



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

**THE EFFECTS OF INTERNAL CONTROL SYSTEM ON
FINANCIAL AND ORGANIZATIONAL PERFORMANCE:
THE CASE OF ETHIOPIAN CONSTRUCTION WORKS
CORPORATION**

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**JUNE 2021
ADDIS ABABA, ETHIOPIA**

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DECLARATION

I, Sintayehu Endeshaw, declare that this work entitled “The effects of internal control system on financial and organizational performance the case of Ethiopian Construction Works Corporation (ECWC)” is outcome of my own effort and study and that all sources of materials used for the study have been duly acknowledged. I have produced it independently except for the guidance and suggestion of the Research Advisor.

This study has not been submitted for any degree in this University or any other University. It is offered for the partial fulfillment of the degree of Master of Business Administration (MBA).

By: Sintayehu Endeshaw

Signature _____

Date _____

ENDORSEMENT

This thesis has been submitted to St. Mary University, School of Graduate Studies for examination with my approval as a university advisor.

Advisor

signature & Date

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LIST OF ABBREVIATIONS AND ACRONYMS

CA	Control Activities
CE	Control environment
CLRM	Classical Linear Regression Mode
ECWC	Ethiopian Construction Works Corporation
IC	Internal control
IC	Information and Communication
ICS	Internal control system
MLRM	Multiple Linear Regression Model
Mon	Monitoring
RA	Risk Assessment
SD	Standard Deviation
SE	System Effectiveness
SPSS	Statically Package for the Social Science
TOL	Tolerance
VIF	Variable Inflation Factor

ABSTRACT

The purpose of this study is to examine the effects of internal control system at ECWC. The research approach that was used for this research paper is descriptive in nature and quantitative research design have been adopted to achieve the objectives of this study. Primary data was collected from 90 employees of the corporation those were selected through simple random sampling. Then, internal control system of the corporation was measured by using a close ended questionnaire and document review. The researcher collected primary and secondary data. The collected data was analyzed by using different statistical techniques like descriptive statistics, correlation and regression analysis by using SPSS version 20. The result indicates that control environment, risk assessment, control activities, information & communication and monitoring dimensions of internal control have significant positive impact on system effectiveness. The results found from descriptive statistics of ECWC have not a strong internal control structure with respect to risk assessment, control environment and monitoring. Therefore, the study recommends that the corporation needs to encourage and develop the right type of IC monitoring, control environment and risk assessments better than ever that can help to identify the risk then before any kind of risk and or loss occurred in the corporation the management should put the system/procedures that can able to easily support and identify any risk organization to adoptive the system effectiveness level of the employees in the ECWC. And, the study recommends that corporations must attempt to strengthen information & communication to develop the system effectiveness of their employees. The corporations that can optimally utilize and maximize system effectiveness have a competitive edge over others.

Keywords: Internal Controls, System Effectiveness, Ethiopian construction Works Corporation.

CHAPTER ONE

INTRODUCTION

As an introduction of the study, this chapter presents: background of the study, statement of the problem, research questions, research objectives, research method adopted, scope and limitation of the study, significance of the study, definition of terms and organization of the whole paper respectively.

1.1 Background of the Study

Internal control as “Comprising the plan of an organization and all the coordinate methods and measures adopted within a business to safeguard its assets, check the accuracy and reliability of its accounting data, prorate operational efficiency and adherence to prescribed managerial policies.” The definition of internal control is divided into financial internal control and non-financial (administrative) internal control. Financial internal control pertains to financial activities and may be exemplified by controls over company’s cash receipts and payments financing operations and company’s management of receipts and payments. Non-financial internal control on the other hand deals with activities that are indirectly financial in nature i.e. controls over company’s personnel section and its operations, fixed assets controls and even controls over laid down procedures (Reid and Ashelby, 2002).

A sound internal control helps a firm to prevent frauds, error and minimize wastage. As organization today face, increasingly complex, dynamic and treating environments, attentions have been focused on both the running of day-to-day business affairs and the adaption of the organizations to changing environments condition (Amudo and Inanga, 2009).

In order to assure shareholders ‘and to manage risks, companies increased interest in internal control. If a proper internal control system is implemented, all of the operation, physical resources, and data will be monitored and under control, objective will be achieved, risks will be minimized, and information will be reliable (Sultan and Hague, 2011).

Effective internal control system contributes to the effective of the operation by mitigating and preventing risk such as misuse resources, wastage and preparation of unreliable financial reporting (Mergi, 2013).

Internal control is important for all form of business and is a highly pertinent issue within the domain of risks management since the beginning of the 21st century. This has been propelled by a series of a large corporate scandals and failure (Cruoch, 2012). The most well-known accounting scandals over the past decades have probably been the cases of Enron and WorldCom. In the aftermath of the Enron debacle, it turned out it had long neglected several internal control deficiencies, which contributed significantly to the downfall of many companies (Mariri, 2010).

According to Wanjohi (2013) the measurement and evaluation of performance is central to control, and addresses three questions namely; what happened, why it happened and what to do about it. Financial performance provides short term feedback to the control systems as they monitor the implementation of strategic objectives by checking the organization's position, communicating the position, confirming priorities and compelling progress. It can therefore be construed that internal controls are the means while financial performance is the end. Therefore, the aim of this research is to examine the effects of internal control system in Ethiopian Construction Works Corporation. This helps the organizations managers to give due emphasis on the management and control of each activity held and provides them understanding of activities that enhance their financial and organization performance.

A sound internal control system helps an organization to prevent frauds, errors and minimize wastage. Custody of assets is strengthened; it provides assurance to the management on the dependability of accounting data eliminates unnecessary suspicion and helps in maintenance of adequate and reliable accounting records. This study therefore attempts to examine the effects of internal control system in Ethiopian Construction Works Corporation (ECWC) to ensure the sustainability of the organization. Even though internal control system is expensive to install and maintain, it gradually evolved over the years with the greatest development occurring at the beginning of 1940's. Not only have the complexities of the business techniques contributed to this development but also the increased size of business units which have encouraged the adoption of methods which while increasing efficiency of business, acts as a safeguard against errors and frauds. From a management point of view there is need to ensure that internal control systems are put in place in order to reduce the occurrence of fraud.

As Seyoum (2017) noted that in Ethiopia, manufacturing enterprises internal control practice is not well developed. Since, the manufacturing sector is a nascent industry; no sophisticated system may be expected. Yet, in this global world of trade and industry, where customers have several choices, competitive products and services only are destined to succeed.

In Ethiopia, the growth and development of the construction sector demands an effective and efficient ICS to be competitive and to discharge the responsibility imposed by the government. Therefore, the Corporation should establish an effective ICS to sustain in this competitive business. The researcher has a belief that he can contribute for the effectiveness of ICS by providing valuable input for management and board of directors to make decisions on the weakness of the corporation's ICS. Therefore, the researcher motivated to conduct this study with a belief that it will add value in the management's effort to attain the corporation's objective.

1.2 Statement of the Problem

Internal Control system is the leading and widely implementing role with many organizations. As an institutional arrangement, internal control aims at reasonably ensuring the legal operation and compliance, safety of assets, and reliability of financial information, improving the efficiency and effect of operations, and thus promoting the realization of the development strategy of organization. Internal Control is a process effected by an organization's board of directors, management and other personnel, designed to provide reasonable assurance regarding the achievement of objectives relating to operations, reporting and compliance. While we are looking overall organizations, to attain the stated objectives there should be a good internal control system practice from those one of the crucial part is launching of strong internal control on financial and overall organizational performance because handling of any financing issue is the back bone of the organization due to this to assure the continuity of the organization with in the business and to meet the desired goal there should be a sound financial and organizational performance internal control system in ECWC.

The issue with internal control system of an organization according to Jokipii (2009) is ensuring the efficiency and effectiveness of activities, reliability of information, compliance with applicable laws, and timeliness of financial reports. On the other hand, INTOSAI (2004) described an effective ICS encompasses the policies, processes, tasks, behaviors and other aspects of a company that, taken together facilitate its effective and efficient operation by enabling it to respond appropriately to significant business, operational, financial, compliance and other risks to achieving the company's objectives.

This means, Internal Control includes the safeguarding of assets from inappropriate use or from loss and fraud and helps ensure the quality of internal and external reporting. This requires the maintenance of proper records and processes that generate a flow of relevant and reliable information from inside and outside of the organization; help ensure compliance with applicable laws and regulations, and also internal policies with respect to the conduct of business.

This research is focused on identifying and examining the effectiveness of the existing ICS variable's in ECWC. Control environment, risk assessment, control activities, information and communication and monitoring are elements for the effectiveness of ICS. With regard to this, the researcher attempted to identify whether these components of the ICS are present and functioning in the Corporation. particularly, how management demonstrate internal control system practice, whether the practice of risk assessment and control environment enables the corporation to achieve its objective and control activities helps to mitigate risks to the achievement of objectives, the presence of communication internally and externally on matters regarding ICS and finally how IC deficiencies are identified and corrected in a timely manner examined and answered. This research is intended to fill the gap identified by some researchers Radiah and Norli (2012) Kosmas (2011) Mesfin & Firew (2014) Dangu (2013) Stephen (2011) Mwachiro (2013). These researches were done for hotels, banks, Mosques, charities and University. But, the researcher believes that the recommendations given, and conclusions said by them cannot represent the construction sector like ECWC. Furthermore, the researcher confirms that absence of empirical study on ECWC in the area of ICS is the actual gap identified which required the research. On the other hand, there is lack of consistency on the findings of the studies on the application of the whole ICS components for the achievement of organization's objective. For example, the study conducted by Mesfin & Firew (2014) showed that control environment and risk assessment are not the predictors of hotel revenue. Similarly, Joseph and Victoria (2012) examined the effectiveness of ICS on listed firms in Ghana, however out of the five categories assessed under ICS, control environment showed a higher level for effectiveness. On the other hand, Stephen (2011) and Dangu (2013) showed in their study, the whole components of the ICS are important to achieve organization's objective. These contradictions in the research findings drive the researcher to investigate the ICS of ECWC.

1.3 Research Questions

Considering the above problem statement, this study was focus on the major effects of internal control system on financial and organizational performance to meet the desired objective in the corporation by addressing the following research questions.

1. What is the effect of the control environment on the internal control system in Ethiopian Construction Works Corporation?
2. What is the effect of Risk assessment on the internal control system in Ethiopian Construction Works Corporation?
3. To what extent effectiveness of Internal Information and communication- affect the internal control system in Ethiopian Construction Works Corporation?
4. What is the effect of Control activities-on the internal control system in Ethiopian Construction Works Corporation?
5. What is the effect of Monitoring on the internal control system in Ethiopian Construction Works Corporation?

1.4 Objective of the Study

1.4.1 General Objective

The general objective of the study is to examine the effects of internal control system on financial and organizational performance in Ethiopian Construction Works Corporation.

1.4.2 Specific Objectives

The specific objectives of the study were indicated as follows:

1. To determine the effect of the control environment on the internal control system in Ethiopian Construction Works Corporation
2. To examine to what extent the risk assessment affects the internal control system in Ethiopian Construction Works Corporation
3. To determine to what extent effectiveness of Internal Information and communication- affect the internal control system in Ethiopian Construction Works Corporation?
4. To examine the effect of Control activities-on the internal control system in Ethiopian Construction Works Corporation
5. To examine the effect of Monitoring on the internal control system in ECWC

1.5 Significance of the study

- ✓ The study would benefit the Ethiopian Construction Work Corporation by assuring that appropriate processes are functioning effectively to monitor the risks to which the company is exposed, and that the system of internal control is effective in reducing those risks to an acceptable level.
- ✓ The findings would be of great use to the organization management for developing, operating and monitoring the system of internal control.
- ✓ The results of the findings would be used by the employees to be improving their financial performance through effective implementation of the internal control systems and processes.
- ✓ The study findings are expected to guide the organization in ensuring quality of internal and external reporting and maintenance of proper records and processes that generate a flow of timely relevant and reliable information from within and outside the organization. can impact positively
- ✓ for the securing of strong and effective internal control system on financial performance.
- ✓ The study also provide input for further research on the specific area, especially with respect to the strong internal control system in other same organizations at large.

1.6 Scope of the study

1.6.1 Geographical Scope

The study would focus geographically to Ethiopian Construction Works Corporation in Ethiopia. Specially in the main office located in Addis Ababa. The study would be limited by conducting interviewing and documentary analysis of the purposely selected department at head office. The study was contextually scope the effects of internal control systems of the Corporation and how the effects can have on financial and organizational performance of the corporation.

1.6.2 Methodological Scope

The study used an explanatory method to assess the effect between the internal control system effectiveness of the corporation. Quantitative method for the research approach was used. Simple random sampling was used as a sampling technique and questionnaire and document review were used as a data collection tools for the study.

1.6.3 Conceptual Scope

The study incorporated with independent variables are the control environment, risk assessments, control activities, information and communications and monitoring and the dependent variable of the study is system effectiveness of the corporation.

1.6.4 Research Time

The research study was conducted during the year 2020/2021. i.e. the research proposal was started on November 2020 and gets an end on February 2021. The data was collected from the respondents then after the data was inputted, analyzed and discussed on the output eventually the research study was finalized on the June 2021.

1.7 Limitation of the Study

The study was limited to collect data from only head office, but it was good if the research is done on project office located out of Addis Ababa in the corporation. The data was collected from permanent staff, but it was better to get more information from temporary employees of the corporation. In Addition to that the time that was used for collecting, analyzing and compiling the data is too short. The result of research cannot be used to generalize to other organization due to the specific nature of the study.

1.8 Definition of Operational Terms

Control Activities: Control activities are carried out at all levels of an entity, in various stages of the business process and in technology environment (Pham, 2018).

Control Environment: It is the set of standards, processes, and structures that provide the basis for carrying out internal control across the organization. The board of directors and senior management establish the tone at the top regarding the importance of internal control and expected standards of conduct” (COSO 2013).

Financial Performance: A subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. This term is also used as a general measure of a firm's overall financial health over a given period and can be used to compare similar firms across the same industry. The financial performance will be measured in terms of return on assets.” (COSO 2013).

Information and Communication: Information is necessary for the entity to carry out internal control responsibilities in support of achievement of its objectives. Communication occurs both internally and externally and provides the organization with the information needed to carry out day - to - day internal control activities.

Communication enables personnel to understand internal control responsibilities and their importance to the achievement of objectives” COSO (2013), Amudo & Inanga (2009), Ho (2016), Pham (2018)

Internal Controls: Internal control can be simply defined as, the process by which an organization governs its activities to effectively and efficiently accomplish its mission. (INTOSAI, 9120). Internal control is also defined as “the process by which managers assure that resources are obtained and used effectively and efficiently in the accomplishment of the organization objectives, (Adewale, 2014).

Monitoring: monitoring the performance of the internal control system over time, made continuous or separate assessment. The purpose of the monitoring is to determine the internal control made properly, fully and efficiently as designed all five components. Monitoring activities include ongoing evaluations, separate evaluations, or some combination of the two. COSO 2013), Nguyen (2018) and Pham (2018)

Risk Assessment: It is an important part in risk management (Pham, 2018). Risk assessment is the process of detecting, assessing and determining how to succeed these things (Gamage et al., 2014; Ratcliffe & Landes, 2009).

1.9 Organization of the study

This study paper was organized in five chapters. Those are described as follows.

Chapter 1: Introduction to the study. This chapter gives a brief background and introduction to the research, outlines the problem statement and based on the problem statement research questions raised, research objectives, research methodology, significance, scope, limitation and definition of operational terms were outlined.

Chapter 2: Literature review. This chapter reviews the detailed review of theoretical and empirical literatures on the organizational internal control system components.

Chapter 3: Research Design and Methodology The third chapter presents the detail of methodology used in the study such as research design, population and sampling techniques.

Chapter 4: Data Analysis and Interpretation. This chapter outlines the data collected for the study.

Chapter 5: Summary of finding, conclusions. This chapter presents the conclusion and the recommendation drawn from findings of the data with implications for further research.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

The purpose of this chapter is to review the literature in the effect of internal control system on financial and organizational performance within the corporation.

The review has four sections. section 2.1 tell us about theoretical framework of the study, Section 2.2, presents the conceptual framework of the study section 2.3 present about empirical framework of the study and finally on section 2.4 addressed that analytical framework of the study and 2.5 Summary of related literature review.

2.1 Theoretical Frame Work of the study

The study bases on the agency theory, the theory of firm, the attribution theory and the reliability theory.

2.1.1 Methodological Scope

To ensure harmonization of the interests of the principal and their agents the theory posits that a comprehensive contract is necessary to ensure that the interests of the principals are met. The relationship between the agent and principal is further strengthened by employing experts and systems such as audit and control environment (Jussi & Petri, 2004).

Further, the theory recognizes that any incomplete information about the relationship, interests or work performance of the agent described could lead to selection problem. This theory was essential to the study since the internal control systems is one the mechanisms employed to ensure that no agency problem exists within the firm. The internal control system further helps to reduce information asymmetry within the firm.

2.1.2 Attribution Theory

Attribution theory is a social psychology theory that explores how people interpret events and behaviors and how they ascribe causes to the events and behaviors. According to Schroth and Shah (2000), studies using attribution theory examine the use of information in the social environment to explain events and behaviors. Reffett (2007) asserts that when evaluators believe comparable persons would have acted differently in a given circumstance, they (evaluators) tend to attribute responsibility for an outcome to the

person. According to Wilks and Zimbelman (2004), the first case refers to internal or dispositional attributions while the second one refers to external or situational attributions. The auditor's accountability for detecting fraud is extended by Reffett's (2007) study which predicted that auditors are more likely to be held accountable by evaluators when the auditors fail to detect fraud after they had identified the fraud occurrence as a fraud risk. The result of Reffett's study shows an increase in auditors' liability when an audit fails after the auditors had identified the perpetrated fraud as a fraud risk and performed procedures to investigate the identified fraud risk. Attribution theory thus advocates for auditors to report on the effectiveness of firms' internal control. Auditors are therefore expected to gain a better understanding of the internal controls in place, assess the design and implementation of the internal controls, and test the operating effectiveness of the internal controls. This is deemed necessary for the auditors' reliance and possibly scaling back of other substantive audit procedures for the required performance.

The attribution theory suggests that when fraud occurs, identified parties should be held accountable and auditors, being the "public watchdogs" are most likely to be held accountable if evaluators determine substandard audit services were provided (Reffett, 2007). In reference to the study the attribution theory places the burden of fraud reporting to the relevant individuals within the institutions. Despite growth in technology that has changed the internal control systems structure there will always be a need for a person to manage these systems. As such its upon such authority figures i.e. managers and the board of directors who should ensure that all the relevant regulatory and compliance issues are adhered with. In reference to our study this theory seeks auditors to be in the forefront of reporting fraud when it occurs.

2.1.3 Reliability Theory

Reliability theory simply describes the probability of a system completing its expected function during an interval of time (Gavrilov & Gavrilova, 2001). The theory has been used as a model by insurance and life insurance companies in computing profitable rates to charge their customers. The theory stipulates that internal control systems are primarily set up for assessment and control of risks. The theory further argues that weak internal control systems result in more substantive work and hence greater cost (Kinney, 2000). According to Gavrilov and Gavrilova (2001), the determination of the "weakness" of any internal control system is primarily judgmental. Upon the formulation of the process and

system reliability estimates, comparison with financial data from the organization's past performances may provide a more solid basis for judgment of the impact of an internal control system on the firm's income risk. Messier Jr. and Austen (2000) state that one of the primary advantages of the reliability theory is its close relationship to the needs of an organization regarding understanding the internal control system and control risk assessment. The reliability theory is based on the notion that an implemented system should be able to meet its expected function. The reliability theory is relevant to this study based on the second objective of the study. The theory focuses on the effect of risk assessment on financial performance of firms; in this case, the commercial banks in Kenya.

2.2 Empirical Literature Review

Empirical literature review is an account of what has been published on a topic by accredited scholars and researchers. It brings out the knowledge and ideas that have been established on a topic, and what their strengths and weaknesses are. It uses secondary sources, and do not report new or original experimental work.

Ndiwa (2014) studied the assessment of Internal Control System on Financial Performance in tertiary training institutions in Kenya. Many public institutions in Kenya are faced with poor financial performance which in extreme cases has led to the closure of some of them, despite having the necessary resources to run them. The study, therefore, endeavored to investigate the persistent poor financial performance from the perspective of internal controls which had hitherto been ignored. The general objective of the study was to establish the relationship between internal control and financial performance in tertiary institutions in Kenya. The study was limited to the African Institute of Research and Development Studies. The findings indicated that most respondents were of the view that indeed there was a relationship between internal control and financial management.

Mwakimasinde, Odhiambo and Byaruhanga (2014) analyzed the effect of internal control systems on the financial performance of sugarcane out grower companies in Kenya. The specific objective of the study was to determine the effect of internal control system components on the financial performance of the sugarcane out grower companies. Internal control system was characterized by control environment, risk assessment process, information system and control activities while financial performance was characterized by cost per unit, goal attainment and profitability or surplus. The regression results also

show that internal control system helps increase financial performance of sugarcane out grower companies' percent. Based on the findings and conclusions of the study, the following recommendations were made; Internal control system has been found to have a statistically positive effect on performance of sugarcane out grower companies hence there is need for the sugarcane out grower companies to improve on their internal control system. Even though the study produced meaningful results it was subject to some limitations which provide avenues for further research.

Kamau, (2014) investigated the effect of internal controls on the financial performance of manufacturing firms in Kenya. The findings revealed that most manufacturing firms had a control environment as one of the functionality of internal controls of the organization that greatly impacts on the financial performance of the firms. The results also revealed that the staffs were trained to implement the accounting and financial management systems, the security system identified and safeguarded organizational assets. The statistical result from the regression analysis shows that there is a positive relationship between internal control and financial performance of manufacturing firms in Kenya. The study recommends that both internal and external auditor should be constantly updated and well-grounded on international financial reporting standards (IFRS) and principles in order to enhance their knowledge and skills in application of accounting practices and to keep them updated on the contemporary issues.

Kinyua (2015) studied the Effect of Internal Control Environment on the Financial Performance of Companies quoted in the Nairobi Securities Exchange. The objective of the study was to establish the effect of internal control environment on financial performance of companies quoted in Nairobi Securities Exchange. The findings indicated that there is a positive significant relationship between internal control environment and financial performance, which corroborates with the findings of Mawanda (2008), states that institution which have enforcement of proper internal control systems will always lead to improved financial performance. The study, therefore, recommends that internal control environment should be enhanced to further improve the financial performance of companies quoted in Nairobi securities exchange.

2.3 Conceptual Framework of the study

Internal control is an interlocking set of activities that are layered onto the normal operating procedures of an organization, with the intent of safeguarding assets,

minimizing errors, and ensuring that operations are conducted in an approved manner (Chang et al., 2019; Hogan & Wilkins, 2008).

Financial Control and Administrative Control are two types of controls. A part of financial management is the reliability of financial documents and the protection of properties. Administrative controls alter the way the work is done, including the timing of work, policies and other rules, and work practices such as standards and operating procedures (including training, housekeeping, and equipment maintenance, and personal hygiene practices) (Kisanyanya, 2018).

In the AIS perspective, the features of adaptation to internal controls affect processes and management and therefore impact internal control. Internal controls are carried out to ensure that organizational priorities and results are achieved. There are five main components of internal control, including the control environment, control procedures implementation, assessment of risk, communication and information, and monitoring (Abu Naser et al., 2017; Chan et al., 2020).

The first category is the control environment, which is perceived to be a significant indicator of successful internal regulation (Chan et al., 2020). The control environment is the attitude toward internal control and controls consciousness established and maintained by the management and the employees of an organization (Liu et al., 2019; Pham, 2021). It is a product of management's philosophy, style, and supportive attitude, as well as the competence, ethical values, integrity, and morale of the organization's people. The organization structure and accountability relationships are key factors in the control environment.

The second category is control activities, which are both manual and automated resources that help to prevent or mitigate risks that can impede the organization's objectives and mission achievement. Management should set up monitoring activities to efficiently and effectively accomplish the company's objectives and purposes (Mjaku & Pristina, 2019).

Assessment of risk is the third form. Risks are incidents that impede the achievement of goals. Ultimately, they have an effect on an organization's ability to fulfill its purpose. Risk management is the technique of recognizing, judging and deciding how these events are handled. Both internal and external threats may impede the achievement of the goals set at all levels of the organization (Wang, 2019).

Communication and information is the fourth control type. Communication is an

exchange of useful information within and between individuals and organizations to help decisions and plan activities. Within the organization, information should be communicated to the management and other employees who need it in a way and within a timeframe that enables them to fulfill their responsibilities. Communication also takes place with outside parties such as customers, suppliers, and regulators. (Rae et al., 2017; Salameh, 2019).

The fifth category is monitoring, which is the method of evaluating the output of internal regulation over time. Monitoring is an analysis of an entity's operations and transactions in order to assess the service level over time and to decide if controls are effective. Management should concentrate monitoring efforts on internal control and accomplishment of the goals of the company. For monitoring to be most effective, all employees need to understand the organization's mission, objectives, and responsibilities, and risk tolerance levels. (Shoimah, 2015; Ariesa & Berasategu, 2009; Febriana et al., 2017).

Effective internal control system operates when some specific procedures are adopted by the management. International Accounting Standards (IAS) categorizes internal control types as a plan of organization, segregation of duties, control of documents, safeguarding of assets, competence of staff, arithmetic and accounting controls, recording and record keeping, supervision, authorization and approvals, vocation and rotation of duties, cost feasibility, routine and automatic checks.

The literature studied on the factors affecting the effectiveness of internal control is basically based on 5 parts of the COSO's internal control in 2013 including: Control environment, risk assessment, control activities, information and communication systems, and monitoring.

Control Environment: "The control environment is the set of standards, processes, and structures that provide the basis for carrying out internal control across the organization. The board of directors and senior management establish the tone at the top regarding the importance of internal control and expected standards of conduct" (COSO 2013). Usually, control environment consists of the following factors: managers' integrity and ethical values, leadership philosophy and operating style; organizational structure; assignment of authority and responsibility; personnel policy; planning; management engagement; and some other factors. The role of control environment is to provide a key foundation for

activities because organizational values cannot rise above the integrity and ethics of the people who create, administer and monitor them (Rae & Subramaniam, 2008). Efficient control environment has a great impact on the entire internal control system. The fact that internal control is carried out efficiently or inefficiently depends mainly on such foundation; therefore, this is the most important component for providing a solid foundation for the design and operation of an entity's internal control system.

Risk assessment: The IIA's International Standards define a risk as 'the possibility of an event occurring that will have an impact on the achievement of objectives'. Risks may be financial, operational, legal/regulatory, or strategic in nature. When risks happen, it is likely that an entity will not achieve the set objectives. Risk management is a process designed to prevent or minimize risks (Walker, 1999), and therefore it helps the entity avoids not achieving their main goals. Risk assessment is an important part in risk management (Pham, 2018). Risk assessment is the process of detecting, assessing and determining how to succeed these things (Gamage et al., 2014; Ratcliffe & Landes, 2009). Risk assessment helps an entity have the best risk management measure. Thus, the establishment and implementation of risk assessment measures will have an impact on internal control efficiency.

Control Activities: According to COSO (2013), "control activities are actions that are established by policies and procedures to ensure that management directives for reducing risks and achieving an entity's objectives have been being implemented". Control activities are carried out at all levels of an entity, in various stages of the business process and in technology environment (Pham, 2018). They can include a series of manual and automatic activities such as authorizations, approvals, verifications, reconciliations and reviews of operating performance and can be designed to prevent or review the implementation of management directives.

Information and communication: The study of Gamage and Low Lock (2014), Ho (2016) and Nguyen (2018) have shown that information and communication is an important factor affecting the effectiveness of the Internal Control systems. All researchers have confirmed that the information and communication system well designed have a positive effect on the effectiveness of internal control in the enterprise. Information must be determined reliably from both inside and outside the enterprise, to be informed and handled by people with functions in a timely manner. "Information is necessary for

the entity to carry out internal control responsibilities in support of achievement of its objectives. Communication occurs both internally and externally and provides the organization with the information needed to carry out day - to - day internal control activities. Communication enables personnel to understand internal control responsibilities and their importance to the achievement of objectives” COSO (2013). Therefore, If the communication and information system is well designed and operated, it will help employees understand and perform correctly their tasks, contributing to improve the internal control efficiency in the unit.

Monitoring: It is one of the most important aspects of internal control in any organization. According to Nguyen (2018) and Pham (2018), monitoring the performance of the internal control system over time, made continuous or separate assessment. The purpose of the monitoring is to determine the internal control

made properly, fully and efficiently as designed all five components. Monitoring activities include ongoing evaluations, separate evaluations, or some combination of the two. Ongoing evaluations are built into the routine operations and are performed on a real-time basis. A separate evaluation is conducted periodically by objective management personnel, internal audit, and external parties. The scope and frequency of separate evaluations is a matter of management judgment (COSO, 2013). Surrounding this point, monitoring is performed based on 2 principles: The organization selects, develops, and performs ongoing and/or separate evaluations to ascertain whether the components of internal control are present and functioning; Also, evaluates and communicates internal control deficiencies in a timely manner to those parties responsible for taking corrective action, including senior management and the board of directors, as appropriate. Hence, it helps internal control perform more effectively.

Types of Internal Control Systems:

Internal controls are of different types and are grouped into preventive, detective and corrective control. However, different writers have come out with different types of Internal Control Systems. Milichamp (2002) indicates that the types of Internal Controls are safeguarding of assets, separation of duties, supervision, verification, approval and authorization, documentation and reporting. Other authors such as Lousteau (2006), the State University of New York and Dinapoli (2005) have agreed that the types of internal controls include directive controls, preventive controls, compensating controls, detective

controls, and corrective actions. These types of internal controls are explained below.

Preventive Control: According to Lacotelli (2009), preventive controls are measures put in place by management to deter and prevent noncompliance with directives, policies and procedures. These preventive controls are intended to prevent risk of error, frauds and irregularities from occurring in transactions and prevention of loss. These preventive controls are in the form of segregation of duties, proper authorization and approval, establishment of organizational chart to allocate jobs to responsible officers, adequate documentation, physical control over assets and constant training of staff.

Detective Controls: These are controls which are aimed at detecting and uncovering problems such as fraud, irregularities and errors after they have been committed. Although, detection is necessary prevention is more desirable. These controls are in the form of post-audits, exception reports and validation. They provide evidence that a loss has occurred but do not prevent a loss from occurring. Examples of detective controls are reviews, analyses, variance analyses, reconciliation, physical inventories and audits. However, detective controls play critical role in providing evidence that the preventive controls are functioning and preventing losses Wells (2006).

Corrective Controls: According to Simmons (1995), the corrective controls are put in place to address anything which is foreign and every problem that has occurred in the system. Examples of corrective control are system re-design, follow-ups, post audits and application of punishments by management for wrong doing.

Directive Controls: It refers to policies and procedures put in place by top management to promote compliance with independence rules. The policies and procedures from management that are important must pervade the organization and must be clear and consistent to ensure compliance Rittenberg et al. (2007). **Compensating Controls:** Compensating controls are put in place for lack of controls elsewhere in the system. For example, firms with an electronic database could maintain a hard copy of the client list in the office library. Such a list would compensate for downtime in electronic systems and difficulties in locating client names in an electronic system.

The study analyzes the output that got from the questioner and the finding got from the data collection and we interpret accordingly then can identify the outcomes.

Hypothesis based on results of previous researches carried out by other authors, the presented theoretical basis and the actual research at cement companies, the author

proposed a research model for factors affecting the effectiveness of internal control at cement companies according to the 2013 Internal Control - Integrated Framework as Fig. 1

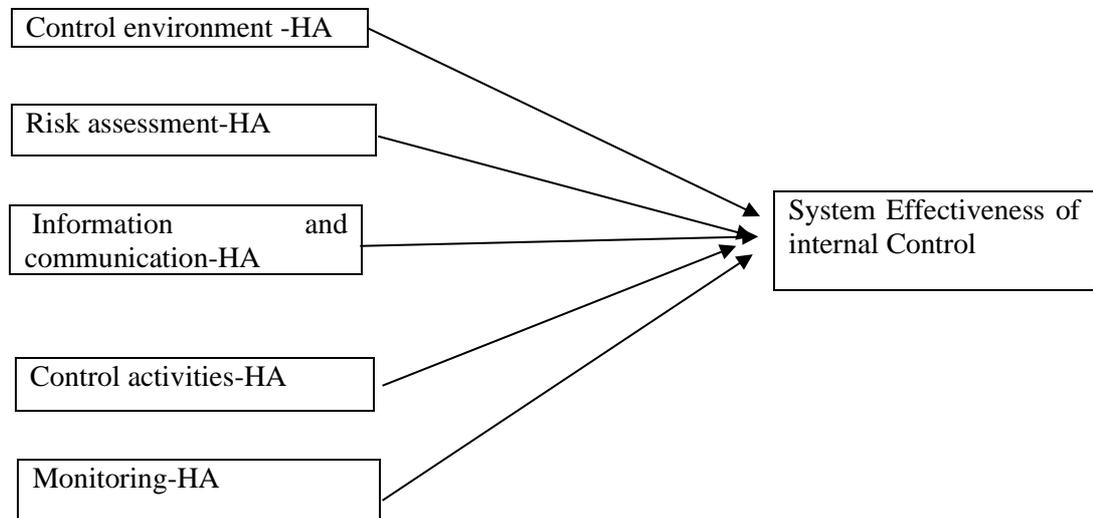


Figure. 1. The proposed model (Source: Results of the author's synthesis, 2019)

Research Model for factors affecting effectiveness of internal control at ECWC. The given objectives, scope and the research model for factors affecting the effectiveness of internal control at ECWC companies as well as the basic theory presented above, research hypotheses are posited as follows:

Hypothesis HA: Control environment has a positive impact on the system effectiveness of internal control at cement companies;

Hypothesis HA: Risk assessment has a positive impact on the system effectiveness of internal control at cement companies;

Hypothesis HA: Information and communication has a positive impact on the system effectiveness of internal control at cement companies;

Hypothesis HA: Control activities have a positive impact on the system effectiveness of internal control at cement companies;

Hypothesis HA: Monitoring has a positive impact on the system effectiveness of internal control at cement companies.

2.4 Summary of Literature Review

In general, the literature indicates that organizations invest heavily on the internal control and used to improve the quality of their internal control systems. Effective internal control system helps organizations to ensure that financial and organizational performance objectives are met. It can be concluded from the literature that Control Environment, Control Activities, Risk Assessment, Information and Communication and Monitoring are significant predictors of financial and organizational performance. However, the objectives of every internal control system were to achieve organizational efficiency and effectiveness, meet corporate objective and ensure adherence to rules and regulations.

Obviously, ICS cannot guarantee a free of errors and fraud performances. Thus, the studies reviewed internal control of organizations, and government units ICS in essence of preventing fraud. Therefore, it is not in doubt that studies and continuous improvements of ICS are needed in individual and public organization to achieve the planned objective. Considering the importance of the topic to be studied, there are no many researches and inconsistent results has been identified regarding the title of the study especially in Ethiopian Construction Works Corporation. Therefore, this study also aims to examine the effectiveness of internal controls system on financial and organizational performance in case of Ethiopian Construction Works Corporation.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research Approach

The research approach which used for this study was quantitative in nature. Creswell (2005) asserted, quantitative research is a type of research in which the researcher decides what to study, asks specific narrow questions, collects numeric (numbered) data from participants and analyzes these numbers using statistics, and conducts the inquiry in an unbiased, objective manner (Creswell, 2005). Quantitative study involves analysis of data and information that are descriptive in nature and qualified (Sekaran, 2003). Quantitative approach is one in which the investigator primarily uses postpositive claims for developing knowledge, i.e., cause and effect between known variables of interest or it employs strategies of inquiry such as experiments and studies and collect data on predetermined instruments that yield statistics data (Creswell, 2003).

3.2 Research Design

The research design employed for this study was an explanatory method to assess the relationship between the internal control and system effectiveness in ECWC. In explanatory method, independent and dependent variables are measured at the same point in time using a single questionnaire (Anal Bhattacharjee, 2012). The purpose of this research is to identify if there is effect between the predictor variable and the response variable. The predictor variable is components of internal control, and the response variable is System effectiveness

3.3 Target Population and Sampling Techniques

3.3.1 Target Population

Target population is said to be a specified group of people or object for which questions can be asked or observed made to develop required data structures and information (Hair et al. 2006). For this study, Employees of ECWC working at Addis Ababa area are selected as a population. It was assumed that the various sectors and districts of ECWC operate in a similar manner with respect to policies and practices though the sectors are located in different geographical areas.

3.3.2 Sampling Techniques

The sampling frame is source materials from which the sample is selected. In this research, the participants of the study were more of professional employees and management staff of those selected sector of ECWC who are working at Head Office in Addis Ababa. The sampling frame from which participants selected was professional staff position level employees and managerial position. Ethiopia Construction Works Corporation Addis Ababa area sectors are categorized into four parts i.e. (head office, Water Infrastructure, Transport Infrastructure, Building construction Technology). Head office and Transport Infrastructure construction sector office is selected to investigate for this study. Head office and Transport Infrastructure sector under Addis Ababa are randomly selected to undertake the study. The participants (respondents) were selected from two sectors of the corporation. The respondents were proportional selected from each office. To minimize respondent's selection bias, simple random sampling method was applied to select those individuals who were participate in responding the questionnaire from the selected sector. The larger sampling size of a research, the more accurate data generated but the sample size will be different due to different situation as stated by Malhortra and Peterson (2006). Due to nature of the study the population sample determination method developed by Carvalho (1984), was applied to determine a sample size.

Then, the total population of the corporation is 9070. From those, 4217 Permanent and 4853 are temporarily. The study was focused on permanent who are worked in Addis Ababa at head office level. Then, size of the population for this study (480) and the selected sample size was 100 employees who participated in this research study.

Table 3.1: Sample size determination

Population size	Small	Medium	Large
51-90	5	13	20
91-150	8	20	32
151-280	13	32	50
281-500	20	50	80
501-1200	32	80	125
1200-3200	50	125	200
3021-10000	80	200	315
10,001-35,000	125	315	500
35001-150,000	200	500	800

Source: Carvalho (1984)

3.4 Sources, Methods of Data Collection and Measurement

Sources

The study used primary and secondary data sources. The secondary data has been collected via detailed review of related literature i.e. books, articles, journals, bulletin, and the corporation's available documents. The researcher used primary data that was collected via questionnaire. As the research is intended to investigate the internal controls on impact of system effectiveness, a set of questionnaires would be distributed to management and employees of the corporation.

Method of data Collection

The questionnaire used to gather the primary data from the management staff and employees of the ECWC, which was distributed by the researcher to the respondents. For this study close-ended survey questions were used to measure dependent and independent variable. The Likert-type scale method used to range of responses: strongly agree, agree, neutral, disagree, and strongly disagree, with a numeric value of 1-5, respectively. The usage of this scaling method ensured that the research study illustrated the ability to assess the responses and measure the responses quantifiably so that a pattern or trend may be produced to answer the research questions. As Neuman (2003) explained, it is a process of asking many people the same questions and examining their answers research questions.

Measures

The measuring instrument used in this study has been a close-ended survey questionnaire developed through the adaptation and modification of instruments from previous studies. The level of measurement of the variables in the study constitutes using ordinal scale.

The study was also said to be correlation in design because there is the intent to investigate the relationship between dependent and independent variable of the study. Creswell (2005) explained that the correlation research method is useful for identifying the type of association, explaining complex relationships of multiple factors that explain an outcome, and predicting an outcome from one or more predictors.

In addition to investigating the effect of the variables, the influence of independent variable on system effectiveness would be undertaken through regression analysis. Creswell (2005) asserted that, regression is used for explaining effect among variables interested in determining whether one or more variables might influence another variable.

3.5 Data Analysis Method

Once data is collected, it is necessary to employ statistical techniques to analyze the information, as this study is quantitative in nature. Data were entered and analyzed using SPSS 20 version. Correlation analysis statistical tools used to align with the objectives of the research, to test relationship between the two variables. Regression analysis was employed to determine the effect of independent variable (Components of Internal Control) on dependent variable (System effectiveness). Thus, both the strength of the relationship between variables and the influence of independent on dependent variable was assessed.

The statistical tools used in this study are descriptive and explanatory. summary statistics, which include the frequency and percentage values, are computed for each variable in the study. The descriptive statistical results were presented by tables, mean and standard deviation distributions and percentages to provide a summary picture of the data.

Pearson Correlation

Pearson correlation coefficient was used to determine the relationships between Components of Internal control i.e. Control Environment, Risk Assessment, Control Activities, Information and Communications and Monitoring, with System effectiveness in Ethiopian Construction Work Corporation.

Multiple Regression Analysis

Multiple regression analysis was also applied to investigate the effect of relationship of IC and its impact on system effectiveness in ECWC. The model for this research can be expressed in form $Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \dots + \beta_nX_n$ where: Y is the dependent variable “ α ” is a regression constant; β_1 , β_2 , β_3 and β_n are the beta coefficients; and X_1 , X_2 , X_3 , and X_n are the independent (predicator) variables.

3.6 Validity and Reliability

Validity is the degree to which a measure accurately represents what it is supposed to. It is concerned with how well the concept is defined by the measure(s). Therefore, this study tried to address validity through the review of literature and adapting instruments used in previous research. Reliability refers to the extent to which the data collection techniques and procedures yield consistent findings Easter by smith, et al., (2008). So, reliability is

when a measure gives the same outcome, under the same conditions even when it is measured at different points in time.

For this paper measure of reliability used was Cronbach alpha. Cronbach alpha is a test of reliability technique that requires only a single test administration to provide a unique estimate of the reliability for a given test. Cronbach alpha reliability coefficient normally ranges between 0 and 1. According to George and Mallery (2003:231) provide the following rule of thumb for the Cronbach's alpha >.9 excellent, >.8 good, >.7 acceptable, >.6 questionable, >.5 poor and <.5 unacceptable.

Accordingly, reliability results of the measurements for the variables of Internal Control components and system effectiveness of internal control are described in the table below.

Table 3.2 Reliability Statistics
Reliability Statistics- Cronbach'sAlpha

Cronbach'sAlpha	Cronbach's Alpha Based on Standardized Items	N of Items
.850	.940	36

Source : Questionnaires and SPSS output (2020).

Table 3.1 shows that, the independent variables (control environment, risk assessments, control activities, Information& communication and Monitoring) and the dependent variable (system effectiveness) proved that the overall variables Cronbach's Alpha levels and reliability coefficient are more than 0.80, so the measures are good and reliable.

3.7 Ethical Consideration

The questionnaire was distributed to some of staff members who would be willing to fill-up. The purpose of the questionnaire was clearly indicated on the questionnaire. The names of the respondents were kept confidential. The conclusion reached, and recommendation forwarded not be biased and be purely based on the evidence.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.1 DATA PRESENTATION

The study examined the effects of internal control system at ECWC. This chapter presents and discusses the findings of the study. The chapter also presents the analysis and interpretation of results. The presentations are done according to the specific objectives and questions. The first section presents the response rates. The second section presents the background information of the respondents. The third section presents descriptive analysis of the current organizational internal control system of ECWC. The fourth section presents correlations matrix analysis and the last one is Regression Analysis statistical results along the five study objectives.

4.1.1 Respondents profile

The response rate indicates that one hundred (100) questionnaires was distributed. From the total of distributed ninety (90) questionnaires were returned and completed, this implies that giving a response rate of 90%.

4.1.2 Demographic Characteristics of Respondents

The demographic profile of the respondents was presented in this section. The personal profile of the respondents is analyzed as per their gender, age status, levels of educational achievements and years of service in the organization. descriptive statistics was performed on the demographic variables as a means of describing the respondents.

Table 4.1. Background Information

Background	Description	Number	Percentage	Remark
Gender	Male	62	68.9	68.9
	Female	28	31.1	100.0
	Total	90	100.0	
Age	20-29	20	22.2	22.2
	30-39	38	42.2	64.4
	40-49	22	24.4	88.9
	50 & above	10	11.1	100.0
	Total	90	100.0	

Background	TVET Certificate	5	5.6	5.6
	Diploma	9	10.0	15.6
	Bachelor's Degree	49	54.4	70.0
	Master's Degree	23	25.6	95.6
	PHD and Above	4	4.4	100.0
	Total	90	100.0	
Work Experience	1-5 years	17	18.9	18.9
	5-10 years	39	43.3	62.2
	More than 10 years	34	37.8	100.0
	Total	90	100.0	

Source : Questionnaires and SPSS output (2020).

Gender of the Participants

The gender proportion of male respondents is 68.9% while the female respondents were 31.1%. Both male and female were participated in the survey even if the ratio of the respondents is not proportional. This enables the researcher that there is no bias in the survey instrument related to the gender of the respondents.

Age of the Participants

The age category of 20-29 years consists 22.2% followed by those under the category of 30-39 years with 42.2%. The remaining 24.4. % and 11.1% of the respondents are under the age category of between 40-49 years and 50 years and above respectively.

Educational background

The education qualifications of respondents indicate that 5.6% hold TVET Certificate. 10% of the respondents were diploma holder , From the total of respondents, the major percentage holds by the degree holder 54.4 % and the second major respondents were MA/MSc degree holders 25.6%, while 4.4% of the respondent achieved their PhD; the academic competence of respondents enables to comprehend the ICS of the corporation and believed by the researcher to get the information that can help better accomplish the study.

Work Experience of respondents

As sex, age and educational qualification of individuals are different; individuals also differ in their work experience durations. Respondents were asked to indicate years of experience they have in the corporation and the data collected shows 17 participants (18.9%) of the respondents have 1-5 years of experience, 39 participants (43.3%) of them have 5- 10 years of experience, 34 participants (37.8%) have more than 10 years of experience in the corporation. The survey shows that a large number of the respondents almost 82% have more than 5 years of experience in the corporation. and this helps them to know better the corporation and hence its ICS, therefore it is the researcher's belief that they can provide reliable information to this study.

4.2 DATA ANALYSIS

4.2.1 Descriptive Statistical Analysis

The general objective of the study is to examine the effects of in internal control system on financial and organizational performance in Ethiopian Construction Works Corporation and with a specific objective that was intended to determine the effect of control environment on ICS in ECWC, to examine to what extent risk assessment and Information & communication affects the ICS, to examine the effect of control activities and monitoring on ICS in Ethiopian Construction Works Corporation.

The effective functioning of components of IC provides a reasonable assurance regarding achievement of stated objectives to ensure high levels of Corporation's performance. To achieve this objective the system effectiveness of Internal Control System and about ICS Components of the corporation were asked for respondents through questionnaire to scale their degree of agreement to know their views. The survey results are presented and analyzed here under.

Control environment

The control environment includes management's philosophy and operating style, organizational structure, assignment of authority and responsibility, human resource policies and practices and competence of personnel. A control environment is made up of a compilation of an entity's organizational structure, processes, policies, and standards that are

utilized to maintain control across the organization. The board of directors and executive management of a business establish the company's culture and attitude regarding the importance of maintaining controls and set the expectations of standards of conduct within the organization often referred to as "the tone at the top." The survey made is based on those facts of control environment and the result is scaled as follows.

Table 4.2 Control Environment

Items of control Environment	Likert rating score						
	SA	Agree	Neutral	DA	SD	Mean rating	SD
	(%)	(%)	(%)	(%)	(%)		
The board of directors and management at all levels of the corporation demonstrate through their directives, actions and behaviors the importance of integrity & ethical values. N=90	9 (10.0)	29 (32.2)	18 (20.0)	28 (31.1)	6 (6.7)	3.08	1.144
Deviation from the corporation's expected standards of conduct are identified and remedied in a timely and consistent manner. N=90	8 (8.9)	21 (23.3)	22 (24.4)	35 (38.9)	4 (4.4)	2.93	1.079
There is competent and independent internal control department in the corporation. N=90	9 (10.0)	19 (21.1)	25 (27.8)	31 (34.4)	6 (6.7)	2.9333	1.10971
There is active management board & audit committee consisting of independent members in the corporation. N=90	6 (6.7)	26 (28.9)	22 (24.4)	26 (28.9)	10 (11.1)	2.9111	1.13815
There are clear lines of authority, responsibility and performance evaluation. N=90	12 (13.3)	22 (24.4)	15 (16.7)	26 (28.9)	15 (16.7)	2.8889	1.131921

Procedures are in place to evaluate the performance of individuals and teams against the corporation's expected standard of conduct. N=90	7 (7.8)	27 (30.0)	22 (24.4)	20 (22.2)	14 (15.6)	2.9222	1.21070
Administrators make every effort to ensure that all tasks are completed as planned and achieve the set objectives. N=90	6 (6.7)	26 (28.9)	19 (21.1)	29 (32.2)	10 (11.1)	2.8778	1.14977
Departments clearly understand the responsibilities in implementing internal control targets. N=90	8 (8.9)	26 (28.9)	20 (22.2)	25 (27.8)	11 (12.2)	2.9444	1.19325

Source: Questionnaire and SPSS output (2020)

Grand Mean 2.936 SD 1.145

Table 4.2 above shows that 32.2% agree and 31.1% showed disagree which is almost close, with the statement that the board of directors and management at all levels of the corporation demonstrate through their directives, actions and behaviors the importance of integrity & ethical values. The rest 20 % neutral, 10% strongly agree and only 6.7 % strongly disagree with the statement mentioned. The mean rating score of the item was 3.08 which is found on the scale between agrees and disagrees. Therefore, the directors and management of the corporation should be the role model to adhere and implement the statement. Correspondingly, 38.9% disagree, 24.4% neutral and 23.3% agrees, then 8.9% strongly agree and 4.4% strongly disagree with the idea that deviation from the corporation's expected standards of conduct are identified and remedied in a timely and consistent manner. The mean value of this statement is 2.93 which is found from rating score of disagree, neutral and agree on the scale. This implies that the managements didn't identify the deviations and was not taken remedial action on time.

Similarly, there is competent and independent internal control department in the corporation statement the respondents were scaled 34.4% disagree, 27.8% neutral, 21.1% agree, 10% strongly agree and 4.4% strongly disagree. As we have seen from the rating score there is scattered rate which implies 31.1% agrees and strongly agree, 27.8 % didn't had any opinion about the existence of internal control department and 38.8% strongly disagree and disagree

about it. The mean value is 2.93 found between disagree, neutral and agree rating score. The participants same rating 28.9% agree and 28.9% disagree, 24.4% neutral with the statement that 'There is active management board & audit committee consisting of independent members in the corporation', the rest 6.75% agree and 11.1% strongly agree. They mean rate for this statement at 2.911 which is found between agree, disagree and neutral on the scale. Moreover 28.9% of the respondents disagree, 24.4% agree, 16.7% neutral, 16.7% strongly disagree and 13.3% strongly agree to the statement 'There are clear lines of authority, responsibility and performance evaluation.' The mean rate of this statement is 2.888 which is found approximately from all scale. With respect to the idea 'Procedures are in place to evaluate the performance of individuals and teams against the corporation's expected standard of conduct.' 30% of the respondents agree, 24.4% neutral, 22.2% disagree, 15.6% strongly disagree and the remaining 7.8% strongly agree. This statement has a mean value of 2.922 and found between agree, neutral and disagree.

In addition, 43.3% of the respondents disagree and strongly disagree, 35.6% agree and strongly agree to the idea 'administrators make every effort to ensure that all tasks are completed as planned and achieve the set objectives.' whereas 21.1% neutral and have no opinion for the statement. This statement has a mean value of 2.877 which is found between agree, strongly agree, disagree and strongly disagree and neutral on the scale. On the other hand, the respondents strongly agree, agree and neutral 8.9%, 28.9% and 22.2% respectively on the statements 'departments clearly understand the responsibilities in implementing internal control targets' with a percentage of 27.8% disagree, and finally 12.2% strongly disagree. The mean rate of the statement is 2.944.

Finally, the grand mean for the control environment 2.936 with SD 1.145. It can be observed that majority of principles of control environment are present and somehow functioning however regarding the presence of independent active management and audit committee, presence of independent and competent internal control policy, regarding the importance of evaluating the performance of individuals and teams against expected standards of conduct and identifying and taking corrective action for deviation from the corporation's expected standards of conduct are not practiced in the Corporation, this may in turn create an impact on the whole control environment.

Risk assessment

Proper risk management and internal control assist organizations in making informed decisions about the level of risk that they want to take and implementing the necessary controls to effectively pursue their objectives. To understand the risks, they are exposed to, put controls in place to counter threats, and effectively pursue their objectives. The survey made is based on those facts of risk assessment and the result is scaled as follows.

Table 4.3. Risk Assessment

Items of Risk Assessment	Likert rating score						
	SA	Agree	Neutral	DA	SD	Mean rating	SD
	(%)	(%)	(%)	(%)	(%)		
Risk identification is carried out at all levels, departments, functions and activities in the corporation. N=90	9 (10.0)	18 (20.0)	31 (34.4)	18 (20.0)	14 (15.6)	2.8889	1.19403
The corporation identifies & assesses changes that could significantly impact the system of internal control. N=90	11 (12.2)	12 (13.3)	26 (28.9)	24 (26.7)	17 (18.9)	2.7333	1.26135
The Corporation Consider the potential for fraud in assessing risks to the achievement of objectives. N=90	9 (10.0)	23 (25.6)	25 (27.8)	18 (20.0)	15 (16.7)	2.9222	1.23823
The corporation specifics objectives with sufficient clarity to enable the identification & assessment of risks relating to objective. N=90	7 (7.8)	22 (24.4)	29 (32.2)	18 (20.0)	14 (15.6)	2.8889	1.17506
Operational, compliance and reporting objectives are set clearly and appropriately. N=90	6 (6.7)	27 (30.0)	25 (27.8)	22 (24.4)	10 (11.1)	2.9667	1.12629

Source : Questionnaires and SPSS output (2020).

Grand Mean 2.880 SD 1.199

From the survey result indicated in the above table 34.4% of the respondents neutral and 20% agree and 20% disagree on the statement that says, 'risk identification is carried out at all levels, departments, functions and activities in the corporation'.15.6% of respondent has strongly agree and 10% strongly agree. The mean value is 2.8889 which is found between from all on the scale. Then, 28.9% of respondents neutral and 26.7% disagree and 18.9% strongly disagree with the idea that states 'the corporation identifies & assesses changes that could significantly impact the system of internal control' and 13.3% agree and 12.2 % strongly agree for the statement. The mean value of each of these statements is 2.733 which is come from all the scale. Therefore, the respondent's levels of agreement approximately dispersed in each scale.

On the other hand, 27.8% of respondents neutral ,20% disagree and 16.7%strongly disagree on the idea that 'the corporation Consider the potential for fraud in assessing risks to the achievement of objectives.'25.6% of respondents agree and the remaining 10% strongly agrees with the idea. The mean of 2.922 is found from all on the scale.

Like the above risk assessments ideas 32.2% of the respondents neutral, 24.4% agree and 7.8% strongly agree on the statement 'the corporation specifics objectives with sufficient clarity to enable the identification & assessment of risks relating to objective' 20% disagree and 15.6% strongly disagree on the statement with a mean value of 2.888 which is found from all on the scale. The approximate percentage of respondents on the statement with 'operational, compliance and reporting objectives are set clearly and appropriately' 30% agrees, 6.7% strongly agree ,27.8% neutral ,24.4% disagree and 11.1% strongly agree responded for this statement. The mean rate 2.966 is found from strongly agree, agree, neutral, disagree and strongly agree on scale.

Eventually, the grand mean for the risk assessment 2.880 with SD 1.199 The questions that was provided for the respondents on the corporation's risk assessment criterion were about risk identification, assessments on significant impact on internal control, fraud minimizing, sufficient clarity of the objectives to identify the risk and objectives of operational performance and report objectives are set clearly and appropriately in the corporation. The result of the survey shows the scattered and almost close scale of rate for each question and I

learned that the corporation is in risk assessment process may create difficulties in achieving corporation's objectives.

Control activities

The control activities generally can describe the availability of policies and procedures that enable organizations to discharge their duties, adequate separation of duties, proper authorization of transactions and activities, adequate documents and records, physical control over assets and records and independent checks on performance. The survey made is based on those facts of control activities and the result is scaled as follows.

Table 4.4 Control activities

Items of Control Activities	Likert rating score						
	SA	Agree	Neutral	DA	SD	Mean rating	SD
	(%)	(%)	(%)	(%)	(%)		
Control activities ensure that rights and content accessed is limited to authorized persons. N=90	2 (2.20)	25 (27.8)	32 (35.6)	16 (17.8)	15 (16.7)	2.8111	1.09025
There is property administration manual that helps the corporation to categorize and identify asset, receive and dispatch asset, disposal of asset, stock management and inventory. N=90	10 (11.1)	28 (31.1)	28 (31.1)	16 (17.8)	8 (8.9)	3.178	1.1276
Control Policies and procedures specify the scope of application, roles and functions of the relevant departments. N=90	4 (4.4)	30 (33.3)	30 (33.3)	16 (17.8)	10 (11.1)	3.0222	1.07031
Corporation establishes responsibility & accountability for executing policies and procedures. N=90	10 (11.1)	28 (31.1)	28 (31.1)	17 (18.9)	7 (7.8)	3.1889	1.11067
Physical control activities ensure that property is protected from access by unauthorized persons. N=90	11 (12.2)	31 (34.4)	23 (25.6)	14 (15.6)	11 (12.2)	3.1889	1.20760

Control to ensure that all operations are verified with validity and legality before recording. N=90	17 (18.9)	27 (30.0)	18 (20.0)	13 (14.4)	15 (16.7)	3.2000	1.35911
There is segregation of duties, the custody of asset; recording & authorization of transaction are performed by different individuals. N=90	18 (20.0)	30 (33.3)	16 (17.8)	14 (15.6)	12 (13.3)	3.3111	1.32092
Control to ensure that transactions are recorded in the right order and ensure the control process. N=90	16 (17.8)	20 (22.2)	19 (21.1)	16 (17.8)	19 (21.1)	2.9778	1.40607

Source : Questionnaires and SPSS output (2020).

Grand Mean 3.110 SD 1.212

Respondents were asked about the control activities can able to ensure about the right and contents accessed is limited to the authorized person. The survey result in the above table indicates that 35.6% of the respondents are neutral, 27.8% agree 17.8% disagree ,16.7% strongly disagree and only 2.2% strongly agree for this idea. The mean rating which are 2.811 and found between neutral, agree, disagree and strongly agree and strongly disagree.

The second point that was asked for the respondents were ‘there is property administration manual that helps the corporation to categorize and identify asset, receive and dispatch asset, disposal of asset, stock management and inventory.’

The results are approximately close to the percentage allocation for all the scale.31.1% neutral, 31.1% agree,17.8% disagree, 11.1% strongly agree and 8.9% strongly disagree. The mean rate of 3.178. Similarly, 33.3% agree,33.3% neutral, 17.8%disagree, 11.1%strongly agree and only 4.4 % strongly agree for the statement with ‘Control Policies and procedures specify the scope of application, roles and functions of the relevant departments.’ The mean rate is 3.022 which is found from agree, neutral, disagree and strongly disagree on the scale. As to the establishment of responsibility & accountability for executing policies and procedures, 31.1% of respondents agree ,31.1% neutral for that the corporation establishes responsibility and accountability. The rest 18.9% disagree, 11.1% strongly agree and 7.7%strongly disagree. The mean rating value is 3.188%.

And, some of the respondents 34.4% agree,25.6% neutral,15.6%disagree ,12.2%strongly agree and 12.2% strongly disagree on the statements ‘Physical control activities ensure that

property is protected from access by unauthorized persons'. The mean value which is 3.188 and 1.759. Regarding "Control to ensure that all operations are verified with validity and legality before recording" the respondents 30% agreed on the idea. 20% newutral, 18.9% strongly agree, 16.7% strongly disagree and 14.4% disagree. The mean value which is 3.200 found approximately 'with all on the scale. The respondents were scaled 33.3% agree, 20% strongly agree, 17.8% neutral, 15.6% disagree and 13.3% strongly disagree for this idea "There is segregation of duties, the custody of asset; recording & authorization of transaction are performed by different individuals." The mean rate is 3.311 found with all scale.

Finally, when respondents asked about Control activities can ensure that transactions are recorded in the right order and ensure the control process, 22.2% of respondents agree, 21.1% neutral, 21.1% strongly disagree, 17.8% strongly agree and 17.8% disagree. The mean respondents value is 2.973. In general, almost I can say equal portion of respondents agree on the existence of control activities that can help to manage potential risks for the achievement of corporation's objective.

The grand mean for control activities 3.110 with SD 1.212. However, the survey result also indicates that there are principles that are not practiced in line with the corporation framework. Therefore, these principles and concepts must be practiced and well informed and every employee should know clearly what it tells and uses, to fully acknowledge the principles of control activities are present and functioning.

Information and Communication

Information is necessary for the entity to carry out IC responsibilities to support the achievement of its objectives. Management obtains and uses relevant and quality information from both internal and external sources to support the functioning of other components of IC. Communication is the continual, iterative process of providing, sharing, and obtaining necessary information. Internal communication is the means, by which information is disseminated throughout the organization. The survey made is based on those facts of information and communication and the result is scaled as follows.

Table 4.5 Information and Communication

Items of control Environment	Likert rating score						
	SA	Agree	Neutral	DA	SD	Mean rating	SD
	(%)	(%)	(%)	(%)	(%)		
Information system ensures information is provided promptly, fully and completely in accordance with information needs. N=90	12 (13.30)	18 (20.0)	30 (33.3)	17 (18.9)	13 (14.4)	2.9889	1.23156
The communication channel of corporation allows their subordinates to easily and promptly reflect related issues to functional superiors. N=90	8 (8.9)	27 (30.0)	23 (25.6)	19 (21.1)	13 (14.4)	2.9778	1.20838
Corporations perform well in providing honest, relevant and timely information to external audiences. N=90	13 (14.4)	22 (24.4)	24 (26.7)	21 (23.3)	10 (11.1)	3.0778	1.22912
Information system ensures information is kept confidential and stored securely. N=90	14 (15.6)	33 (36.7)	22 (24.4)	13 (14.4)	8 (8.9)	3.3556	1.17379
Information about tasks, requests from superiors are clearly communicated, to the right people, at the right time. N=90	11 (12.2)	34 (37.8)	20 (22.2)	16 (17.8)	9 (10.0)	3.2444	1.18332

Source : Questionnaires and SPSS output (2020).

Grand Mean 3.129 SD 1.205

From the above table we can observe that 33.3% of respondents are neutral, 20% of the respondents are agree, 18.9% of the respondents are disagree, 14.4% of respondents are strongly disagree and 13.3% of the respondents are strongly agree on the statement that states “Information system ensures information is provided promptly, fully and completely in accordance with information needs.” The mean value is 2.988 and found between approximately agree, neutral, disagree, strongly disagree and strongly agree on the scale. On the other hand, 30% agrees, 25.6% neutral for the statement ‘The communication channel of corporation allows their subordinates to easily and promptly

reflect related issues to functional superiors.’ The rest 21.1%, 14.4% and 8.9% disagree, strongly disagree and strongly agree respectively. The mean value 2.977 is found approximately with all rating on the scale. Regarding the statement ‘corporations perform well in providing honest, relevant and timely information to external audiences.’ 26.7% neutral,24.4% agree,23.3% disagree,14.4%strongly agree and 11.1% strongly disagree, with the mean rating of 3.077 which is exactly agree on a Likert scale. Similarly, the respondents rate the statement ‘Information system ensures information is kept confidential and stored securely.’ 36.7 % of them agree, 24.4% neutral,15.6% strongly agree,14.4% disagree and 8.9% strongly disagree, and with a mean value of 3.355. This mean value is found between strongly agree, agree, neutral, disagree and strongly disagree.

In addition, 37.8% agree, 22.2% neutral,17.8% disagree,12.2%strongly agree and 10% strongly disagree with the statement ‘Information about tasks, requests from superiors are clearly communicated, to the right people, at the right time’. The mean value which is 3.244 found between all of rating on scale.

The grand mean for the information and communication 3.129 with SD 1.205 The survey result about information and communication part of the ICS indicates that information is received timely, relevant & reliable reports needed for decision making, Information is provided for external audience and the required information delivered from superior to subordinate on time and accurately. Information system ensures that information is kept confidential and secured. Information about ICS is internally and externally communicated and there are established channels of communication for individuals to report suspected breaches of laws & regulations. As per the response rate of the respondents the principles of information and communication are existed but not effectively practiced in the corporation because I learnt from the survey result that all the rating scale is touched by the respondents at different question asked on information.

Monitoring

Monitoring involves the activities and procedures designed to measure the effectiveness of internal control in achieving the organizations financial reporting objectives. This is accomplished through ongoing monitoring activities, periodic evaluations, or better, a combination of the two(COSO,2004). These activities should be related to the entire organization, at all levels and in all functions. The survey made is based on those facts of

monitoring and the result is scaled as follows.

Table 4.6 Monitoring

Items of control Environment	Likert rating score						
	SA	Agree	Neutral	DA	SD	Mean rating	SD
	(%)	(%)	(%)	(%)	(%)		
The monitoring process is established in the processes, business activities, functions of the corporation. N=90	8 (8.90)	21 (23.3)	34 (37.8)	16 (17.8)	11 (12.2)	2.9889	1.12674
The corporation uses knowledgeable personnel to evaluate the overall internal control system. N=90	9 (10.0)	26 (28.9)	20 (22.2)	17 (18.9)	18 (20.0)	2.9000	1.29866
Monitoring activities in corporation are carried out in accordance with the scope and nature of activities, risk levels and changes in the corporation N=90	8 (8.9)	27 (30.0)	18 (20.0)	27 (30.0)	10 (11.1)	2.9556	1.18900
Periodic monitoring activities are performed well by objects inside or outside the corporation. N=90	14 (15.6)	23 (25.6)	19 (21.1)	24 (26.7)	10 (11.1)	3.0778	1.26516
Communicate internal control deficiencies to parties responsible for corrective action and to senior management and the board of directors. N=90	16 (17.8)	19 (21.1)	21 (23.3)	21 (23.3)	13 (14.4)	3.0444	1.32318

Source : Questionnaires and SPSS output (2020)

Grand Mean 2.99 SD 1.241

Table 4.6 indicates that about monitoring of the business activities in the corporation and the respondents 37.8% neutral,23.3% agree,17.8%disagree,12.2%strongly disagree and 8.9%strongly agree for the statement that states ‘The monitoring process is established in the processes, business activities, functions of the corporation. ‘The mean value is 2.988 and it is approximately from all rating on the scale. Regarding the statement ‘The corporation uses knowledgeable personnel to evaluate the overall internal control system.’ 28.9% agree,22.2% neutral,20%strongly agree, 18.9% disagree and 10% strongly agree. The mean value is 2.9 which are approximately comes from all rating on the scale. Similarly, 30% agrees ,30% disagree, 20% neutral ,11.1% strongly disagree and 8.9%

strongly agree for the statement that states

Monitoring activities in corporation are carried out in accordance with the scope and nature of activities, risk levels and changes in the corporation'. The mean value 2.955 indicates it is approximately agree from all rating on the scale.

In addition, other statement states that 'Periodic monitoring activities are performed well by objects inside or outside the corporation.' 26.7% disagree,25.6% agree,21.1% neutral,15.6% strongly agree and 11.1% strongly disagree. The mean value 3.077 indicates that the value is approximately from all rating on the scale. Finally, when respondents asked to scale their level of agreement on the statement 'Communicate internal control deficiencies to parties responsible for corrective action and to senior management and the board of directors.' 23.3% of the respondents neutral ,23.3% disagree, 21.15 agree ,17.8% strongly agree and 14.4%strongly disagree. The mean values of 3.044 falls between agree, strongly agree, neutral, disagree and strongly disagree on the likert scale.

The grand mean for the monitoring activities 2.99 with SD 1.241, The survey result indicates that the corporation does not performs ongoing & separate evaluation to ascertain the component of internal control is present and functioning and there is no system to re-evaluate risks and adjust control effectively in response to change in the objectives. To have effective and up-to-date ICS ongoing monitoring is important, to do so the nature and sources of deficiencies must be considered.

System Effectiveness/Effectiveness of internal control

The major Internal Control System components of the corporation were asked for the respondents through the questionnaire to scale their degree of agreement to know their views and enable to achieve the objective of the study by identify the effects of Internal Control System in Ethiopian Construction Works Corporation. The survey results are presented and analyzed here under.

Table 4.7 System Effectiveness

Items of System Effectiveness	Likert rating score						
	SA	Agree	Neutral	DA	SD	Mean rating	SD
	(%)	(%)	(%)	(%)	(%)		
The monitoring process is established in the processes, business activities, functions of the corporation. N=90	20 (22.20)	21 (23.3)	17 (18.9)	20 (22.2)	12 (13.3)	3.1889	1.36484
The internal control service is seen as a key strategic partner throughout the organization. N=90	13 (14.4)	20 (22.2)	31 (34.4)	15 (16.7)	11 (12.2)	3.1000	1.20905
Internal control undertakes continuous professional development activities (such as professional association sponsored programs) . N=90	18 (20.0)	20 (22.2)	28 (31.1)	14 (15.6)	10 (11.1)	3.2444	1.25699
The work of internal control is performed with modern technology that uses computerized data tools and specific ICS software. N=90	30 (33.3)	21 (23.3)	13 (14.4)	13 (14.4)	13 (14.4)	3.4667	1.44720
The internal control staff number & their skill match the scope of Organization internal operations. N=90	31 (34.4)	15 (16.7)	19 (21.1)	16 (17.8)	9 (10.0)	3.4778	1.38392

Source : Questionnaires and SPSS output (2020).

Grand Mean 3.296 SD 1.332

From the system effectiveness scenario questions were asked for the respondents it states about ‘The monitoring process is established in the processes, business activities, functions of the corporation’. 23.3% of respondents agree, 22.2% of respondents disagree, 22.2% of respondents are strongly agree, 18.9% respondents are neutral and 13.3% of respondents are strongly disagree. The mean value is 3.188 which is found between all the rate on the scale. Second questions states that “The internal control service is seen as a key strategic partner throughout the organization”. 34.4% neutral, 22.2% agree, 16.7% disagree, 14.4% strongly agree and 12.2% strongly disagree. The mean for this statement

is 3.1 found between strongly agree, agree, neutral, disagree and strongly disagree. For the statement ‘Internal control undertakes continuous professional development activities’. 31.1% neutral,22.2% agree,20% strongly agree, 15.6% disagree and 11.1% strongly disagree. Then, the mean values of the statement are 3.244.

Similarly, 33.3% strongly agree ,23.3% agree and the same percentage of respondents 14.4% for neutral, disagree and strongly disagree respectively. On the statements “The work of internal control is performed with modern technology that uses computerized data tools and specific ICS software”. The mean value of this statement is 3.466 which is found from all of rating on the scale. 34.4% strongly agree,21.1% neutral, 17.8% disagree and 16.7% agree for the statement, ‘the internal control staff number & their skill match the scope of organization internal operations’. The mean value of this statement is 3.477 falls between strongly agree, agree, neutral, disagree and strongly disagree. Finally, as I realized from the respondents result the system effectiveness is which is the same and close result with other internal control components. the result shows there is a system effectiveness principles and practice in the Ethiopian Construction Works Corporation, but it needs to be implemented better because the rate that I observed is reflects on all rating scale. Finally, The average mean for the system effectiveness 3.296 with SD 1.332.

The main objective of this study was to identify the internal control of ECWC. To achieve this objective the respondent was asked 31 statements related of dimensions on internal control and 5 statements related to system effectiveness to know their views or opinions. The results are summarized in table 4.8 showed under.

Table 4.8: Descriptive Analysis of ECWC Internal Control

S.N.	Dimensions	Mean	Standard Deviation
1	Control environment	2.936	1.145
2	Risk assessment	2.880	1.199
3	Control activities	3.110	1.212
4	Information & communication	3.129	1.205
5	Monitoring	2.993	1.241
Total		3.01	1.2

Questionnaires and SPSS output (2020).

Table 4.8 shows the overall mean and standard deviation of the 36 items on the five dimensions of internal control. Overall the mean is 3.01 that are the majority agree with the internal control on system effectiveness. 3.01 overall mean and standard deviation (SD) of 1.2 has moderately good internal control.

Based on the collected data, the highest score obtained was on information & communication 3.129 with SD 1.205, Control activities 3.110 with SD 1.212, Monitoring 2.993 with SD 1.241, control environment 2.936 with SD 1.145 and risk assessment 2.880 with SD of 1.199 as depicted in Table 4.8. This revealed that Information & communication dimension of ECWC is at relatively higher level than other dimensions and second one is control activities. ECWC should be concerned in employee information & communication, control activities, and monitoring. Therefore, we can assume that ECWC have not a strong internal control structure with respect to risk assessment and control environment. Among the above five dimensions internal control is important to improve system effectiveness and performance of the organization.

4.2.2 Correlation Analysis

The Pearson's correlation coefficient was computed for determining the relationship between the variables. Pearson's correlation coefficient is appropriate method to measure the correlation when the data are measured at ordinal level (Andy, 2006).

Correlation is a way to index the degree to which two or more variables are associated with or related to each other A correlation coefficient has a value ranging from -1 to 1. Values that are closer to the absolute value of 1 indicate that there is a strong relationship between the variables being correlated whereas value closer to 0 indicates that there is little or no linear relationship (Fikre et al; 2009).

As described by Andy (2006,) the correlation is a commonly used measure of the size of 0 effect value of represent a small effect, + 0.3 is a medium effect and +0.5 is a large effect.

Table 4.9 Correlations Analysis with Spearman's rho between the dependent & independent variable

			Control Env't	Risk Assm't	Control Activities	Info & Comm'n	Monitoring	System Effective	
Spearman's rho	Control Environment	Correlation Coefficient	1.000						
		Sig. (2-tailed)							
	Risk Assessment	Correlation Coefficient	.452**	1.000					
		Sig. (2-tailed)	.000						
	Control Activities	Correlation Coefficient	.412**	.403**	1.000				
		Sig. (2-tailed)	.000	.000					
	Information & Communication	Correlation Coefficient	.286**	.268**	.551**	1.000			
		Sig. (2-tailed)	.000	.000	.000				
	Monitoring	Correlation Coefficient	.327*	.394**	.452**	.714**	1.000		
		Sig. (2-tailed)	.000	.000	.000	.000			
	System Effectiveness	Correlation Coefficient	.453**	.427**	.610**	.708**	.732**	1.000	
		Sig. (2-tailed)	.001	.008	.000	.000	.000		
	**. Correlation is significant at the 0.01 level (2-tailed).								

Source : Questionnaires and SPSS output (2020).

Table 4.9 describe organizational internal control traits to System Effectiveness. All the variables control environment, risk assessments, control activities, information & communications and monitoring have significant correlation on system effectiveness. In the table above, the correlation analysis for control environment with system effectiveness ($r=0.453^{**}$ significant at $P=.001\%$) and risk assessment with system effectiveness ($r=.427^{**}$ significant at $p=.008$) indicates that both control environment and risk assessment have medium effect relationship with system effectiveness at significant level of 0.01. The correlation analysis of control activities with system effectiveness ($r=.610^{**}$ significant at $p=.000$), information & communication with system effectiveness ($r=0.708^{**}$ significant at $p=.000$) and monitoring with system effectiveness ($r=0.732^{**}$ significant at $p=.000$). The control activities, information & communication and monitoring have large effect significant relationship. Thus, this three-independent variable are the major internal control dimension that helps to improve the system effectiveness to the corporation.

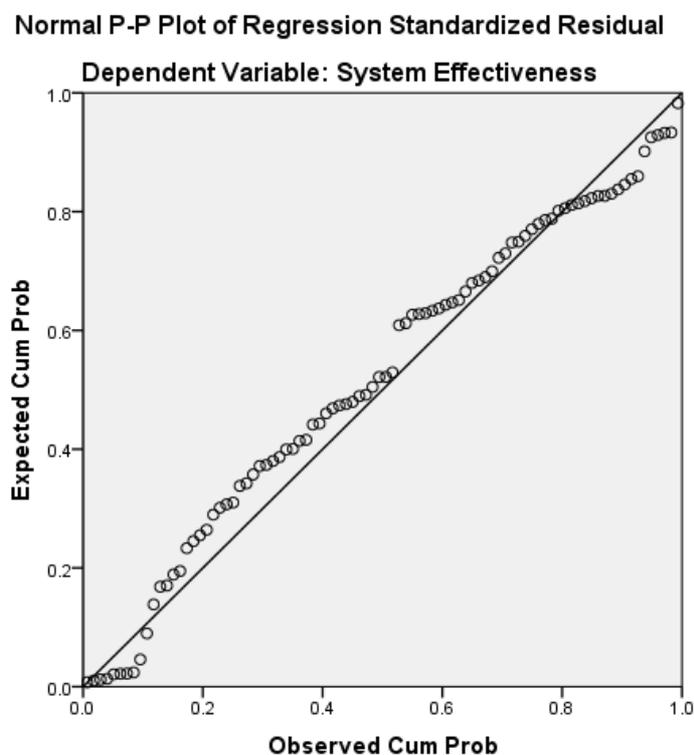
4.2.3 Multiple Linear Regression Model Assumption Tests

Before analyzing the data gathered by the questionnaires the researcher has checked the necessary assumptions. These assumptions must be fulfilled to undertake analysis by multiple regression model. The results tested by four diagnostic tests of CLRM assumption to ensure whether classical assumptions are fitted or violated accordingly. Five tests for classical linear regression model (CLRM) assumptions namely normality, linearity, homoscedasticity and multicollinearity conducted and discussed as follows.

✓ Normality Test

Test of normality, its determining whether the data is well modeled by normal distribution or not. This test of normal distribution could be checked by graphical (histogram and dot plot) method of tests. The normality assumption assumes a critical role when a study is dealing with a small sample size, data less than 100 observation. (Gujarati, D. 2004). Even though the normality assumption is not a treat since the observation or sample size of the study is large enough, more than 100 observations, the researcher tested it using normal probability plot (NPP).

The decision rule is, if the fitted line in the NPP is approximately a straight line, one can conclude that the variables of interest are normally distributed. (Gujarati, D. 2004).



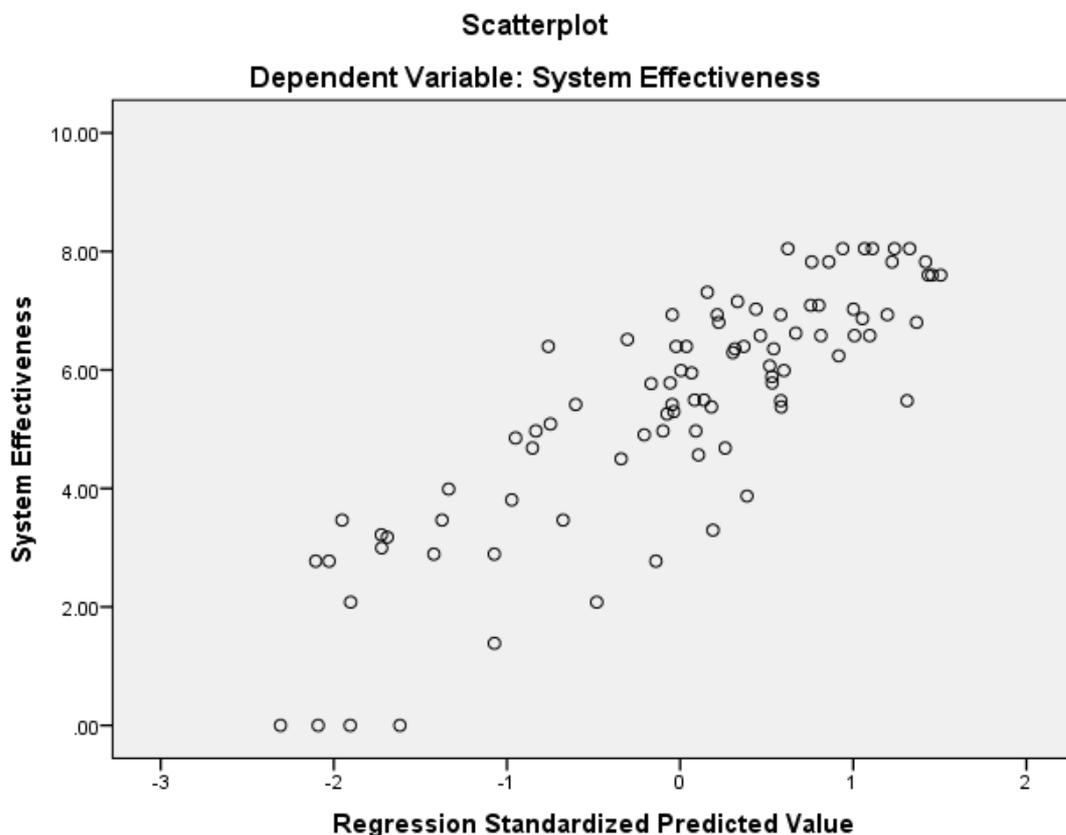
Source; SPSS results, 2020

Fig. 4.1 Graphical test of Normality Assumption

From the above figure, we can see that residuals of the model are approximately normally distributed, because the fitted line in the NPP is approximately a straight line.

✓ **Test for Linearity and Homoscedasticity**

Multiple linear regression model assumes there is a linear relationship between the independent variables and the dependent variables. Homoscedasticity assumption means the range of variance for the dependent variable is uniform for all values of the independent variables. Both assumption can be checked by scatterplot diagram stated below.



Source; SPSS result, 2020

Fig. 4. 2 Scatterplot diagrams

As we can see from the above diagram, both assumption is not serious threat to the study since one can draw one straight line to approximate the observations for all independent variables against the dependent variable, system effectiveness. Scatter plot diagram shows

the variance for the dependent variable is uniform and the variance between the upper and lower cases of the observations are reasonably similar.

✓ **Test for Multicollinearity**

Multicollinearity is the indication of linear relationship between independent variables (Kenndey, 2008). Variable Inflation Factor (VIF) technique was used. The VIF is a measure of the reciprocal of the complement of the inter-correlation among the predictors: $VIF=1/(1-r^2)$

The decision rule is a variable with VIF value of greater than 10 indicates the possible existence of multicollinearity problem. Tolerance (TOL) defined as $1/VIF$, it also used by many researchers to check on the degree of collinearity. The decision rule for Tolerance is, a variable whose TOL value is less than 0.1 shows the possible existence of multicollinearity problem. (Gujarati, D. 2004)

Table 4.10. VIF values of predictors

Variables	Collinearity Statistics	
	Tolerance	VIF
Control Environment	.701	1.426
Risk Assessment	.674	1.483
Control Activities	.565	1.771
Information & Communications	.398	2.515
Monitoring	.440	2.270

Source; SPSS Results, 2020

The above table showed that VIF values for all variables became less than the tolerable value, i.e. 10. And Tolerance value of all variables also became above 0.1 which indicates that this model is free from multicollinearity problem between the dependent variables.

4.2.4 Result of Multiple Regressions Analysis

Regarding to understand the effectiveness of internal control and system effectiveness the researcher engaged regression analysis by using the required amount of sample size.

The model for the study that illustrated effects of system effectiveness at Ethiopian Construction Work Corporation is;

$$SE = \alpha + \beta_1IC + \beta_2Mon + \beta_3RA + \beta_4CA + \beta_5CE + U_i$$

Where; SE = System Effectiveness

α = the constant, or Y intercept

β_i = The coefficient of the independent variables

IC = Information & Communication

Mon =Monitoring

RA= Risk Assesse ment

CA= Control Activit es

CE=Control Environment

U_i = the error term

Tables below showed the regression output of the dependent variables and explanatory variables.

Table 4.11Anova

ANOVAa

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	261.998	5	52.400	44.517	.000b
Residual	98.873	84	1.177		
Total	360.870	89			

a. Dependent Variable: System Effectiveness

b. Predictors: (Constant), Monitoring, Control Environment, Risk Assessment, Control Activities

Source; SPSS results out put2020

The result in the ANOVA table confirmed the significance of the overall model by p-value of 0.000 which is below the alpha level, i.e. 0.05, which means, the independent variables taken together have statistically significant relationship with the dependent variable under study.

Table 4.12 Multiple Regression Model Summary^b

Model	R	R Square	AdjustedR Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.852 ^a	.726	.710	1.08492	.726	44.517	5	84	.000	1.760

a. Predictors: (Constant), Monitoring, Control environment, Risk assessment, Control Activities, Information and Communication

b. Dependent Variable: System Effectiveness

Source; SPSS Result, 2020

The other major result under the model summary table showed the R or coefficient of correlation of the model is 0.852 or 85.20% and Adjusted R-Square or coefficient of determination of the model is 0.71 or 71.%. The regression analysis was done using system effectiveness as dependent variable and Monitoring, Control environment, Risk assessment, Control Activities, Information and Communication as independent variables. The following table showed the analysis's result as follow.

Table 4.13 Regression Analysis of Variables

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	Beta	Std. Error	Beta		
(Constant)	.228	.385		.592	.556
Control Environment	.098	.049	.137	2.009	.048
Risk Assessment	.175	.059	.204	2.940	.004
Control Activities	.097	.046	.162	2.127	.036
Information & Communication	.284	.079	.326	3.604	.001
Monitoring	.278	.082	.293	3.407	.001

Dependent variable: System Effectiveness, Source; **SPSS Result, 2020**

The above table shows that, all the independent variable has statistically significant relationship with the dependent variable since their p-value is below the alpha level which is 0.05. Considering the standardized beta coefficient, the strongest predictor of the dependent variable (system effectiveness) is information & communication with a beta value ($\beta = 0.326$), Monitoring with a beta value ($\beta = 0.293$), Risk assessment with a beta value ($\beta = 0.204$), control activities with a beta value ($\beta = 0.162$) and control environment with a beta value ($\beta = 0.137$). Both the independent variables have positive relationship with the dependent variable. So, from the above table the researcher drives the model as follows.

Table 4.14 Regression Result

$$SE = .228 + .098 * CE + .175 * RA + .097 * CA + .284 * IC + .278 * Mon$$

4.3 DISCUSSION

This research was carried out to study the effects of ICS on financial and organizational performance in ECWC and the first thing that must be discussed here should be the overall fitness of the model, this fact has been confirmed by different types of statistical results.

Based on the results of descriptive analysis found that internal component dimension of ECWC is moderate level on aggregate mean of 3.01 and the standard deviation scored was 1.2.

In addition to the above, the mean score value of information & communication 3.129, control activities 3.110, monitoring 2.993, control environment 2.936 and risk assessment 2.880. Therefore, we can assume that ECWC have not a strong internal control structure with respect to risk assessment, control environment and monitoring variables.

Regarding Pearson correlation, it was conducted to know the degree of relationship between corporation internal control system dimensions on control environment, risk assessment, control activities, information & communication and monitoring with system effectiveness in ECWC. To investigate the relationship between determinants for effective internal control dimensions with system effectiveness and/or effectiveness of internal control the study developed this hypothesis (H1-H5) “the independent variables has significant relationship and a positive impact between system effectiveness of internal control”.

The study found that as per the pearson’s rank order correlation coefficient run to determine the relationship between effective determinants of internal control system variables with system effectiveness showed a strong positive statistically significant result. The result of correlation coefficient for control environment, risk assessment, control activities, information & communication and monitoring with dependent variables on system effectiveness are $r=0.453^{**}$, $p=.000$, $r=0.427^{**}$, $p=.000$, $r=0.610^{**}$, $p=.000$, $r=0.708^{**}$, $p=.000$ and $r=0.732^{**}$, $p=.000$ respectively. Consequently, the result shows monitoring, information & communication and control activities variables have a strong positive correlation between the internal controls with system effectiveness.

Regarding multiple regression analysis, one of the test was done on ANOVA test that produced a P-value of 0.000 which is below the alpha level, i.e. 0.05. This means both the independent variables have statistically significant relationship with that of the dependent variable, i.e. system effectiveness. Information & communication with a beta value ($\beta=0.326$), Monitoring with a beta value ($\beta=0.293$), Risk assessment with a beta value ($\beta=$

0.204), control activities with a beta value ($\beta= 0.162$) and control environment with a beta value ($\beta= 0.137$). Thus, we can conclude that all the independent variables have positive relationship with the dependent variable.

The R (Coefficient of Correlation) which is simply measures the degree of (linear) association between the dependent variable and the independent variables jointly. It only measures degree of association or covariation between the two variables. (Gujarati, 2004). In this case the value of R which is 0.852 means, there is a very strong relationship between the independent variables and system effectiveness or this can also mean that independent variables taken together, and system effectiveness vary together 85.20% of the time.

The last one is by checking the adjusted R square (Coefficient of Determination), can be defined as the proportion of the total variation or dispersion in the system effectiveness (dependent variable) that explained by the variation in independent variables in the regression. (Gujarati, 2004) So with adjusted R Square value of 0.710, meaning, 71.1% of the variation in system effectiveness is explained by the linear relationship with all the independent variables. The consequence of this is that only 28.9% of the variation in system effectiveness is unexplained by the relationship or these percentages of change in system effectiveness accounts for other variables not mentioned under this study. Thus, when adjusted R square is high it means that the independent variables included in the study play an important part in affecting the dependent variable.

As per the regression analysis result showed on table 4.14 system effectiveness and information communication have the strongest positive relationship. Under study the second variable that had a strongest positive relationship with system effectiveness was monitoring and the third strongest variables was risk assessment.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATION

5.1 Summary of Findings

The purpose of the study was to examine the effects of internal control system on financial and organizational performance in Ethiopian Construction Works Corporation. The corporation overall IC system of ECWC has been investigated using a widely applied business internal control assessment model. The descriptive analysis was done based on five core internal control traits of the corporation which include control environment, risk assessment, control activities, information & communication and monitoring.

Data was collected through questionnaire to identify to what extent effectiveness of independent variables affect the internal control system in ECWC impacted with system effectiveness. The data was analyzed in descriptive manner in addition to this before directly analyzing the data gathered by the questionnaires, the researcher makes sure the necessary assumptions that are required to undertake multiple linear regression analysis were fulfilled. Based on the analysis of data and discussion of results, the followings are the summary of major findings of this study.

- ✓ The findings found from descriptive statistics ECWC have not a strong internal control structure with respect to risk assessment, control environment and monitoring.
- ✓ The result from pearsons' correlation coefficient revealed that, there is a strong positive significant relationship between effective components of internal control dimensions of independent variables with dependent variable (system effectiveness).
- ✓ In the ANOVA, R (coefficient of correlation) and Adjusted R-square (coefficient of determination) were used to test the model's overall fitness, and it turns out the independent variable have a statistically significant relationship with the dependent variable (system effectiveness).
- ✓ The R and Adjusted R-square results showed that the independent variables have highly correlated with the dependent variable and more than 71% variation on dependent variable explained by the linear relationship with all the independent variables.
- ✓ As per the regression analysis, the finding about the independent variables information and communication have the strongest positive relationship.

5.2 Conclusion

To answer the research questions the study concludes the following points.

- ✓ According to the findings of descriptive analysis there is an implementation and existence of internal control system components in ECWC.
- ✓ The corporation strong internal control practice can have a positive impact on system effectiveness.
- ✓ Even if the formation and practices of control environment is effective in the corporation but as per the respondent's feedback, the higher officials, directors and administrators did not make any effort to ensure that all tasks are completed as planned and achieve the set objectives
- ✓ The corporation couldn't identify and assesses changes that could significantly impact the system of internal control.
- ✓ The corporation didn't use knowledgeable personnel to evaluate the overall internal control system.
- ✓ Eventually, Internal control affects system effectiveness at a different degree. The most noted factor that affects the effectiveness of the system was the information & communication and control activities, as the organization exists to do business operations. So, we can conclude that all the independent variables have positive relationship with the dependent variable.

5.3 Recommendations

Based on the study findings the following recommendations are forwarded:

- ✓ Because of scattered distributions likert scale and moderate level of mean score, the researcher hinders to ensure the corporation is on the better position of internal control system in all the five-dimension. So, to carryout business operations as a business entity and to be properly competent with the same industry, the study recommends that the corporation must improve its organization IC system and try to create and develop a strong and effective risk assessments, control environment and monitoring practices.
- ✓ The directors and administrators must adhere and make every effort that tasks are completed as planned and to achieve the stated objectives.
- ✓ The corporation must identify and assesses changes that create significant impact on system of internal control.

- ✓ The corporation must adhere to hire professional, competent and knowledgeable, credible and honest staff. Those who have a relevant and related experience on the stated jobs that can able to easily evaluate the overall internal control system of the corporation.
- ✓ The corporations should attempt to promote the IC system dimension of monitoring and information & communication as the dominant one, while the correlation also shows that monitoring has a high correlation with employee system effectiveness as compared to the other remaining IC dimensions. Hence, organizations must endeavor to strengthen information& communication to develop the system effectiveness of their employees. The corporations that can optimally utilize and maximize system effectiveness have a competitive advantage over others.
- ✓ The management should work more better than ever to provide and to disseminate the required information and communication with in and out of the corporation. Hence, the study recommends that corporations must attempt to strengthen information& communication to develop the system effectiveness.

5.4 Suggestion for further Research

The researcher suggested that further study can be conducted to evaluate the impact of financial performance of public enterprises using other predictors in addition to components of internal control system.

REFERENCES

- Adewale (2014), Internal control system: a managerial tool for proper accountability a case study of Nigeria customs service, European Scientific Journal
- Arwings, and Olof, (2013). Internal Control: A study of concepts and themes 10th edition, Berlin Heidelberg, Springer Physica-Verlag.
- Ashenafi J. (2017): Assessment of internal control system in selected micro finance institution in Addis Ababa. A Master 's thesis, College of Business & Accounting, Addis Ababa University
- Batra, (1992). Auditing, New Delphi; Tata McGraw Hill publishing Colby, (1978). Internal Control for small Business Accountancy, Journal of Accounting and Finance, 2(1):1-5
- Cunningham,
- Bor-Yi, Tsay. (2010). Designing an internal control assessment program using COSO's Guidance on Monitoring. The CPA Journal,
- D.A. (1985). Ticom and Analysis of Internal Control; The Accounting Review,
- Dagnu, Lulu Bekele. (2013). Examining Effectiveness of Internal Control and Internal Audit Function over Cash Operation in Bank - The Case of Cooperative Bank of Oromia. International Journal of Science and Research (IJSR)
- Elsevier Ltd. Jensen, M. C. & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs, and ownership Structure Jones, M. J. (2008). Internal control, accountability and corporate governance: Medievaland modern B.
- Gay, L.R., Geoffrey, E. Mills, & Airasian, (2012). Educational Research: Competencies for Analysis and application 10thed. USA: Pearson Education, Inc.
- Getachew Tekle. (2019). assessment of internal control system effectiveness: a case of Ethiopian construction design and supervision works corporation,
- Glendinning, R. (1998). The Concept of Value for Money, (Vol. 1),
- Hayes R. (2005). Principles of Auditing, California; Pearson Education Limited. Ittner, C.D., Larcker, D.F. & Randall, T. (2003). Performance implications of strategic performance measurement in financial services firms, Accounting, Organization and Society Journal, Philadelphia PA;

International Federation of Accountants (2006), Internal Control-A review of current development.

Jokipii, A. (2009). Determinants and consequences of internal control in firms: a contingency theory-based analysis. *Journal Management Governance*,

Joseph, M. Onumah, Ransome Kuipo, Victoria A. and Obeng (2012) Effectiveness of Internal Control Systems of Listed Firms in Ghana, *Research in Accounting in Emerging Economies*, Volume 12,

Kathy, Adams, McIntosh, (2017) what are the limitation of internal control. Bizfluent Leaf Group Ltd

L. A. (2004). *The Appeal and Limits of Internal Controls to Fight Fraud, Terrorism, Other Ills*

Larry, E., Rittenburg, Bradley J. Schwieger, and Karla, M. Johnston, (2008). *Auditing a business risk approach 6th edition*, USA Thomson South-Western, Thomson Higher Education.

Lee, Jaehong, Cho, Eunjung (PhD), Choi, Hyunjung, (2016). The effect of internal control weakness on investment efficiency; *the journal of applied business Research University of South Korea Vol. 32*

Michael, D. Fetters, and Dawn, Freshwater (2015). Publishing a Methodological Mixed Methods Research Article. *Journal of Mixed Methods Research*

Mohamed Zakaria Neh Talrt, (2014).an analysis of the determinant of internal control disclosure by multinational corporation, unpublished master's Thesis, Tolfer School of management, University of Ottawa Canada

Mwachiro, D. Brian, (2013). Effects of internal controls on revenue collection: a case of Kenya Revenue Authority. Unpublished Master's Thesis, University of Nairobi.

Radiyah, Othman, and Norrli Ali, (2012). NPO, Internal control and supervision mechanism in developing country *International society for third -sector research*, The Johnson Hopkins University,

Stephen, k Cheruiyot, (2011). effectiveness of internal control systems in safeguarding inventory A Case Study of Rift Valley Institute of Science and Technology, unpublished master's Thesis, Kabarak University

The Ethiopian Construction Works Corporation's strategic planning and management document (2009-2013E.C)

Vaclovas, Lakis, and Lukas, Giriunas, (2012). the impact of internal control system: Theoretical Aspect Vilnius University, Lithuania, EKONOMIKA Vol. 91(2)

Workineh Tesfaye (2019). The Effect of Internal Control on Financial Performance: The Case of Selected Privately Owned Manufacturing Share companies in Addis Ababa.

APPENDIXES

ANNEX-A

Questionnaires and SPSS output (2020).

Coefficients^a

Model	Sig.	95.0% Confidence Interval for B		Correlations
		Lower Bound	Upper Bound	Zero-order
(Constant)	.556	-.537	.992	
Control Environment	.048	.001	.195	.487
Risk Assessment	.004	.057	.293	.526
Control Activities	.036	.006	.188	.636
Information & Communication	.001	.127	.441	.725
Monitoring	.001	.116	.440	.723

Coefficients^a

Model	Correlations		Collinearity Statistics	
	Partial	Part	Tolerance	VIF
(Constant)				
Control Environment	.214	.115	.701	1.426
Risk Assessment	.305	.168	.674	1.483
Control Activities	.226	.121	.565	1.771
Information & Communication	.366	.206	.398	2.515
Monitoring	.348	.195	.440	2.270

a. Dependent Variable: System Effectiveness

Coefficient Correlations^a

Model		Monitoring	Control Environment	Risk Assessment
1	Correlations			
	Monitoring	1.000	.008	-.231
	Control Environment	.008	1.000	-.374
	Risk Assessment	-.231	-.374	1.000
	Control Activities	-.035	-.199	-.207

Covariances	Information & Communication	-.628	-.059	.150
	Monitoring	.007	.000	-.001
	Control Environment	.000	.002	-.001
	Risk Assessment	-.001	-.001	.004
	Control Activities	.000	.000	-.001
	Information & Communication	-.004	.000	.001

Coefficient Correlations^a

Model		Control Activities	Information & Communication	
1	Correlations	Monitoring	-.035	
		Control Environment	-.199	
		Risk Assessment	-.207	
	Covariances	Control Activities	1.000	-.381
		Information & Communication	-.381	1.000
		Monitoring	.000	-.004
Covariances	Control Environment	.000	.000	
	Risk Assessment	-.001	.001	
	Control Activities	.002	-.001	
	Information & Communication	-.001	.006	

a. Dependent Variable: System Effectiveness

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	Control Environment	Risk Assessment
1	1	5.563	1.000	.00	.00	.00
	2	.160	5.904	.01	.11	.22
	3	.091	7.834	.28	.01	.04
	4	.086	8.024	.11	.22	.58
	5	.062	9.483	.60	.66	.02
	6	.038	12.088	.00	.01	.12

Collinearity Diagnostics^a

Model	Dimension	Variance Proportions		
		Control Activities	Information & Communication	Monitoring
1	1	.00	.00	.00
	2	.02	.11	.07
	3	.65	.00	.05
	4	.10	.00	.13
	5	.10	.02	.04
	6	.12	.86	.70

a. Dependent Variable: System Effectiveness

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1.4558	7.9976	5.4160	1.71575	90
Residual	-2.63936	2.28638	.00000	1.05401	90
Std. Predicted Value	-2.308	1.505	.000	1.000	90
Std. Residual	-2.433	2.107	.000	.972	90

a. Dependent Variable: System Effectiveness

Questionnaires and SPSS output (2020).



ANNEX-B

ST. MARY'S UNIVERSITY SCHOOL OF GRADUATE STUDIES

Dear Respondent,

This questionnaire is designed to collect data to examine the determinants of internal control system in Ethiopian Construction Works Corporation. The data shall be used for academic purpose only and it will be treated with confidentiality it deserves due to that you don't write your name. The respondents are highly encouraged and persuaded to respond to the statements in this questionnaire in the most truthful and objected way possible.

Therefore, I kindly requested you to tick in the space provided with the correct answer or supply the required information. Where required, please specify and elaborate.

Thank you in advance for your support and participation.

Requested By: Sintayehu Endeshaw

Email Address: sintaend@gmail.com

Part I. The personal profiles:

General Instruction: Please indicate your choice by selecting from the options provided.

1. Sex/Gender/:
A. Male B. Female
2. Age (in year):
B. 20 to 29 B. 30 to 39 C.40 to 49 D. 50 & above
3. Level of education:
A. TVET Certificate B. Diploma C. Bachelor's Degree
D. Master's Degree E. PHD and above
4. Number of Service Years in the Organization
A. 1-5 years B. 5- 10 years C. More than 10 years

Part II. The questionnaire items (questions)

General Instruction: Please indicate your choice by putting “√” mark in the bracket.

Please note that the value of the scale stands as follow: **5= strongly agree** (በጥብቅ እስማማለሁ), **4=**

Agree (በጥብቅ እስማማለሁ), **3= Neutral**(ገለልተኛ), **2= Disagree**(አልስማማም) , **1= strongly**

disagree(በጥብቅ አልስማማም)

1	Control Environment (የቁጥጥር አካባቢ)	Scales				
		5	4	3	2	1
1.1	The board of directors and management at all levels of the corporation demonstrate through their directives, actions and behaviors the importance of integrity & ethical values. በኮርፖሬሽኑ በሁሉም ደረጃዎች ያሉት የዳይሬክተሮች ቦርድ እና አመራሮች በመመሪያዎቻቸው ፣ በድርጊቶቻቸው እና በባህሪያቸው የቅንነት እና የሥነ ምግባር እሴቶች አስፈላጊነት ያሳያሉ ።					
1.2	Deviation from the corporation’s expected standards of conduct are identified and remedied in a timely and consistent manner. ከኮርፖሬሽኑ ከሚጠበቁ የአሠራር ደረጃዎች መዛባት በወቅቱ እና በተመጣጣኝ ሁኔታ ተለይተው ተስተካክለዋል					
1.3	There is competent and independent internal control department in the corporation. በኮርፖሬሽኑ ውስጥ ብቃት ያለው እና ገለልተኛ የውስጥ ቁጥጥር መምሪያ አለ					
1.4	There is active management board & audit committee consisting of independent members in the corporation. በኮርፖሬሽኑ ውስጥ ገለልተኛ አባላትን የያዘ ንቁ የሥራ አመራር ቦርድ እና ኦዲት ኮሚቴ አለ					
1.5	There are clear lines of authority, responsibility and performance evaluation. በኮርፖሬሽኑ ውስጥ ግልጽ የሥልጣን ፣ የሃላፊነት እና የአፈፃፀም ምዘና መስመሮች አሉ					
1.6	Procedures are in place to evaluate the performance of individuals and teams against the corporation’s expected standard of conduct. ኮርፖሬሽኑ ከሚጠበቀው የአፈፃፀም ደረጃ አንጻር የግለሰቦችን እና የቡድኖችን አፈፃፀም የሚገመገሙ አሠራሮች አሉት ፡					
1.7	Administrators make every effort to ensure that all tasks are completed as planned and achieve the set objectives. አስተዳዳሪዎች ሁሉም ተግባራት በታቀደው መሰረት እንዲጠናቀቁ እና የተቀመጡትን ዓላማዎች እንዲያሳኩ ለማድረግ ሁሉንም ጥረት ያደርጋሉ					
1.8	Departments clearly understand the responsibilities in implementing internal control targets. መምሪያዎች የውስጥ ቁጥጥር ዓላማዎችን በመተግበር ረገድ ኃላፊነቶችን በግልጽ ይገነዘባሉ ።					
2	Risk Assessment (የአደጋ ግምገማ)					

2.1	Risk identification is carried out at all levels, departments, functions and activities in the corporation በኮርፖሬሽኑ ውስጥ በሁሉም ደረጃዎች ፣ ክፍሎች ፣ ተግባራት እና ተግባራት ላይ የስጋት መለያ ይከናወናል					
2.2	The corporation identifies & assesses changes that could significantly impact the system of internal control. ኮርፖሬሽኑ በውስጣዊ ቁጥጥር ስርዓት ላይ ከፍተኛ ተጽዕኖ ሊያሳድሩ የሚችሉ ለውጦችን ለይቶ ይገመግማል ::					
2.3	The Corporation Consider the potential for fraud in assessing risks to the achievement of objectives ኮርፖሬሽኑ ዓላማዎችን በማያሳካበት ወቅት የሚያስከትሏቸውን አደጋዎች በመገምገም የማጭበርበር አቅምን ይቀንሳል					
2.4	The corporation specifics objectives with sufficient clarity to enable the identification & assessment of risks relating to objective ኮርፖሬሽኑ ከዓላማው ጋር የተዛመዱ አደጋዎችን ለይቶ ለማወቅ እና ለመገምገም የኮርፖሬሽኑ ልዩ ዓላማዎች በቂ ግልጽነት ያላቸው ዓላማዎች ናቸው					
2.5	Operational, compliance and reporting objectives are set clearly and appropriately ኮርፖሬሽኑ ውስጥ የአሠራር ፣ የታዘዥነት እና የሪፖርት ዓላማዎች በግልጽ እና በተገቢው የተቀመጡ ናቸው					
3.	Control Activities (እንቅስቃሴዎችን ይቆጣጠሩ)					
3.1	Control activities ensure that rights and content accessed is limited to authorized persons. የቁጥጥር እንቅስቃሴዎች የተገኙት መብቶች እና ይዘቶች ለተፈቀደላቸው ሰዎች ብቻ የተገደቡ መሆናቸውን ያረጋግጣሉ					
3.2	There is property administration manual that helps the corporation to categorize and identify asset, receive and dispatch asset, disposal of asset, stock management and inventory. ኮርፖሬሽኑ ንብረትን ለመመደብ እና ለመለየት ፣ ሀብትን ለመቀበል እና ለመላክ ፣ የንብረት ማስወገድ ፣ የአክሲዮን አስተዳደር እና ክምችት እንዲኖር የሚያግዝ የንብረት አስተዳደር መመሪያ አለው ::					
3.3	Control Policies and procedures specify the scope of application, roles and functions of the relevant departments. የመቆጣጠሪያ ፖሊሲዎች እና አሰራሮች የሚመለከታቸው መምሪያዎች የትግበራ ፣ የሥራ ድርሻ እና ተግባራት ወሰን ይገልጻሉ ::					
3.4	Corporation establishes responsibility & accountability for executing policies and procedures. ኮርፖሬሽን ፖሊሲዎችን እና አሠራሮችን ለማስፈጸም ኃላፊነትን እና ተጠያቂነትን ያወጣል ::					
3.5	Physical control activities ensure that property is protected from access by unauthorized persons አካላዊ ቁጥጥር እንቅስቃሴዎች ንብረቱ ባልተፈቀደላቸው ሰዎች እንዳይነኩ የተጠበቀ መሆኑን ያረጋግጣሉ					
3.6	Control to ensure that all operations are verified with validity and legality before recording. ከመመዘገብ በፊት ሁሉም ክፍያዎች በሕጋዊነት እና በሕጋዊነት የተረጋገጡ መሆናቸውን ያረጋግጡ					
3.7	The segregation of duties, the custody of asset; recording & authorization of transaction are performed by different individuals የግዴታ ክፍፍል ፣ የንብረት አያያዝ; የግብይት ምዝገባ እና ፈቃድ በተለያዩ ግለሰቦች ይከናወናል					
3.8	Control to ensure that transactions are recorded in the right order and ensure the control process.					

	ግብይቶች በትክክለኛው ቅደም ተከተል እንዲመዘገቡ እና የቁጥጥሩ ሂደቱ የተሳለጠ እንዲሆን ያድርጋሉ					
4	Information and Communication (መረጃ እና መግባባት)					
4.1	Information system ensures information is provided promptly, fully and completely in accordance with information needs የመረጃ ስርዓት በመረጃ ፍላጎቶች መሠረት መረጃ በፍጥነት ፣ በተሟላ እና ሙሉ በሙሉ መስጠቱን ያረጋግጣል					
4.2	The communication channel of corporation allows their subordinates to easily and promptly reflect related issues to functional superiors. የኮርፖሬሽኑ የግንኙነት ስርጥ የበታችኛቸው ተጓዳኝ ጉዳዮችን ለተግባራዊ የበላይ አካላት በቀላሉ እና በፍጥነት ለማንፀባረቅ ያስችላቸዋል					
4.3	Corporations perform well in providing honest, relevant and timely information to external audiences ለውጭ ተመልካቾች እውነተኛ ፣ ተገቢ እና ወቅታዊ መረጃዎችን በማቅረብ ኮርፖሬሽን ጥሩ አፈፃፀም አሳይቷል					
4.4	Information system ensures information is kept confidential and stored securely የመረጃ ስርዓት መረጃ ሚስጥራዊ ሆኖ ደህንነቱ በተጠበቀ ሁኔታ እንዲከማች ያረጋግጣል					
4.5	Information about tasks, requests from superiors are clearly communicated, to the right people, at the right time. ስለ ሥራዎች መረጃ ፣ ከአለቆች የሚቀርቡ ጥያቄዎች በግልጽ ፣ ለትክክለኛው ሰዎች ፣ በትክክለኛው ጊዜ ይተላለፋሉ					
5	Monitoring (ክትትል)					
5.1	The monitoring process is established in the processes, business activities, functions of the corporation. የክትትል ሂደት የተመሰረተው በሂደቱ ፣ በንግዱ እንቅስቃሴ ፣ በኮርፖሬሽኑ ተግባራት ውስጥ ነው ።					
5.2	The corporation uses knowledgeable personnel to evaluate the overall internal control system የአጠቃላይ የውስጥ ቁጥጥር ስርዓትን ለመገምገም ኮርፖሬሽኑ ዕውቀት ያላቸውን ሠራተኞችን ይጠቀማል					
5.3	Monitoring activities in corporation are carried out in accordance with the scope and nature of activities, risk levels and changes in the corporation በኮርፖሬሽኑ ውስጥ የክትትል ተግባራት የሚከናወኑት በእንቅስቃሴዎች ስፋት እና ተፈጥሮ ፣ በአደጋ ደረጃዎች እና በኮርፖሬሽኑ ለውጦች መሠረት ነው					
5.4	Periodic monitoring activities are performed well by objects inside or outside the corporation ወቅታዊ የክትትል ተግባራት በኮርፖሬሽኑ ውስጥም ሆነ ውጭ ባሉ ነገሮች በደንብ ይከናወናሉ					
5.5	Communicate internal control deficiencies to parties responsible for corrective action and to senior management and the board of directors. የውስጥ ቁጥጥር ጉድለቶችን ለማረም እርምጃ ለሚወስዱ አካላት እና ለከፍተኛ አመራሮች እና ለዳይሬክተሮች ቦርድ መረጃ ይተላለፋል					
6	System Effectiveness (የስርዓት ውጤታማነት)					
6.1	An internal control report effectiveness defines the purpose, authority and responsibility, within the organization, consistent with the definition of Internal Controls system, the code of ethics and the Standards የውስጥ ቁጥጥር ሪፖርት ውጤታማነት በድርጅቱ ውስጥ ያለውን ዓላማ ፣ ስልጣን እና ሃላፊነት ይገልጻል					

6.2	The internal control service is seen as a key strategic partner throughout the organization የውስጥ ቁጥጥር አገልግሎት በአጠቃላይ በድርጅቱ ውስጥ ቁልፍ ስትራቴጂካዊ አጋር ሆኖ ይታያል					
6.3	Internal control undertakes continuous professional development activities (such as professional association sponsored programs) የውስጥ ቁጥጥር ቀጣይነት ያለው የሙያ ልማት እንቅስቃሴዎችን ያካሂዳል (እንደ የሙያ ማህበር ስፖንሰር ፕሮግራሞች ያሉ)					
6.4	The work of internal control is performed with modern technology that uses computerized data tools and specific ICS software የውስጥ ቁጥጥር ሥራ የሚከናወነው በዘመናዊ ቴክኖሎጂ ነው። በኮምፒዩተር የተደገፈ የመረጃ መሣሪያዎችን እና የተወሰኑ የውስጥ ቁጥጥር ስርዓት ሶፍትዌሮችን ጨምሮ					
6.5	The internal control staff number & their skill match the scope of organization internal operations. የውስጥ ቁጥጥር ሰራተኞች ቁጥር፣ እና የእነሱ ችሎታ ከድርጅቱ ውስጣዊ ስራዎች ጋር ይጣጣማል					

Thank you for your participation