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Internal Auditing Practices And Effectiveness In Ethiopian Public Higher Education Institutions

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Abstract: *The study analyzed the extent to which the internal auditing is practiced and its effectiveness in Ethiopian public higher education institutions. Very few prior studies used the output approaches as the proxy measures of internal audit effectiveness, i.e., auditees' evaluations, added contribution, and audit quality. Structured questionnaires and semi-structured interview were used to collected data from the internal auditors of the sample public higher education institutions. Confirmatory factor analysis was applied to identify the set of items that are strongly related to the factors. The mean scores of the variables were used to analyze the extent of the internal audit practice and effectiveness in Ethiopian public higher education institutions. The findings of this study revealed that the internal audit practices related to top management support and objectivity of internal auditors are little practiced and highly practiced, respectively, in Ethiopian public higher education institutions, but the internal audit practices related to organizational independence, adequate and competent internal auditors, internal audit charter, quality of audit work, and information technology are moderately practiced in Ethiopian public higher education institutions. Further, the findings of the study proved that the internal audit effectiveness in Ethiopian public higher education institutions from audit quality dimension is highly effective, but from the auditees' evaluation dimension is moderately effective.*

Key words: *Internal auditing practices, Internal audit effectiveness, Public higher education institutions.*

I. INTRODUCTION

Internal auditing and good corporate governance are two sides of the same coin. Corporate governance is the way an organization is directed and controlled. Internal audit function is a key component of the corporate governance structure (Pickett, 2005; Pickett, 2010). The recent corporate failure (Pickett, 2010), the wastage of public resources and the rapid growth of professional institutions were the causes for the current demand of internal

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auditing in different institutions (Cohen & Sayag, 2010). Good audit system plays a great role for the effective administration and management of the national economy. Good audit system plays a great role for the effective administration and management of the national economy by providing reliable data and ascertaining the federal public sector accounting procedures, revenue collection manner, fund disbursement manner and property management are in accordance with government rules and regulations. It also ascertains that the plans and programs are achieved efficiently and economically to attain organizational objectives (Federal Negarit Gazeta of the Federal Democratic Republic of Ethiopia, 1997; Federal Negarit Gazeta of the Federal Democratic Republic of Ethiopia, 2010; Federal Government of Ethiopia Internal Audit Directive No. 7/2010, 2010). Internal audit ensures sustainability and success of all institutions (Dittenhofer, 2001; Pickett, 2010; Drogalas *et al.*, 2015) by providing assurance services to the risk management and governance process within an organization (Mulugeta & Gebrehiwot, 2008; Al-Matari *et al.*, 2014; Baharud-din *et al.*, 2014). On the other hand, internal auditing helps organizations to accomplish their objectives and makes good corporate governance by bringing a systematic and disciplined approach. It is also a catalyst to improve an organization's governance, risk management and management controls by providing insight and recommendations based on analyses and assessments of data and business processes (IIA, 2004; Pickett, 2005; Paape, 2007; Pickett, 2010; Al-Khaddash *et al.*, 2013). Appropriate internal audit recommendations help for ethical value, organizational performance, accountability, risk control and information communication. That is, internal auditor is the only employee within an organization who has a deep understanding about the risk and its control mechanism. Internal auditors also provide advice of risk management and control to the relevant staffs, and provide independent and objective assurance to the board about the adequacy and effectiveness of key controls and other risk management activities across the institutions (IIA, 2001, Pickett, 2005, Pickett, 2010; IIA, 2012). The auditor's work was used as a guide for valuation and investment of the companies, to predict the bankruptcy of the companies and to facilitate the process of the economic development by providing reliable information (Wahdan *et al.*, 2006).

II. REVIEW OF LITERATURE

There were different studies that have been conducted on the internal auditing practices and effectiveness in different countries and institutions, but the findings of those studies differed from place to place as well as institution to institution. The summary of some of the prior empirical studies related to internal auditing has been presented as follows:

Abu-Musa (2008) investigated the impact of information technology on the internal audit activities of Saudi organizations. A self-administration questionnaire was applied to collect data from 218 internal auditors. Further, the study used a multiple regression model (Ordinary least squares) to test the effect of information technology on internal audit activities. The findings of the study indicated that the internal auditors' knowledge and skills related to computerized information systems for the purpose of planning, supervising, directing and reviewing the work performed should be improved. The study also indicated that the information technology evaluation was associated with the industry type, the number of information technology audit specialists in the internal audit department, the audit objectives, and the existence of new computerized information systems.

Mulugeta and Gebrehiwot (2008) assessed the internal audit reporting relationship of Ethiopian public enterprises. Financial, construction, Transportation, Communication and Power, and Manufacturing sectors were included in the study. The study used a stratified random sampling technique to select 12 enterprises as a sample, and it also used questionnaires to collect data from 76 internal auditors and managers to achieve its objective. The study results revealed that the chief audit executive of the public enterprises functionally reports to the board or audit committee, but administratively reports to the general manager. In addition, the study found that the internal audit charter of Ethiopian public enterprises lacks clarity and availability. This lacks of clarity and availability of internal audit charter, affects the independence of internal auditors negatively. They concluded that reporting functionally to the board or audit committee, and administratively to the general manager has a positive impact on the independence, scope of internal auditors and good governance.

Abdolmohammadi (2009) identified factors related to the use of and compliance with the Institute of Internal Auditors' **s**tandards in *Anglo-culture* Chief audit executives. The logit model was used to analyse the collected data from 1,029 chief audit executives. Based on the literature review, the study took certificate related to internal auditing, length of membership in the Institute of Internal Auditors, being not perceived as value-adding by management/board, being superseded by local/government regulations, compliance being not expected in the country, length of training related to internal auditing, cost of standards and inadequate internal audit staff as the factors to check their association with the use of and compliance with the Institute of Internal Auditors' standards. The findings of the study revealed that the internal auditing certification and the length of membership in the Institute of Internal Auditors were positively associated with the use of the institute of internal auditors' **s**tandards. But being not perceived as value-adding by management/board, being superseded by local/government regulations and compliance being not expected in the country were negatively associated with the use of institute of internal auditors' **s**tandards. The study also found that the length of training was positively associated with compliance of the institute of internal auditors **s**tandards, although the cost of standards, inadequate internal audit staff, internal audit certification and being not perceived as value-adding by management/ board' were a negatively associated with compliance of the institute of internal auditors **s**tandards. Moreover, the study found that the majority of chief audit executives who use the standards failed to comply with specific standards. On the other hand, chief audit executives are needed to use and comply with the institute of internal auditors' standards.

Fekadu (2009) investigated the internal audit practices of Ethiopian Governmental higher education institutions by selecting Adama University, Hawasa University, Haramaya University and Addis Ababa University as sample institutions. The study used a convenience sampling technique to select the four universities as a sample frame. To achieve the objectives of the study, i.e., to examine the internal audit practices and to check the commitment of the management to internal audit function, data was collected from 7 internal auditors using questionnaires. The study concluded that internal auditing is one of the

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cornerstones of corporate governance through assessing the effectiveness of management control methods, along with the board of directors, senior management, and external auditing. To achieve this effectively, adequate resources, professional and competent staff, audit charter, utilizing auditors' recommendations, development and training program, and following the internationally recognized standards for the practices of internal auditing are a must. Although internal audit is expected to apply those standards to achieve its objectives, the case was very different in Ethiopian public universities where internal audit practices were facing many challenges: inability to utilize auditors' recommendations, absence of appropriate resource, absence of audit committee, absence of audit charter, absence of development and training program. Moreover, the internal audit team of Ethiopian government universities lacks composition of different fields such as IT field that helps other audit members related to technical and concepts of a computer system, accountant, management, etc. Finally, the study concluded that internal audit was not substituted by internal control and also internal audit to be effective within one institution the management must give responses for the audit findings and opinions. The study recommended that the management and the internal audit department of the studied universities had to work jointly to improve the internal audit function as per the requirements of the International Standards for the Professional Practice of Internal Auditing.

Cohen and Sayag (2010) investigated the determinants of internal audit effectiveness in 108 Israeli organizations using cross-sectional data, mail questionnaire, from 108 internal auditors and general managers. Sector (private versus public), professional proficiency of internal auditors, quality of audit work, organizational independence, career and advancement, and top management support were included under independent variables, whereas internal audit effectiveness was included under dependent variables. According to their study, internal audit effectiveness was measured from three dimensions, i.e. auditees' evaluation, audit quality, and added contribution of internal audit. To test the effect of those independent variables on the internal audit effectiveness, the study used the multiple regression model. Their finding revealed that top management support had a significant positive effect regardless of whether the organization was private or public on the three internal audit effectiveness dimensions, i.e., auditing quality, auditees' evaluations and added contribution of internal audit). But organizational independence had a positive and significant effect only related to auditees' evaluation. In addition to the above findings, their findings indicated that the competence of internal audit staffs had no significant effect on the effectiveness of the internal audit. In addition, Audit quality was not just affected by auditors' qualification, the company's internal control system might also be another factor that affects the audit quality and the size of the audit firm might matter. However, some regulators and small audit firms claimed that the audit firm's size did not affect audit quality and therefore should be irrelevant in the selection of an auditor.

Mohamud (2013) investigated the association between the practices of internal auditing and the internal control system in 12 selected Somali Remittance firms. The study took proficiency, independence and objectivity, the scope of work, the performance of audit work and management of the internal audit department as proxy measures of internal audit

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practices. The study purposively focused on accountants, chief cashiers, finance directors and chief executive officers to select 69 respondents as a sample size by using a simple random sampling technique. Moreover, the study used questionnaires and correlation analysis to check the relationship between the practices and internal control system. The findings of the study showed a moderate positive association between the internal auditing practices and internal control system.

Ningi *et al*. (2013) assessed the **i**nternal audit practice and the use of consultants in the JIGAWA State Universal Basic Education Board, Nigeria. They collected data from 16 internal auditors through questionnaire to achieve the objective of the study. The problem of fraud and the problem of clash between the internal auditors and consultants in the JIGAWA were the justifications of the study. The result indicated that consultants were used to assess the contract bidders and contractors' competence, and to find out the contract executors. Moreover, financial transactions, such as rehabilitation of classrooms, staff expenditures for transport, payment of contracts for building and out of pocket expenses were of great importance to clear the responsibility of the internal auditors and consultants. They suggested that the internal auditors of the institutions should be well trained to detect fraud and other irregularities.

Hailemariam (2014) investigated the determinants of internal audit effectiveness in selected Ethiopian public offices. The main target of the study was to check the effect of management perception, management support, organizational independence, adequate and competent internal auditor's staff and the presence of approved internal audit charter on the internal audit effectiveness. The study collected data from 112 managers and internal auditors from 15 selected Ethiopian public offices using survey data via questionnaire, and it also used the multiple regression model. The findings of the study showed that management support, adequate and competent internal audit staff and availability of approved internal audit charter have positive and significant effect on internal audit effectiveness. But the remaining two variables, i.e. the perception of management and the organizational independence have a positive and statistically insignificant effect on internal audit effectiveness.

Mekelle (2017) examined factors affecting internal auditing performance of Dashen Bank, an Ethiopian private commercial bank. The study took professional competence, organizational independence, Career and advancement, top management support and quality of audit work as the independent variables, whereas internal audit performance was taken as the dependent variable. For the purpose of the study, internal audit performance was measured by high performance or low performance. She collected data from 43 internal auditors, selected from 8 branches using administered questionnaires, and she also made an interview with higher officials and auditors so as to achieve the objective of the study. The findings of the study revealed that all the listed independent variables, i.e., professional competence, organizational independence, career and advancement, top management support and quality of audit work had significant influence on the internal audit performance of Dashen bank. In addition, the Pearson correlation analysis results showed that there was a significant positive association among professional competence, organizational

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independence, career and advancement, top management support, quality of audit work and internal audit performance.

Based on the review of literature, the following conclusions are made: First, there are different factors that could affect internal audit effectiveness. As the review of the literature indicated the findings of most studies are not consistent. That is, the practice of internal audit and internal audit effectiveness varies by purpose, size, structure, legal and cultural environment, and by persons also within and outside the organization. Second, very few prior studies used the three dimensions as the proxy measures of internal audit effectiveness, i.e., auditees' evaluations, added contribution, and audit quality. On other hand, this study used these three dimensions as the proxy measures of internal audit effectiveness. Third, most of the review literature focused on private companies or one company. On the other hand, internal audit practices and effectiveness vary across settings. Therefore, studies to examine the practices and the effectiveness of internal audit from theoretical perspectives in diverse empirical settings become necessary. This would enable the profession to get orientation at the global level and play an important role in the public and business sectors.

The institutional theory explains how institutional practices and structures are shaped through changes, which come by both internal and external pressures such as by regulations and laws, by taking the practices of other institutions and by the professions. DiMaggio and Powell (1983) described the isomorphism process of institutional theory in three ways, i.e., coercive, mimetic and normative isomorphism. Coercive isomorphism happens as a result of institutional attempts for legitimacy. Mimetic isomorphism takes place when organizations respond to uncertainty by emulating the practices of other institutions. Normative isomorphism takes place when institutional changes happen due to organizations 'recognition of professions. In addition, institutional theory recommended making study at different stages of units of analysis, such as industries, individual organizations or other collectives (Barley & Tolbert, 1997). The theory also recommended in the internal audit study, because it's possible to employ without limiting the scope to profit oriented institutions and developed market economy (Mihret, 2010). This study is therefore conducted with this understanding on the basis of the institutional theory.

Therefore, on the basis of the review of literature, the conceptual framework of the study related to the internal auditing practices and effectiveness is presented in Figure-1.

Internal auditing Practices indicators:

- Top management support
- Organizational independence
- Adequate and competent internal auditors'
- Internal audit charter
- Quality of internal audit work
- Career and advancement
- Management perception
- Information Technology
- Objectivity of internal auditors

Internal audit effectiveness indicators:

- Auditees' evaluation
- Added Contribution
- Audit quality

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Figure-1: The Conceptual Framework of Internal Auditing Practices and Effectiveness

III. RESEARCH METHODOLOGY

The main objective of the study is to analyze the extent of the internal auditing practices and effectiveness of Ethiopian public higher education institutions. To achieve this objective, a total of 160 questionnaires were distributed to the internal auditors of sample public higher education institutions, of which 121 questionnaires were returned. Eighteen public higher education institutions were selected as a sample from a total of thirty public higher education institutions by using convenience sampling and proportional stratified random sampling. Further, three internal audit department directors participated in the semi-structured interviews to support the questionnaire results.

Table-1 shows the operational definition of the indicators of internal auditing practices and effectiveness. The definition is given based on the prior related empirical studies, Internal Audit Manual of Ethiopian public higher education institutions, and Standards for the Professional Practice of Internal Auditing (SPPIA).

Table-1: Operational Definitions of Variables

Construct	Definition
Internal Audit Effectiveness	Measured by three dimensions: Auditees' Evaluation, Added Contribution of the Internal Audit Department, and Audit Quality
Top Management Support	The support of the management regarding the training and development of internal auditors, the response of the management for audit findings and audit recommendations, and the cooperation of the management for the internal auditors.
Organizational Independence	The influence of the management, while internal auditors perform their audit activities and issue audit report such as data access, audit scope and audit time; The relationships of the internal audit department with the management team of the University; and The content of annual work plan of the internal audit department.
Adequate and Competent Internal Auditors'	The size, education level, training programs or professional certificates, experience, and the recruitment policy of the internal auditors'.
Internal Audit Charter	A formal written document that contains the purpose, authority, and responsibility of internal auditors.
Quality of Internal Audit Work	The determiner of the annual audit plan, the coverage of audit, the follow-up procedure, the accuracy and adequacy of internal audit programs, and the quality of audit findings and recommendations.
Career and Advancement	Hiring and assigning employees for temporary as internal auditors to transfer them to a better position in the near future.
Management Perception of Internal Audit Function Value	The management awareness or understanding regarding the internal auditors' roles.
Information Technology	Usage of software by the internal audit department, and knowledge and skill of internal auditors related to a computerized information

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	system or software packages
Objectivity of Internal Auditors	The unbiased attitude of internal auditors when carrying out their duties. For example: not participating in an audit of activities for the operation of which they were responsible previously until a reasonable time has elapsed; the rotation of internal auditors' assignments; and When internal auditors carry out their duties, they must be free of social pressure, economic advantage, and political influence.

Cohen *et al.* (2007), Friendly and Course (2008) suggested that factor analysis is a very important statistical tool to identify redundant items, key variables, and groups of inter-related variables. Therefore, the study used the confirmatory Factor Analysis by using the Analysis of Moment Structures (AMOS) software package to test the hypothesized model fits with the data. This tool was used by prior studies (for example, Cohen & Sayag, 2010; Mamo, 2011; Demeke, 2016). The items or the scales of the variables were derived from the prior related empirical studies, Internal Audit Manual of Ethiopian public higher education institutions, and Standards for the Professional Practice of Internal Auditing (SPPIA). The hypothesized Confirmatory factor analysis models are presented in Figure-2 and Figure-3.

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Figure-2: Hypothesized Confirmatory Factor Analysis Model for Nine Latent Internal Auditing Practices Variables with Observed Variables each

Whereas, "Top Management Support, Organizational Independence, Adequate and Competent Internal Auditors', Internal Audit Charter, Quality of Internal Audit Work, Career and Advancement, Management Perception of Internal Audit Function Value, Information Technology, and Objectivity of Internal Auditors" refers to unobservable variables or latent variables or factors, "e" is unique factor or unique unobservable variable, and the remaining variables are observable variables under each latent variable.

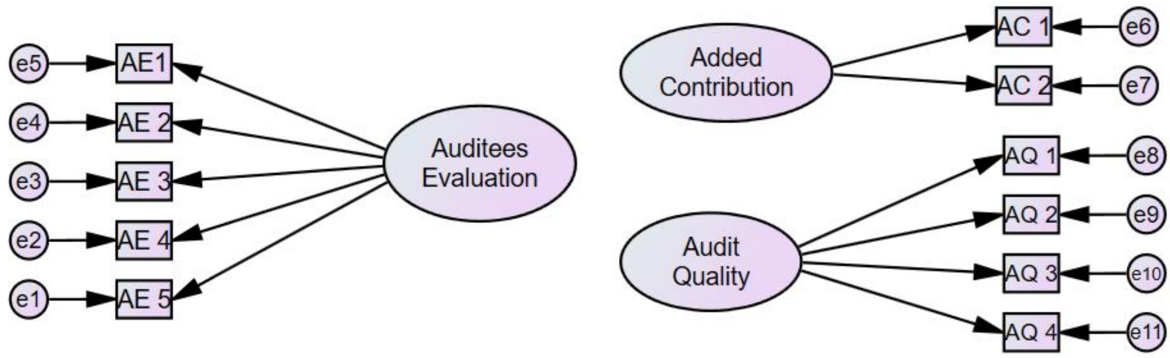

Figure-3: Hypothesized Confirmatory Factor Analysis Model for Three Latent Internal Audit Effectiveness Variables with Observed Variables each

Whereas, "Auditees' evaluation, added contribution and audit quality", refers to unobservable variables or latent variables or factors, "e" is unique factor or unique unobservable variable, and the remaining variables are observable variables under each latent variable.

IV. DISCUSSION

The survey data of internal auditors were analyzed using the confirmatory factor analysis tool after the threshold model fit indices were fulfilled (Chi-square test statistic/degree of freedom ratio, Standardized Root Mean Square Residual (SRMR), Root Mean Square Error of Approximation (RMSEA), Tucker –Lewis Index (TLI), Comparative Fit Index (CFI), Goodness-of-fit statistic) to identify the set of items that are strongly related to the factors.

Therefore, seven variables from the nine hypothesized internal auditing practice variables model and two variables from the three hypothesized internal audit effectiveness variables model were supported by the confirmatory factor analysis. The seven supported internal auditing practice variables by the confirmatory factor analysis are: top management support (explained only by one item from the hypothesized model of three items), organizational independence (explained only by four items from the hypothesized model of

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five items), adequate and competent internal auditors (explained only by three items from the hypothesized model of five items), internal audit charter (explained only by one item from the hypothesized model of three items), quality of internal audit work (explained only by five items from the hypothesized model of seven items), information technology (explained only by one item from the hypothesized model of three items), and objectivity of internal auditors (explained only by one item from the hypothesized model of three items). On the other hand, the two supported internal audit effectiveness variables by the confirmatory factor analysis are auditees' evaluation (explained only by four items from the hypothesized model of five items) and audit quality (explained only by three items from the hypothesized model of four items).That is, the study used only these seven supported internal auditing practice variables and two internal audit effectiveness variables for further analysis to examine the extent of internal audit practices and effectiveness of Ethiopian public higher education institutions.

The study used the mean scores of the variables to measure the extent of the internal audit practices and effectiveness of the institutions studied. A variable that had highest mean score, the most practicing variable or the most effecting variable, and vice versa. The interval measure to differentiate the extent of internal audit practices and effectiveness among the variables was computed as 5-1/5=0.8. Thus, the mean score ranging within 0.80 differences was used to classify the mean score from strongly disagree to strongly agree, which were represented by not being practiced" up to very highly practiced or not effective" up to "very highly effective", i.e. ranges between 1.00-1.79 = not being practiced or not effective, ranges between 1.80-2.59= little practiced or little effective, ranges between 2.6-3.39=moderately practiced or moderately effective, ranges between 3.4- 4.19=highly practiced or highly effective, and ranges between 4.2- 5.00 =very highly practiced or very highly effective. The prior empirical studies used this approach using a 5-point Likert-type scale (for example, Hanim Fadzil *et al.*, 2005; Wickramasinghe, 2007; Mamo, 2011; Dellia & Omri, 2016; Demeke, 2016). The analysis of the internal audit practices and effectiveness of Ethiopian Public higher education institutions is shown in Table-2 and Table-3, respectively.

Table-2: Internal Audit Practices

Internal Audit Practices	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean Score	
Top management support							
1. The president gives response for audit findings (he/she is committed to implement internal audit recommendations).	26* (21.5)**	16 (13.2)	18 (14.9)	1(0.8)	60 (49.6)	2.56	2.56
Organizational independence							
1. Internal auditors feel free to include any audit findings in their audit reports.	28 (23.1)	49 (40.5)	22 (18.2)	17 (14)	5(4.1)	3.64	2.87
2. Internal audit department succeeds in maintaining satisfactory relationships with the management team of the University	21 (17.3)	47 (38.9)	34 (28.1)	14 (11.5)	5(4.1)	3.53	

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3.	Internal audit auditors have free access to information, data pools and also data pools can be downloaded and unrestricted access to its site.	4(3.3)	3 (2.5)	27 (22.3)	56 (46.3)	31 (25.6)	2.11	
4.	Detailed financial budget and staffing information are included in the annual work plan of internal audit.	5(4.1)	8 (6.6)	30 (24.8)	42 (34.7)	36 (29.8)	2.2	
	Adequate and competent internal auditors'							
1.	Internal auditors' recruitment policy is good.	27(22.3)	39 (32.2)	23 (19)	20 (16.5)	12 (9.9)	3.4	2.82
2.	The university allows internal auditors to participate in training and development programs in order to maintain their skills and keep up to date in the field.	5 (4.1)	26 (21.5)	32 (26.4)	28 (23.1)	30 (24.8)	2.57	
3.	Internal auditors have appropriate and relevant education that allows them to audit all of the university systems (financial, compliance, operational etc.)	6 (5)	20 (16.5)	27 (22.3)	44 (36.4)	24 (19.8)	2.5	
	Internal audit charter							
1.	Internal auditors perform their activity in accordance with the internal audit charter.	7(5.8)	26 (21.5)	56 (46.3)	7(5.8)	25 (20.7)	2.86	2.86
	Quality of internal audit work							
1.	Annual audit plan is completely determined by the internal audit department.	42(34.7)	54 (44.6)	15 (12.4)	8(6.6)	2(1.7)	4.04	3.39
2.	Internal audit department is able to cover (audit) all university units and all issues.	12(9.9)	28 (23.1)	20 (16.5)	33 (27.3)	26 (21.5)	2.68	
3.	There is regular follow-up by internal auditors to examine actions taken to correct the problems found.	8(6.6)	22 (18.2)	21 (17.4)	42 (34.7)	28 (23.2)	2.5	
4.	Internal auditors ascertaining the university compliance with university policies and procedures.	35(28.9)	54 (44.6)	15 (12.4)	13 (10.7)	4(3.3)	3.85	
5.	Audit working papers provide adequate documentary evidence for audit planning work done.	45(37.2)	41 (33.9)	18 (14.9)	10 (8.3)	7(5.8)	3.88	
	Information Technology							
1.	Internal audit auditors possess enough skills of computerized information system or software packages.	18(14.9)	21 (17.4)	34 (28.1)	34 (28.1)	14 (11.6)	2.96	2.96
	Objectivity of internal auditors							
1.	Internal auditors' assignments are rotated periodically.	36(29.8)	46(38)	28 (23.1)	10 (8.3)	1(0.8)	3.88	3.88
	*** Frequency of responses , ** Percentages**							

Source: Field Survey (2018)

Based on the mean score of the variables, as shown in Table-2, the detail discussion of the internal auditing practices in Ethiopian higher education institutions is given below.

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A. Top Management Support

This factor which is an unobservable variable was explained only by one variable, namely "the response of the president to the audit findings or recommendations." The mean score of this variable was 2.56, which implies that it is being little practiced in Ethiopian public higher education institutions. This result is in line with the interview result, i.e. majority of the interviewees i.e. 66.67% stated that Presidents of the universities do not properly respond to the audit findings or recommendations. Ebissa (2015) concluded that mere awareness by top management about the roles of internal audit and only providing support in terms of finance, transport, training, new technology, and other facilities that facilitates the internal auditing works, do not have a positive influence on internal audit practices without being responsive to audit findings and recommendations.

B. Organizational Independence

This factor was explained by four variables, namely "internal auditors feel free to include any audit findings in their audit reports", "internal audit department succeeds in maintaining satisfactory relationships with the management team of the University", "internal audit auditors have free access to information, data pools and also data pools can be downloaded and unrestricted access to its site" and "detailed financial budget and staffing information are included in the annual work plan of internal audit." The mean scores of these four variables were 3.64, 3.53, 2.11 and 2.2, respectively. On the basis of these scores, the Ethiopian public higher education institutions are highly practicing, highly practicing, little practicing and little practicing these four variables, respectively. The overall mean score of organizational independence was 2.87, which indicates that this variable is moderately practiced in Ethiopian public higher education institutions. Shamsuddin *et al.* (2014) stated that if the internal auditors are not independent, the report they produce will be biased, and the report will be useless in improving the transparency and accountability of the public sectors.

C. Adequate and Competent Internal Auditors

There were three variables under this factor, namely "internal auditors' recruitment policy is good", "the university allows internal auditors to participate in training and development programs in order to maintain their skills and keep up to date in the field" and "internal auditors have appropriate and relevant education that allows them to audit all of the university systems (financial, compliance, operational etc.)." The mean scores of these three variables were 3.4, 2.57 and 2.5 respectively. On the basis of these scores, these three variables are highly practiced, little practiced and little practiced, respectively in the institutions. The overall mean score of adequate and competent internal auditors' was 2.82, which implies that the institutions are moderately practicing this variable. This finding is consistent with the interview finding, i.e. all interview respondents commented that the Ministry of Finance and Economic Cooperation of the country had a full right regarding the recruitment procedures of the internal auditors', which has a great contribution to assure the independence of the internal auditors'. In addition, all interview respondents commented that in the public higher education institutions, no training is given to the internal auditors in the

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form of in- house or external training except the training that is given for fresh internal auditors by the Ministry of Finance and Economic Cooperation of the country once in a year.

Lack of expertise and experience in the profession, lack of accounting and auditing training institutions (Wahdan, 2005; Wahdan *et al.*, 2006), variations of the auditors' judgments (Wahdan *et al.*, 2006), weaknesses of apprenticeship, and lack of competitiveness in terms of salaries and incentives related to the audit profession (Wahdan, 2005) were the major reasons for the gap between the legal framework of the auditing profession and actual practices (Wahdan, 2005; Wahdan *et al.*, 2006). External auditors rely on the internal audit work on the basis of the characteristics of internal audit department competence (Haron *et al.*, 2004; Deribe & Regasa, 2014). If auditors' knowledge is not sufficient the report they produced cannot be trusted (Shamsuddin *et al.*, 2014).

D. Internal Audit Charter

This factor was explained only by one variable, namely "performing audit activities in accordance with the internal audit charter." The mean score of this variable was 2.86, which indicates that the Ethiopia public higher education institutions are moderately practicing compliance to the internal audit charter. This finding is consistent with the interview finding. All interview respondents stated that there was no internal audit charter in the Ethiopian public higher education institutions. But the public institutions used the internal audit legal framework of the country as an internal audit charter, because the legal framework contained the accountability, duties and responsibilities of the Ministry of Finance and Economic Cooperation of the country, Presidents of the universities and internal audit departments.

The existence of internal audit charter in public offices directly ensures the organizational independence of internal auditors and indirectly improves the effectiveness of internal auditors, which means, internal audit charter is very crucial for the internal audit effectiveness because the portion of independence and objectivity of internal auditors depend on internal audit charter (Van Peursem, 2004; Mulugeta & Gebrehiwot, 2008; Ebissa, 2015).

E. Quality of Internal Audit Work

This factor was explained by five variables, such as "annual audit plan is completely determined by the internal audit department", "internal audit department is able to cover (audit) all university units and all issues", "there is regular follow-up by the internal auditors to examine actions taken to correct the problems found", "internal auditors ascertaining the university compliance with university policies and procedures" and "audit working papers provide adequate documentary evidence for audit planning work done." The mean scores of these five variables were 4.04, 2.68, 2.5, 2.85 and 3.88, respectively. Based on these scores, these five variables are highly practiced, moderately practiced, little practiced, moderately practiced and highly practiced, respectively in Ethiopian public higher education institutions. The overall mean score of quality of internal audit work' was 3.39, which implies that the quality of internal audit work is moderately practiced in Ethiopian public higher education institutions.

If there is lack of follow-up to ensure whether corrective actions are taken or not as per the recommendations of the internal audit department, the impetus gained from audit recommendations will be lost and the credibility of internal audit will also suffer. Although internal audit office had well planned and how significant its findings the report may fall into disuse, if not high quality report (Mihret &Yismaw, 2007; Chartered Institute of Internal Auditors & National Audit Office, 2012).

F. Information Technology

According to confirmatory factor analysis results, this factor was explained only by one variable, namely "internal audit auditors possess enough skills of computerized information system or software packages." The mean score of this variable was 2.96, which indicates that this variable is moderately practiced in Ethiopian public higher education institutions.

In ancient time the major operation of the internal auditor was making an oral report to the responsible person, but at a current time, sophisticated electronic technology is required to give timely information for the users to make their appropriate decisions regarding the global operations (Fadzil & Hanim, 2003; Mohamud, 2013). Internal auditors needed to enhance their knowledge and skills of computerized information systems for the purpose of planning, supervising, directing, reviewing the work performed (Abu-Musa, 2008; Salehi & Husini, 2011; Al-Refaee & Siam, 2013; Deribe & Regasa, 2014), and to spend less time to perform content tests and accuracy of mathematical calculations of office accounts (Salehi & Husini, 2011; Al-Refaee & Siam, 2013; Deribe & Regasa, 2014).

G. Objectivity of Internal Auditors

The objectivity of the internal auditors' factor was explained only by one variable, namely "internal auditors' assignments are rotated periodically." The mean score of this variable was 3.88, which implies that this variable is highly practiced in Ethiopian public higher education institutions. The objectivity of internal auditors is one of the cornerstones of the internal audit profession, and the assurance services provided by the auditors derive their value and credibility also from the fundamental assumption of internal auditors' objectivity (Paape, 2007; Deribe & Regasa, 2014).

Table-3: Internal Audit Effectiveness

Internal Audit Effectiveness	**Strongly Agree**	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**	**Mean Score**	
Auditees' evaluation							
1. The evaluation of internal audit reports made by individuals in operation positions who were audited is positive.	6* (5) **	12(9.9)	14 (11.6)	61 (50.4)	28 (23.1	2.23	2.98
2. The evaluation of internal audit reports made by president was positive.	26(21.5)	39(32.3)	35 (28.9)	14 (11.6)	7(5.8)	3.52	
3. The president of the university is demonstrating a high level of satisfaction with the work of the internal audit department.	31(25.6)	40(33)	33 (27.3)	12 (9.9)	5(4.1)	3.66	

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4.	Those who are audited demonstrate a high level of satisfaction with the work of the internal audit department.	5(4.1)	12(9.9)	44 (36.4)	41 (33.9)	19 (15.7)	2.53	
Audit quality								
1.	Internal audit identifies risks and properly evaluates its control systems, thereby becoming a gatekeeper.	26(21.5)	42(34.7)	45 (37.2)	3(2.5)	5(4.1)	3.67	3.8
2.	The issues to be audited are decided after identifying risks, quantifying them and determining appropriate risk levels.	21(17.4)	63(52)	25 (20.7)	7(5.8)	5(4.1)	3.73	
3.	The internal audit findings and recommendations of the internal audit department are constructive.	37(30.6)	57(47.1)	20 (16.5)	6(5)	1(0.8)	4.01	
*** Frequency of responses, ** Percentages**								

Source: Field Survey (2018)

Based on the mean scores of the variables, as shown in Table-3, the detail discussion of the internal audit effectiveness of the two identified variables i.e. auditees' evaluation and audit quality is presented below.

H. Auditees' Evaluation

Auditees' evaluation variable is the proxy measure of internal audit effectiveness, which was explained by four variables, namely "the evaluation of internal audit reports made by individuals in operation positions who were audited is positive", "the evaluation of internal audit reports made by president was positive", "the president of the university is demonstrating a high level of satisfaction with the work of the internal audit department" and "those who are audited demonstrate a high level of satisfaction with the work of the internal audit department." The mean scores of these four variables were 2.23, 3.52, 3.66 and 2.53, respectively. Based on these mean scores, these four variables are found to be little effective, highly effective, highly effective and little effective, respectively in Ethiopian public higher education institutions. As the result indicates, the overall mean score of auditees' evaluation was 2.98, which implies that the internal audit effectiveness of Ethiopian public higher education institutions is moderate from the auditees' evaluation dimension.

I. Audit Quality

The audit quality variable is the other proxy measure of internal audit effectiveness. This factor was explained by three variables, namely "internal audit identifies risks and properly evaluates its control systems, thereby becoming a gatekeeper", "the issues to be audited are decided after identifying risks, quantifying them and determining appropriate risk levels" and "the internal audit findings and recommendations of the internal audit department are constructive." The mean scores of these three variables were 3.67, 3.73 and 4.01, respectively. Based on these mean scores, these four variables are highly effective in Ethiopian public higher education institutions. The overall mean score of audit quality is found to be 3.8, which implies that the internal audit effectiveness of Ethiopian public higher education institutions is high from the audit quality dimension.

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V. CONCLUSION

The recent corporate failure (Pickett, 2010), the wastage of public resources, and the rapid growth of professional institutions are the causes for the current demand of internal auditing in different institutions (Cohen & Sayag, 2010). Good audit system plays a great role for the effective administration and management of the national economy. Though the immediate objective of this study is to analyze the internal auditing practices and effectiveness in Ethiopian public higher education institutions, its primary objective is to initiate more future scientific studies in the area. The findings of this study indicated that the internal auditing practices related to organizational independence, adequacy and competence of internal auditors, internal audit charter, quality of audit work and information technology are moderately practiced in the Ethiopian public higher education institutions, but the internal auditing practices related to top management support and objectivity of internal auditors are little and highly practiced, respectively, in the Ethiopian public higher education institutions. Further, the findings of the study proved that the internal audit effectiveness in Ethiopian public higher education institutions from audit quality point of view is highly effective, but from the auditees' evaluation point of view, its effectiveness is moderate. Therefore, to improve the internal auditing practices and effectiveness in Ethiopian public higher education institutions, the responsible bodies, such as Ministry of Finance and Economic Cooperation of the country, Presidents of Ethiopian higher public education institutions, Board of directors of Ethiopian public higher education institutions should give more attention for the variables which were identified as little and moderately practiced in Ethiopian public higher education institutions. Moreover, as the findings of the study indicated, in most of the institutions under the study, there is no internal audit charter. Hence, the Ministry of Finance and Economic Cooperation should make a follow-up to ensure whether the Ethiopian public higher education institutions have prepared their own internal audit charter or not, because most of the time the independence of internal auditors and the objectivity of internal auditors depends on the internal audit charter of institutions (Van Peursem, 2004; Mulugeta & Gebrehiwot, 2008; Ebissa, 2015), i.e. internal audit charter briefly describes the relationship between internal auditors and management, the rights and duties of internal auditors, the accountability of internal auditors' and management, the responsibility of auditors and management, the benefits and rewards of internal auditors and the scope of audit work (Chartered Institute of Internal Auditors & National Audit Office, 2012; Ebissa, 2015).

The findings of this study will have their own contribution to the existing knowledge obtained from prior literatures. One of the limitations of this study is that the data for the internal auditing practices and effectiveness were collected from the same source, i.e. only from the internal auditors' of the institutions studied. Cohen and Sayag (2010) stated that the common method error often occurs if the data are collected from the same source. Future research is needed on this topic by collecting data from the management to measure the internal audit effectiveness of the institutions. Also, the findings of this study refer only to the Ethiopian public higher education institutions, i.e. generalization of these findings to other institutions and settings may not be appropriate. Thus, further research need to be conducted in other institutions and settings to prove the possibility of the findings of this study to other

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institutions and settings. Further, this study focused on the extent of internal auditing practices and effectiveness in Ethiopian public higher education institutions. As a result of this, future studies should take into account the determinants of internal audit effectiveness by using advanced statistical tools like the structural equation model. Cangur and Ercan (2015) stated that if there is a latent variable within one study, using the structural equation model is more preferable.

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