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Evaluation of the Effectiveness of Internal Control Practice in the Ethiopia's Public Universities

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Abstract

In recent times there are a shift from an emphasis on just the presence of internal control to also on the effectiveness of internal controls practice. The main objectives of this study were to evaluate the effectiveness of the internal control practices in selected Ethiopia Public Universities. Semi-structured questions were designed based on standards 17 principles of the internal control framework model of the Committee of Sponsoring Organizations of the Treadway Commission (COSO), five elements of internal controls: control environment, risk assessment, control activities, information and communication, and monitoring. Primary data was collected from five purposively selected public universities and a total of 100 of their respective administrative and academic employees were used as the study unit. And furthermore, qualitative information from interviews was supplemented with a survey questionnaire the data. The data were analyzed using descriptive statistics and multiple regression analysis methods. The result is presented in statistics such as mean, standard deviation, frequency, and percentages. Over all finding of the study reveals that the Effectiveness of Internal control practice is positively and highly correlated with all Elements of the internal control system. Moreover, the result shows, Higher education institutions (HEIs) managing bodies are less than average in proactively responding to changing aspects of HEIs fraud risks, respondents believe HEIs are weak in IT securities control and less effective public university board of directors oversight functions. Thus, the study recommended that the HEIs needs more effective implementation and strengthening the implementation and monitoring of its policies and procedures and establishing risk early –warning and proactive risk assessment to improve its internal control system.

Key words: Internal Control Effectiveness, Higher Education Institutions, Principles of ICF, Board of Directors

1. Introduction

Internal control is designed to provide reasonable assurance that the organization's general objectives are being achieved. As per the Institute of internal auditors (IIA, 1999), internal control is actions taken by management to plan, organize, and direct the performance of sufficient actions so as to provide reasonable assurance that the accomplishment of established

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objectives and goals for operations and programs, the economical and efficient use of resources, the safeguarding of assets, reliability, and integrity of information, compliance with policies, plans, procedures, laws, and regulations.

Hence, clear objectives are a prerequisite for an effective internal control process. COSO (2013) identifies five essential components of an effective internal control system namely: control environment, risk assessment, control activities, procedures and practices that ensure that management objectives are achieved and risk mitigation strategies implemented information and communication, and monitoring. These elements must be present and functioning effectively for any internal control system to achieve an organization's objectives. According to the study made by the Organization for Economic Co-operation and Development (OECD, 2011), of 29 member countries, 26 (91%) countries, adopted an internal control framework (ICF) comprising control activities, control environment, risk assessment, and monitoring. Affirming the above points, the price water house coopers (PwC), Global Economic Crime Survey (2011), for the public sector, 31% of fraud is detected by an internal tip-off and 14% by external tip-off, and 14% by accident. Another survey report by the Australian Institute of Criminology (AIC, 2019), found that 90% of external fraud and 40% of internal fraud is detected by internal controls. In Kenya, according to Joseph et al, 2015, between 25 and 30 percent of the national budget or about Kshs. 270 billion is lost annually through fraud as a result of weak internal controls. These losses were mainly attributed to the escalation of costs in Government procurement occasioned as a result of ineffective control functions. There is a significant relationship between financial governance control, budget control, and the level of fraud prevention and detection (Kabue et al, 2017).

In Ethiopia, according to evidence from the Ministry of Finance's internal audit manual (2007), the institutional Office of Auditor General(OFAG) Ethiopia, is responsible for major overnighting to contribute towards enhancing good governance and effectiveness of the government institution's performance by undertaking independent audit services based on International standards for supreme audit institutions. These audit service includes assuring that HEIs internal control systems must be structured so that they can deliver reasonable assurance to management and stakeholders that all revenues accrue to their benefit, all expenditure is duly authorized and properly disbursed, all assets are adequately safeguarded, all liabilities are recorded, all statutory requirements relating to the provision of accounts are complied with and all financial reporting provisions followed. Besides, in recent times there has been an emphasis on not just the presence of internal control but also the effectiveness of internal controls practice. The internal control unit can be present but they are not effective (Omonyemen et al, 2017). Still existing ICF implementation has faced many challenges such as the independence of internal audit, the competence of internal audit, the management support for internal audit, and the quality of internal audit.

Ethiopia's higher education sector has been considered a remarkable expansion over the last 25 years. According to Kibrom's (2020) descriptions of Ethiopia HEs, Education in general and the country's 51 public universities, in particular, are among key priority sectors of public investment, attracting the highest spending allocation in the federal budget. Nevertheless, the

sector faces challenges, which call for new approaches. According to Revised Higher education proclamation number 1152/2019 of FDRE the public universities are required to report to the Ministry of science and higher education of Ethiopia to ensure its compliance with the law and strategic plan agreements. The president of public HEIs shall conduct the financial affairs of the institution following the law and with the principles of efficiency, efficacy, frugality, and transparency. The proclamation also instructs the top management of the universities to install an accounting system, including income and expenditure accounting, and a reporting system, appropriate to its responsibilities. Accordingly, the top university management is responsible for developing an effective internal control system in their respective institutions. However, personnel throughout an entity play important roles in implementing and operating an effective internal control system. Simply, internal control helps university management achieve desired results through effective stewardship of public resources.

From previous trend, the Ethiopian government expanding public Universities intensively to attain the objectives of growth and transformation plans (GTPI & GTP II). According to information from Dea (2016), the total budget allocated to education, the lion's share (up to 40 %) of the recurrent and capital budget goes to Ethiopian higher institutions. The office of the general auditor is in charge of auditing public bodies and presents its findings before the House of Peoples Representatives reporting to ensure that the revenue utilization is according to rules and regulations, the disbursement is made according to budget, public property is kept safe, and also the recording and accounting procedures are up to the required standard. Starting from 2004, most public HEIs in Ethiopia have been trying to introduce and implement a program budgeting system in their financial management. This includes introducing accrual budgeting and accounting, double-entry accounting, IFMIS, and program budgeting. But despite the efforts, there are strong claims (FEACC, 2012), increasing investment in the sector is increasing corruption risks in procurement, management, and delivery of stock and building equipment, and so on. According to the other source from Kibrom (2020), the expansion of public universities has also put university administrations under pressure. The administrative sections of most Ethiopian public universities appear to be insufficient and unable to effectively manage modern universities with a huge budget. Still, the role and capability of administrative staff are also problematic.

Local researchers in Ethiopia are relatively late to study of internal control in Higher education. But few prior studies, they mainly focused on internal auditing functions. All issues call worth undertaking separate a study on higher education internal control practice in Ethiopia. Therefore, the focus of the current study is to evaluate and provide empirical findings on internal control practical effectiveness in five selected public universities in Ethiopia.

2. Statement of the problem

The major causes of public money misuse are mainly resulted because of ineffective internal control mechanisms, ineffective court systems to prosecute frauds and corrupt behaviors of top management (Oduro et al 2018). according to Baltaci and Yilmaz (2006), economic implications

of ineffective, weak internal control & internal audit function: may result in such problems as unethical, uneconomic, inefficient, and ineffective operations; weak accountability links; unlawful actions; and lack of safeguarding measures against waste, abuse, mismanagement, errors, fraud, and irregularities.

The office of federal auditor general (OFAG) report on May 21, 2019, to the parliament of the FDRE government for the budget year ended 2017/2018, revealed figures of unaccounted and illegal expenses as well as uncollected revenues. From the report, public universities are dominating in their practice of public money mismanagement. Because of that, a total of over one billion-birr worth of illegal procurements were made by several government offices during the budget year. The government offices committed a sum of over 1.3 billion-birr worth of unaccounted and inappropriate expenditures during the last budget year. What is more problematic is that this type of report is not new for the auditor general who presented similar reports for 10 consecutive years. From the same source, several public universities were at the forefront in presenting erroneous reports and 67-85 percent of their purchases were not done essentially following procurement procedures. The audit report has also identified several institutions for breaching the budget proclamation.

In the blueprint, OFAG is a legal oversight body to conduct monitoring and take strict measures in case of any incidence of malpractice of public money. While on-ground practice so challenged. As it is known, the ministry of science and higher education is giving due attention to the higher education sector administrating more than 51 universities and much of the resource is being allocated to it. Education holds the highest spending allocation in Ethiopia, in this year's (2019/20) FY federal budget, at Birr 50.6bn, with funding in this line-item mainly allocated to about 51 federally-administered universities (for an average allocation of around one billion per university). But there are strong claims (FEACC, 2012), increasing investment in the sector is increasing corruption risks in procurement, management, and delivery of stock and building equipment, and so on. According to the other source, Kibrom (2020) the expansion of public universities has also put university administrations under pressure.

Presently limited HEIs studies exist, but they also with a narrow scope and focus, and they fail to explain why public universities' internal control system has a major weakness in their internal control practice. All things considered; it is essential to evaluate the effectiveness of the current internal control of practice in higher education institutions of Ethiopia; particularly these public universities largely funded by tax payer's money. The objectives of this study are: a) To determine the effect of the control environment on internal control practice effectiveness in selected public universities; b) To assess the effect of risk assessment on internal control practice effectiveness in selected public universities; c) To evaluate the effect of control activities on internal control practice effectiveness in selected public universities; d) To examine the effect of information and communication on internal control practice effectiveness in selected public universities; and e) To examine the effect of monitoring activities on internal control practice effectiveness in selected public universities.

3. Literature Review

3.1 Definition and concepts of internal controls

Basle Committee on Banking Supervision defined internal control as a process affected by the board of directors, senior management and all levels of personnel. It is not solely a procedure or policy that is performed at a certain point in time, but rather it is continually operating at all levels within the bank. Differently from Financial institutions context, According to EMI internal control system (ICS) can be regarded as the process (including all the controls, financial or otherwise) effected by a credit institution's board of directors, senior management, and other personnel to provide reasonable assurance that the following objectives are achieved. These are accomplishment of established goals and objectives, economical and efficient use of resources, adequate control of the various risks incurred and the safeguarding of assets, reliability and integrity of financial and management information, compliance with laws and regulations as well as policies, plans, internal rules and procedures.

Whereas, As per IIA internal control is actions taken by management to plan, organize, and direct the performance of sufficient actions so as to provide reasonable assurance that the following objectives will be achieved. These are the accomplishment of established objectives and goals for operations and programs, the economical and efficient use of resources, the safeguarding of assets, reliability and integrity of information, compliance with policies, plans, procedures, laws, and regulations. COSO (2013) provided more comprehensive which guide current study stating internal control is a process affected by the board, management and other personnel designed to provide reasonable assurance regarding the achievement of the following objectives. These are effectiveness and efficiency of operations (basic business objectives like performance and profitability goals, safeguarding of resources), reliability of financial reporting, compliance with applicable laws and regulations.

The COSO differed from earlier definitions in at least two vital aspects. Firstly, it focused on process instead of system or structure, highlighting the loose and flexible character of internal control as opposed to it being a static and rigid system (see Kinney, 2000). Secondly, the objectives of internal control now included other objectives in addition to the financial reporting quality objective. Different internal control definitions exist, but COSO has been widely diffused and now serves as a reference point for both managerial practices and regulatory designs around the world (Arwinge, 2013).

3.2 COSO Internal Control Integrated Framework

COSO refers to the five professional auditing and accounting organizations that formed a committee to develop this internal control report; its official title is Integrated Control–Integrated Framework. These sponsoring organizations contracted with a public accounting firm and used a large number of volunteers to develop a draft report that was released in 1990 for public exposure and comment. More than 40,000 copies of this COSO internal control draft version

were sent to corporate officers, internal and external auditors, legislators, academics, and other interested parties with requests for formal comments (Moeller, 2014).

During the 20 or so years of its life, the initial COSO internal control framework and concept have not changed, but business and technology have. Although all of these changes will be discussed in the following chapters, the growth of IT systems and technology, our increased emphasis on risk management and corporate governance, and enterprise globalization were all prime examples of the need for a COSO refreshment. When the original COSO internal controls framework was released in 1992, large mainframe-based computer systems were still common, and the Internet was not the enterprise support tool it is today. The revised framework reflects our overall use and reliance on all types of IT systems for establishing effective internal controls today (Moeller, 2014).

Using this very general definition of internal controls, COSO originally used a three-dimensional model to describe an internal control system in an enterprise. Figure 1 below defines the original COSO model of internal controls as a pyramid with five layers or interconnected components comprising the overall internal control system.

These are shown with a component called the control environment serving as the foundation for the entire structure. Four of these internal components are described as horizontal layers, with another component of internal control, called communication and information, acting as an interface channel for the other four layers (Moeller, 2014).

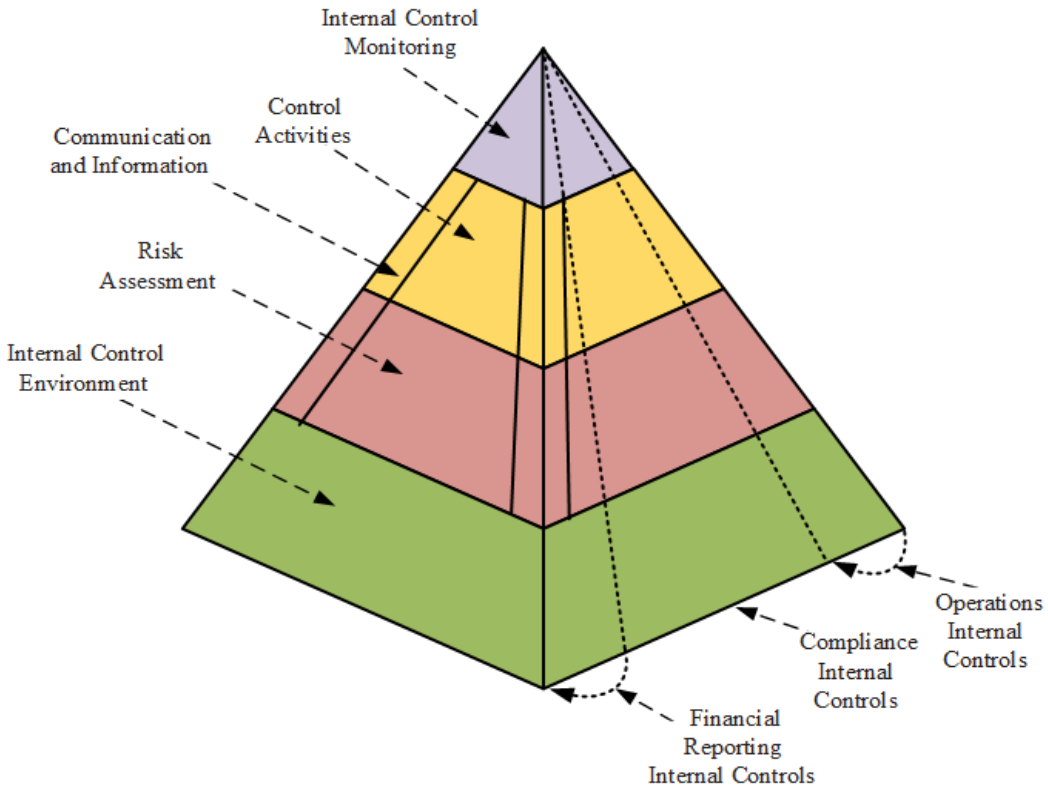


Figure 1: COSO Internal Controls Framework (Original), Pyramid View
Source: Moeller (2014)

3.3 COSO Internal Control Components and Principles

The Framework sets out seventeen principles representing the fundamental concepts associated with each component. Because these principles are drawn directly from the components, an entity can achieve effective internal control by applying all principles. All principles apply to operations, reporting, and compliance objectives (COSO, 2013). The principles supporting the components of internal control are listed below in the Table 1, below.

As a major change, the revised COSO framework codifies principles that support the five components of internal control. While the 1992 version implicitly reflected some core principles of internal control, the revised version explicitly defines 17 internal control principles representing fundamental concepts associated with the five components of internal control. COSO has decided to make these principles explicit to increase management's understanding as to what constitutes effective internal control.

These principles outlined in Table 1 ,are broad, because they are intended to apply to a wide range of enterprises, including for profit and not-for-profit (which includes HEIs), publicly traded and private, and government bodies and other organizations (Moeller, 2014).

Table 1: Summary of COSO 17 principles

Summary of COSO 17 Principles for effective internal control practice.

Control Environment	1. Demonstrate a commitment to integrity and ethical values 2. Exercises oversight responsibilities 3. Establishes appropriate authorities and responsibilities 4. Demonstrate Commitment to Competence 5. Enforce Accountability
Risk assessment	6. specifies suitable objectives 7. Identify, evaluation , and Respond to Risks 8. Assess fraud risk 9. Identifies and analysis significant risks
Controls activities	10. Selects and develops control activities 11. Selects and develops general control over Technology 12. Deploys/implement controls activities
Information and Communication	13. Uses relevant information's 14. Communicate internally 15. Communicate externally
Monitoring activities	16. Conduct ongoing or separate evaluations 17. Evaluate and communicate deficiencies

Source: compiled by author, 2020

Taken together, these internal control components and principles constitute the criteria, and the points of focus provide guidance that will assist management in assessing whether these

components of internal control are present, functioning, and operating together with an enterprise. Each of the points of focus is mapped directly over these 17 principles, and each of those principles is mapped directly to one of the five internal control components (Moeller, 2014).

3.4 Agency and Stewardship Theory

This study is based on the need for the public sector to comply with the requirements of (COSO) (2013), considering the criteria of government accounting and reporting, budgeting, procurements law, and auditing of the federal government of Ethiopia. Federal government organizations in Ethiopia are required to implement the Federal government of Ethiopia's internal controls standards directives number 8/2011 and different proclamations, directives which are in one way and another similar to COSO principles. They set out the preconditions for meeting standard requirements in internal control Effectiveness in organizations.

Muskanan, M. (2014) asserts Much of COSO's five components of ICS principles are motivations for informative and verifiable financial reporting, lie with the expectations from Agency theory. The agency theory was developed in 1976 by Jensen and Meckling. This theory described an agency relationship as a contract between the principal (s) and the agent in which the agent is agreed to perform some services on behalf of the principal (s). The theory posits that agents have additional information than principals and that this information imbalance adversely affects the principals' ability to monitor whether or not their interests are being properly served by agents. The theory describes firms as essential structures to keep up contracts, and via firms, it is possible to exercise control that reduces the dishonest behavior of agents (Jensen and Meckling, as cited in Abdullahi & Muturi, 2016). Jussi and Petri (as cited in Muhunyo, 2018) stated that the agent–principal relationship is strengthened more by the principal employing an expert and systems (auditors and internal control systems) to monitor the agent.

According to agency theory concepts, the general public & its Government represent a kind of principal–agent relationship. The principals are the main shareholders viz. the public at large. The Executive, acting as the agent of the principal, must periodically account to the principal for their use and Stewardship of resources and provide the comfort of the extent to which the public objectives have been accomplished. It has highlighted principal-agent relationships such as government and citizenry in the internal control system. According to Babatunde, et al (2014). Government has the responsibility of instituting an efficient internal control that will keep it on track in actualizing its goals in stewardship towards public accountability. In the corporate form of organizations, the top management manages the whole organization on behalf of the owners as an agent. As a result of this, management can use its power for personal benefit.

The other theoretical base of the current study is called Stewardship theory. According to the framework of this theory, people are intrinsically motivated to work for others or for organizations to accomplish the tasks and responsibilities with which they have been entrusted. It argues that people are collective-minded and pro-organizational rather than individualistic and therefore work toward the attainment of organizational, group, or societal goals because doing so gives them a higher level of satisfaction (Caldwell et al,2008). The theory provides one framework for characterizing the motivations of managerial behavior in various types of organizations.

As cited from the source above, a steward is one who takes on the responsibility of caring for something on behalf of another person or group of people. So, stewards do not have ownership of what they have the responsibility to take care of, but must, nevertheless, carry out their duties conscientiously since they have to render an account of what they have done to them.

3.5 Empirical Review of Related Studies

Despite rare studies on HEIs in Ethiopia and in studies on internal control of HEIs in particular, several investigations were made in the world to evaluate the internal control of businesses and governmental institutions. Research findings by Lemi (2015) indicated that internal control in selected Ethiopian public universities is not effective. Particularly, the risk assessment component of internal control is not practiced in universities. Though monitoring is better in the universities, there is an inadequate control environment, control activities, and inadequate flow of information and communication in those universities. The major finding behind the ineffectiveness of the internal control system that requires the management's attention as per the study includes a low level of employee awareness as to the mission and vision of their organization, handling jobs without clear guidelines and understanding of the job descriptions, inadequately staffed work units, lack of training on professional ethics in the area of procurement, finance and resource management, loss control on the efficient utilization of resource including vehicles, drugs, medical supplies and other resources of the university. Low level of lower-level managers' participation in planning and inability of identifying risks associated with the execution of the plan makes managers busy in crisis management instead of taking proactive actions. Lack of proper communication and coordination between administrative and academic process managers, mainly finance and human resource departments do not exchange data concerning employment status and there is a problem of effectively controlling payroll and non-payroll related pavements. Further in the management of assets as well, there is no periodic and regular counting and also timely and proper disposal of retired assets. The monitoring aspect of the internal control is also associated with weaknesses out of which comparison of budget and actual Performance is not conducted at all levels. Even though the university established a clear structure and communication channels, there is no swift flow of information through different levels and organs of the organization.

Even though the internal control would detect accounting fraud, respondents require codes of conduct and employee training as additional tools to detect fraud events. A study by Roth & Espersen (2003) on the situation of internal control in companies introduced the components of internal control (control environment, evaluating risks, control activities, information and communication, and supervising) as an advocator for a company to achieve its goals as well as its own progressive procedures. The results suggest (a) Recognizing an internal control system and the role of corporate relationships; (b) Propagating self-control systems, (c) Identifying risk factors, and (d) Preventing incidents of fraud and financial mistakes.

Moses (2011) examined the effectiveness of Internal Control Systems in achieving Value for Money in school projects in Local Governments of Uganda. The purpose of the study was to identify the impact of internal control in achieving value for money. The study used a cross-sectional survey design implementing a self-administered structured questionnaire to gather data. The respondents were drawn from the elected and appointed staff, staff from the Office of the Auditor General, members of the District Public Accounts Committee, and the School; were requested to respond to the existence of standards of internal control. In addition, the respondents were requested to respond if existing internal control in the school project is efficient, effective,

and economical. The findings revealed that Internal Control Systems has a significant positive effect in achieving Value for Money. The study further reveals that there is a significant positive relationship between the Control Environment, Control Activities, Risk Assessment, Information and Communication, and Monitoring and Value for Money in Local Governments.

In another HEIs study, In view of the study Kisanyanya, G. A. (2018) findings, the public institutions of higher learning in Vihiga County, Kenya have effective internal control systems as supported by the study findings of clear separation of roles, supervision and commitment of management, proper communication channels, efficient internal audit management systems and clear policies and procedures. It is evident from the findings that the dimensions of internal control systems thus control activities, control environment, risk assessment, information and communication and monitoring have a significant effect on the financial performance of Public Institutions of Higher Learning in Vihiga County, Kenya. In particular, the study concludes that there is a significant positive relationship between internal control systems with financial performance of the public institutions of higher learning in Vihiga County, Kenya.

Similarly, the study by Tenbele, N. T. (2019) in Nairobi Kenya HEIs, found that sole control of the environment of the institution stood effective to a great extent, but, the four elements of its internal control system were effective to a moderate level. This study suggests that in spite of Kenya, HE institution designed its control environment to a great extent its policies and procedures weren't enforced and monitored to a very great or great extent. And from Puntland, Abdullahi, et al (2016) conducted the study in Puntland HEIs, and they found that the management of the institution is committed to the control systems, actively participates in monitoring and supervision of the activities of the Universities, communications systems are in place. The internal audit department is efficient, is staffed, conducts regular audit activities and produce regular audit reports. It was further revealed that there is a clear separation of roles, weaknesses in the system are addressed, and monitoring has helped in assessing the quality of performance of the institution over time. Accordingly, they conclude that there is a significant relationship between internal control systems and financial performance in an Institution of higher learning in Puntland.

Muhammad, J. (2015), collected data from Deans, Associate Deans, Heads of Departments, Management Committee members, and Finance and Accounts staff as respondents from a population of 302 Pakistan analyzed finding shows that management of the HEIs in Pakistan is dedicated to the control systems, energetically participates in monitoring and supervision of the activities of the University, all the activities of the institution's activities are initiated by the top-level management, that the internal audit department is not efficient, is understaffed, doesn't conduct regular audit activities and doesn't produce regular audit reports although the few reports produced by the internal audit department address weaknesses in the system. It was according to the author, Muhammad, J. (2015), the study further revealed that there is a clear separation of roles, weaknesses in the system is addressed, and there is a training program for capacity building in the institution. However, the study also found out that there is lack of information sharing and inadequate security measures to safeguard the assets of the University. It was also noted that there isn't enough cash to meet intended University goals, that the fees charged to students are not appropriate to cover costs, that all fees meant to be remitted to the University is not collected. It was, however, revealed that all revenues and expenditures are properly classified, and those assets of the University have generally increased. The study established a significant

relationship between the internal control system and financial performance. The study, therefore, concludes that internal control systems do function although with there is a significant relationship between internal control systems and financial performance in an Institution of higher learning.

Finally, more studies argue when internal control malfunctions all operation effectiveness of public institutions will be affected. For example, control system deficiency has significant negative effects on capital project management in the Nigerian Public Sector (Babatunde et.al (2014). Higher educational institutions are expected to bring sustainable development through quality education and through problems solving research. So, it is the responsibility of public higher education institutions to use the procurement budget properly by designing effective procurement systems that can insure transparency, accountability, and value for money (Yizengaw, 2003). As per their long-year experiences, higher educational institutions in Ethiopia have no scarcity of budgets. Instead, they do have a trend of returning a huge amount of budget to the central government at the end of each physical year. Even though higher education institutions in Ethiopia absorb a huge amount of funds they are highly characterized by the poor quality of education, weak research outputs, and inflexibility in management (Yemer, 2017). It is also reported that most University procurement process was problematic. As a result, usually, the purchased items are below the quality specification which has been creating an adverse impact on both internal and external service delivery. Public Universities in Ethiopia have three basic common goals; providing quality education, conducting problem-solving research, and delivering community services. In achieving all these goals, they are found weak. This why current research planned to evaluate ICS practice in HEIs of Ethiopia for finding an indicative solution for the advancement of the sector.

3.6 Conceptual Framework

This section presents the conceptual framework of the research. The framework is developed by adopting the internal control integrated framework of COSO along with its application to HEIs. In this research, the independent variables are components of internal controls along with their principles. The dependent variable is the effectiveness of the HEIs internal control activities practices. Therefore, implementation of the independent variables will determine the effectiveness of internal control in selected HEIs in Ethiopia. In this, study, based on above conceptual framework and the supportive empirical evidence the following research hypotheses were formulated and testing.

H1: The control environment has **a positive significant** effect on the effectiveness of internal control practice.

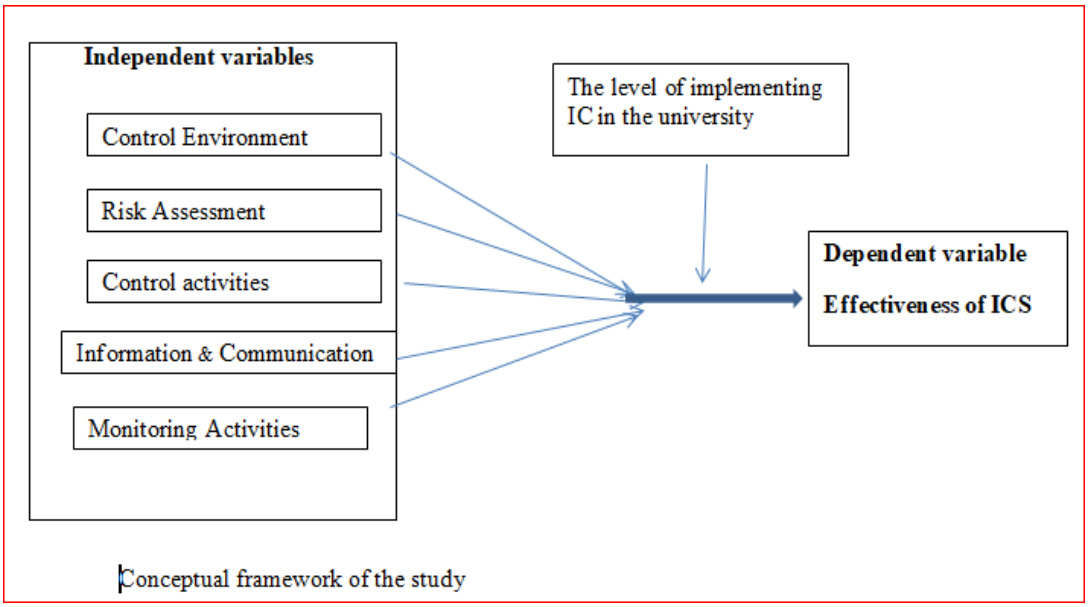
H2: Risk Assessment practices have **a positive significant** effect on the effectiveness of internal control practice.

H3: Control activities have **a positive significant** effect on the effectiveness of internal control practice.

H4: The presence of information and communication has **a positive significant** effect on the effectiveness of internal control practice.

H5: Availability of monitoring activities **has a positive significant effect** on the effectiveness of internal control practice.

Figure 2: Conceptual Framework



Source: Author Modified from COSO (2013) principles.

4 Research Methodology

4.1 Research design and approaches

The research employed descriptive research design using both qualitative and quantitative data analysis (i.e., mixed approach). These approaches preferred to Describes attitudes, perceptions, characteristics, activities and situations in Higher education of Ethiopia based data collected from public universities academic and administrative staffs.

4.2 Source of data and collection producers

Both quantitative and qualitative types of data from both primary and secondary sources were used. The primary data source was from selected public organizations' internal auditors, accountants, and academic staff. Secondary data was obtained from audit findings, and reports prepared by research scholars, universities, and different public oversight bodies' reports. The researcher focused on these public universities which have sufficient internal audit staff, and accountants' staffs are financed by big-budget, homogenous, very popular, and have a greater impact to influence the country's overall social, political, and economic issues. And also, for the selection of the universities, the serious irregularity finding of OFAG audit report criticism was considered.

4.3 Population

The total population of the study includes 51 public universities in Ethiopia. From this, a representative sample size was drawn. It is not possible to know the exact number of targeted employees in some of the selected universities because of the absence of reliable statistics on the number of auditors, audit department heads, accountants, procurement officers, and ethics-officers for the reasons mentioned, high turnover of employees and lack proper track record

human resource data in these selected universities. So average numbering was used to determine the sample size from each university.

4.4 Sampling size and techniques

The study used purposive sampling specifically expert sampling techniques. There is a wide range of purposive sampling techniques that you can use (see Patton, 1990, 2002; Kuzel, 1999, for a complete list). Expert sampling is a type of purposive sampling technique that is used when your research needs to glean knowledge from individuals that have particular expertise. The target respondents who participated in this study were selected with purposive sampling particularly (purposive expert sampling) from selected public organization employees who are the accountant, budget officers, internal auditors, audits departmental heads and senior accountants, procurement officers, and university lecturers. This sampling technique is proposed to be employed because the targeted respondents are experts in their position and said to have access to vital information, experience, and professional skills that were necessary and relevant for the study. Due to their public service duty and responsibility, they have a better understanding of the internal controls system of their respective institutions. Therefore, from the population of 51 public universities, only 5 public universities are purposively selected and these universities' administrative and academic staffs' responses are assessed and used for data analysis. Specifically, the list of these universities and their respective respondents from Ethiopia Civil Service University (ECSU),25, Debre-Berhan University (DBU), 12, Kotebe University of Education (KUE), 20, Haramaya University (HU),20, and from Dire Dawa (DDU), 23, respectively were used. Of 100 individual participants 20 of them (who are Finance Directors, IT directors, budget officers, senior lecturers, and Head of Departments, Internal Auditors, and procurements officers) were interviewed to get further clarifications on the application of internal control elements in their respective universities.

4.5 Methods of data collections and instruments

This study used survey-type questionnaires and key informants' interviews to gather data from different sources were used. Standardized Semi-structured questions were designed based on 17 principles of the internal control framework model of the Committee of Sponsoring Organizations of the Treadway Commission (COSO), five elements of internal controls: control environment, risk assessment, control activities, information and communication, and monitoring.

These standardized semi-survey questionnaires are designed in the form of the Likert-scale type that shows respondents' agreement or disagreement by constructing it into a five-point scale. In addition to survey questionnaires, primary data was collected through key informants' interviews from selected public organizations especially focusing on Finance directors and internal audit department leaders.

4.6 Methods of data analysis

The data collected from different sources are analyzed using descriptive statistics and multiple regression analysis. The data is presented in statistics such as mean, standard deviation, frequency, and percentage with help of SPSS outputs. From inferential statistical tools, correlation, ANOVA (F-test), T-test, OLS estimator of multiple regression analysis, chi-square (R2), etc. is used. OLS estimator of multiple regressions Analysis is also conducted to examine

ICS determinant factors' effect on ICS effectiveness. And furthermore, qualitative information from interviews was analyzed narratively.

4.7 Operationalization and Measurement of Variables

This sub-section indicates and operationalizes the key variables (independent and dependent variables) of the study. The measurement and operational definition of the variables is shown below in Table 2.

Table 2: Operationalization and Measurement of Variables

S.N	Variable	Type	Operationalization	Measurement	Adopted from
1	IC Effectiveness	Dependent	Rating used 1. Very low 2. Low 3. Moderate 4. High 5. Very high)	Five-point Likert scale of 1-5	COSO (2013) Modified
2	Control Environment	Independent	1 is being the extreme case of disagreement & 5 is the extreme case of agreement	Five point Likert scale of 1-5	COSO Principles (1-5)
3	Risk Assessment	Independent	1 is being the extreme case of disagreement & 5 is the extreme case of agreement	Five-point Likert scale of 1-5	COSO Principles (6-9)
4	Control Activities	Independent	1 is being the extreme case of disagreement & 5 is the extreme case of agreement	Five point Likert scale of 1-5	COSO Principles (10-12)
5	Information and Communication	Independent	1 is being the extreme case of disagreement & 5 is the extreme case of agreement	Five point Likert scale of 1-5	COSO Principles (13-15)
6	Monitoring Activities	Independent	1 is being the extreme case of disagreement & 5 is the extreme case of agreement	Five-point Likert scale of 1-5	COSO Principles (16-17)

Source: Modified by the Researcher from COSO (2013) principles

4.8 Model Development & Specifications

Hence, the researcher adapted the following formula and the model equation is presented mathematically as follows: -

$$ICEi = \alpha + \beta1(CE)i + \beta2(RA)i + \beta3(IFC)i + \beta4(CA)i + \beta5(MA)i + \varepsilon \quad \text{Eq 1}$$

Where,

$ICE = \text{Internal Control Effectiveness}$

$CE = $ Control Environment
$RA = $ Risk Assessments
$IFC = $ Information and Communication
$CA = $ Control Activities
$MA = $ Monitoring Activities
$\beta 1 - \beta 5$: Parameters or coefficients of explanatory variables to be estimated
$\alpha = $ Constant term (Intercept of the Regression Line)
$\varepsilon = $ Residual/error terms of the model
$i = $ ith observations for the given variables

5 Results and discussions

5.1 Demographic Profile of the Respondents

The demographic information of the respondents' gathered for this study was gender, level of education, work experience, and field of study. Of the total 100 overall respondents of the survey, shown in Table 3 annexed, 67 % were male and 33% were females. Regarding the level of education, 6% of the respondents were diploma holders, 61% of them were bachelors, 27% of them were Master/second-degree holders, and also 6% of the participants were Ph.D. holders. This indicates that the majority of the respondents are highly educated and can easily comprehend and fill out the questionnaires. Job responsibility, accountants 36%, Auditors 9%, lecturers 29%, HODs, directors 11%, and others 15% respectively.

Concerning the work experience of the respondents, 24% of them were up to 5 years of work experience, 37% had work experience between 6-10 years, 25% of them had 11-15 years of experience and the remaining 14% had worked for over 15 years. This indicates that most of the respondents are at the senior level stage of their careers has rich experience in the internal control practice of their respective universities.

5.2 Reliability and model fitness test

Referred from Table 3,The Cronbach's alpha coefficients for CE, RA, CA, IFC & MA Were 0.9, 0.8, 0.92, 0.91 & 0.85 respectively and their internal consistency was reliable while the internal consistency (reliability) of overall internal control effectiveness was excellent as its Cronbach's is alpha value is 0.96.

Table 3: Reliability test of the data set

S.N	Variables of the Study	Cronbach's Alpha Value	No. of Items
1	Control Environment	.90	14
2	Risk Assessment	.80	10
3	Control Activities	.92	15
4	Information & Communication	.91	7
5	Monitoring Activities	.85	4
	Overall	**.96**	**50**

Source: Author own survey (20200

5.3 Descriptive Statistics of the Variables

Control Environment: as indicated below in Table 4, Regarding, the first principles control environment, the majority of respondents 48% agreed, 12% strongly agree that their universities demonstrated a commitment to integrity and ethical values. But 10% believe a public university manager lacks commitments to integrity and ethical values. This implies that selected HEIs are committed to integrity and ethical values for ICS of the control environment.

Table 4: Descriptive Statistics Result on Control Environment.

S. N	Control Environment principles	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total	Mean	SD
1	The university demonstrates a commitment to integrity and ethical values.	3	7	30	48	12	100	3.2	0.82
2	The University Board of Directors periodically exercises oversight responsibility.	3	19	39	26	13	100	3.0	0.9
3	The university established an effective structures, reporting line, and appropriate authorities and responsibilities in the pursuit of objectives.	1	9	18	53	19	100	3.6	0.86
4	The university Mgt demonstrates a commitment to attract, develops, and retains competent individuals in alignment with objectives.	2	11	29	48	10	100	3.21	0.81
5	The university Management holds individuals accountable for their internal control responsibilities in the pursuit of objectives.	4	13	38	40	5	100	3.11	0.78

Source: Authors survey 2020.

Whereas, concerning the second CE principle which requires 'The University Board of Directors periodically exercises oversight responsibility', from all participants 39% rated their opinion to uncertain alternatives questioning that the university Board of Directors periodically exercises oversight responsibility, and 22% disagree with the existence of such practices. On another side, 26% of respondents agreed their universities are periodically supervised by the Board of Directors.

Regarding the third CE principle, there is high agreement 72 % (of which 19% strongly agree). The University established an effective structure, reporting line, and appropriate authorities and responsibilities in the pursuit of their objectives. The remaining 28% perceive structural problems exist in public higher education of Ethiopia.

On the fourth principle of CE, similarly, 48% highly agree that the university management demonstrates a commitment to attract, develop, and retain competent individuals in alignment with objectives, Moreover, 40% agree, and 5% strongly agree on the existence of the practice of

fifth principles CE practice that university Management holds individuals accountable for their internal control responsibilities in the pursuit of objectives. 13 % disagree on actual enforcement of accountability practice. However, the interviewee participant claims that control environments of public universities are practically ineffective. Because of University's Board of Directors is not exercising oversight responsibilities effectively. Some say, the role of the BOD is not known, they are busy and their assignment is not professional they did not know the characteristics of modern higher education. And HR system of HEIs needs to be audited for verification of how individuals are recruited, employee performance efficiency, retention of employees, and segregation of duty. Describing more reasoning, Lack of proper fulfillment of employee's role and responsibility as per rule and regulations, the enormous gap between their qualification and competency.

Additionally, stated a Lack of qualified personnel in the administrative wing and no rotation of duties (unless they are promoted or retire or die) they said one person may work up to 10 years in the same position without changing the same position. Sometimes posts (positions) one left vacant for a relatively long time and covered by other individuals whose may roles overlap the control requirement of segregation of duties. Poorly motivated staff administrative work. More justification one male assistant professor interviewed in Addis Ababa, on 22 May 2022, who has serviced different public universities for over 10 years, said **'***I don't think that most public Universities are good in controlling and auditing practices. The university has very poor financial management approaches as well as auditing approaches. It has a weak approach to recruitment and job rotation in highly sensitive areas such as financial administration, procurement, finance, and property management. These areas are very risky and the areas where high embezzlements take place in public universities. There are no good practices and no responsiveness to take corrective actions although many times communicated for correction during various academic meetings as well as overall university discussions. Moreover, there is very less freedom for internal auditors the Ministry of Finance has provided some independence for internal auditors and a detached hierarchy of reporting. More work is needed in public universities in general.*

Risk Assessment: Concerning Risk Assessment activities, in Table 4 annexed, shows above average respondents (43%) agreed that their organization specified objectives with sufficient clarity to enable the identification and assessment of risks relating to objectives. Also, above-average respondents (40%) agreed that their organization identified risks to the achievement of its objectives across the entity and analyzed risks as a basis for determining how the risks should be managed. And nearly average respondents (39%) also agreed that the university Management considers the potential higher education-related fraud in assessing risks to the achievement of objectives. But only (35%) of participants agreed decided that their organization identified and assessed changes that could significantly impact the system of internal control. However, this result contrasts the interviewee's finding claiming HEIs managing bodies are not effective in proactively responding to changing aspects of HEIs-specific fraud risks.

Control Activities: Control activities include methods such as; preparation of reliable reports, update documentation, authorization of transactions, independent review, and more in the era of advanced technology control activities also includes information technology data process and IT infrastructures controls. According to study Result presented in table 7 annexed , there is a high agreement regarding the establishment of internal control over activities (45%) and their effective implementation (53%) but the majority of respondents (46%) keep natural to say HEIs have effective information technology system controls.

Regarding control activities, interview participants' narration indicated that there is little relationship between budget as formulated and budget as executed, poor planning, work schedules, and End of budget year overspending leading to wastage of public money, procurements of less quality, and high price good and services. And also, reckless handling and carrying of fixed assets and Stocks. And claimed some procurement is made mostly from limited suppliers at an unfair price. Others say stating rework of tasks is common which leads to the high cost of repairs and nonessential expenditures.

While few say IC activities are relatively effective in HEIs where IFMIS in practice because they use IT systems to control most Financial transaction flows, controls material, and service provisions, and also reporting to within a given period.

Information & Communication: Internal communication is how information is disseminated throughout the organization, flowing up, down, and across the entity. Based on frameworks of effective information and communication in an internal control system. the survey result and interpretation as analysis has referred from Table 8, generally, the higher mean value for all questions of IFC activities ranging from 3.36 to 3.74. This implied respondents' agreement on several expected questions, therefore the Public HEIs in general are good at using information and communicating across the departmental level and including external communication with MOE and MOF. But evidence from the interview opposite this conclusion as a male assistant professor, interviewed on 26 may, 2020 in DebreBerhan town said that, *"My University is effective in communication with Ministry of education and others but weak to communicate internally using appropriate means and not ready to accept complaints from the university community*".

Monitoring Activities: These parts of COSO Components evaluate the processes used by the university management team to examine and assess whether its internal controls are functioning properly. From Table 4, thus, from the result of the survey majority of academic and administrative participants are uncertain (41%) regarding the effectiveness of the self-evaluation performance of ICS practice. Where (44%) agreed that university leadership /with BOD implements major corrective recommendations of internal audit, external audit/management consultants on a timely basis.

Generally, according to qualitative evidence from interviewee participants, ICS implementations are challenging because of the following reasons: Political interest & Interference, lack of commitment, lack of adequate penalty or no measurement taken by the appropriate body, Lack of proper Segregation of duties, less effort to shape the behavior of employees, ethics and code of conducts, lack of effective policies & Procedures specific to HEIs. And Data base system (Documentation) Problems, lack of clear awareness about ICS especially IT controls, and Lack of knowledge of modern HEIs leadership and oversight. More severe ineffectiveness of internal audit function and non-value-adding audit work, less commitment from management to implementing internal auditors' recommendations and suggestions. Finally, the existence of less motivated employees and mismatched qualifications, and inefficiency are mostly described by interview participants as hindering factors.

5.4 Inferential Statistics

5.4.1 Correlation Analysis

Pearson correlation analysis presented in Table 5, result indicated, Internal control effectiveness is highly positively correlated with Control Environment, risk assessment, Control Activities, Information & Communication, and Monitoring Activities positively (r= 0.858 at a p-value of

0.00), (r= 0.822 at the p-value of 0.00), (r= 0. 868 at the p-value of 0.00), (r= 0. 803 at a p-value of 0.00) and (r= 0.734 at a p-value of 0.00) respectively.

Table 5 Correlations matrix

		ICE	CE	RA	CA	IFC	MAA
ICE	Pearson Correlation						
	Sig. (2-tailed)						
	N	100					
CE	Pearson Correlation	.858**					
	Sig. (2-tailed)	.000					
	N	100	100				
RA	Pearson Correlation	.822**	.630**				
	Sig. (2-tailed)	.000	.000				
	N	100	100	100			
CA	Pearson Correlation	.868**	.682**	.671**			
	Sig. (2-tailed)	.000	.000	.000			
	N	100	100	100	100		
IFC	Pearson Correlation	.803**	.699**	.545**	.635**		
	Sig. (2-tailed)	.000	.000	.000	.000		
	N	100	100	100	100	100	
MA	Pearson Correlation	.734**	.602**	.628**	.631**	.630**	
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	100	100	100	100	100	100

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

Source: Author survey result 2020.

The findings again demonstrated that there is a positive relationship between the dependent variable “internal Control effectiveness” and all the independent variables “control environment, risk assessment, control activities, information & communication, and monitoring activities. For example, Pearson’s correlation coefficient between internal Control effectiveness and control environment is 0.858 at a P-value of 0.000, this means that the two variables move in the same direction. This implies that an increase in control environment activities increases internal control effectiveness. At the same token increasing Risk assessment Control activities, information and communication and monitoring activities will increase positively internal control effectiveness respectively.

5.4.2 Regression Analysis

- **Model summary**

To verify the assumptions of classical linear regression model fitness the research conducted normality, multi-collinearity, and homoscedasticity tests/assumptions and proved the data used are relevant to conducted regression analysis and explore the relationship between the independent and dependent variables. Refer annexed for more diagnostic test.

Table 6. Model Summary							
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F Change	Sig. F Change	DW
1	.980[a]	.961	.959	.12801	463.427	.000	1.731
a. Predictors: (Constant), Monitoring Activities, Information and Communication, Control Activities, Control Environment, Risk Assessment							

Source: Author survey result 2020

Table 6 presented, result from statistical analysis of the multiple correlation coefficients (R = 98%) represents the linear correlation between the observed and model-predicted values of the dependent variable. Its large value revealed a positive and strong relationship between the predictor variables and the dependent variable. R2 is 96%, adjusted R Square is 95% and F-statistics is 463 with p-value = 0.000 < 0.05. The result of Durbin Watson stood at an acceptable level of 1.731. The results from the multiple regression analysis, therefore, showed that 96% variation in the dependent variable, internal control practice effectiveness is accounted for by the predictor variables, CE, RA, CA, IFC, and MA when taken as a whole. Also, considering the overall influence of all the components of the COSO internal control framework on the organizational effectiveness of the selected tertiary HEIs, the results showed that COSO internal control components had a significant influence on the organizational effectiveness of the internal control practice of investigated public universities of Ethiopia. (F=463, P<0.05).

- **Analysis of Variance (ANOVA) or F-Test**

The ANOVA table 7 shows the overall significance of the model from a statistical perspective. As the significance value of F statistics shows a value (0.000), which is less than 0.05, the model was significant. This indicates that the variation explained by the model is not due to chance. The p-value of 0.000 for the model was less than 0.05 significant level. This indicates that the sample data provides sufficient evidence to conclude that the regression model was well fitted. In other words, the p-value (0.000) is highly significant and can be concluded that the five internal control components can predict effectiveness over all internal control practice significantly.

Table 7. ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	37.967	5	7.593	463.427	.000[b]
	Residual	1.540	94	.016		
	Total	39.507	99			
a. Dependent Variable: ICE						
b. Predictors: (Constant), Monitoring Activities, Information and Communication, Control Activities, Control Environment, Risk Assessment Source: Author Survey (2020)						

Source: Author survey result 2020

- **Coefficients of Variables**

In addition, in Table 8 below, the study revealed that internal control components had a positive influence on the internal control practice of selected HEIs in terms of Control environment (CE), Risk assessment (RA), Control activities (CA), Information & Communication (IFC) and Monitoring activities (MA). Moreover, only 4 out of the 5 predictor variables were statistically significant to explain the unique variance in the dependent variables. Considering the influence of each component of internal control on the overall effectiveness of controls, the results showed that Control activities (CA) (t = 9.774, p = 0.000 < 0.05), Risk assessment (RA) (t = 9.312, p = 0.000 < 0.05), Control environment (CE) (t = 8.55, p = 0.000 < 0.05) and information and communications (IFC) (t = 7.111, p = 0.000 < 0.05) had a significant and positive influence on internal control effectiveness of the public universities while monitoring activities (MA) (t = 1.656, p = 0.101 > 0.05) had a positive but insignificant effect on overall control effectiveness at 5% significance level. Incorporating the coefficient of the predictor variables, the multiple regression analysis can be written as follows:

$$\text{ICEi} = -0.161 + 0.266(CE) + 0.221(RA) + 0.308(CA) + 0.2(IFC)i + 0.041(MA) + \varepsilon \quad Eq\ 2$$

Equation 2, above depicted that internal control practice effectiveness of selected public universities will be enhanced on average by 0.266, 0.221, 0.308, 0.2, and 0.041 given a 1-unit increase to strengthen control functions will contribute to improved control environment, better risk assessment, increased control activities, improved information distribution and effective communication and increased monitoring activities respectively.

Table 8: Coefficients of the Variables (Coefficients[a])

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.161	.074		-2.167	.033
	Control Environment	.266	.031	.280	8.556	.000
	Risk Assessment	.221	.024	.282	9.312	.000
	Control Activities	.308	.031	.316	9.774	.000
	Information & Communication	.200	.028	.222	7.111	.000
	Monitoring Activities	.041	.025	.050	1.656	.101

a. Dependent Variable: IC Effectiveness

Source: Author survey (2020)

5.5 Testing the Research Hypotheses

Table 9 Summary of Hypotheses Results/Decisions

	Hypotheses	St.Coef Beta	Sig. and T value	Decision/Result
H_1	CE had positive significant effect on effectiveness of internal control practice	.280	.033(-2.17)	Fail to Reject HO
H_2	RA had positive significant effect on effectiveness of internal control practice	.282	.000(8.56)	Fail to Reject HO
H_3	CA had positive significant effect on effectiveness of internal control practice.	.316	.000(9.31)	Fail to Reject HO
H_4	IFC had positive significant effect on effectiveness of internal control practice.	.222	.000(7.11)	Fail to Reject HO
H_5	MA had positive significant effect on effectiveness of internal control practice	.050	.101(1.66)	Rejected H0

Source: Author Survey (2020)

The study result indicated in table 9 that the effect of CE on the effectiveness of internal control practice was significant and positive. That means statically Hypothesis 1 which stated that the control environment has **a positive significant** effect on the effectiveness of internal control practice in selected Ethiopian public universities is retained. From the result in table 9 above, the quantitative analysis fails to reject, Hypothesis 2 (H2) stated that Risk Assessment practices have a positive significant effect on the effectiveness of internal control practice in selected Ethiopian public universities.

Similarly, Hypothesis 3, Control Activities have a positive significant effect on the effectiveness of internal control practice in selected Ethiopian public universities, and Hypothesis 4, the presence of Information and Communication has a positive significant effect on the effectiveness of internal control practice in selected Ethiopian public universities are accepted. But Hypothesis 5, was rejected. That means the Availability of Monitoring Activities has a positive but insignificant effect on the effectiveness of internal control practice in selected Ethiopian public universities.

6 Conclusion

The Over finding of the study reveals that the effectiveness of IC practice positively and highly correlated with Control Environment, Risk Assessment, Control Activities, Information & Communication, and Monitoring Activities. Moreover, the study indicated that HEIs managing bodies are less than average in proactively responding to changing aspects of HEIs fraud risks, weak in IT securities control, and less effective public university board of directors over sighting functions.

To sum up, the study concluded based on the qualitative interviewee and quantitative data result reveals that HEIs have wide-ranging internal control policy and procedures similar to COSO components requirements but the problems are in the practical functionality of these controls are limited. Practically The Internal control has to be operated effectively to achieve its benefit. However, selected HEIs under current study has not implement IC procedure properly .Overall, the researcher concluded that the HEIs internal control system was not very effective instead highly challenged the implementation of internal controls procedures and policies.

7 Recommendations

The damage made to public money indicated in this study could probably have been avoided or otherwise minimized, had the HEIs maintained functional effective internal control systems practiced. Such systems would have prevented or enabled earlier detection of the problems that led to the losses, thereby limiting damage to public money. Accordingly,

1. To Enhance Ethiopian HEIs ICS effectiveness, policymakers and higher education leaders should to realize transformation and innovation existing system to modern HEIs-specific integrated internal control process which is supported by strong external oversight bodies and ensure their true center of Excellency and relatively independent institutions to achieve their established objective.
2. The BOD is required to exercise strong strategic oversight responsibility effectively taking into account the lesson of the modern higher education leadership system.
3. Enhance the institution's risk assessment policies to detect and prevent any possible risk before the occurrence of loss via ongoing risk assessment and effective risk-based internal audit functions.
4. HEIs need to implement/strengthen the use of IT-based system products and proactive controls. Also advised to seize opportunities of National digital strategy titled "Digital Strategy for Inclusive Prosperity 2025" initiatives of e-governance service by FDRE which university specific Digital Technologies to modernize academic and Administrative Activities, Data Protection, Security, and Confidentiality.
5. Develop Human Resource Controls, **motivation, and retention schemes**. And also require ensuring that the segregation of duty and authority of each administrative and academic employee is properly implemented.
6. Creating enduring awareness/training /Competency / and communicating Everyone in public HEIs has some responsibility for effective internal control and ensure usefulness of ethics and positive code of conduct for Modern HEIs effectiveness. It is especially important top managements to demonstrate to employees that internal control will bring them peace of mind, fewer errors and fewer omissions. They will be reassured to work in an environment where risks are controlled.
7. Finally, it is important to work on institutional controls in Collaboration with external oversight bodies Including (the Information Network Security Agency, office of the federal auditor general)

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