



ST. MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES

ASSESSMENT OF INTERNAL CONTROL SYSTEM EFFECTEVINNESS
A CASE OF
ETHIOPIAN CONSTRUCTION DESIGN AND SUPERVISION WORKS
CORPORATION

BY
GETACHEW TEKLE
ENROLMENT No: MBAAF/0091/2009B

JANUARY, 2019
ADDIS ABABA, ETHIOPIA

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**A THESIS SUBMITTED TO ST.MARY'S UNIVERSITY SCHOOL
OF GRADUATE STUDIES IN PARTIAL FULFILMENT OF THE
REQUIRMENT FOR THE DEGREE OF MASTER OF ACCOUNTING
AND FINANCE**

JANUARY, 2019

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APPROVED BY BOARD OF EXAMINERS

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External Examiner	Signature
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Internal Examiner	Signature

DECLARATION

I, the undersigned, declare that, this study “The study of assessment of internal control system effectiveness a case of Ethiopian Construction Design and Supervision Works Corporation” is my original work. I have carried out this project work independently with the guidance and support of my advisor and the study has not been presented for a degree in any other university, and that all sources of materials used for the study have been duly acknowledged.

.....

STUDENT NAME

.....

SIGNATURE

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DATE

St. Mary's university, Addis Ababa

ENDORSEMENT

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

Advisor-----

Signature-----

St. Mary's university, Addis Ababa

JANUARY, 2019

ACKNOWLEDGEMENTS

First and for most I would like to thank Ato Dejene Mamo, my advisor, who has been forwarding his priceless comments all through the preparation of this study.

Further I would also like to send my gratitude to all respondents that took the time to participate in this thesis and for openly answering my questions. I thank also Ethiopian Construction Design & Supervision Works Corporation for the necessary funding.

I owe my loving thanks to my wife Asegedech Bekele, and my sons Yordanos and Natnael, without their encouragement and understanding, it would have been impossible for me to finish this work.

Lastly but not the least, my warmest appreciation and thanks goes to all my friends for their support and encouragement while doing this paper.

LIST OF ACRONYMS

AICPA	American Institute of Certified Public Accountants
BDE	Building Design Enterprise
CICA	Canadian Institute of Chartered Accountants
ECDSWC	Ethiopian Construction Design and Supervision Works Corporation
CDE	Construction Design Enterprise
CDSC	Construction Design Share Company
COSO	Committee of Sponsoring Organizations of the Tread way Commission
IC	Internal Control
ICS	Internal Control System
IFAC	International Federation of Accountants
INTOSAI	International Organization of Supreme Audit Institutions
TCDSC	Transport Construction Design Share Company
WWDSE	Water Works Design and Supervision Enterprise

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Abstract

This study is about an assessment of the effectiveness of ICS in the Ethiopian Construction Design and Supervision Works Corporation. And it examined the effectiveness of ICS of the corporation by adopting concurrent mixed research approach. Questionnaire method was used through survey of the corporation's management, Supervisors, and experts (seniors) and the qualitative method were used for interview and documentary sources. Out of the 60 questionnaires distributed 58 were properly completed and returned. Interviews were conducted with 3 top management officials. Data were analyzed using descriptive statistics. The result indicates that internal control in the corporation is effective. The control environment which is a basis for all other components of the ICSs are practiced in a better way except that there are lack of procedures to evaluate the performance of individuals against expected standards of conduct and limitation in identifying and take remedial action in a timely and consistent manner for deviation of expected standards of conduct. There is a risk assessment when setting objectives though ICS not amended with a change in objective. Monitoring needs some improvement especially in connection with placing a system for monitoring corrective action taken. Control activities are adequate except for there are no clearly stated & documented personnel policies to attract, develop and retain competent individual, there is a good flow of information and communication internally and externally. Hence, the management and board of directors should address those limitations to make the ICS of the corporation more effective.

Key words; Internal Control, Internal Control Effectiveness; components of internal control.

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CHAPTER ONE

1. INTRODUCTION

This chapter presents back ground of the study, background of the case study, statement of the problem, research questions, objectives of the study, significance of the study, scope and limitation of the study, and organization of the study. This main section of the chapter gives detail information about the issue in the topic.

1.1 Background of the study

The term internal control (IC) according to pfister (2009) developed in the accounting and auditing discipline, and was traditionally interpreted as “accounting controls” limited to the system that auditors test as part of their assurance on the reliability of financial reporting. On the other hand Creveld (1999) claimed that IC has existed from the ancient times. In Hellenistic Egypt there was a dual administration, with one set of bureaucrats charged with collecting taxes and another with supervising them.

Nowadays the IC of an organization and management is becoming a more important factor to run business successfully. Lukas and Gintare (2014) described this issue as the existence of relatively high business competition in the market urges companies to emphasis not only profit maximization but also efficient management and control.

An effective internal control system (ICS) contributes to safeguard the company’s assets, the efficiency and effectiveness of business transactions, the reliability of financial information, the compliance with laws and regulations. According to Melvin and Hirt (2005) an effective ICS serves as the first line of defense in safeguarding assets and preventing and detecting errors and fraud.

Identification of risks is the most important issue that should be considered for establishment of effective ICS. COSO framework (2013) describes that the risks facing companies are continually changing because the environments in which companies operate are constantly evolving in the modern business world.

The American institute of certified public accountants AICPA, (2014) further strengthened this idea and emphasized that IC should be based on a systematic and risk-oriented approach, to ensure that there are adequate individual controls in areas with high risk, and that they are not excessive in areas with low risk.

Management has a prime responsibility for the development and maintenance of ICS, however all personnel in the organization play important roles in making it happen and follow those policies and procedures. In addition the board of directors (including the audit committee) internal auditors and external auditors are an integral part of ICS. Talet (2014) made clear that IC is a management tool that is built into the organization as a basis for its infrastructure to help managers run the business and achieve the goals and objectives on an ongoing basis. Therefore management should take the responsibility for establishing and maintaining it.

This study attempted to assess the effectiveness of ICS in the Ethiopian Construction Design and Supervision Works Corporation (ECDSWC) by adopting quantitative and qualitative research approach. Employing this approach helps to reduce limitations of applying any of a single approach. According to Driscoll, Yeboah, Salib, and Rupert (2007) the qualitative data provide a deep understanding of survey responses and statistical analysis can provide detailed assessment of patterns of responses.

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 Background of the case study

ECDSWC is one of the pioneer engineering service provider established by the federal government of Ethiopia. The corporation provides study, design, supervision and contract administration services in water and energy, transport, building and urban planning works for local and international markets.

The ECDSWC, established as a Federal Government Public Enterprise by Council of Ministers Regulation No. 365/2015, is a multi-disciplined engineering firm and provides professional services in water and energy, transport, building and urban planning and related disciplines.

The ECDSWC is founded by amalgamation of three former Public Enterprises, viz. Water Works Design and Supervision Enterprise (WWDSE), Construction Design Share Company (CDSCo) and Transport Construction Design Share Company (TCDSCo) that were predominantly providing engineering consultancy services in water, building and transport sectors, respectively. A brief history of the former three Public enterprises is summarized as follows.

The three enterprises, CDSCo, TCDSCo, and WWDSE, were serving as departments in their parent public institutions, viz. Ministry of Public Works Imperial Highway Authority, and Ministry of Water Resources, respectively. The CDSCo was established as Construction Design Enterprise (CDE) by Council of Ministers Reg. No. 91/1977 to provide construction consultancy activities independently; and later re-named as the Building Design Enterprise (BDE) with Council of Ministers Reg. No. 107/1979 but continued to provide consultancy services in building construction design, contract administration, foundation investigation and material testing. Furthermore, in 2002 the company was reorganized as Construction Design Share Company (CDSCo) by expanding its services to road and water works design, supervision and contract administration works.

TCDSCo was a full-fledged public enterprise consulting firm that provides services in design and construction supervision of roads, bridges and airports; geotechnical investigation and laboratory testing services. TCDSCo was established as Transport

Construction Design Enterprise (TCDE) by Council of Ministers Reg. No108/1987; and later as TCDS Co by Council of Ministers Reg. No 161/1994. Both CDSCo and TCDS Co were being supervised by Board of Directors and Public Enterprises Privatization and Supervising Agency until the establishment of the Corporation.

WWDSE was established by Council of Ministers Regulations No. 42/1998 and Council of Ministers Amendment Regulation No. 110/2004 to conduct studies, design and supervision of water infrastructure and river basin integrated development master plans; and to render services in surveying, geotechnical and laboratory testing of materials, water quality and agricultural soil as well as preparation of bid and contract documents.

All the three public enterprises were established to provide engineering consultancy services to their customers in water, urban development and road construction areas and during different times they reorganized, renamed, expanded duties and responsibilities or amended authorized capital.

1.3 Statement of the problem

The Committee of Sponsoring Organizations of the Treadway Commission Framework (2013) offers a conceptual model for an ICS to be effective, which comprises control environment, risk assessment, information and communication, monitoring and control activities. In addition, the Framework, described the objective setting is considered a precondition to IC. By setting objectives, management can then identify risks to the achievement of those objectives. To address these risks, management of an organization may implement specific IC. The effectiveness of IC then is measured by how well the objectives are achieved and how effectively the risks are addressed.

The issue with IC 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

IC 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 assessing the effectiveness of the existing ICS in ECDSWC. Control environment, risk assessment, control activities, information and communication and monitoring are factors for the effectiveness of ICS according to the frame work. With regard to this, the researcher attempted to identify whether these component of the ICS are present and functioning in the Corporation. particularly, how management demonstrate integrity and ethical values, how the Corporation holds individuals accountable for their IC responsibilities, whether the practice of risk assessment 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 remarked by them cannot represent the construction sector like ECDSWC. Furthermore the researcher confirms that absence of empirical study on ECDSWC in the area of ICS is the actual gap identified which necessitated 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 inconsistencies in the research findings drive the researcher to investigate the ICS of ECDSWC.

1.4. Research Question

This study will try to answer the following basic research questions;

- Is there suitable control environment in the corporation for effective ICS?
- Does risk assessment adequately practiced in the corporation?
- Is there adequate control activities placed in the corporation?
- Are there adequate information and communication component of ICSs in the corporation?
- Is there effective monitoring of ICS in the corporation?

1.5 Objective of the Study

1.5.1 General Objective

The general objective of the study is to assess the effectiveness of the existing ICS in Ethiopian construction Design & Supervision Works Corporation.

1.5.2 Specific Objective

Specifically the objective of the study is listed here under;

- To identify whether there is suitable control environment in the corporation for effective ICS.
- To identify the Risk Assessment adequately practiced in the corporation.
- To identify whether adequate control activities are placed in the corporation.
- To examine the availability of adequate Information and Communication component of ICS in the corporation.
- To examine whether there is effective Monitoring of ICS in the corporation.

1.6 Significance of the study

This study can help as a source of information or it can initiate those who are interested to conduct a detailed and comprehensive study regarding the ICS of the corporation. It can help as a valuable input for management and board of directors to make decisions on the weakness of ICS of the corporation and it gives priceless research experience to the researcher.

1.7 Scope and limitation of the study

The study confined to assess how effective the ICS of the ECDSWC is, therefore, the conceptual scope of the study is limited to examine the effectiveness of the ICS of the corporation. The main limitation of this study is the result of the study cannot be generalized or used to other organization due to the specific nature of the study. Another limitation to this study is some respondent's hesitation to return the questionnaire on time and this creates time pressure on the researcher to perform the sorting, coding, and analyzing processes which may affect the quality of the study.

1.8 Organization of the study

This research report divided into five chapters. The first chapter explains background of the study, background of the case study, statement of the problem, objective of the study, significance of the study, limitation and scope of the study. The second chapter presents discussion about ICS with theoretical and empirical literature review, the third chapter is about research design and methodology. This chapter embraces the research strategies used and their justification, specific research methods, and analysis. The fourth chapter deals with data presentation, analysis and discussion. In the final chapter findings and conclusions are summarized, recommendations are forwarded.

CHAPTER TWO

2. REVIEW OF RELATED LITERATURE

This part of the chapter reviews in detail theoretical and empirical literature and addressed the conceptual frame work. Here theories concerning ICS are reviewed and addressed in detail. Literature gap is identified and presented in this chapter.

2.1 Theoretical literature

ICS is defined by different institutions and scholars in almost similar ways, with only a slight difference. COSO (2013) defined IC as a process, effected by an entity's board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives relating to operations, reporting, and compliance.

This definition is further elaborated by the framework; a process is a means to an end, not an end in itself, consisting of ongoing tasks and activities effected by people. A 'means' indicates not merely about policy and procedure manuals, systems, and forms, but about people and the actions they take at every level of an organization to affect IC. The other concept in this definition is, it provide only reasonable assurance but not absolute assurance, to an entity's senior management and board of directors. Adaptable to the entity structure means it is flexible in application for the entire entity or for a particular subsidiary, division, operating unit, or business process.

In addition Spencer (2010) defined IC as the whole system of controls, financial and otherwise, established by the management in order to carry on the business of the enterprise in an orderly and efficient manner, ensure adherence to management policies, safeguard the asset and secure as far as possible the completeness and accuracy of records. On the other hand Suleiman and Ibrahim (2008) defined IC as the policies and procedures put in place by an organization's management to ensure economic acquisition of resources, safeguarding of asset, efficient use of resources, reliability of accounting records, effectiveness of operations, timely preparation of accurate financial and non-financial information, prevention and detection of errors and irregularities and compliance with statutory requirements and other directives.

Similarly INTOSAI (2004) defines IC as manager's responsibility for establishing an effective control environment in the organizations. According to Arwings and Olof (2013) IC has had a fairly direct relationship to financial reporting however Vaclovas and Lukas (2012) states that the use of budgetary technique, production standards, inspection laboratory, time and motion studies, and employee training program involves engineers and many other technicians far removed from accounting and financial activities; yet all of these devices are part of the mechanisms now considered as an IC structure.

AICPA (2014) divided IC into accounting and administrative control. Accounting control as Clifford Gomez (2012) described, is the procedures and records that are concerned with the safeguarding of assets and reliability of financial records and administrative control as the procedure and records that are concerned with the decision process. This implies that ICS not confined only to financial matters, but in all aspects of the organization's activities. A satisfactory system of IC depends on a clear plan of the organization establishing the line of authority and responsibility and proper division of work, Jain (2012) pointed out that effective ICS possess a well-organized and adequate accounting structure with well laid down rules, procedures and policies, men of ability and experience to execute the work well and proper system of reporting and communicating from lower level management to top management.

An ICS available to a firm consists of management oversight and the control culture; risk recognition and assessment; control of activities and segregation of duties; information and communication and monitoring activities and correcting deficiencies. According to pfister (2009) control environment is the basis of all other components of the ICS. Control activities which are detailed policies and procedures are important in line with a good control environment, in order to ensure the necessary actions are taken to address risks and to ensure that management directives are carried out; there must be a detailed policies and procedures. Information systems is also an important part of an effective ICS, it produce reports, containing operational, financial and compliance-related information, Arwings and Olof (2013) emphasis the importance of information and communication in making efficient to run and control business. ICS need to be

monitored, a process that assesses the quality of the system's performance over time. This is accomplished through ongoing monitoring activities.

The effectiveness of control cannot be judged solely on the degree to which each criterion, taken separately, is met. According to Arwings and Olof (2013) the criteria are interrelated, as are the control elements in an organization. IFAC (2006) described that Control elements cannot be designed or evaluated in isolation from each other. Control is as much a function of people's ethical values and beliefs as it is of standards and compliance mechanisms. Control should cover the identification and mitigation of risks. Philp, Ishmael Appiah and Josph (2014) remarked about the effectiveness of an ICS and argued that it is dependent on how fluid the system interact with itself and how embedded it is into the organizations business processes.

They further explained for an ICS to be effective and provide the needed assurance to the board, there should be some "agents of effectiveness". These are a vibrant board, which does not wait to be informed but a board that understands the business and questions the status quo, and an effective, independent internal audit unit. A judgment as to whether an entity's IC is effective is based on considering the extent to which the components are present and operating effectively. Gomez (2012) has described that effective functioning of all the components provides reasonable assurance as to the achievement of one or more of the three categories of objectives. He further explained that an effective ICS can be manifested by the extent to which the entity's operations objectives are being achieved published financial and non-financial reports are being prepared reliably and applicable laws and regulations are being complies with. Therefore effectiveness of IC depends on the presence of all the components of IC working together.

An effective ICS provides reasonable assurance for the achievement of organization's objective. Alvin & Randal (2012) describes policies, process, tasks, behaviors and other aspects of an organization, taken together, facilitate its effective and efficient operation, help to ensure the quality of internal and external reporting, and help to ensure compliance with applicable laws and regulations. The IC has equal significance to the auditors as the quality of IC determines the pattern of their examination. William, Steven and Douglas (2014) states that an entity's system of IC is management's responsibility

but it is important to the auditor because the auditor needs assurance about how well the assets and records of the entity are safeguarded and about the reliability of the data generated by the information system.

The COSO Framework (2013) provides for three categories of IC objectives, which allow organizations to focus on differing aspects of IC. The first one is Objectives related to operations which pertains the effectiveness and efficiency of the entity's operations, including operational and financial performance goals, and safeguarding assets against loss. The second reporting Objective focuses on the internal and external financial and non-financial reporting and may encompass reliability, timeliness, transparency, or other terms as set forth by regulators, recognized standard setters, or the entity's policies. And the third objectives deals with adherence to laws and regulations to which the entity is subject.

The other issue that should be considered about ICS of an organization involves organizational structures, which are the company's structural checks and balances that affect the environment of IC. According to Bor (2010) those who implement IC must not be placed in a situation in which their personal interest conflicts with that of the organizations. Alvin & Randal (2012) further explained that the entity's organizational structure defines the existing lines of responsibility and authority, by understanding the organizational structure, it is possible to learn the management and functional elements of the business and perceive how controls are implemented.

There is inherent limitation in any ICS. Errors may be made in the Performance of control procedure as a result of carelessness, misunderstanding of instruction, or other human factors. According to Tandon (2005) IC can never be completely effective, regardless of the care followed in their design and implementation. Even if management can design an ideal system, Alvin and Randle (2012) claims its effectiveness depends on the competency and ability of the people using it. Kathy (2017) discussed some limitations of IC, for example, effective IC may be limited by the realities of human judgment, misunderstood instructions, new technology and the complexity of computerized information systems, management override and collusion.

The COSO framework (2013) identifies five main elements of a good ICS. These components should relate one another in order to achieve organizational objective.

Control Environment

The first component of ICS according to the frame work is control environment. This is sometimes referred to as the tone at the top of the organization. It describes the ethics and culture of the organization, which provide a framework within which other aspects of IC operates. The control environment has been defined by the institute of internal audit as "The attitude and action of the board and management regarding the significance of control within the organization" 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.

According to the updated COSO IC framework (2013) the principles of control environment are; the organization has to demonstrate a commitment to integrity and ethical values, the board of directors should demonstrate independence from management and exercises oversight of the development and performance of IC. In addition, structure, reporting lines, and appropriate authorities and responsibilities in the pursuit of objectives should be established by management with broad oversight. The organization has to demonstrate a commitment to attract, develop and retain competent individuals in alignment with objectives and organization should hold individuals accountable for their IC responsibilities in the pursuit of objective.

Risk Assessment

According to the COSO frame work (2013) risk assessment is the second component of a good ICS. There is a connection between the objective of an organization and the risks to which it is exposed. In order to make an assessment of risk, objectives for the organization must be established. Having established the objectives, the risks involved in achieving those objectives should be identified and assessed, and this assessment should form the basis for deciding how the risks should be managed. The risk assessment should consider internal and external factors and also risks that are controllable and those that are not controllable. principles of risk assessment according to COSO IC framework (2013) are;

specifying objectives with sufficient clarity to enable the identification and assessment of risks relating to objectives, identification of risks to the achievement of the objectives across the entity and analyzes risks as a basis for determining how the risks should be managed, considering the potential for fraud in assessing risks to the achievement of objectives and identifying and assessing changes that could significantly impact the system of IC.

Control Activities

Control activities are the third component of a good ICS according to COSO frame work (2013). These are policies and procedures that ensure the decisions and instructions of management are carried out. Control activities occur at all levels within the organization, and include authorization, verification, reconciliation, approval, and segregation of duties, performance reviews and asset security measures. According to the updated COSO IC framework (2013) the principles of control activities are; the organization has to select and develop control activities that contribute to the mitigation of risks to the achievement of objectives to acceptable levels, organization should also select and develop general control activities over technology to support the achievement of objectives and organization's has to deploy control activities through policies that establish what is expected and procedures that put policies into action.

Information and Communication

An organization must gather information and communicate it to the right people so that they can carry out their responsibilities. According to the COSO frame work (2013) Information and communication is the fourth component of a good ICS. Managers need both internal and external information to make informed decisions and to report externally. The quality of information system is a key factor in this aspect of IC.

According to the framework the principles of information and communication includes the organization should obtain or generate and use relevant, quality information to support the functioning of other components of IC, has to internally communicates information including objectives and responsibilities for IC necessary to support the

functioning of IC and it has to communicate with external parties regarding matters affecting the functioning of other components of IC.

Monitoring

Monitoring is the last component of a good ICS. The ICS must be monitored. This element of an ICS is associated with internal audit, as well as general supervision. It is important that deficiencies in the ICS should be identified and reported to senior management and the board of directors. According to the updated COSO IC framework (2013) the principles of monitoring are selecting, developing and performing ongoing and/or separate evaluations to ascertain whether the components of IC are present and functioning and evaluating and communicating IC deficiencies in a timely manner to those parties responsible for taking corrective action, including senior management and the board of directors, as appropriate.

2.2. Empirical Literature Review

Many studies in the area of IC showed that effective ICS can promote accountability and transparency, create preconditions for achieving competitive advantage over other companies, and make investment to be efficient. Radiah and Norli (2012) studied about IC with a premise that effective supervision and proper ICS can promote accountability and transparency taking Malaysia a case in point. To conduct this study they collected evidence from a survey of 60 charities on the status of their ICS and reached in a conclusion that if charities generally lack a basic ICS this might have an impact on their financing, directly or indirectly and recommended the government and relevant authorities must effectively enforce procedures and policies to improve both their credibility of the charities. In addition in Malaysia, a recent study conducted by Atan, Zainon & Wah (2012) concluded that the financial information provided by the charity can influence a potential donor's decision to donate.

Similarly Zuraidah, Razana, Jamaliah, and TakiahIs (2015) conducted a research and put their study results in their article. In conducting the research they distributed 500 questionnaires to chairman and treasurers of 250 selected mosques available in Malaysia and the study result indicates that Malaysian Mosque enhances ICS and performance to

achieve the mission and goals of the Mosque. They concluded that ICS is an effective way to improve the productivity and efficiency of financial management practices and management control system in the mosque.

A company having an efficient ICS may not only successfully compete with other companies operating in that field; it can also seek for new strategic goals set by the management. Lukas and Gintare (2015) on their article pointed out that the ICS takes the major and probably the most important and significant place not only among the control system existing at the company but also at the company's management system. The IC, as a function of control system or management, is particularly important to companies, because it includes all areas of the company's work and activities, not only from the highest to the lowest management levels, but also from structuring to control of the employees behavior.

On the other hand Lee, Cho and Choi (2016) made a research on the effect of IC weakness on investment efficiency in Korea and they come up with a result that shows IC weakness tends to produce poor accounting quality and hence the information asymmetry between firms and capital supplier cannot be mitigated, resulting in over and or under investment. They also mentioned that since ICS includes corporate governance, weak IC is often related to poor corporate governance and thus managerial investment cannot be monitored effectively causing abnormal investment. Their study result shows that a positive relation between IC weakness and the incidence of over and/or under investment.

Kosmas, Margaret and Fungai (2011) assessed how effective ICs ensure good corporate governance in Zimbabwe financial institutions. Data was gathered through document review, questionnaires and structured interviews. Targeted respondents included Chief Executive Officers (CEOs), managers from different levels from 8 commercial banks and 2 building societies. A total of ten (10) questionnaires and nine (9) interviews were used. The research result showed that failure to effectively implement ICs contributed significantly to poor corporate governance.

The effectiveness of ICSs in safeguarding inventory was studied by Stephen (2011) taking Rift Valley Institute of Science and Technology a Case Study. A total of 351

employees from all the nine departments in the institute who are involved in the procurement, storage, distribution and usage of inventory were taken for the study's target population. He took a sample size of 187 employees. Spearman rank order correlation and regression analysis were used to establish the relationship between the different components of the ICS and the effectiveness in safeguarding inventories. The findings showed that full application of the components of IC helps in safeguarding inventories at the institute.

The effectiveness of ICS is also examined by Joseph and Victoria (2012) on listed firms in Ghana. The study used annual reports of a sample of 33 firms listed on the Ghana Stock Exchange. Overall ICS showed an average level of effectiveness in this study, which implied an overall low level of effectiveness. Of the five categories assessed under ICS, control environment showed a higher level of effectiveness.

A research on the Kenya Revenue Authority conducted by Mwachiro (2013) exhibited that weak ICs have encouraged collusion to fraud, loss of revenue and embezzlement of collected revenue. The objective of this study was to closely look at the IC in operation at Kenya Revenue Authority with a view to establish whether such ICs have produced any meaningful results in increased collected revenue. The research was conducted using both qualitative and quantitative approaches. Questionnaires were used on a population of 38 respondents in gathering primary data for the study.

Mesfin & Firew (2017) studied the effect of ICS on hotels revenue, taking hotels in Bahirdar and Gonder cities. The study found that control activity, information and communication and monitoring of IC were predictors of hotel revenue. Their study comprised 30 hotels from the two cities to investigate the relationship and effect of control environment, risk assessment, controlling activity, and monitoring activity on revenue of hotels via logistic regression model.

Dagnu (2013) on the other hand examines effectiveness of IC and Internal Audit Function over Cash Operation in Bank - The Case of Cooperative Bank of Oromia and concluded that questions related to principles of operating and financial controls; personnel policies and procedures and internal audit functions over cash operations

indicate there is a problem or deficiency in applicability of COSO principles in practice in cooperative bank of Oromia and he recommended that effective IC should be in place based on the COSO framework.

In general effectiveness and efficiency of an entity's operations, including operational and financial performance goals, and safeguarding of assets against loss depends on a well-designed ICS.

2.3 Conclusion and Knowledge gap

Many literature and studies widely indicates that the importance of a good ICS for any organization whether it is profit making, government or non-government. A good ICS can help to place accountability and transparency in the organization, to get competitive advantage over other organizations, to attract investment, to produce reliable financial and non-financial information, to enhance revenue collection, for efficient financial management practice and to protect fraudulent activities.

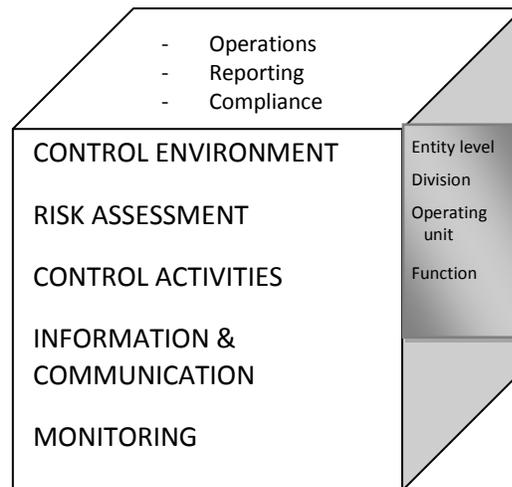
However as per the researcher's knowledge, the literature to date largely focused on foreign countries economies as a result understanding of the Ethiopian IC profession appears incomplete. In addition there is lack of consistency on the findings of the studies on the application of the whole ICS components for the achievement of organization's objective.

2.4 Conceptual Framework

After going through literatures, the researcher has tried to extract the conceptual framework of this study and their implication. The relationship between IC objectives and the five (5) components of ICS and between the components each other is essential for ICS to be effective in any organization. Rittenberg (2008) described that there is a conceptually logical integration of IC components. The control environment establishes management's commitment to good governance, risk analysis, and control. It sets the tone for the organization's implementation of effective IC, a risk management policy and process helps to identify risks that affect the organization, here management and employees develop and implement controls that reduce the risks to an acceptable level.

Development and implementation of an effective information and communication system is important to process transactions and to develop reports that enable all levels of management to make reliable decisions and to recognize improper processing. Finally monitoring the effectiveness of the ICS will help to redesign if control failure happened. With regard to the control objective relationship with the five components of ICS, the COSO integrated frame work (2013) described that every organization establishes relevant objectives and formulates strategies and plans for achieving them. Objectives may be set for the organization as a whole, or be targeted to specific division, operating units and functions within the organization. The five components of ICS i.e. control environment, risk assessment, information and communication, and monitoring supports the organization in its effort to achieve its objective. A diagram which shows these relationships depicted here under.

FIGURE 2.4 **Internal Control: Integrated framework**



Adopted from COSO (2013)

CHAPTER THREE

3. RESEARCH METHOD

This study is about an assessment of ICS effectiveness of the ECDSWC. To undertake this research, the researcher employed mixed method research approach. According to Michael and Dawn (2015) mixed methods research involves collecting, analyzing, and interpreting quantitative and qualitative data in a single study or in a series of studies that investigate the same underlying phenomenon. This chapter presents a detailed description of the research methods that are used to collect relevant data to the study, the research design, data source and method of data collection, methods of sampling, development of research instruments, methods of data analysis and data quality assurance.

3.1 Research Design

To achieve the aforementioned objectives, the study employed descriptive design in which both quantitative and qualitative data analysis were used to produce richer and more complete information. The study describes research variables, facts and figures related to the corporation's ICS obtained through the tools of data collection.

Descriptive type of research was chosen because according to Singh, (2006) it helps to identify present conditions and points to present needs, study immediate status of a phenomenon, examine the relationships of traits and characteristics and the descriptive survey is more realistic than other research types. The goal of descriptive research is to describe a phenomenon and its characteristics. This research is more concerned with what rather than how or why something has happened. Therefore, the descriptive type of survey is to be relevant in that it helps with the reality that it can help to see the actual practices of ICS in the corporation.

3.2 Data sources and method of data collection

This study was conducted based on primary and secondary data sources. Primary data was collected from respondents using questionnaire and interview. The questionnaire were administered over middle and top level management groups, supervisors (team

Leaders) and senior employees, who are expected to give relevant information for this study. However interview was conducted with Deputy Chief Executive Officer, corporate finance manager and corporate Audit manager. Secondary data were collected from corporation's documents, internal and external audit reports related to the topic under study. According to Driscoll et al (2007) the basis for employing these designs are they can be generally described as methods to expand the scope or breadth of research to offset the weaknesses of either approach alone

3.3 Methods of sampling

Sampling involves any procedure that draws conclusion based on measurement of a portion of the population (Zikmund, Babin, Carr, Adihikri and Griffen, 2010). For this study purposive sampling was employed. As per the information provided by the corporation's personnel office, the corporation has 1834 man power with different qualification. However the researcher target population is those employees who are working in managerial position, team leaders and senior experts. This approach is selected with a belief that reliable information can be acquired about the corporation's ICS, if these groups of employees participate in the survey. There are 199 employees who are working on these positions. 60 of them are working in managerial position, 30 on supervisory (team leader) position and 109 of them are senior experts. Therefore the researcher determined a sample of 60 respondents by selecting 30% from each group. According to Gay, Geofferey and Airasian (2012) for descriptive survey research, it is common to sample 10% to 20% of the population. Thus, 18 questionnaires have been distributed for those employees who worked in managerial position 9 for supervisory (team leaders) and 33 for senior experts for purposely selected respondents.

3.4. Development of Research Instruments

Appropriate and convenient techniques of data collection to properly assess the ICS of the corporation are very crucial. Accordingly, in this study to make the research output thorough, a triangulated list of methods of data collection instruments were employed. The data were collected both from the primary data sources (using questionnaire and interview) and the secondary data sources. As part of the primary data, a comprehensive

questionnaire (a copy was placed as appendix A at the end of the report) was designed and distributed to management groups, supervisors and experts. The questionnaire are designed as close ended questions used in a 5 point likert scales to collect data from the sample respondents and open ended questions are designed in the questionnaire to enable the respondents clarify their ideas. The questionnaire has 5 rating scales ranging from 1- strongly agree to 5- strongly disagree. However the analysis is based on how the mean response of the respondents is close to this expected value. A large amount of researchers use this methodology, because it is relatively easy for respondents to use, and responses from such a scale are likely to be reliable Balzan and Baldacchino (2007). For all questions a mean response less than 3 statistically suggests agreement with the statement/question, a mean response more than 3 implies disagreement and a mean response close to 3 indicates indifferent or neutral. All of the questions are coded in such a way that a mean response of less than 3 display that the principle under that component of ICS adequately practiced to make effective the ICS of Corporation, while a mean response greater than 3 reveals that this principle under that component of ICS not adequately practiced to make effective the ICS.

Data gathered through questionnaires is simple and clear to analyses and it allows for tabulation of responses and quantitatively analyzes certain factors. The questionnaire was structured in such a way that it includes all the 5 components of ICS which enable the researcher to critically assess the research questions. In order to obtain sufficient information the researcher has also conducted personal interview with selected top management bodies.

3.4.1. Questionnaire

Questionnaire is a research instrument consisting of a series of questions and other prompts for the purpose of gathering information from respondents. According to (Bulmer, 2004) the questionnaire is a well-established tool within social science research for acquiring information on participant social characteristics, present and past behavior, standards of behavior or attitudes and their beliefs and reasons for action with respect to the topic under investigation. Questionnaires have advantages over some other types of

surveys in that they are cheap, do not require as much effort from the respondent and often have standardized answers that make it simple to compile data.

The questionnaire was designed to include two parts. The first part deals with the personal information of the respondents. And the second part of the questionnaire is about questions concerning the five ICS components. The first Component deals with how good the control environment is in the corporation. There are a total of 10 items presented in this part in which the respondent is required to give his level of agreement. The second component of the questionnaire is about the risk assessment practice of the corporation and contained 5 items. The third component of the questionnaire is about control activities which were designed for the purpose of looking in to the extent to which the management and the board established policies, procedures and manuals to discharge its roles and responsibilities. The fourth components of the questionnaire deals with how the corporation communicates internally and externally and how information is transferred to the concerned bodies. The final part of the questionnaire is about monitoring of the ICS of the corporation. All of these items were evaluated using a Likert scale. The Likert scales were designed as 'strongly agree', 'agree', 'no opinion', 'Disagree' and 'Strongly Disagree'. Accordingly, the respondents were asked to use the scales in order to show their agreement or disagreement with the given statements.

3.4.2. Interview

Interview is the other type of data collection instrument used in the study. This means of data collection instrument helps the researcher to get reliable information from the target population that how they feel and think about the problem. According to Fox (2009) the interview is an important data gathering technique involving verbal communication between the researcher and the participant. Interviews are commonly used in survey designs and in exploratory and descriptive studies. There is a range of approaches to interviewing, from completely unstructured in which the participant is allowed to talk freely about whatever they wish to highly structured in which the participant responses are limited to answering direct questions. The interview questions were prepared in a semi structured type. There were a total of 10 questions asked to Deputy Chief Executive Officer, corporate finance manager and corporate Audit manager.

3.4.3 Documentary Sources

The Corporation's strategic manual, external and internal audit reports were examined in order to enhance the validity of findings. Document examination was used to corroborate the patterns that evolved from the data collected via questionnaires and interview.

3.5 Methods of data analysis

The data collected via questionnaires were analyzed with descriptive statistics using statistical package for social scientists (SPSS). The data collected through interviews and documents were analyzed qualitatively by descriptive statements. The results that were obtained from the interviews used concurrently to strengthen the analysis of the questionnaires. And hence, the data is organized in a more understandable form and analyzed based on the respondents result. In this study, the organized data is analyzed using tabulation, frequency and percentage to make the result more appealing.

3.6 Data Quality Assurance

According to Zikmund et al (2010) reliability is an indicator of a measure's internal consistency. Consistency is the key to understanding reliability, therefore the concept of reliability revolve around consistency. On the other hand validity is the accuracy of a measure or extent to which a score truthfully represent a concept. One of the common methods to test the reliability and validity of data collected through questionnaire is use of Cronbach's alpha coefficient.

3.6.1 Validity

As stated earlier, the questionnaire was developed with due care containing 34 items; Items in the questionnaire were prepared using a five point-Likert scale except the demographic items. Maximum effort was exerted to create logical link between the items in the questionnaire and the objectives of the study. In order to ensure content validity of the items incorporated in the instrument, two audit professionals in the corporate audit office have examined the instrument before it was distributed. One of these professionals

is head of internal audit department and the other audit team leader. Besides, the instrument was given to my advisor and my friend's to comment on it.

3.6.2 Reliability

The reliability of any given measurement refers to the extent to which it is a consistent measure of a concept. Cronbach's alpha is a measure used to assess the reliability, or internal consistency, of a set of scale or test items. The researcher tested the reliability of the internal consistency of items incorporated in the instrument which were developed for respondents as a pilot test. As indicated below in Table 1 the value for Cronbach's Alpha (α) was 0.852 according to Field (2009) Cohen and Sayag (2010) for all variables which exceed 0.70 implies that the instrument's internal Consistency is acceptable. Therefore the responses generated for all of the variables used in this research was reliable enough for data analysis.

Table 1 Reliability Statistics

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.852	.831	34

Source: Questionnaires and SPSS output (2018).

CHAPTER FOUR

4. DATA PRESENTATION, ANALYSIS AND DISCUSSION

The objective of this study is to assess effectiveness of the existing ICS in ECDSWC. The result and analysis of data collected using self-administered questionnaires presented in this section. A total of 60 questionnaires were distributed to purposely select managerial, supervisory (team leaders) and senior staffs of the corporation to conduct this study, and 58 useable questionnaires were obtained (96.7 %) response rate. In addition, the researcher conducted an interview with 3 top management members that are directly involved with the system of IC. The section is categorized as 4.1 Respondents profile, 4.2 Survey result on ICS, and 4.3 discussions.

4.1 Respondents profile

Table 2 Demographic data

	Frequency	Percent	Valid Percent	Cumulative Percent
Gender				
Male	41	70.7	70.7	70.7
Female	17	29.3	29.3	100.0
Total	58	100.0	100.0	
Education Background				
BA/BSC Degree	30	51.7	51.7	51.7
MA/MSC Degree	27	46.6	46.6	98.3
PHD	1	1.7	1.7	100.0
Total	58	100.0	100.0	
Year of Experience				
Less than 5 years	7	12.1	12.1	12.1
5-10 Years	20	34.5	34.5	46.6
10-15 Years	26	44.8	44.8	91.4
Above 15 Years	5	8.6	8.6	100.0
Total	58	100.0	100.0	
Position respondents are working				
Managerial	18	31.0	31.0	31.0
Supervisory	7	12.1	12.1	43.1
Expert	33	56.9	56.9	100.0
Total	58	100.0	100.0	

Professional back ground of respondents				
Administration	28	48.3	48.3	48.3
Finance	18	31.0	31.0	79.3
Engineering	12	20.7	20.7	100.0
Total	58	100.0	100.0	

Source: Questionnaires and SPSS output (2018).

4.1.1 Gender of the Participants

The gender proportion of male respondents is 70.7% while the female respondents were 29.3%. 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.

4.1.2 Educational background

The education qualifications of respondents indicate that 51.7% hold first degree. 46.6% were MA/MSC degree holders, while 1.7% of the respondent achieved his 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.

4.1.3 Year of Experience of respondents

As sex 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 7 participants (12.1%) of the respondents have less than 5 years of experience, 21 participants (34.5%) of them have 5-10 years of experience, 25 participants (44.8%) have 10-15 years of experience and 5 participant (8.6%) have more than 15 years of experience in the corporation. The respondents experience also includes the years they served before the individual organization incorporated and named ESDSWC. The survey shows that a large number of the respondents almost 88% 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.

4.1.4 Position respondents are working on

When we look at the position respondents are working, 31% of the respondents are working in managerial position, 12.1% in supervisory level and 56.9% are senior experts. Establishment of ICS is primarily the responsibility of management. The survey purposively designed to get information from higher posted employees of the corporation, because these groups of employees better know the ICS of the corporation and provide reliable information that can help this study.

4.1.5 Professional back ground of respondents

The above table shows that most of respondents have administrative and finance back ground. 48.28% of respondents are from finance and 31. % is from administration stream and 20.69% from engineering. The broader category of IC is operational and accounting control. Obviously the respondents with knowledge of management and accounting understand the concept of ICS than others. This means the respondents had at least the theoretical education on the concept of IC. At the same time the researcher purposely included engineers to get information about ICS in the area of operational works. Therefore the knowledge and experience of the respondents on ICS enable them to better understand and respond the questionnaire; this in turn helps the researcher to get reliable information to the study.

4.2 Survey result

The general objective of this study is to assess the effectiveness of the existing ICS in ECDSWC with a specific objective of identifying whether there is suitable control environment for effective ICS, to identify the risk assessment adequately practiced, to identify whether adequate control activities are placed, to examine the availability of adequate Information and Communication component of ICS and to examine whether there is effective Monitoring of ICS in the 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.

A good ICS should possess components of control environment, control activities, risk assessment, information and communication and monitoring COSO framework (2013). These components of the ICS were used as criteria to evaluate the effectiveness and adequacy of the corporation’s ICS. Based on the survey instrument through questionnaire, the respondents were asked to scale their degree of agreement whether each items under elements of IC practiced in the corporation. The results are presented and analyzed here under.

4.2.1 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. It describes the ethics and culture of the organization. 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 3 Control Environment

Items of control Environment	Likert rating score						
	SA	Agree	no opinion	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=58	25 (43.10)	22 (37.9)	7 (12.1)	4 (6.9)	- -	1.828	.901
Management establishes standard of conduct in the corporation. N=58	36 (62.1)	18 (32)	4 (6.9)	- -	- -	1.431	.624

Items of control Environment	Likert rating score						
	SA	Agree	no opinion	DA	SD	Mean rating	SD
	(%)	(%)	(%)	(%)	(%)		
Procedures are in place to evaluate the performance of individuals and teams against the corporation's expected standard of conduct. N=58	--	3	7	32	16		
	--	(5.2)	(12.1)	(55.2)	(27.6)	4.052	.782
Deviation from the corporation's expected standards of conduct are identified and remedied in a timely and consistent manner.N=58	1	2	9	31	15		
	(1.7)	(3.4)	(15.6)	(53.4)	(25.9)	3.982	.848
There are clear lines of authority, responsibility and performance evaluation.N=58	44	12	2	--	--		
	(75.9)	(20.7)	(3.4)	--	--	1.275	.523
There is competent and independent internal audit department in the corporation.N=58	14	23	16	5	--		
	(24.1)	(39.7)	(27.6)	(8.6)	--	2.172	.920
There is active management board & audit committee consisting of independent members in the corporation.N=58	9	35	12	2	--		
	(15.5)	(60.4)	(20.7)	(3.4)	--	2.120	.703
Management established organizational structures and reporting lines that foster the achievement of objectives.N=58	15	43	--	--	--		
	(25.9)	(74.1)	--	--	--	1.741	.442
The corporation holds individual accountable for their internal control responsibilityN=58	5	35	13	5	--		
	(8.6)	(60.3)	(22.5)	(8.6)	--	2.310	.754

Source: Questionnaire and SPSS output (2018)

Average mean 2.332

Table 3 above shows that 43.1 strongly agree and 37.9 agrees whereas about 12.1% showed no opinion, and only 6.9 % disagree 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 mean rating score

of the item was 1.828 which is found on the scale between strongly agrees and agrees. Similarly, 62.1% strongly agree and 32% agree with the idea that management establishes standard of conduct in the corporation and the rest have no opinion. The mean value of this statement is 1.431 which is found between strongly agree and agree on the scale. This implies that the board and managements are committed towards integrity and ethical values exhibited by establishment of standard of conduct it is therefore in line with the principle of COSO framework that states the organization should demonstrate a commitment to integrity and ethical values and standard of conduct. However, majority of the participants 82.8% do not agree with the statement that procedures are in place to evaluate the performance of individuals and teams against the corporation's expected standard of conduct, the rest either have no opinion or agree. They rate this statement at 4.052 which is found between disagree and strongly disagree on the scale.

Moreover 25.9% of the respondents strongly disagree and 53.4% disagree to the statement 'Deviation from the corporation's expected standards of conduct are identified and remedied in a timely and consistent manner' whereas 15.5% have no opinion on the statement, only 5.1% strongly agree or agree. The mean rate of this statement is 3.982 which is found approximately disagree on the scale. With respect to the idea 'There are clear lines of authority, responsibility and performance evaluation' 75.9% of the respondents strongly agree and 20.7% agree, the remaining 3.4% have no idea about the statement. This statement has a mean value of 1.275 and found between strongly agree and agree. In addition 63.8% of the respondents strongly agree or agree to the idea 'there is competent and independent internal audit department in the corporation.' whereas 27.6% have no opinion and 8.6% disagree on the statement. This statement has a mean value of 2.172 which is found approximately agree on the scale. On the other hand majority of the respondents strongly agree or agree on the statements 'there is active management board & audit committee consisting of independent members in the corporation', 'management established organizational structures and reporting lines that foster the achievement of objectives' and 'the corporation holds individual accountable for their IC responsibility' with a percentage agreement of 75.8%, 100% and 68.9% and a mean of (2.12), (1.741) and (2.31) respectively.

From the response, it can be observed that majority of principles of control environment are present and functioning however principles of the framework 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.

4.2.2. Risk assessment

Proper risk management and IC 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. According to the COSO framework, (2013) Proper risk management and IC help organizations 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 Risk Assessment

Items of Risk Assessment	Likert rating score					Mean rating	SD
	SA	Agree	no opinion	DA	SD		
	(%)	(%)	(%)	(%)	(%)		
The corporation specifics objectives with sufficient clarity to enable the identification & assessment of risks relating to objective. N=58	15 (25.9)	28 (48.3)	12 (20.6)	3 (5.2)	-- --	2.052	.825
The corporation identifies risk to the achievement of its objectives across sectors and center. N=58	23 (39.7)	24 (41.4)	7 (12.1)	4 (6.8)	-- --	1.8621	.888
The corporation analysis risks as a basis for determining how the risk should be managed. N=58	21 (36.3)	26 (44.8)	10 (17.2)	1 (1.7)	-- --	1.844	.768

The Corporation Consider the potential for fraud in assessing risks to the achievement of objectives. N=58	-- --	8 (13.8)	12 (20.7)	30 (51.7)	8 (13.8)	3.655	.890
The corporation identifies & assesses changes that could significantly impact the system of internal control. N=58	-- --	25 (43.1)	20 (34.5)	13 (22.4)	-- --	2.793	.789

Source: Questionnaires and SPSS output (2018).

Average mean 2.4412

From the survey result indicated in the above table 25.9% of the respondents strongly agree and 48.3% agree on the statement that says the corporation specifics objectives with sufficient clarity to enable the identification & assessment of risks relating to objective. 20.7% of respondent has no opinion and 5.2% disagree. The mean value is 2.052 which is found approximately agree on the scale.

Similarly 39.7% of respondents strongly agree and 41.4% agree with the idea that states ‘the corporation identifies risk to the achievement of its objectives across sectors and center’ and 36.3% strongly agree and 44.8% agree for the statement ‘the corporation analysis risks as a basis for determining how the risk should be managed.’ The mean value of each of these statements is 1.862 and 1.844 respectively. Therefore the respondent’s levels of agreement approximately falls agree in the scale.

On the other hand 65.5% of respondents strongly disagree or disagree on the idea that the Corporation considers the potential for fraud in assessing risks to the achievement of objectives, 20.7% of respondents have no opinion and the remaining 13.8% agrees with the idea. The mean of 3.655 falls approximately disagree on the scale.

The last criterion for risk assessment is that requires respondents to give their level of agreement on whether the corporation identifies & assesses changes that could significantly impact the system of IC. 43.1% of the respondents agree, 34.49% has no opinion and 22.41% disagree on the statement with a mean value of 2.793 which is found approximately ‘no opinion’ on the scale.

Risk assessment involves a dynamic and iterative process for identifying and assessing risks to the achievement of objectives. Risks to the achievement of these objectives from

across the entity are considered relative to established risk tolerances. Thus, risk assessment forms the basis for determining how risks will be managed. Regarding the Corporation’s risk assessment the result of the survey shows, out of the five questions raised about the principles of risk assessment, fraud is not considered in assessing risks to the achievement of objectives while the remaining are in line with the COSO principles. Therefore not considering fraud issues in risk assessment process may create difficulties in achieving Corporation’s objectives.

4.2.3 Control activities

Control activities are the policies and procedures, in addition to those included in the other four control components, which help ensure that necessary actions are taken to address risks to the achievement of the entity’s objectives. The control activities generally fall into 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 5 Control activities

Items of Control activities	Likert rating score					Mean rating	SD
	SA	Agree	no opinion	DA	SD		
	(%)	(%)	(%)	(%)	(%)		
There are financial policies & procedures designed & implemented to produce reliable financial reports. N=58	28 (48.3)	25 (43.1)	5 (8.6)	-- --	-- --	1.603	.647
There is procurement manual that can help the corporation for efficient acquisition of assets.N=58	24 (41.4)	30 (51.7)	3 (5.2)	-- --	1 (1.7)	1.689	.730
There is property	--	--	15	35	8		

administration manual that helps the corporation to categorize and identify asset, receive and dispatch asset, disposal of asset, stock management and inventory.N=58	--	--	(25.9)	(60.3)	(13.8)	3.879	.623
There are clearly stated & documented personnel policies to attract, develop and retain competent individual.N=58	--	12	15	26	5	3.414	.918
Corporation establishes responsibility & accountability for executing policies and procedures.N=58	17	33	8	--	--	1.845	.644
There is segregation of duties, the custody of asset; recording & authorization of transaction are performed by different individuals. N=58	19	34	5	--	--	1.759	.601
There is access control to assets that are susceptible for defalcation.N=58	21	35	2	--	--	1.672	.542
Establishes general control activities over technology to support the achievement of objectives.N=58	6	12	30	10	--	2.759	.865
Management often compares actual performance to a set of standards. N=58	33	22	3	--	--	1.483	.599
Management reassesses policies and procedures.N=58	--	8	15	30	5	3.552	.841

Source: Questionnaires and SPSS output (2018).

Average mean 2.366

Respondents were asked for the availability of policies, procedures and manuals for finance, procurement, property administration and personnel. The survey result in the above table indicates that 91.4% and 93.1% of the respondents strongly agree or agree on the availability financial policies & procedures and procurement manual respectively. The mean rating which are 1.603 and 1.689 found between strongly agree and agree.

However 74.1% of respondents disagree or strongly disagree on the availability of property administration manual 25.9% has no opinion, with a mean rating of 3.879. Similarly 53.4% of the respondents either strongly disagree or disagree on the availability of clearly stated & documented personnel policies to attract, develop and retain competent individual. 25.9% of them have no opinion and the rest 20.7% agreed. The mean rating is 3.417.

As to the establishment of responsibility & accountability for executing policies and procedures, 86.2% of respondents strongly agree or agree that the corporation establishes responsibility and accountability. The rest 13.8% has no opinion this has a mean value of 2.56%. Similarly majority of the respondents 91.3% and 96.6% strongly agree or agree on the statements 'there is segregation of duties, the custody of asset, recording & authorization of transaction are performed by different individuals' and 'there is access control to assets that are susceptible for defalcation.' respectively. The mean value which is 1.845 and 1.759 respectively rests on between strongly agree and agree. With regard to establishment of general control activities over technology to support the achievement of objectives majority of the respondents 51.7% have no opinion on the idea. Only 31.1% strongly agree or agree and 17.2% disagree. The mean value which is 2.759 found approximately 'no opinion' on the scale.

Finally when respondents asked whether management often compares actual performance to a set of standards, 94.8% of respondents strongly agree or agree and 5.2% gives no opinion, The average respondents value is 1.483 and it rests between strongly agree and agree. On the other hand 60.3% respondents disagree or strongly disagree, 25.9% gives no opinion and 13.8% agree on the statement that states management reassesses policies and procedures. The mean value is 3.552 and it is found approximately disagree on the scale. In general majority of respondents agree on the existence of control activities that can help to manage potential risks for the achievement of Corporation's objective. However the survey result also indicates that there are principles that are not practiced in line with the COSO framework. Therefore these principles have to be practiced in order to fully acknowledge the principles of control activities are present and functioning.

4.2.4 Information and Communication

Information is necessary for the entity to carry out IC responsibilities to support the achievement of its objectives. Management obtains or generates 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 6 Information and Communication

Items of Information and Communication	Likert rating score					Mean rating	SD
	SA	Agree	no opinion	DA	SD		
	(%)	(%)	(%)	(%)	(%)		
Management and board receive timely, relevant & reliable reports needed for decision making & management review purpose. N=58	16 (27.5)	18 (31)	20 (34.5)	4 (6.9)	-- --	2.206	.932
Information needs and related information system reassessed as objectives and related risks change or as reporting deficiencies are identified. N=58	-- --	25 (43.1)	25 (43.1)	5 (8.6)	3 (5.2)	2.759	.823
The corporation internally communicates information about objectives and responsibilities for internal control. N=58	15 (25.9)	28 (48.2)	15 (25.9)	-- --	-- --	2.000	.725
The corporation communicates with external parties regarding matters affecting component of internal control. N=58	12 (20.7)	35 (60.3)	11 (19)	-- --	-- --	1.983	.625
There are established channels of communication for individuals to report suspected breaches of laws & regulations. N=58	16 (27.6)	33 (56.9)	9 (15.5)	-- --	-- --	1.897	.667

Source: Questionnaires and SPSS output (2018).

Average mean 2.169

From the above table we can observe that 58.6% of respondents strongly agree or agree on the statement that states management and board receive timely, relevant & reliable reports needed for decision making & management review purpose whereas 34.5% has no opinion and 6.9% disagreed with the idea. The mean value is 2.206 and found between approximately agree on the scale. On the other hand equal number of respondents with a percentage of 43.1% each responded as agreed and no opinion for the statement 'Information needs and related information system reassessed as objectives and related risks change or as reporting deficiencies are identified.' The rest 8.6% and 5.2% disagree or strongly disagree respectively. The mean value 2.759 is found approximately no opinion on the scale. Regarding the statement 'the corporation internally communicates information about objectives and responsibilities for IC.' about 74.1% agree or strongly agree, 25.9 have no opinion, with the mean rating of 2.00 which is exactly agree on a likert scale. Similarly, the respondents rate the statement 'The Corporation communicates with external parties regarding matters affecting component of IC.' 81% of them agree or strongly agree with statement, 19% have no opinion, and with a mean value of 1.983, this mean value is found between strongly agree and agree. In addition majority of respondents 84.5% strongly agree or agree for the statement 'There are established channels of communication for individuals to report suspected breaches of laws & regulations', and 15.5% has no opinion. The mean value which is 1.897 found between strongly agrees and agrees. The survey result about information and communication part of the ICS indicates that management and board receive timely, relevant & reliable reports needed for decision making. Information needs and related information system reassessed as objectives and related risks change or as reporting deficiencies are identified. Information about ICS is internally and externally communicated and there are established channels of communication for individuals to report suspected breaches of laws & regulations. Therefore all of the principles of information and communication are effectively practiced in the Corporation.

4.2.5 Monitoring

As stated in the literature review part of this study, ongoing evaluations, has to be used to ascertain whether each of the components of IC, is present and functioning.

Ongoing evaluations, built into business processes at different levels of the entity, provide timely information. Findings are evaluated against criteria established by regulators, recognized standard-setting bodies or management and the board of directors, and deficiencies are communicated to management and the board of directors as appropriate. The survey made is based on those facts of monitoring and the result is scaled as follows.

Table 7 Monitoring

Items of Monitoring	Likert rating score					Mean rating	SD
	SA	Agree	no opinion	DA	SD		
	(%)	(%)	(%)	(%)	(%)		
The corporation performs ongoing & separate evaluation to ascertain the component of internal control is present and functioning.N=58	-- --	-- --	25 (43.1)	27 (46.6)	6 (10.3)	3.672	.659
The corporation uses knowledgeable personnel to evaluate the overall internal control system.N=58	9 (15.5)	35 (60.4)	8 (13.8)	6 (10.3)	-- --	2.189	.826
Communicate internal control deficiencies to parties responsible for corrective action and to senior management and the board of directors.N=58	6 (10.3)	38 (65.6)	9 (15.5)	5 (8.6)	-- --	2.224	.750
There is a system for monitoring corrective action taken.N=58	16 (27.6)	30 (51.8)	6 (10.3)	6 (10.3)	-- --	2.035	.898
The corporation has a system to re-evaluate risks and adjust control effectively in response to change in the objectives.N=58	-- --	11 (19)	10 (17.2)	35 (60.3)	2 (3.5)	3.4828	.843

Source: Questionnaires and SPSS output (2018).

Average mean 2.502

Table 7 indicates that majority of the respondents 56.9% disagree or strongly disagree for the statement that states ‘The Corporation performs ongoing & separate evaluation to ascertain the component of IC is present and functioning.’ The remaining 43.1% has no opinion on the statement. The mean value is 3.672 and it is approximately disagrees on the scale. With regard to the statement ‘The Corporation uses knowledgeable personnel to evaluate the overall ICS.’ A large number of respondents 75.8% strongly agree or agree and 13.8% has no opinion and the rest 10.3% disagrees. The mean value is 2.189 which are approximately agree on the scale. Similarly 75.8% of respondents strongly agree or agree for the statement that states ‘The Corporation communicate IC deficiencies to parties responsible for corrective action and to senior management and the board of directors.’ 15.5% have no opinions and the remaining 8.6% disagrees. The mean value 2.224 indicates it is approximately agree on the scale. The other idea that have supported by many respondents is the statement that states ‘There is a system for monitoring corrective action taken.’ 79.3% of respondents strongly agree or agree and equal number of respondent which is 10.3% either has no opinion or disagrees. The mean value 2.034 indicates that the value is approximately agree on the scale. Finally when respondents asked to scale their level of agreement on the statement ‘The Corporation has a system to re-evaluate risks and adjust control effectively in response to change in the objectives.’ 63.7% of the respondents disagree or strongly disagree about the idea whereas 19% of the respondents agree and the remaining 17.2% have no opinion. The mean values of 3.482 falls between disagree and no opinion on the likert scale.

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. In order to have effective and up-to-date ICS ongoing monitoring is important, to do so the nature and sources of deficiencies has to be considered.

4.3 Discussion

The general objective of this study is to assess effectiveness of the existing ICS in ECDSWC. This broad objective is systematically broken down to specific research questions presented in chapter one. To answer these research questions the survey

method and the interviews were used. The descriptive statistics were presented in the previous section. This section tries to answer the research question as follows.

4.3.1 Is there suitable control environment in the corporation for effective ICS?

Control environment is the set of standards, processes, and structures that provide the basis for carrying out IC across the Corporation. The Corporation's board of directors and management establish the tone at the top regarding the importance of IC including expected standards of conduct. To assess the presence and functioning of control environment, respondents were required to fill questionnaire to express their level of agreement on statements regarding control environment of the corporation. The survey result in Table 3 indicated that there are two areas of deficiencies out of nine principles of control environment. The first drawback is there are no Procedures to evaluate the performance of individuals and teams against the corporation's expected standard of conduct with a mean (4.052). This implies that nothing forced employees to go in line with the standards of conduct; this will in turn create a problem to the whole control environment. The second deficiency of control environment is deviation from the corporation's expected standards of conduct are not identified and remedied in a timely and consistent manner mean (3.982). This has an impact on the existence of a good control environment which leads to wrong doings to persist and affect the image of the corporation in front of its customers. However, except the aforementioned deficiencies, all the remaining seven principles of the control environment have a mean value of less than 3 which implies the control environment in the corporation is strong and acceptable. The average mean (2.332) also indicates that the respondents agreed on principles of the control environment are practiced effectively. An interview result related to practice of control environment also supports that there is suitable control environment that enables the ICS to be effective. In general though there are areas that need improvement, the control environment of the Corporation can be said effective.

4.3.2 Does risk assessment adequately practiced in the corporation?

Risk is assessed to identify hazards that could negatively impact Corporation's ability to achieve its objective. These assessments help identify these risks and provide measures,

processes and controls to reduce the impact of these risks to the achievement of Corporation's objective. The management should identify and assess control risk caused by failure of IC. There should be strategies of identifying risk, system to respond to risk and reduce the risk. Table 4 revealed that the risk assessment in the corporation is in line with the standards set by COSO. According to the respondents reply to different risk assessment questions, they agree that the Corporation has specified objectives with sufficient clarity, identifies risk to the achievement of its objectives, analysis risks as a basis for determining how the risk should be managed, identifies & assesses changes that could significantly impact the system of IC. The average mean (2.441) also indicated that risk assessment is practiced properly. This result is also supported by interviewees and document reviews of the Corporation's strategic planning and management document. However there is a deficiency in considering the potential for fraud in assessing risks to the achievement of objectives. This is exhibited by majority of respondents 65.52% either strongly disagree or disagree when they reply for this particular question. Therefore the risk assessment practice of the corporation is effective except inclusion of fraud issues in the risk assessment procedure.

4.3.3 Is there adequate control activities placed in the corporation?

Control activities are the policies, procedures, techniques, and mechanisms that help ensure that management's response to reduce risks identified during the risk assessment process is carried out. In other words, control activities are actions taken to minimize risk. When the assessment identifies a significant risk to the achievement of an objective, a corresponding control activity or activities is determined and implemented. In general respondents were asked their level of agreement whether sufficient control activities are established to minimize the risks and thereby achieve corporation's objective, they agreed on majority of the questions. As presented on table 5 there are three areas of deficiencies out of the ten principles of the control activities of the corporation that need to be improved. These are no property administration manual mean (3.879), no clearly stated & documented personnel policy mean (3.414) and lack of commitment to reassess policies and procedures mean (3.552). Majority of respondents believed that there are no clear policies and procedures that can lead to effective ICS with regard to property and

personnel. The above figure was supported by respondent's response to the open ended questions, one of the respondents noted "The Corporation must develop urgently property administration manual in order to control its assets." However, with respect to financial policies mean (1.603) & procurement manual mean (1.689), majority of the respondents accepted their existence in the corporation. In addition a large number of respondents believe that Corporation establishes responsibility & accountability for executing policies and procedures mean (1.845), and the fact that different individuals perform the custody of asset; recording & authorization of transaction mean (1.759), The respondents are also agreed on the existence of access control to assets that are susceptible for defalcation mean (1.672) and general control activities over technology to support the achievement of objectives mean (2.759). The average mean value (2.366) also indicates that control activities placed in the corporation can reduce risks and helps to achieve Corporation's objectives. An interview result is consistent with these facts; interviewees indicated that even some manuals like property administration, vehicles and instrument assignment, fuel and lubricant consumption directives are in the process of preparation. Therefore it is possible to conclude that the control activities are effectively practiced in the Corporation.

4.3.4 Are there adequate Information and Communication component of ICSs in the corporation?

The Information and Communication component of the COSO Framework supports the functioning of all components of IC. In combination with the other components, information and communication supports the achievement of the Corporation's objectives, including objectives relevant to internal and external reporting. Controls within Information and Communication support the Corporation's ability to use the right information within the system of IC and to carry out IC responsibilities. The results of the survey as Table 6 indicate respondent's agreement with average mean of (2.169) on questions raised by the researcher about information and communication. They asserted that management and board receive timely, relevant & reliable reports needed for decision making and information needs and related information system reassessed as objectives and related risks change or as reporting deficiencies are identified.

Respondents are also agreed on the Corporation communicates information about objectives and responsibilities for IC internally and regarding matters affecting component of IC with external parties. It is also accepted that the existence of channels of communication for individuals to report suspected breaches of laws & regulations. The interview results regarding the information and communication is not different from the survey result; all the interviewees collectively agreed that the information and communication practice of the corporation is up to the standard. Generally this part of the IC component is effective in the corporation.

4.3.5 is there effective monitoring of ICS in the corporation?

If the corporation designed and implemented monitoring appropriately, it benefit because they are more likely to identify and correct IC problems on a timely basis, produce more accurate and reliable information for use in decision-making, and be in a position to provide effective IC. Over time effective monitoring can lead to Corporation's efficiencies and reduces costs associated with ineffective ICS. The survey result table 7 indicates that evaluation of the overall ICS of the Corporation is undertaken by knowledgeable personnel, IC deficiencies are communicated to parties responsible for corrective action, and there is as well a system for monitoring corrective action taken. Average mean value of (2.502) which is found approximately 'agree' position in a likert scale. The interviewee responses are also in favor of the survey results, the interviewee explained that there is an internal audit department staffed by capable experts which examines the ICS of the Corporation as per its program and this is one means of monitoring the ICS. In addition the annual audit program of the internal audit department, IC assessment & internal and external audit reports reviewed by the researcher showed that there is monitoring of ICS even if it is not in a continuous manner. But there are still deficiencies of performing ongoing & separate evaluation to ascertain the component of IC is present and functioning and a system to re-evaluate risks and adjust control effectively in response to change in the objectives. Even these deficiencies has to be improved, the monitoring practice of the ICS in the corporation is effective.

CHAPTER FIVE

5. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This study assessed the effectiveness of ICS practice through adopting concurrent mixed research method. This chapter deals with summary of findings, conclusions and recommendations respectively.

5.1. Summary of Findings

According to the discussion and analysis of the data presented in chapter four, the following findings were drawn. With regard to control environment of the Corporation the finding revealed that:-

- Integrity & ethical values are demonstrated by the board of directors and management. And standard of conduct are established in the corporation.
- Clear lines of authority, responsibility and performance evaluation are established.
- Management established organizational structures and reporting lines that foster the achievement of objectives.
- Competent and independent internal audit department and active management board & audit committee existed in the corporation.
- Individual are accountable for their IC responsibility,

The study also revealed that there are still some limitations. Procedures are not in place to evaluate the performance of individuals and teams against the corporation's expected standard of conduct and deviation from the corporation's expected standards of conduct are not identified and remedied in a timely and consistent manner.

The second component of the ICS which is risk assessment is practiced effectively. The finding of the study disclosed that:-

- The corporation specifics objectives with sufficient clarity to enable the identification & assessment of risks relating to objective.

- The corporation identifies risk to the achievement of its objectives across sectors and center.
- The corporation analysis risks as a basis for determining how the risk should be managed.
- The corporation identifies & assesses changes that could significantly impact the system of internal control.

However the study also exhibited that assessment of risk does not consider the potential for fraud in to the achievement of objectives

Concerning the third component of the ICS, that is the extent to which control activities are placed to minimize the risks identified in the Corporation, the study revealed that:-

- There are financial policies & procedures designed & implemented to produce reliable financial reports and procurement manual that can help the corporation for efficient acquisition of assets.
- Responsibility & accountability are established for executing policies and procedures.
- The custody of asset; recording & authorization of transaction are performed by different individuals.
- There is access control to assets that are susceptible for misuse.
- General control activities are established over technology to support the achievement of objectives.
- Management often compares actual performance to a set of standards.

But there are also some limitations in this area, there is no property administration manual and clearly stated & documented personnel policies and management does not reassesses policies and procedures.

The result of the study showed the following points as a witness for the effectiveness the fourth component of the ICS, information and communication practice in the corporation.

- Management and board receive timely, relevant & reliable reports needed for decision making & management review purpose.

- Information needs and related information system reassessed as objectives and related risks change or as reporting deficiencies are identified.
- The corporation internally communicates information about objectives and responsibilities for internal control.
- The corporation communicates with external parties regarding matters affecting component of internal control.
- There are established channels of communication for individuals to report suspected breaches of laws & regulations.

When we come to monitoring which is the last part of the IC components, the study revealed that-

- The corporation uses knowledgeable personnel to evaluate the overall internal control system.
- Communicate internal control deficiencies to parties responsible for corrective action and to senior management and the board of directors.
- There is a system for monitoring corrective action taken.

But there are limitations regarding monitoring of the ICS, the Corporation does not perform ongoing & separate evaluation to ascertain the component of IC is present and functioning and there is no system to re-evaluate risks and adjust control effectively in response to change in the objectives.

In general it is important to recognize that not every deficiency will result in a conclusion that an entity does not have an effective ICS COSO frame work (2013). According to the frame work, when deficiencies exist in an organization, management must assess the severity of impact of that deficiency on the organization's ICS. When an interview conducted with top management of the Corporation, the researcher raised question regarding the severity of limitations exhibited in the study in affecting the Corporation's ICS. They responded that these deficiencies are minor and cannot affect the whole ICS of the Corporation and the researcher also believed that the deficiencies exhibited in the research are not severe to affect the ICS.

5.2. Conclusion

The study aimed at assessing the effectiveness of ICS in ECDSWC. According to Rezaee (2002) IC has been recognized in most organization as one of the most essential ingredients, necessary for the survival of the business enterprise and government agencies. Also, it prevents the entity from any financial or property loss, inaccurate decision making, fraud, loss of income and assets. The role of ICs, therefore, is to provide support for management in safeguarding company assets, elimination of any income and resource loss, making goal oriented and accurate decisions, identifying and preventing fraud. COSO framework (2013) revealed that IC effectiveness is resulted from an effective function of the control environment, risk assessment, control activities, information flow and communication and monitoring of the system itself. INTOSAI (2004) indicates an effective functioning of these elements helps in achieving organization's objective. Therefore this study was undertaken based on the standards of COSO framework (2013) laid for effective ICS. The study found that ECDSWC established and make functional the ICS in line with the standards of COSO framework (2013). It also revealed that findings like, the nonexistent of procedures to evaluate performance against established standard of conduct and failure to identify and remedy deviation from expected standard of conduct, not considering the potential for fraud when assessment of risk conducted, failure to prepare property administration manual and clearly stated & documented personnel policies. And finally management does not reassess policies and procedures and therefore there is no system to re-evaluate risks and adjust control effectively in response to change in the objectives and lack of conducting ongoing & separate evaluation.

Although the above limitations are manifested in the study, majority of the principles of COSO framework are present and functioning. When components of an ICS are present and functioning, it is said to be the ICS is effective to generate a positive impact on the achievement of organization's objective and therefore the ICS of the Corporation is effective.

5.3 Recommendations

This study assessed the ICS of ECDSWC by using concurrent mixed research approach quantitative and qualitative methods. Based on the conclusions drawn, recommendations are forwarded in this specific section of the chapter. The findings of the study revealed that ECDSWC's has some limitation on practicing ICS. Based on the major findings of the study and the conclusions drawn, the researcher suggested the following recommendations.

- The Corporation should establish a system to evaluate the performance of individuals and teams against the corporation's expected standard of conduct so that deviation from expected standards of conduct easily identified and corrective actions are taken. Establishing standard of conduct is not sufficient unless evaluation against the standard is carried out. Making sure that employees of the Corporation are going in line with the standard of conduct is an important issue both to the achievement of Corporation's objective; identify wrongdoings to take action and to make this part of the control environment principle is present and functioning.
- Preventing and detecting fraud is essential for the achievement of Corporation's objective; therefore the Corporation should incorporate the issue of fraud when conducting risk assessment.
- Property administration manual is crucial to categorize and identify asset, receive and dispatch asset, disposal of asset, stock management and inventory and it is also important to have clearly stated & documented personnel policies to attract, develop and retain competent individual. Therefore both manuals should be prepared to make the ICS of the Corporation more effective. Moreover management of the Corporation should assess policies and procedures.
- The Corporation deploys control activities through policies that establish what is expected and procedures that put policies into action. However this policies and procedures should be improved to be compatible with the reality of the current situation, therefore continuous assessment of policies and procedures are important for effective ICS and thus Corporation should look for such an assessment.
- Changes in the external environment are evolving and the risks that the Corporation encounters are also changes. To go with the changing condition, risks have to be re-

evaluated and control activities that can help to prevent these risks should be established. Therefore there must be a system to re-evaluate risks and adjust control effectively to achieve objectives in the Corporation. Finally the corporation should conduct ongoing and separate evaluation of the ICS.

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APPENDICES

APPENDIX A: QUESTIONNAIRE

QUESTIONNAIRE FOR EVALUATION OF EFFECTIVENESS OF INTERNAL CONTROL SYSTEMS THE CASE OF ETHIOPIAN CONSTRUCTION AND DESIGN CORPORATION.

Dear Respondent,

I am conducting a research project under the title “Assessment of internal control system a case of Ethiopian Construction Design and Supervision Works Corporation” for the partial fulfillment of Master of Business Administration in accounting and finance.

The objective of the study is to assess the existing internal control system and its practice at the Ethiopian Construction Design and Supervision Works Corporation.

To make the study fruitful, the respondents’ earnest cooperation in filling the questionnaire is highly valuable. Hence, the researcher highly demands your support to objectively fill the questionnaire.

I assure you that, the information you provide will be used for academic purpose only and it will be kept confidential.

Thank you in advance for spending your precious time to fill the questionnaire.

I. General Instruction

- ◆ There is no need of writing your name
- ◆ Put a (✓) in your best choice

II. Personal Information

1. Gender

Male

Female

2. Educational background

First degree

Second degree

PHD

Others specify _____

3. Years of service in the corporation

Less than 5 years 5-10 years

10-15 years above 15 years

4. Position you are working on

Managerial Supervisory

Expert

5. Professional background

Engineering Finance Administration

III: Questions related to internal control

Listed below are statements about the components of internal control system which are considered as a basis for establishment of effective internal control system. Please indicate your level of agreement with the statements so that your answers to these questions will enable the researcher to assess what you think about the effectiveness of internal control in the corporation.

Where 1= strongly agree 2=Agree 3=No opinion 4= Disagree 5= strongly disagree

1	Control environment	1	2	3	4	5
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.					
1.2	Management establishes standard of conduct in the corporation.					
1.3	Procedures are in place to evaluate the performance of individuals and teams against the corporation's expected standard of conduct.					
1.4	Deviation from the corporation's expected standards of conduct are identified and remedied in a timely and consistent manner.					
1.5	There are clear lines of authority, responsibility and performance evaluation.					
1.6	There is competent and independent internal audit department in the corporation.					
1.7	There is active management board & audit committee consisting of independent members in the corporation.					

1.8	Management established organizational structures and reporting lines that foster the achievement of objectives.					
1.9	The corporation holds individual accountable for their internal control responsibility					
2	Risk assessment					
2.1	The corporation specifics objectives with sufficient clarity to enable the identification & assessment of risks relating to objective:-					
2.2	The corporation identifies risk to the achievement of its objectives across sectors and center.					
2.3	The corporation analysis risks as a basis for determining how the risk should be managed.					
2.4	The Corporation Consider the potential for fraud in assessing risks to the achievement of objectives					
2.5	The corporation identifies & assesses changes that could significantly impact the system of internal control.					
3.	Control activities					
3.1	There are financial policies & procedures designed & implemented to produce reliable financial reports.					
3.2	There is procurement manual that can help the corporation for efficient acquisition of assets.					
3.3	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.					
3.4	There are clearly stated & documented personnel policies to attract, develop and retain competent individual.					
3.5	Corporation establishes responsibility & accountability for executing policies and procedures.					
3.6	There is segregation of duties, the custody of asset; recording & authorization of transaction are performed by different individuals.					
3.7	There is access control to assets that are susceptible for defalcation.					
3.8	Establishes general control activities over technology to support the achievement of objectives.					
3.9	Management often compares actual performance to a set of standards.					
3.10	Management reassesses policies and procedures.					
4.	Information & Communication					
4.1	Management and board receive timely, relevant & reliable reports needed for decision making & management review purpose.					

4.2	Information needs and related information system reassessed as objectives and related risks change or as reporting deficiencies are identified.					
4.3	The corporation internally communicates information about objectives and responsibilities for internal control.					
4.4	The corporation communicates with external parties regarding matters affecting component of internal control.					
4.5	There are established channels of communication for individuals to report suspected breaches of laws & regulations.					
5.	Monitoring					
5.1	The corporation performs ongoing & separate evaluation to ascertain the component of internal control is present and functioning.					
5.2	The corporation uses knowledgeable personnel to evaluate the overall internal control system.					
5.3	Communicate internal control deficiencies to parties responsible for corrective action and to seniormanagement and the board of directors.					
5.4	There is a system for monitoring corrective action taken.					
5.5	The corporation has a system to re-evaluate risks and adjust control effectively in response to change in the objectives.					

Dear respondent, using the following space you can put your general idea about the internal control system of the corporation or information you regard as necessary

“Let us cooperate to create strong internal control to achieve the objective of our corporation”

APPENDIX B: INTERVIEW QUESTIONS

1. DOES Corporation's management and board of directors' commitment to integrity and ethical behavior are consistently and effectively communicated throughout the Corporation both in words and deeds? Explain?
2. Does Corporation's policies and procedures are adequate for authorizing and approving transactions? Explain?
3. Does management ensures that risk identification considers internal and external factors and the potential impact on the achievement of objectives? Explain?
4. Does the Corporation adequately and effectively manages risks to the organization and has designed internal controls that mitigate the identified risks? Explain?
5. Does Corporation assess fraud risk? (If yes) The assessment of fraud risks considers opportunities for unauthorized acquisition, use and disposal of assets, altering the reporting records, or committing other inappropriate? Explain?
6. Does management has performed a review of all policies and procedures to determine their continued relevance, consistency, compliance with? Explain?
7. Does the Corporation consider both internal and external sources of data when identifying relevant information to use in the operation of IC? Explain?
8. Does management has a communication process for reinforcing to all employees their roles in internal control responsibility? Explain?
9. Does management periodically visits sectors & Centers to determine whether policies and procedures are being followed and functioning as intended? Explain?
10. Does Corporation's management takes adequate and timely actions to correct deficiencies reported by the external and internal auditors, or internal reviews? Explain?

APPINDEX C: Descriptive Statistics

Descriptive Statistics

	N	Mean	Std. Deviation
CE 1.1	58	1.8276	.90103
CE 1.2	58	1.4310	.62442
CE1.3	58	4.0517	.78186
CE1.4	58	3.9828	.84794
CE1.5	58	1.2759	.52292
CE1.6	58	2.1724	.92030
CE1.7	58	2.1207	.70282
CE1.8	58	1.7414	.44170
CE1.9	58	2.3103	.75410
RA2.1	58	2.0517	.82552
RA2.2	58	1.8621	.88750
RA2.3	58	1.8448	.76781
RA2.4	58	3.6552	.88954
RA2.5	58	2.7931	.78937
CA3.1	58	1.6034	.64725
CA3.2	58	1.6897	.73046
CA3.3	58	3.8793	.62345
CA3.4	58	3.4138	.91832
CA3.5	58	1.8448	.64350
CA3.6	58	1.7586	.60147
CA3.7	58	1.6724	.54251
CA3.8	58	2.7586	.86471
CA3.9	58	1.4828	.59946
CA3.10	58	3.5517	.84131
IC4.1	58	2.2069	.93205
IC4.2	58	2.7586	.82314
IC4.3	58	2.0000	.72548
IC4.4	58	1.9828	.63499
IC4.5	58	1.8966	.66727
MO5.1	58	3.6724	.65929
MO5.2	58	2.1897	.82626
MO5.3	58	2.2241	.75028
MO5.4	58	2.0345	.89767
MO5.5	58	3.4828	.84275
Valid N (listwise)	58		

CE 1.1The board of directors and management demonstrate through their directives, actions and behaviors the importance of integrity & ethical values.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SA	25	43.1	43.1	43.1
AG	22	37.9	37.9	81.0
NOP	7	12.1	12.1	93.1
DA	4	6.9	6.9	100.0
Total	58	100.0	100.0	

CE 1.2Management establishes standard of conduct in the corporation.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SA	36	62.1	62.1	62.1
AG	18	31.0	31.0	93.1
NOP	4	6.9	6.9	100.0
Total	58	100.0	100.0	

CE1.3Procedures are in place to evaluate the performance of individuals and teams against the corporation's expected standard of conduct.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid AG	3	5.2	5.2	5.2
NOP	7	12.1	12.1	17.2
DA	32	55.2	55.2	72.4
SDA	16	27.6	27.6	100.0
Total	58	100.0	100.0	

CE1.4Deviation from the corporation's expected standards of conduct are identified and remedied in a timely and consistent manner.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SA	1	1.7	1.7	1.7
AG	2	3.4	3.4	5.2
NOP	9	15.5	15.5	20.7
DA	31	53.4	53.4	74.1
SDA	15	25.9	25.9	100.0
Total	58	100.0	100.0	

CE1.5There are clear lines of authority, responsibility and performance evaluation.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SA	44	75.9	75.9	75.9
AG	12	20.7	20.7	96.6
NOP	2	3.4	3.4	100.0
Total	58	100.0	100.0	

CE1.6There is competent and independent internal audit department in the corporation.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SA	14	24.1	24.1	24.1
AG	23	39.7	39.7	63.8
NOP	16	27.6	27.6	91.4
DA	5	8.6	8.6	100.0
Total	58	100.0	100.0	

CE1.7 There is active management board & audit committee consisting of independent members in the corporation.

		Frequency	Percent	Valid Percent	Cumulative Percent
	SA	9	15.5	15.5	15.5
Valid	AG	35	60.3	60.3	75.9
	NOP	12	20.7	20.7	96.6
	DA	2	3.4	3.4	100.0
	Total	58	100.0	100.0	

CE1.8 Management established organizational structures and reporting lines that foster the achievement of objectives.

		Frequency	Percent	Valid Percent	Cumulative Percent
	SA	15	25.9	25.9	25.9
Valid	AG	43	74.1	74.1	100.0
	Total	58	100.0	100.0	

CE1.9 The corporation holds individual accountable for their internal control responsibility

		Frequency	Percent	Valid Percent	Cumulative Percent
	SA	5	8.6	8.6	8.6
Valid	AG	35	60.3	60.3	69.0
	NOP	13	22.4	22.4	91.4
	DA	5	8.6	8.6	100.0
	Total	58	100.0	100.0	

RA2.1 The corporation specifies objectives with sufficient clarity to enable the identification & assessment of risks relating to objective

		Frequency	Percent	Valid Percent	Cumulative Percent
	SA	15	25.9	25.9	25.9
Valid	AG	28	48.3	48.3	74.1
	NOP	12	20.7	20.7	94.8
	DA	3	5.2	5.2	100.0
	Total	58	100.0	100.0	

RA2.2 The corporation identifies risk to the achievement of its objectives across sectors and center.

		Frequency	Percent	Valid Percent	Cumulative Percent
	SA	23	39.7	39.7	39.7
Valid	AG	24	41.4	41.4	81.0
	NOP	7	12.1	12.1	93.1
	DA	4	6.9	6.9	100.0
	Total	58	100.0	100.0	

RA2.3 The corporation analysis risks as a basis for determining how the risk should be managed.

		Frequency	Percent	Valid Percent	Cumulative Percent
	SA	21	36.2	36.2	36.2
Valid	AG	26	44.8	44.8	81.0
	NOP	10	17.2	17.2	98.3
	DA	1	1.7	1.7	100.0
	Total	58	100.0	100.0	

RA2.4The Corporation Consider the potential for fraud in assessing risks to the achievement of objectives

	Frequency	Percent	Valid Percent	Cumulative Percent
AG	8	13.8	13.8	13.8
NOP	12	20.7	20.7	34.5
Valid DA	30	51.7	51.7	86.2
SDA	8	13.8	13.8	100.0
Total	58	100.0	100.0	

RA2.5The corporation identifies & assesses changes that could significantly impact the system of internal control.

	Frequency	Percent	Valid Percent	Cumulative Percent
AG	25	43.1	43.1	43.1
Valid NOP	20	34.5	34.5	77.6
DA	13	22.4	22.4	100.0
Total	58	100.0	100.0	

CA3.1There are financial policies & procedures designed & implemented to produce reliable financial reports.

	Frequency	Percent	Valid Percent	Cumulative Percent
SA	28	48.3	48.3	48.3
Valid AG	25	43.1	43.1	91.4
NOP	5	8.6	8.6	100.0
Total	58	100.0	100.0	

CA3.2There is procurement manual that can help the corporation for efficient acquisition of assets.

	Frequency	Percent	Valid Percent	Cumulative Percent
SA	24	41.4	41.4	41.4
Valid AG	30	51.7	51.7	93.1
NOP	3	5.2	5.2	98.3
SDA	1	1.7	1.7	100.0
Total	58	100.0	100.0	

CA3.3There is property administration manual that helps the corporation to categorize and identify asset, receive and dispatch asset, disposal of asset, stock management and inventory.

	Frequency	Percent	Valid Percent	Cumulative Percent
NOP	15	25.9	25.9	25.9
Valid DA	35	60.3	60.3	86.2
SDA	8	13.8	13.8	100.0
Total	58	100.0	100.0	

CA3.4There is clearly stated & documented personnel policies to attract, develop and retain competent individual.

	Frequency	Percent	Valid Percent	Cumulative Percent
AG	12	20.7	20.7	20.7
Valid NOP	15	25.9	25.9	46.6
DA	26	44.8	44.8	91.4
SDA	5	8.6	8.6	100.0
Total	58	100.0	100.0	

CA3.5 Corporation establishes responsibility & accountability for executing policies and procedures.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SA	17	29.3	29.3	29.3
AG	33	56.9	56.9	86.2
NOP	8	13.8	13.8	100.0
Total	58	100.0	100.0	

CA3.6 There is segregation of duties, the custody of asset; recording & authorization of transaction are performed by different individuals.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SA	19	32.8	32.8	32.8
AG	34	58.6	58.6	91.4
NOP	5	8.6	8.6	100.0
Total	58	100.0	100.0	

CA3.7 There is access control to assets that are susceptible for defalcation.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SA	21	36.2	36.2	36.2
AG	35	60.3	60.3	96.6
NOP	2	3.4	3.4	100.0
Total	58	100.0	100.0	

CA3.8 Establishes general control activities over technology to support the achievement of objectives.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SA	6	10.3	10.3	10.3
AG	12	20.7	20.7	31.0
NOP	30	51.7	51.7	82.8
DA	10	17.2	17.2	100.0
Total	58	100.0	100.0	

CA3.9 Management often compares actual performance to a set of standards.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SA	33	56.9	56.9	56.9
AG	22	37.9	37.9	94.8
NOP	3	5.2	5.2	100.0
Total	58	100.0	100.0	

CA3.10 Management reassesses policies and procedures.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid AG	8	13.8	13.8	13.8
NOP	15	25.9	25.9	39.7
DA	30	51.7	51.7	91.4
SDA	5	8.6	8.6	100.0
Total	58	100.0	100.0	

IC4.1 Management and board receive timely, relevant & reliable reports needed for decision making & management review purpose.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SA	16	27.6	27.6	27.6
AG	18	31.0	31.0	58.6
NOP	20	34.5	34.5	93.1
DA	4	6.9	6.9	100.0
Total	58	100.0	100.0	

IC4.2 Information needs and related information system reassessed as objectives and related risks change or as reporting deficiencies are identified.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid AG	25	43.1	43.1	43.1
NOP	25	43.1	43.1	86.2
DA	5	8.6	8.6	94.8
SDA	3	5.2	5.2	100.0
Total	58	100.0	100.0	

IC4.3 The corporation internally communicates information about objectives and responsibilities for internal control.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SA	15	25.9	25.9	25.9
AG	28	48.3	48.3	74.1
NOP	15	25.9	25.9	100.0
Total	58	100.0	100.0	

IC4.4 The corporation communicates with external parties regarding matters affecting component of IC

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SA	12	20.7	20.7	20.7
AG	35	60.3	60.3	81.0
NOP	11	19.0	19.0	100.0
Total	58	100.0	100.0	

IC4.5 There are established channels of communication for individuals to report suspected breaches of laws & regulations.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SA	16	27.6	27.6	27.6
AG	33	56.9	56.9	84.5
NOP	9	15.5	15.5	100.0
Total	58	100.0	100.0	

MO5.1 The corporation performs ongoing & separate evaluation to ascertain the component of internal control is present and functioning

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid NOP	25	43.1	43.1	43.1
Valid DA	27	46.6	46.6	89.7
Valid SDA	6	10.3	10.3	100.0
Total	58	100.0	100.0	

MO5.2 The corporation uses knowledgeable personnel to evaluate the overall internal control system.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SA	9	15.5	15.5	15.5
Valid AG	35	60.3	60.3	75.9
Valid NOP	8	13.8	13.8	89.7
Valid DA	6	10.3	10.3	100.0
Total	58	100.0	100.0	

MO5.3 Communicate internal control deficiencies to parties responsible for corrective action and to senior management and the board of directors.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SA	6	10.3	10.3	10.3
Valid AG	38	65.5	65.5	75.9
Valid NOP	9	15.5	15.5	91.4
Valid DA	5	8.6	8.6	100.0
Total	58	100.0	100.0	

MO5.4 There is a system for monitoring corrective action taken.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SA	16	27.6	27.6	27.6
Valid AG	30	51.7	51.7	79.3
Valid NOP	6	10.3	10.3	89.7
Valid DA	6	10.3	10.3	100.0
Total	58	100.0	100.0	

MO5.5 The corporation has a system to re-evaluate risks and adjust control effectively in response to change in the objectives.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid AG	11	19.0	19.0	19.0
Valid NOP	10	17.2	17.2	36.2
Valid DA	35	60.3	60.3	96.6
Valid SDA	2	3.4	3.4	100.0
Total	58	100.0	100.0	

