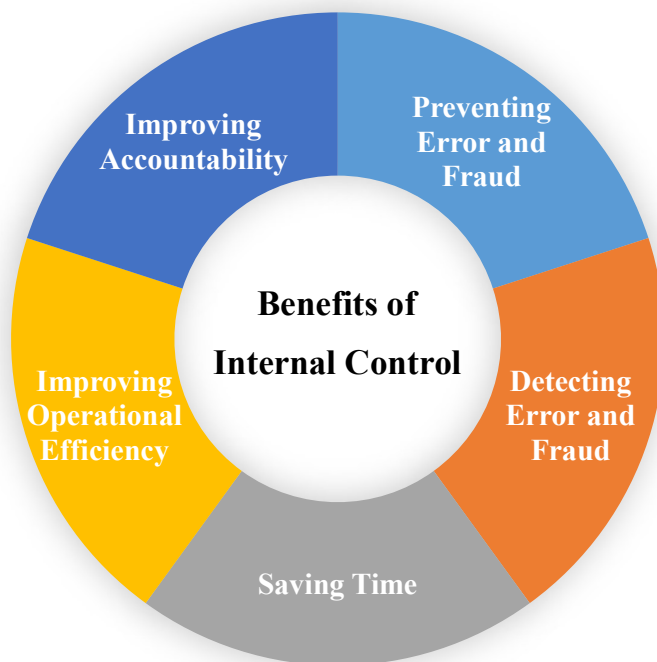
Monitoring evaluates the quality of internal controls over time and allows adjustments to be made whenever necessary. Monitoring involves activities such as performance evaluations, supervision activities, and independent evaluation of internal controls carried out by the management or other independent parties. Monitoring allows managers to identify whether the controls in place are being followed before problems arise.

The monitoring process must also include policies and procedures designed to make sure that audit findings are immediately resolved. Managers must determine the correct remedies in response to audit findings and carry out the actions needed to amend identified deficiencies within the set period. (NASC, 2010)

Control activities must be monitored to ensure their operational effectiveness and efficiency (Dickins et al., 2011). Monitoring activities include periodic assessments of the effectiveness of internal controls by manager, internal auditors and external auditors and communication between parties and the board of directors. In addition to monitoring, the management must evaluate whether an organization's operations are effective and in line with its objectives.

### 2.2.13. Benefits of Internal Control

Proper implementation of internal control can bring several benefits to organizations (COSO, 2019; Doxey, 2019).



**Figure 1.** Benefits of internal control

Some of the benefits of internal control include:

1. Allows the detection of errors and frauds: when properly implemented, internal control creates a system where another staff checks a work done by one staff as part of a process, without the former knowing about it. Unless there is collusion among the people committing the fraud, the internal control environment will bring out any fraudulent action. An example of how internal control can prevent fraud and theft could be having two people to sign checks or prohibit people who write checks to sign it.
2. Saves time: Internal control allows auditors to sample check transactions to ensure reliability and accuracy of entries in the accounting books. This allows the auditor to conduct and complete their audit work and prepare financial reports within the allotted time.
3. Improves operational efficiency: Internal control supports error-free work performance; ensures reliable and accurate entries; and eradicates theft, embezzlement, and theft. Internal control also allows the management to evaluate the performance of employees. These aspects allow internal control to promote operational efficiency within an organization.
4. Prevents/reduces errors: When designed and implemented properly, internal controls can spot potential errors before they actually happen. Internal controls may have two employees independently carrying out the same activities when it involves crucial financial implications. These two employees can then crosscheck their financial analysis outcome to ensure they are the same.
5. Improves accountability: When internal controls designate roles, the assigned members will be responsible for monitoring and reporting allowing the identification of errors and the implementation of improvements. The existence of clear protocols that outline how data is transmitted, recorded, shared, and reported as part of the internal control system promotes accountability. The improved accountability will allow the organization to remain in compliance with laws and regulations.

#### **2.2.14. Limitations of Internal Control**

Internal controls can only provide reasonable assurance, not absolute assurance. Regardless of how well they are designed and implemented, internal controls cannot detect and prevent all situations in which problems may exist. Accordingly, all internal control systems will suffer from certain limitations.

High expenses could also hinder managements to put the right control systems in place. As a result, managements may decide to take some risks because the expense of preventing those risks are difficult to justify. The management can sometimes go around the control environment set and override internal control systems. This can create an impression on other employees that internal controls are useless and that it is ok to disregard them. Internal controls should also be dynamic. If internal controls are not updated according to the changes in internal and external business environment, the controls will become obsolete.

Although under internal control systems companies use various employees in a process to ensure an individual cannot commit fraud, employees can still go around and team up with other employees to commit the fraud. Employees can overpass the segregation of duties by colluding with other employees.

Another limitation of internal control is that it is subjected to human judgements. Simple human errors can lead to a big breakdown in the system. The management could also fail to identify a potential risk and as a result might not design and implement the right controls for the risk. The limitations may also occur in automated conditions. Errors could occur in the designing, maintenance, or monitoring of automated internal controls. (NASC, 2010)

### **2.3. Empirical Literature Review**

Several researchers, both internationally and locally, assessed the effectiveness of internal control practice. The researchers studied internal control practices in different public and private organizations that work in providing services and product.

Kushnir (2018) assessed the theoretical basis of internal control and its practical aspects in the operation of meat processing enterprises, with specific focus on five Ukrainian meat processing plants. The author aimed at establishing the theoretical foundations of the internal control and its improvement in the activity of meat processing plants of various management forms. The authors reported that the implementation and effectiveness of internal control in Ukrainian meat processing enterprises is in a bad condition and that the managers of the meat processing plants follow an unfounded approach towards the implementation of internal control. Although the findings are good indications towards the need for implementing internal control system effectively, the author failed to address all five components of internal control.

The questionnaire distributed to the bank employees only covered aspects about the control environment. The authors did not assess the risk assessment activities carried out by the meat processing plants; the control activities set in place; the mechanisms of communication; and the monitoring of the internal control system. Accordingly, the author failed to capture a complete picture regarding the implementation and effectiveness of internal control in the meat-processing sector.

Giriunas (2012) evaluated the internal control system in the mining industry enterprises in Lithuania. The author assessed the implementation and effectiveness of internal control system in mining industry enterprises located in Lithuania with a specific aim at the effectiveness of the system to prevent fraud. The author reported the existence of large incidences of deliberate and unintentional mistakes and frauds in the mining industry enterprises. The mistakes and frauds were observed in all mining enterprises in Lithuania indicating the poor implementation of internal control system in these companies. Out of the 73 companies assessed in the study, 71% of the companies acknowledged the existence of fraud. The respondents indicated that it is hard to detect and prevent the frauds because they are not committed by a single employee, but rather by a chain of employees. Collusion is one of the limitations of internal control systems. From this study, we can see that implementation of internal control on its own is not sufficient. The effectiveness of the implemented internal control must be assessed. The internal control system must also be monitored and measures should have been taken to correct and prevent observed deficiencies in the internal control system.

Masanja (2020) assessed the effectiveness of internal control systems on the efficiency of financial management for two selected training institutions in Tanzania. The study involved the participation of 70 employees from the two training institutions. More than 80% of the participants reported the existence of all five components of internal control in both training institutions. The researcher attempted to assess the relationship between internal control and financial efficiency aspects including financial utilization, financial accountability, financial appropriation, and financial maximization. However, the attempt by the researcher to investigate the relationship between internal control system and efficiency of financial management yielded mixed results. While some of the internal components yielded a strong positive correlation with some of the financial efficiency parameters, others failed to demonstrate any relation at all.

Ngo et al. (2021) evaluated the relationship between internal control and accounting information quality in the Vietnamese paper-manufacturing sector. The researchers used a questionnaire and collected information from managers, employees working in different positions, managers at all levels, and accountants from 56 paper manufacturers and collected 296 valid responses. The findings of the study indicated that control environment, accounting information system, and internal control procedures have influence on the quality accounting information in the paper manufacturing companies in Vietnam. Among the five internal control components, the researchers addressed all except monitoring of internal control.

Onumah et al. (2012) studied the effectiveness of internal control systems of 33 firms from finance, insurance, paper conversion, information technology, manufacturing, trading, agriculture, agro-processing, metal, oil, pharmaceutical, and beverage industries listed in Ghana stock exchange. The researchers used 23 items associated with all five components of internal control. The findings of the study indicated that the companies control environment to be effective and that the companies have implemented measures and policies in order to provide ideal environment for the effectiveness of internal control. The companies also demonstrated good organizational capability to assess and manage risks. Although the mean score was 3.9 for aspects associating with information and communication, there are companies with a score of two. This indicates there are some companies that require improving their information management and communication systems. The same was observed regarding control activities indicating some companies have ineffective control activities. Some companies used internal auditors for monitoring the internal control system, while others used external auditors.

Negash (2018) assessed the effectiveness of internal control system in the Commercial Bank of Ethiopia. The researcher collected data using a self-administered questionnaire from 56 members of the internal and control departments including branch managers, customer service managers, and controllers. More than 80% of the respondents reported the implementation of effective control environment demonstrating the existence of clear codes of conduct; the management's commitment for the implementation and review of internal control; segregation of duties the existence of policies and procedures; and the top management commitment.



The findings of the study also indicated the presence of appropriate risk assessment and management practices; efficient internal control activities; effective communication; and appropriate internal control monitoring at the Commercial Bank of Ethiopia branches in Hawassa.

Gelaye (2019) assessed internal control practices at the Finance and Development Office in Adama, Ethiopia. Among five departments that exist in the organization, the researcher chose respondents from the audit & Inspection and Payment & Account Departments only. The researcher based on the findings of the study concluded that the organization does not provide reasonable assurance regarding the prevention, timely detection, and correction of unauthorized acquisition. The researcher also indicated that the company auditors are not involved in the activities of drafting policies. A problem around classification of performance deficiencies was also reported. While these findings are very important, there are some limitations to this study. Most of the parameters the researcher addressed fall into the control environment and control activity component of internal control. Considering the researcher's objective being assessing internal control practices, the risk assessment and management practices in the organization; the information system and communication guidelines in place; and monitoring of the internal control should have been addressed as well.

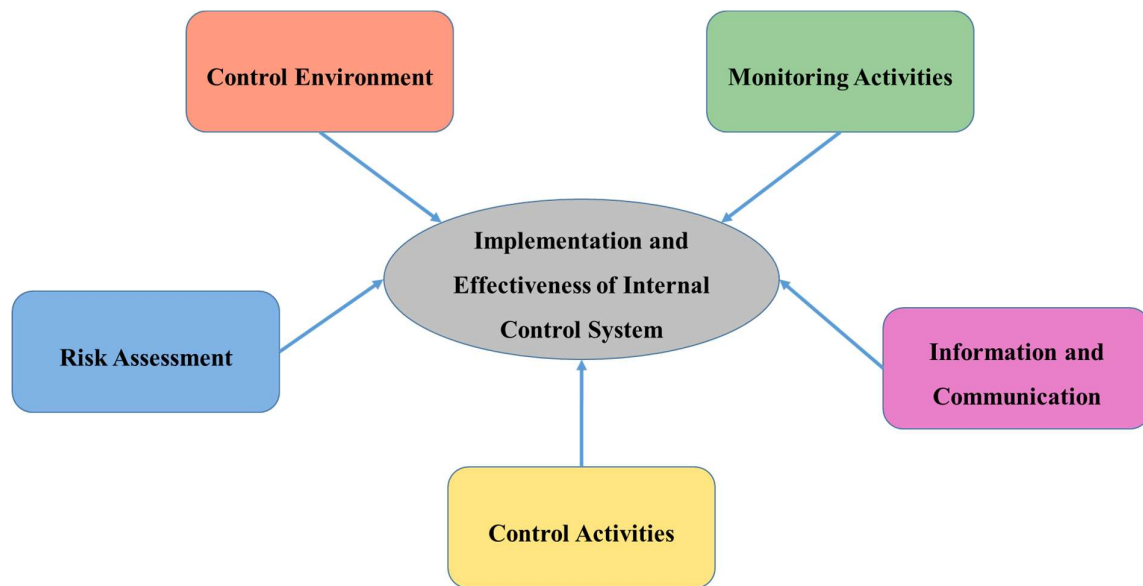
#### **2.4. Research Gap Analysis**

The theoretical and empirical review carried out highlighted the importance of effectively implementing internal control systems. Available international studies addressed the effectiveness of internal control systems in diverse sets of industries. Most of the studies conducted in Ethiopia with regard to internal control practices focus on financial institutions. Findings of available studies indicate the presence of weaknesses in the design, implementation, and/or monitoring of internal control system in different organizations. It can be observed that some researchers fail to address all five components of internal control system when assessing the implementation and effectiveness of internal control systems.

Moreover, there is a lack of available information regarding the implementation and effectiveness of internal control system in the meat-processing sector, both locally and internationally. Accordingly, the researcher decided to focus the study on the implementation of internal control system in the meat-processing sector to help fill the gap in existing literature. In addition, the researcher aims at addressing all five components of internal control system in the study.

## 2.5. Conceptual Framework

A conceptual framework provides a representation of the relationship between variables expected to be observed in the study. The following figure provides the conceptual framework of the present study.



**Figure 2.** Conceptual framework of the study  
Adopted from COSO (1992)

### **3. RESEARCH DESIGN AND METHODOLOGY**

#### **3.1. Research Design and Approach**

The research design or strategy refers to the overall plan employed to connect conceptual research problems to relevant and achievable empirical research. It is a strategic plan that shapes the research and provides specific direction for research procedures (Creswell & Creswell, 2017). The choice of research design and methodology to be used in a study depends on various factors, including the research objective, the nature of the problem to be addressed, and the research questions. Therefore, in this study, the research design and methodology chosen were based on a careful consideration of the research problem and objectives, as well as the research questions posed. The selected research design and methodology were deemed most appropriate for achieving the research objectives and answering the research questions.

Descriptive research design aims to obtain information to describe a situation, population, or a phenomenon systematically. A mixed-methods approach combines qualitative and quantitative research methods to provide a more comprehensive understanding of the research topic. In this case, both qualitative and quantitative research methods were used to gather data and achieve the research objectives. Through the qualitative approach, relevant company documents and policies were assessed to understand how the internal control system is designed and implemented. Through the quantitative method, questionnaires were distributed to employees to assess their perception of the internal control system's effectiveness. Therefore, the present study followed a mixed descriptive research design to study the effectiveness of internal control practices at Frigorifico Boran Foods PLC.

#### **3.2. Population and Sampling**

There are currently 235 employees working at Frigorifico Boran Foods PLC, which are referred to as the population in this study. Sampling is the process of selecting a subset of individuals (a sample) from a population to estimate characteristics of the whole population in a way that individuals are representatives of the larger group they were selected from (Fraenkel et al., 2012). Samples for the present study was calculated using a simple random sampling formula described by (Krejcie & Morgan, 1970) at 95% confidence level.

$$n = \frac{C^2 \times N \times P(1 - P)}{a^2 \times (N - 1) + C^2 \times P(1 - P)}$$

Where; n refers to the sample size required

$C^2$  refers to the table value of chi-square for 1 degree of freedom (3.841)

N refers to the population size

P refers to the population proportion (0.50 provides the maximum sample size)

a refers to the degree of accuracy expressed as proportion (0.05)

$$n = \frac{3.841 \times 235 \times 0.50(1-0.50)}{0.05^2 \times (235-1) + 3.841 \times 0.50(1-0.50)} = \underline{\underline{146 \text{ employees}}}$$

The sample size for the present study was calculated to be 146 employees. Samples were chosen following a simple random sampling technique. Each Frigorifico Boran Foods PLC employee was assigned numbers, and participants were selected using the lottery technique.

### **3.3. Data Collection**

The study utilized both primary and secondary data. Primary data collection involved obtaining information directly from the participants through questionnaires. On the other hand, secondary data was obtained from sources such as books, articles, websites, policy documents, and organizational records, including both published and unpublished documents.

The primary source of data collection was questionnaires (ANNEX 1), which were administered to the employees to obtain quantitative data on their feelings regarding the effectiveness of the internal control system in Frigorifico Boran Foods PLC. The questions aimed to gather information on how the internal control system processed to comply with the rules and regulations of the organization and regulatory body requirements. Open-ended questions allowed for more in-depth findings, while closed-ended questions provided background information. The advantage of using questionnaires is that they are cost-effective, free from bias, and give respondents adequate time to respond.

The questionnaire utilized a five-score Likert scale with endpoints ranging from strongly agree to strongly disagree. Secondary data was obtained from sources such as internal auditor's reports, policies, and procedural manuals.

### **3.4. Data Analysis**

The process of data analysis involves examining, categorizing, tabulating, or otherwise rearranging the evidence collected in a study to address the initial research question. In this study, the researcher analyzed data collected from a statistical population on internal control effectiveness.

The collected data was analyzed using IBM SPSS Version 28.0.1.0 and descriptive statistics to determine response frequencies and make comparisons using percentages. Descriptive statistical analysis was conducted on the data collected from the questionnaires, using measures such as percentage, frequency, mean, and standard deviation. Results were reported as Mean  $\pm$  Standard Deviation (SD).

Qualitative research, on the other hand, is interpretative in nature, which means that the researcher interpreted the qualitative data collected through document reviews. To achieve convergence in the results, the analysis of quantitative data and interpretation of qualitative data were combined.

To evaluate the effectiveness of internal control, the researcher used a Likert response scale ranging from "strongly agree" to "strongly disagree," with a score of 5 representing strong agreement and 1 representing strong disagreement. A positive mean response of more than 3 indicates compliance with the statement, a positive mean response of less than 3 indicates disagreement, and a mean response close to 3 indicates indifference or offsetting discrepancies. The results were presented in chapter four of the study. The researcher coded all questions in a way that a positive mean response of 4 and higher indicates that the internal control system component has adequately contributed to the effectiveness of internal control in the company, while a positive mean response of less than 4 reveals that this component has not adequately contributed to the effectiveness of internal control. Responses between 3 and 4 suggest agreement with the argument but also indicate room for improvement. This methodology is widely used by researchers as it is relatively easy for respondents to use, and responses from such a scale are likely to be reliable. To assess the reliability and consistency of the instrument, the Cronbach's Alpha ( $\alpha$ ) analysis was conducted.

### **3.5. Ethical Considerations**

Prior to collecting data, the researcher explained the objectives of the study to the management and staff of Frigorifico Boran Foods PLC and addressed any questions or concerns they had. Participants were informed that their participation was voluntary, and that their responses would be kept anonymous. The researcher provided clear explanations to any questions raised by the respondents, and ensured that ethical considerations were carefully observed throughout the study.

## 4. RESULTS AND DISCUSSION

### 4.1. Validity and Reliability of the Questionnaire

Validity refers to how well the collected data covers the actual research investigation area and the extent to which the questionnaire measures what is intended to measure (Taherdoost, 2016). To ensure the questionnaire validity to the greatest extent, the questions were developed after a careful and thorough review of literature. The inputs from the thesis advisor were very vital in the questionnaire validation process. The questionnaire was distributed to 20 respondents as a pilot study to assess the validity and repeatability of the questionnaire. The pilot test aimed to make sure the questionnaire provides all important information vital in answering the research questions and to check the clarity of the questions to the respondents. All raised concerns were addressed before the questionnaires were distributed to collect data for this study.

Reliability refers to the extent to which a questionnaire produces similar results in repeated trials. Reliability is the degree to which a research construct is consistent (Bhattacharjee, 2012). A questionnaire is considered reliable when it is stable and accurate. In this study, Cronbach's alpha test was used to measure the reliability of the questionnaire based on the pilot study. Cronbach's alpha is a measure of internal consistency and shows how closely related items within a group are. The higher the Cronbach's alpha value the higher the reliability (Gliem & Gliem, 2003). The Cronbach's alpha values were calculated for each component using SPSS software. Cronbach's alpha values between 0.7 and 0.9 are considered acceptable (Bland & Altman, 1997). The Cronbach's alpha values for all five components of internal control system were between 0.8 and 0.9 (**Table 2**) indicating a good internal consistency between the questionnaire items.

**Table 2.** Reliability analysis of the questionnaire using Cronbach's alpha test

Variables	Number of Items	Cronbach's Alpha
Effectiveness of Control Environment	9	0.8
Effectiveness of Risk Assessment	5	0.9
Effectiveness of Control Activities	5	0.8
Effectiveness of Information and Communication	5	0.9
Effectiveness of Monitoring	5	0.9

Source: Own survey (2022)

## 4.2. Response Rate

Out of the 146 Frigorifico Boran Foods PLC employees randomly selected to participate in this study, 131 participants provided a complete and properly filled questionnaire. Eleven employees either didn't return the questionnaires or the questionnaires were not properly completed. Seven employees were on medical and annual leaves at the time of data collection. The response rate for the questionnaire based survey conducted at Frigorifico Boran Foods PLC as part of this study was calculated to be 88%.

## 4.3. Demographic Data

The demographic data associated with the respondents was as follows (**Table 3**).

**Table 3.** Demographic data of employee respondents from Frigorifico Boran Foods PLC

No.	Variable	Parameter	Frequency	Percentage
1	Gender	Male	94	72
		Female	37	28
2	Age	18 – 39 years	121	92
		40 – 59 years	9	7
		> 60 years	1	1
3	Academic qualification	PhD	1	1
		Master's degree	5	4
		Bachelor's degree	29	22
		Diploma	38	29
		High school	45	34
		Others	13	10
4	Position	Managerial	7	5
		Non-managerial	124	95
5	Experience (Total)	< 2 years	58	44
		2 – 5 years	32	25
		> 5 years	41	31
5	Experience (within Frigorifico)	< 2 years	76	58
		2 – 5 years	28	21
		> 5 years	27	21

Source: Own survey (2022)

Nearly three-quarters of the respondents (72%) were male. The proportion of male employee to female in the company is 2.5 to 1. The company needs to work harder towards women empowerment through the recruitment of competent women to narrow the differences in proportion. The company is mainly staffed with young and adult professionals covering more than 90% of the workforce. This indicates that the company is staffed with young, energetic, and resourceful professionals. For companies that know how to energize and focus their talents, young and adult professionals are a very resourceful and productive members of the workforce (Martin, 2005).

Academically, 1 staff possesses a doctoral degree while 4%, 22%, and 29% of the participants hold a Master's degree, a Bachelor's degree, and a Diploma respectively. This indicates that 56% of the company's staff hold a diploma or higher academic qualification. The remaining 44% of the respondents hold a high school diploma or lower.

From the respondents, 5% occupied managerial positions while the remaining 95% held managerial positions. Nearly half (44%) of the employees at Frigorifico Boran Foods PLC have a professional experience of less than 2 years. A little over half (58%) of the respondents have less than two years' experience. A quarter of the employees have a total professional experience between 2 and 5 years while 31% had experience over 5 years. Among these, 21% of the respondents have a professional experience working at Frigorifico between 2 and 5 years while the remaining 21% had been working at Frigorifico for over 5 years. The fact that the percentage of employees with experience working in Frigorifico for less than 2 years is much higher than employees who worked at Frigorifico for more than 2 years could be an indication of high employee turnover in the company.

#### **4.4. Response Analysis**

##### **4.4.1. Effectiveness of Control Environment**

According to COSO, the control environment “sets the tone of a company and is the foundation for all other elements of internal control: discipline, structure, integrity, ethical values, employee competence, management's philosophy and operating style, and the leadership provided by senior management and the board of directors” (COSO, 1992). As a result, the control environment serves as the foundation for all other components of internal control thereby providing structure and discipline. The responses from employee respondents about



the effectiveness of the control environment in Frigorifico Boran Foods PLC are summarized below (**Table 4**).

**Table 4.** Assessment of effectiveness of control environment in Frigorifico Boran Foods PLC by employee respondents

#	Query	1	2	3	4	5	Mean	SD
		Frequency (%)						
1	There is an internal control system in the company.	0 (0)	0 (0)	28 (21)	56 (43)	47 (36)	4.1	0.8
2	The management is commitment to integrity and ethical values.	9 (7)	0 (0)	19 (14)	56 (43)	47 (36)	4.0	1.1
3	There are documented policies, procedures, and guidelines.	9 (7)	47 (36)	19 (15)	28 (21)	28 (21)	3.1	1.4
4	The company has an organizational structure.	0 (0)	9 (7)	28 (21)	56 (43)	37 (29)	3.9	0.9
5	There is a clear separation of roles and responsibilities.	9 (7)	0 (0)	9 (7)	75 (57)	37 (29)	4.0	1.0
6	The company communicates internal control policies to all employees.	0 (0)	28 (21)	28 (21)	37 (29)	37 (29)	3.6	1.2
7	The company provides adequate training to all employees.	0 (0)	28 (21)	37 (29)	37 (29)	28 (21)	3.5	1.1
8	The company periodically assesses adequacy of the internal control system.	0 (0)	47 (37)	28 (21)	28 (21)	28 (21)	3.3	1.2
9	The internal control system in the company is sufficient to ensure the company's objectives can be achieved.	0 (0)	9 (7)	56 (43)	47 (36)	19 (14)	3.6	0.9
<b>Overall Score</b>							<b>3.7</b>	<b>0.3</b>

Source: Own survey (2022)

The overall mean response value of 3.7 suggests the presence of a good control environment in Frigorifico Boran Foods PLC. Among the respondents, 79% stated the presence of an internal control system at Frigorifico Boran Foods PLC. None of the respondents disagreed about the presence of an internal control system. The remaining 21% of the respondents had a neutral stand when it comes to the presence of an internal control system at Frigorifico Boran Foods PLC.

The respondents are quite optimistic about the management's commitment to integrity and ethical values, as over two-third of the respondents (mean = 4.0) agreed that the management of Frigorifico Boran Foods PLC is committed to integrity and ethical values. While 15% of the respondents remained neutral, 7% of the respondents believe the management of Frigorifico Boran Foods lacks commitment to integrity and ethical values.

Nearly half of the respondents (mean = 3.1, 42%) indicated the presence of documented policies, procedures, and guidelines in Frigorifico Boran Foods PLC. However, equivalent number of respondents (43%) believe that policies, procedures, and guidelines are not documented. This could be alarming because it could either indicate the lack of communication or that the policies, procedures, and guidelines at Frigorifico Boran Foods are not documented.

Nearly three-fourth (mean = 3.9, 72%) of the respondents believe Frigorifico Boran Foods PLC has an organizational structure while 21% neither agreed or disagreed about the presence of an organizational structure. More than three quarters of the respondents (mean = 4.0, 86%) also believe there is clear separation of roles and responsibilities. However, 7% of the employee respondents contest the clear separation of roles and responsibilities at Frigorifico Boran Foods PLC.

Although around half of the respondents agree about communication of internal control policies to employees (mean = 3.6, 58%), adequacy of staff training (mean = 3.5, 50%), and periodical assessment of the internal control system (mean = 3.3, 42%) adequacy at Frigorifico Boran Foods PLC, these three aspects are where several respondents stood in disagreement. The other half of the respondents argued the presence of these practices at Frigorifico Boran Foods PLC. Half of the employee respondents believe the internal control system at Frigorifico Boran Foods PLC is sufficient to ensure the company's objectives can be achieved. However, 7% of the respondents disagree about the sufficiency of the internal control system to ensure Frigorifico's objectives are achieved. The other 43% abstained from agreeing or disagreeing when it comes to the sufficiency of the internal control system.

A previous study by (Hermanson et al., 2012) suggests that management should focus on assessing the tone of the organization at the top and pursuing deviations from policy and management override of controls. Although the overall rating of the control environment at Frigorifico Boran Foods PLC is relatively good (mean = 3.7), the suggestion from the aforementioned study can help better the control environment.

The internal control system in a company must be sufficient enough to ensure the company's objectives can be achieved. The relatively lower rating (mean = 3.6) in the sufficiency of the internal control environment indicates there is still work to be done to improve the efficiency of the internal control at Frigorifico Boran Foods PLC.

Compared to the effectiveness of internal control practices in the meat processing sector of Ukraine reported by Kushnir (2018), the practice of internal control system and its effectiveness is better at Frigorifico Boran Foods PLC. Unlike the managers in the Ukrainian meat sector, the managers at Frigorifico Boran Foods follow the company's documented internal control policies.

The findings about the ability of the control environment settings to ensure effectiveness of internal control practices at Frigorifico Boran Foods PLC were consistent with other findings reported for the financial sector (Negash, 2018). Both companies were characterized by the existence of clear codes of conduct; the management's commitment for the implementation and review of internal control; segregation of duties the existence of policies and procedures; and the top management commitment.

#### **4.4.2. Effectiveness of Risk Assessment**

Risk assessment is an integral part of internal control systems. The management holds the responsibility for identifying and assessing risks. Risk assessment helps companies in developing a roadmap for establishing internal controls to mitigate or minimize risks to acceptable levels. Effective implementation of internal control system requires strategies for identifying risks, a mechanism to respond to risks, and a system to reduce the risks. The survey results about the effectiveness of the risk assessment practices at Frigorifico Boran Foods PLC is presented below (**Table 5**).

**Table 5.** Assessment of effectiveness of risk assessment activities in Frigorifico Boran Foods PLC by employee respondents

#	Query	1	2	3	4	5	Mean	SD
		Frequency (%)						
1	The company has clear objectives that provide effective direction to employees about identification and assessment of risks relating to the company's objective.	0 (0)	9 (7)	9 (7)	94 (72)	19 (14)	3.9	0.7
2	The company considers the potential for fraud in assessing risks that affect the achievement of its objective.	0 (0)	0 (0)	37 (29)	66 (50)	28 (21)	3.9	0.7
3	The company identifies and assesses changes that can affect the internal control system.	0 (0)	0 (0)	9 (7)	84 (64)	37 (29)	4.2	0.6
4	The company has a system that can provide a timely response to identified risks.	0 (0)	9 (7)	47 (35)	37 (29)	37 (29)	3.8	1.0
5	The company has mechanisms in place for mitigating critical risks.	0 (0)	9 (7)	19 (14)	75 (58)	28 (21)	3.9	0.8
<b>Overall Score</b>							<b>4.0</b>	<b>0.2</b>

Source: Own survey (2022)

The overall mean response of 4.0 indicates that respondents rate the risk assessment practices at Frigorifico Boran Foods PLC favorably. Majority of the respondents (mean = 3.9, 85%) believe Frigorifico Boran Foods PLC has clear objectives that provide effective direction to employees about identification and assessment of risks relating to the company's objective. However, 7% of the employees oppose this claim while another 7% abstained. Nearly three quarters of the respondents also believe Frigorifico Boran Foods considers the potential for fraud while assessing risks that affect achievement of its objective.

The highest mean of 4.2 indicates that majority of the respondents agreed that Frigorifico Boran Foods identifies and assesses changes that can affect the internal control system. Majority of the respondents (mean = 3.8, 58%) also agreed that the company has a system that can provide a timely response to identified risks. However, 7% of the respondents questioned the presence of a system that can provide a timely response to identified risks while the remaining 35% of the respondents were not certain about the presence of such system at Frigorifico Boran Foods

PLC. In addition to identification of risks, majority of the respondents (mean = 3.9, 79%) agreed Frigorifico Boran Foods has mechanisms in place for mitigating identified risks.

To improve efficiency, management must design and implement a strong and detailed risk management framework that can detect risks inherent in the internal control system (Oppong et al., 2016). The responses from the respondents indicates that Frigorifico Boran Foods PLC has a relatively effective risk detection mechanism and a framework to respond to identified risks with a potential to adversely impact the internal control system.

The findings of the present study were in agreement with a previous study where the presence of appropriate risk assessment and management practices; efficient internal control activities; effective communication; and appropriate internal control monitoring were reported in the financial sector (Negash, 2018).

#### **4.4.3. Effectiveness of Control Activities**

Control activities allow companies to mitigate risk and achieve company objectives. Control actions are usually presented in standards, policies, and procedures and are communicated to all required stakeholders. These activities take detective, corrective, and preventive forms and are performed at all levels of the company's management system. The survey outcomes regarding the effectiveness of control activities at Frigorifico Boran Foods PLC are summarized below (**Table 6**).

The overall average response of 4.0 indicates the presence of relatively efficient control activities in Frigorifico Boran Foods PLC. Majority of the respondents (mean = 3.9, 65%) rated favorably the company's efforts to selects and develops control activities with a potential to mitigate risks that can affect the achievement of its objectives to acceptable levels. This was contested by 7% of the respondents while the remaining 29% refrained from agreeing or disagreeing.

Majority of the respondents (mean = 3.9, 58%) also indicated that the company has policies and procedures in place to ensure critical decisions undergo appropriate approval and that the company has a system for independent verification of financial transactions. The same was true about the presence of a system in Frigorifico Boran Foods where managers can review and approve financial transactions. The highest mean of 4.4 indicates majority of employees agree

that Frigorifico Boran Foods PLC has a system where all expenditures are duly approved by authorized personnel.

**Table 6.** Assessment of effectiveness of control activities in Frigorifico Boran Foods PLC by employee respondents

#	Query	1	2	3	4	5	Mean	SD
		Frequency (%)						
1	The company selects and develops control activities with a potential to mitigate risks that can affect the achievement of its objectives to acceptable levels.	0 (0)	9 (7)	37 (29)	47 (36)	37 (29)	3.9	0.9
2	The company has policies and procedures in place to ensure critical decisions undergo appropriate approval.	0 (0)	0 (0)	56 (42)	37 (29)	37 (29)	3.9	0.9
3	The company has a system for independent verification of financial transactions.	0 (0)	0 (0)	37 (29)	66 (50)	28 (21)	3.9	0.7
4	The company has a system where managers can review and approve financial transactions.	0 (0)	9 (7)	0 (0)	84 (64)	37 (29)	4.1	0.8
5	The company has a system where all expenditures are duly approved by authorized personnel.	0 (0)	0 (0)	9 (7)	66 (50)	56 (43)	4.4	0.6
<b>Overall Score</b>							<b>4.0</b>	<b>0.2</b>

Source: Own survey (2022)

#### 4.4.4. Effectiveness of Information and Communication

Effective information and communication can help companies achieve their goals based on the efficiency of existing communication and information dissemination techniques employed. When organized effectively and efficiently, it can help organize the work of companies. The responses from respondents about the effectiveness of the information and communication practices in Frigorifico Boran Foods PLC are summarized below (Table 7).

**Table 7.** Assessment of effectiveness of information and communication activities in Frigorifico Boran Foods PLC by employee respondents

#	Query	1	2	3	4	5	Mean	SD
		Frequency (%)						
1	The company obtains, generates, and uses relevant, quality information to support the functioning of the internal control.	0 (0)	9 (7)	9 (7)	75 (57)	37 (29)	4.1	0.8
2	The company has established communication channels for employees to report misconducts, thefts, fraud, etc.	0 (0)	19 (14)	28 (21)	56 (43)	28 (21)	3.7	1.0
3	The company internally communicates information necessary to support the functioning of the internal control.	0 (0)	9 (7)	0 (0)	94 (72)	28 (21)	4.1	0.7
4	The company communicates with external parties regarding matters affecting the functioning of internal control	0 (0)	9 (7)	28 (21)	56 (43)	37 (29)	3.9	0.9
5	The company employees clearly understand their roles and responsibilities in the internal control.	0 (0)	0 (0)	0 (0)	112 (86)	19 (14)	4.1	0.4
<b>Overall Score</b>							<b>4.0</b>	<b>0.3</b>

Source: Own survey (2022)

Over three quarters of the respondents (mean = 4.1, 86%) agreed that Frigorifico Boran Foods PLC obtains, generates, and uses relevant, quality information to support the functioning of the internal control. There are, however, some respondents (7%) that contest the aforementioned information processing practices at Frigorifico Boran Foods PLC. Similarly, 63% of the respondents indicated the company has established communication channels for employees to report misconducts, thefts, fraud, etc. Despite the large number of respondents supporting this claim, 14% of these respondents believe that Frigorifico Boran Foods PLC has not established proper communication channels that allow employees to report misconducts, thefts, and fraud.

Nearly all respondents (mean = 4.1, 93%) indicated the company internally communicates information necessary to support internal control functioning. In addition, majority of the respondents believe the company communicates with external parties regarding matters

affecting internal control functioning. Moreover, all of the respondents believe that all Frigorifico Boran Foods PLC employees clearly understand their roles and responsibilities in the internal control.

#### 4.4.5. Effectiveness of Monitoring

Effective and continuous monitoring of internal control is vital for ensuring implemented internal control system is achieving the desired objectives.

The survey outcomes regarding the effectiveness of internal control monitoring at Frigorifico Boran Foods PLC are presented below (**Table 8**).

**Table 8.** Assessment of effectiveness of internal control monitoring in Frigorifico Boran Foods PLC by employee respondents

#	Query	1	2	3	4	5	Mean	SD
		Frequency (%)						
1	The company selects, develops, and performs ongoing and/or separate evaluations to ascertain whether the components of internal control are present and functioning.	0 (0)	9 (7)	9 (7)	94 (71)	19 (14)	3.9	0.7
2	The company evaluates and communicates internal control deficiencies in a timely manner.	0 (0)	9 (7)	56 (43)	56 (43)	9 (7)	3.5	0.8
3	Deviations and weaknesses are timely reported to those parties responsible for taking corrective action, including senior management and the board of directors.	0 (0)	9 (7)	19 (14)	75 (57)	28 (21)	3.9	0.8
4	The company routinely evaluates the effectiveness of the internal control system.	0 (0)	37 (29)	37 (29)	28 (21)	28 (21)	3.4	1.2
5	The company has performance evaluations where employees and management discuss performance, expectations, and goal.	0 (0)	19 (14)	19 (14)	75 (57)	19 (14)	3.7	0.9
<b>Overall Score</b>							<b>3.7</b>	<b>0.3</b>

Source: Own survey (2022)



Over three quarters of the respondents (mean = 3.9, 85%) indicated that the company selects, develops, and performs ongoing and/or separate evaluations to ascertain whether the components of internal control are present and functioning. However, 7% of the respondents contested this claim while the remaining 7% of the respondents remained neutral. Half of the respondents (mean = 3.5, 50%) indicated the company evaluates and communicates internal control deficiencies in a timely manner. While 7% of the respondents indicated that the company does not evaluate and communicate internal control deficiencies in a timely manner while a large proportion of the respondents (43%) abstained.

Over three quarters of the respondents (mean = 3.9, 78%) indicated deviations and weaknesses are timely reported to those parties responsible for taking corrective action, including senior management and the board of directors in Frigorifico Boran Foods PLC.

The relatively lower mean response rate (3.4) indicates the company's efforts to routinely evaluate the effectiveness of the internal control system require revision. Over a quarter of the respondents (mean = 3.4, 29%) disagreed about the routine evaluation of internal control system effectiveness in Frigorifico Boran Foods PLC while additional 29% of the respondents neither agreed nor disagreed. Nearly three-fourth of the respondents indicated that Frigorifico Boran Foods PLC has performance evaluations where employees and management discuss performance, expectations, and goal. However, 14% of the respondents did not agree that the company conducts performance evaluations while the remaining 14% remained neutral.

The respondents rated the monitoring activities at Frigorifico Boran Foods PLC moderately strong. Reasonable assurance towards achieving company goals requires an effective review mechanism to assess and analyze internal control systems on a continuous basis (Coffin, 2003). Accordingly, to provide reasonable assurance that Frigorifico Boran Foods PLC achieves organizational objectives, monitoring activities on the effectiveness of the internal control system should be strengthened.

#### **4.4.6. Additional Respondent's Comments**

In addition to the effectiveness of the five major components of internal control system in Frigorifico Boran Foods PLC, the respondents provided additional comments with a potential to impact the implementation of the internal control system.

Among these is the relatively high turnover of employees in different departments including the finance department, and that it is influencing the implementation of internal control system in the company. Adequate training is a vital component for the effectiveness of internal control systems (COSO, 2019). High employee turnover, especially in the finance department, can impact internal control systems in several ways. With sudden employee turnovers, accounting records may face disorders that can lead to misstatements that prevent the management from receiving critical financial information timely. Moreover, the delays that may result from the time require to fill in the vacant position with proficient and trained staff could lead to a temporary disruption in the internal control system.

## **5. SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS**

### **5.1. Summary of Major Findings**

This research was guided by five specific research objectives. The study followed a descriptive research design and data was collected using a semi-structured questionnaire from the staff and management of Frigorifico Boran Foods PLC. The collected data was analyzed using the SPSS software.

The study showed that the control environment in Frigorifico Boran Foods PLC is moderately good with an overall mean of 3.7 based on the data obtained from respondents. The results pointed out that the management demonstrates a good deal of commitment towards integrity and ethical values. The company has an organizational structure documented with clear separation of roles and responsibilities for each job function, and provides adequate training to staff. Under the control environment, the lowest mean values were obtained for documentation and the periodic assessment of the internal control system adequacy (3.1 and 3.3 respectively).

The assessment showed that the risk assessment practices in Frigorifico Boran Foods PLC are moderately good with an overall average of 4.0. The company assesses risks including the potential for fraud. The study also indicated that the company has a system that can provide a timely response to identified risks and a mechanism for mitigating them.

The study also identified that the company has effective control activities in place as indicated by the overall mean value of 4.0. Critical discussions go through appropriate approval processes in place. There are also systems for independent verifications of financial transactions and managers are allowed to review and approve financial transactions. All expenditures in Frigorifico Boran Foods PLC are duly approved by authorized personnel.

The results of this study indicated that the information and communication activities at Frigorifico Boran Foods PLC are moderately good with an overall mean of 4.0. The study showed that the company practices proper communication channels that allow employees to communicate all information vital for the functioning of the internal control system including reporting misconducts, theft, and fraud. The communication channels in Frigorifico Boran Foods PLC support both internal and external communications regarding matters that affect the proper functioning of the internal control system.

The study also indicated that the internal control monitoring activities in Frigorifico Boran Foods PLC are moderately good with an overall mean value of 3.7. The company has evaluation systems in place to ascertain the internal control components are present and functioning. The company has a mechanism that allows deviations and weaknesses to be reported to responsible parties for corrective action. The lowest mean values were reported for a timely evaluation and communication of internal control deficiencies and the routine evaluation of the internal control system effectiveness (3.5 and 3.4 respectively).

## **5.2. Conclusions**

Based on the current descriptive research conducted on the effectiveness of internal control systems in Frigorifico Boran Foods PLC, some conclusions can be drawn. The internal control system practices in Frigorifico Boran Foods PLC are moderately good. The internal control system demonstrated several strengths. However, there are quite a number of areas that require improvement for the internal control system to function more effectively.

The control environment indeed sets the tone of the company. Indeed, the commitments to integrity and ethical values, the presence of an organizational structure, and the clear separation of roles and responsibilities in Frigorifico Boran Foods PLC are admirable. However, the company needs to improve its documentation practices for the internal control environment to function more effectively. Moreover, the company needs to revise its periodic assessment on the adequacy of the implemented internal control system. If not, the company will not be able to spot deficiencies and weaknesses in the internal control system and implement the required remedies timely.

The risk assessment practices in Frigorifico Boran Foods PLC are appreciable. The company assesses risks, identifies potential sources of risk, and has mechanisms in place to mitigate the identified risks. While the overall risk assessment practices in the company are good, the large number of neutral responses could indicate a gap in communicating risk assessment policies and findings.

Similar to the risk assessment practices, the effectiveness of the control activities in place in Frigorifico Boran Foods PLC are to be appreciated. However, the control activities could still benefit from improvement which could increase the effectiveness of the company's internal control system. A large neutral response, especially when it comes the policies in place to ensure critical decision undergo appropriate approval, could potentially indicate that policies and procedures are not communicated along the different work functions.

The overall information and communication activities in Frigorifico Boran Foods PLC are moderately good. The company has established internal and external communication channels to allow information that can impact the internal control system functioning in all directions. However, previously observed significant responses along with a similar occurrence in this component could potentially indicate that there is a gap in communication along the line. Information and communication are vital components of internal control systems. A breakdown in the communication channels could significantly impact internal control system functioning. Although internal control system monitoring activities in Frigorifico Boran Foods PLC appear to be moderately good, it received the lowest overall rating compared to the other four internal control system components. Based on the results, the company needs to revise and optimize the evaluation and communication of internal control deficiencies for a timely action. Moreover, the company needs to improve the way it evaluates the effectiveness of the internal control system in a routine manner.

In addition to the five components of internal control system, the data obtained indicates that high employee turnover, especially in the finance department, is among the potential factors that impact the effectiveness of the internal control system in Frigorifico Boran Foods PLC. The company must be prepared for both planned and unplanned disruptions especially in the finance department to prevent fluctuations in effectiveness and deficiencies in the internal control system.

### **5.3. Recommendations**

Based on the findings of this study, the researcher makes some recommendations to improve the effectiveness of internal control systems.

- The management should improve the way it periodically reviews policies and procedures to ensure the internal control is effectively functioning.
- Policies and procedures that impact the implementation and functioning of the internal control system should be communicated to the entire staff.
- The risk assessment policies and reports should be communicated to the entire staff.
- The company should create awareness to all employees about the communication channels in place to circulate information that impact the internal control functioning.
- The internal auditors in the company should improve their periodic assessment of the internal control system adequacy. The periodic assessment should be planned and well scheduled.

- The company should provide adequate training to the entire staff.
- The company should evaluate and communicate internal control deficiencies in a timely manner. Moreover, the company should evaluate the effectiveness of the internal control system in a timely manner.
- The root cause for the high employee turnover, especially in the finance department, should be investigated as it can greatly impact internal control system functioning.
- The present study was conducted on the effectiveness of internal control systems in Frigorifico Boran Foods PLC. Similar studies should be conducted in other areas of the manufacturing and export sector. In addition to internal control effectiveness, future studies can focus on the influences of internal control systems on organizational performance and profitability.

## REFERENCES

- Badara, M. S., & Saidin, S. Z. (2013). Antecedents of internal audit effectiveness: A moderating effect of effective audit committee at local government level in Nigeria. *International Journal of Finance and Accounting*, 2(2), 82–88.
- Basel. (1998). Framework for Internal Control System of Banking Organisations. *Basel Committee*.
- Bava, F., & Devalle, A. (2012). *Corporate governance and best practices: The Parmalat case*.
- Bhattacharjee, A. (2012). *Social science research: Principles, methods, and practices*.
- Bland, J. M., & Altman, D. G. (1997). Statistics notes: Cronbach's alpha. *Bmj*, 314(7080), 572.
- Chang, S.-I., Yen, D. C., Chang, I.-C., & Jan, D. (2014). Internal control framework for a compliant ERP system. *Information & Management*, 51(2), 187–205.
- Coffin, B. (2003). Trends in corporate fraud. *Risk Management*, 50(5), 9.
- COSO. (1992). *Internal Control-integrated Framework, Committee of Sponsoring Organizations of the Tread way Commission*. Committee of Sponsoring Organizations of the Treadway Commission (COSO).
- COSO. (2009). *Internal Control—Integrated Framework, Introduction*. Committee of Sponsoring Organizations of the Treadway Commission (COSO).
- COSO. (2012). *Internal Control—Integrated Framework; Committee of Sponsoring Organizations of the Tread Way Commission, Internal Control over External Financial reporting: A Compendium of Approaches and Examples*. Committee of Sponsoring Organizations of the Treadway Commission (COSO).
- COSO. (2013). *Internal Control—Integrated Framework*. Committee of Sponsoring Organizations of the Treadway Commission (COSO).
- COSO. (2019). *COSO Internal Control Integrated Framework*. Committee of Sponsoring Organizations of the Treadway Commission (COSO).
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- De Jong, A., Roosenboom, P., DeJong, D. V., & Mertens, G. (2005). *Royal Ahold: A failure of corporate governance*. ECGI.

- Deakin, S., & Konzelmann, S. J. (2004). Learning from enron. *Corporate Governance: An International Review*, 12(2), 134–142.
- Dickins, D., O'Hara, M., & Reisch, J. (2011). Frameworks for establishing and evaluating internal controls: A primer and case study. *Journal of Case Research in Business and Economics*, 3, 1–16.
- Dietz, D. K., & Snyder, H. (2007). Internal control differences between community health centers that did or did not experience fraud. *Research in Healthcare Financial Management*, 11(1), 91–103.
- Doxey, C. H. (2019). *Internal controls toolkit*. John Wiley & Sons.
- Fadzil, F. H., Haron, H., & Jantan, M. (2005). Internal auditing practices and internal control system. *Managerial Auditing Journal*, 20(8), 844–866.
- FEED. (2021). *Meat & Live Animal Market Price Brief*. Feed the Future (FEED).
- Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2012). *How to design and evaluate research in education* (8th ed.). McGraw-Hill.
- Frazer, L. (2012). The effect of internal control on the operating activities of small restaurants. *Journal of Business & Economics Research (JBER)*, 10(6), 361–374.
- Gamage, C. T., Lock, K. L., & Fernando, A. A. J. (2014). A proposed research framework: Effectiveness of internal control system in state commercial banks in Sri Lanka. *International Journal of Scientific Research and Innovative Technology*, 1(5), 25–44.
- Gelaye, Z. E. (2019). The Assessment of Internal Audit Practices in Ethiopia (The Case of Finance and Economic Development Office in Adama City). *Research Journal of Finance and Accounting*, 10(17), 22–31.
- Giriunas, L. (2012). Evaluation of internal control system in mining industry enterprises in Lithuania. *Business Management Dynamics*, 1(12), 41–47.
- Gliem, J. A., & Gliem, R. R. (2003). *Calculating, interpreting, and reporting Cronbach's alpha reliability coefficient for Likert-type scales*.
- Gyebi, F., & Quain, S. (2013). Internal control on cash collection. A case of the electricity company of Ghana Ltd, Accra East Region. *International Journal of Business and Social Science*, 4(9), 217–233.



- Hermanson, D. R., Smith, J. L., & Stephens, N. M. (2012). How effective are organizations' internal controls? Insights into specific internal control elements. *Current Issues in Auditing*, 6(1), A31–A50.
- Ho, V. H. (2012). Corporate Governance as Risk Regulation in China: A Comparative View of Risk Oversight, Risk Management, and Accountability. *European Journal of Risk Regulation*, 3(4), 463–475.
- INTOSAI. (2004). *Guidelines for internal control standards for the public sector*. International Organization of Supreme Audit Institutions (INTOSAI).
- Jimmieson, N. L., Tucker, M. K., & Campbell, J. L. (2017). Task conflict leads to relationship conflict when employees are low in trait self-control: Implications for employee strain. *Personality and Individual Differences*, 113, 209–218.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607–610.
- Kumuthinidevi, S. (2016). A study on effectiveness of the internal control system in the private banks of trincomalee. *International Journal of Scientific and Research Publications*, 6(6), 600–612.
- Kushnir, V. (2018). Internal control in the management system of meat processing enterprises. *Agricultural and Resource Economics: International Scientific E-Journal*, 4(1), 91–108.
- Lakis, V., & Giriūnas, L. (2012). The concept of internal control system: Theoretical aspect. *Ekonomika*, 91(2), 142–152.
- Lartey, P. Y., Kong, Y., Bah, F. B. M., Santosh, R. J., & Gumah, I. A. (2020). Determinants of internal control compliance in public organizations; using preventive, detective, corrective and directive controls. *International Journal of Public Administration*, 43(8), 711–723.
- Manyika, J., Lund, S., Bughin, J., Robinson, K., Mischke, J., & Mahajan, D. (2016). *Independent Work Choice necessity and the-gig-economy*. McKinsey Global Institute.
- Martin, C. A. (2005). From high maintenance to high productivity: What managers need to know about Generation Y. *Industrial and Commercial Training*.
- Masanja, N. M. (2020). The Effectiveness of Internal Control System on The Efficiency of Financial Management for Selected Training Institutions In Arusha Tanzania. *Contemporary Journal of Education and Business (CJEB)*, 1(1), 55–73.

- Moorthy, M. K., Mohamed, A. S. Z., Gopalan, M., & San, L. H. (2011). The impact of information technology on internal auditing. *African Journal of Business Management*, 5(9), 3523–3539.
- Muceku, H. (2014). The development of public internal financial control in Albania—and his role in strengthening the managerial accountability. *Academic Journal of Interdisciplinary Studies*, 3(4), 301–301.
- NASC. (2010). *Internal Control Guidebook*. National Association of State Comptrollers (NASC).
- Negash, T. (2018). Assessing the Effectiveness of the Internal Control System in the Commercial Banks of Ethiopia: A Case of Hawassa City. *International Journal of Science and Research*, 8(12), 414–418.
- Ngo, H. T., Luu, D. H., & Troung, T. T. (2021). The Relationship Between Internal Control and Accounting Information Quality: Empirical Evidence from Manufacturing Sector in Vietnam. *The Journal of Asian Finance, Economics and Business*, 8(10), 353–359.
- NPC. (2016). *Growth and Transformation Plan II (GTP II)*. National Planning Commission (NPC).
- Obert, S., & Munyunguma, I. N. (2014). Internal audit perceptions and their impact on performance of the internal audit function. *IOSR Journal of Business and Management*, 16(5), 81–85.
- Onumah, J. M., Kuipo, R., & Obeng, V. A. (2012). Effectiveness of internal control systems of listed firms in Ghana. *Research in Accounting in Emerging Economies*, 12A, 31–49.
- Opong, M., Owiredu, A., Abedana, V., & Asante, E. (2016). The impact of internal control on the performance of faith-based NGOs in Accra. *Available at SSRN 2803451*.
- Oseifuah, E. K., & Gyekye, A. B. (2013). Internal control in small and microenterprises in the Vhembe District, Limpopo Province, South Africa. *European Scientific Journal*, 9(4), 241–251.
- Pickett, K. S. (2010). *The internal auditing handbook* (3rd ed.). John Wiley & Sons.
- Spira, L. F., & Page, M. (2003). Risk management: The reinvention of internal control and the changing role of internal audit. *Accounting, Auditing & Accountability Journal*, 16(4), 640–661.

Taherdoost, H. (2016). Validity and reliability of the research instrument; how to test the validation of a questionnaire/survey in a research. *How to Test the Validation of a Questionnaire/Survey in a Research (August 10, 2016)*.

Tjiueza, E. (2018). *An assessment of the effectiveness of internal control practices: A case study of the Roads Contractor Company (RCC)*. University of Namibia.



**PART 2: Effectiveness of Control Environment**

Kindly read each question with the utmost care and tick the box that corresponds to the response that represents your view most accurately.

1: Strongly Disagree      2: Disagree      3: Neutral      4: Agree      5: Strongly Agree

#	Questions	1	2	3	4	5
2.1	There is an internal control system in the company.					
2.2	The management is commitment to integrity and ethical values.					
2.3	There are documented policies, procedures, and guidelines.					
2.4	The company has an organizational structure.					
2.5	There is a clear separation of roles and responsibilities.					
2.6	The company communicates internal control policies to all employees.					
2.7	The company provides adequate training to all employees.					
2.8	The company periodically assesses adequacy of the internal control system.					
2.9	The internal control system in the company is sufficient to ensure the company’s objectives can be achieved.					

**PART 3: Effectiveness of Risk Assessment**

Kindly read each question with the utmost care and tick the box that corresponds to the response that represents your view most accurately.

1: Strongly Disagree      2: Disagree      3: Neutral      4: Agree      5: Strongly Agree

#	Questions	1	2	3	4	5
3.1	The company has clear objectives that provide effective direction to employees about identification and assessment of risks relating to the company’s objective.					
3.2	The company considers the potential for fraud in assessing risks that affect the achievement of its objective.					
3.3	The company identifies and assesses changes that can affect the internal control system.					
3.4	The company has a system that can provide a timely response to identified risks.					
3.5	The company has mechanisms in place for mitigating critical risks.					

**PART 4: Effectiveness of Control Activities**

Kindly read each question with the utmost care and tick the box that corresponds to the response that represents your view most accurately.

1: Strongly Disagree      2: Disagree      3: Neutral      4: Agree      5: Strongly Agree

#	Questions	1	2	3	4	5
4.1	The company selects and develops control activities with a potential to mitigate risks that can affect the achievement of its objectives to acceptable levels.					
4.2	The company has policies and procedures in place to ensure critical decisions undergo appropriate approval.					
4.3	The company has a system for independent verification of financial transactions.					
4.4	The company has a system where managers can review and approve financial transactions.					
4.5	The company has a system where all expenditures are duly approved by authorized personnel.					

**PART 5: Effectiveness of Information and Communication**

Kindly read each question with the utmost care and tick the box that corresponds to the response that represents your view most accurately.

1: Strongly Disagree      2: Disagree      3: Neutral      4: Agree      5: Strongly Agree

#	Questions	1	2	3	4	5
5.1	The company obtains, generates, and uses relevant, quality information to support the functioning of the internal control.					
5.2	The company has established communication channels for employees to report misconducts, thefts, fraud, etc.					
5.3	The company internally communicates information necessary to support the functioning of the internal control.					
5.4	The company communicates with external parties regarding matters affecting the functioning of internal control					
5.5	The company employees clearly understand their roles and responsibilities in the internal control.					

**PART 6: Effectiveness of Monitoring**

Kindly read each question with the utmost care and tick the box that corresponds to the response that represents your view most accurately.

1: Strongly Disagree      2: Disagree      3: Neutral      4: Agree      5: Strongly Agree

#	Questions	1	2	3	4	5
6.1	The company selects, develops, and performs ongoing and/or separate evaluations to ascertain whether the components of internal control are present and functioning.					
6.2	The company evaluates and communicates internal control deficiencies in a timely manner.					
6.3	Deviations and weaknesses are timely reported to those parties responsible for taking corrective action, including senior management and the board of directors.					
6.4	The company routinely evaluates the effectiveness of the internal control system.					
6.5	The company has performance evaluations where employees and management discuss performance, expectations, and goal.					

**PART 7: Additional Information**

If you have any further information about the designing, implementation, monitoring, and effectiveness of the internal control system or the challenges that hinder its effective implementation, kindly provide the details on the space provided below.

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THANK YOU VERY MUCH