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E-mail: sasaamiya@gmail.com**THE ROLE OF AUDIT EFFECTIVENESS IN PUBLIC EXPENDITURE MANAGEMENT
THE CASE OF THE FEDERAL GOVERNMENT OF ETHIOPIA: A PRINCIPAL-AGENT
THEORY PERSPECTIVE****Summary**

Purpose - The aim of this research is to assess the role audit effectiveness in public expenditure management in the case of the Federal Democratic Republic of Ethiopia at the federal level.

Method - Primary data were collected from three federal government organizations that have direct involvement in the country's public financial management system. Structured questionnaires were developed and distributed to the auditors working in the federal office of general auditors (OFAG), the ministry of finance (MOF), and the public procurement and property administration agency (PPPAA). Out of the 358 questionnaires distributed to respondents, 308 were collected, and the analysis was performed.

Results - The findings of this research mostly support the relationships that were hypothesized in the theoretical model. The MOF should create an interface with budgetary institutions to exchange information regularly. Implementing the results of the study profoundly improves the public expenditure management of the country and increases the efficiency of the government's services.

Key Words: audit, competence, independence public expenditure, structural equation.

UOT: 336.1**JEL: M41, M42****Introduction**

An audit is an independent examination of the financial statements of an organization with a view to forming an opinion as to the truth and fairness of the statements. Audits are undertaken to lend credibility to financial statements for use by people other than those who prepared them (Ogochukwur, 2011). Since auditing provides objective, independent evaluations of whether public resources are managed responsibly and effectively to achieve the desired results, it is a fundamental component of good public sector governance. An efficient public sector audit improves governance by significantly raising citizens' capacity to hold their public sector entity accountable [1].

There has been an increasing demand for Supreme Audit Institutions (SAIs) to contribute to the strengthening of democracy and to social and economic stabilization. SAIs are important when providing trust to society and the international market. This is done by performing audits focused on good public governance, accountability, and transparency in the use of public resources by government leaders and public managers [2].

Statement of the problem

Public sector auditing can be described as a systematic process of objectively obtaining and evaluating evidence to decide whether the information or the actual conditions conform to set-up criteria. According to [3], public sector auditing is essential in that it provides legislative and oversight bodies, those charged with governance, and the public with information and independent and objective assessments regarding the stewardship and performance of government policies, programs, or operations. SAIs serves this aim as important pillars of their respective national democratic systems and governance mechanisms and plays a significant role in enhancing public sector administration by emphasizing the principles of transparency, accountability, governance, and performance.

In the past two decades, the Ethiopian economy showed double-digit economic growth, however, this economic growth could not be continued for several reasons. The global financial crisis from 2008 to 2009-affected economic growth: the crisis had a profoundly severe impact on the region. It

has led to a decrease in the region's real growth rate by between 4 and 4.5 percentage points [4]. It has experienced strong, broad-based growth, averaging 10.3% a year from 2005-06 to 2015-16, compared to a regional average of 5.4%. The main development challenges that Ethiopia faces are sustaining its positive economic growth and accelerating poverty reduction, which requires progress in job creation and improved governance [5]. Despite its astonishing and successive economic growth in the region, Ethiopia still faces many economic challenges and is one of the poorest countries.

Hypothesis

H1: Auditor competence has a significant effect on public sector audit effectiveness

H2: Auditors' independence has a significantly affects public sector audit effectiveness

H3: Government support has a significant impact on public sector audit effectiveness.

H4: The independence of the audit organization has a significant impact on audit effectiveness in the public sector.

H5: Effective Public Sector audit has significant effect on Public expenditure management

Definition of the public sector

Defining the public sector is difficult due to the complexity of the delineation. However, the literature suggests that the public sector can be defined in terms of source of funding, ownership and control, direction or regulation, or the provision of social services [6]. In general, the public sector consists of governments and any publicly controlled or publicly funded entities, corporations, and other entities that provide public programs, goods, or services.

The public sector plays an enormous role in society. In most authorities, public spending accounts for a huge part of gross domestic product (GDP), and public sector entities are important employers and key players in the global capital market economy [7]. Governments also have a role to play in promoting justice, peace, and order and sound international relations. Good governance can improve an organization's leadership, management, and oversight, leading to interventions that are more effective and better outcomes and People's lives are improved. The public sector is typically thought of as the part of the economy historically administered and controlled by the government on the people's behalf. As a result, the

government makes decisions about how to use public resources and handles them [8].

Definition of Public Sector Audit

Before preceding any further, working definitions and the purposes of two diverse types of audits in the public sector, namely financial audits (including compliance) and performance audits are provided [9]. Compliance auditing refers to the traditional forms of an audit that next to financial auditing has been known since Ancient Egypt and China. The concept of independence and self-reliance of state auditors was clearly established, the integration of relevant laws in financial system auditing was put in place, and the essential institutional structures of public auditing, namely audit chambers led by the Auditor General, were established [10]. Performance auditing is defined as an impartial assessment of the economy and efficiency of auditee activities, as well as the efficacy of public-sector programs [11].

Public sector audit is conducted to protect public-owned resources by ensuring adequate accountability; upholding standards of conduct in the public service, and helping public services get value for money [12]. The International Organization of Supreme Audit Institutions (INTOSAI) defines public sector auditing as an examination of the operations, activities, and systems of a given entity to verify that they are being carried out or functioning following specific goals, budgets, rules and requirements [13]. Because the public sector's ability to deliver services successfully and carry out programs in a fair and proper manner is measured primarily by its ability to provide services, public sector audit activities should have the authority and competency to evaluate financial and program compliance, effectiveness, economy and efficiency. Auditors must also safeguard the public sector's basic principle, as it serves all citizens.

Theoretical framework

The Lending Credibility Theory

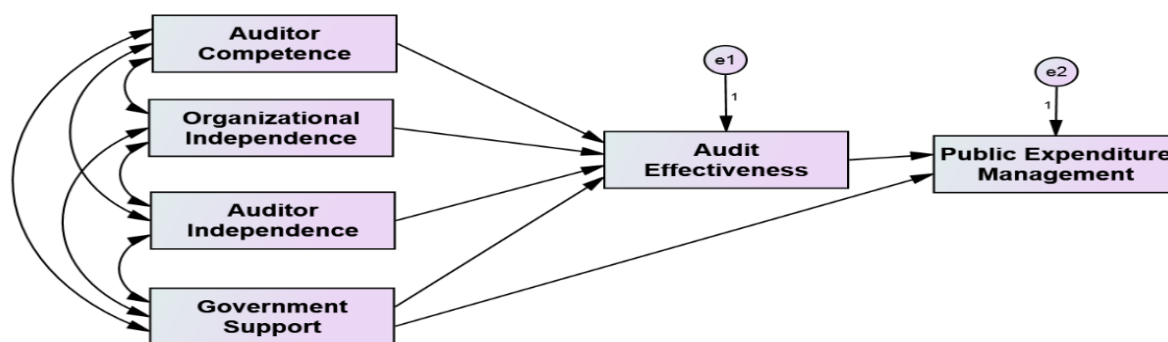
According to this theory, the audit's main goal is to provide credibility to financial statements. From this perspective, the service that the auditors are providing to their clients is reliability. Users of financial statements notice aspects in audited financial statements that give them more confidence in the data supplied by management (in the financial statement). Users are seen to gain from improved credibility, which is often thought to imply

that the quality of decisions improves when they are based on accurate information [14].

Principal Agency Theory

When one or more principals (for example, an owner) hire another individual to act as their agent (or steward), they create an agency relationship. Because of providing this service, the agent is given some decision-making authority [15]. The term "agency" refers to the delegation of decision-making authority to agents who act on behalf of principals (C.R. Krishnaswamy, 1994). The principal's delegation of responsibility and the resultant division of labor aid in the promotion of a productive and efficient economy. The delegation, on the other hand, needs the principal's faith in an agent to act in the principal's best interests [16]. In the government sector and its internal and external

relationships, such as outsourcing and public-private partnerships, agency theory has been applied. The primary concept of the theory is that if both actors in a principal-agent interaction want to maximize utility, the agent will not always work in the principal's best interest. According to [17], a principal-agent relationship exists in the public sector. Officials working as the principal (public) agent must answer the principal regularly for their resource usage and stewardship and the extent to which the public's aims have been met. The Ethiopian Federal Government distributes public funds or resources to Federal budgeting entities based on the degree and extent of implementation of the country's strategic plan. Public institutions must use resources in an efficient and effective manner to achieve their goals.



Conceptual Model (developed by author).

Research Methodology

To test the research hypothesis stated above, a quantitative approach was used using survey methods. The data was collected from three federal government offices. Questionnaires were the instruments used to collect the data from auditors working in the ministry of finance, the public procurement and property administration agency, and the office of the federal auditor general of Ethiopia. They were distributed manually to assess the role of audit effectiveness on public expenditure management and to test the proposed hypothesis, using the structural equation model to forecast the result using confirmatory factor analysis. 358 structured questionnaires were distributed and 321 were collected; however, only 308 questionnaires were complete and fully answered, which is acceptable for structural equation modeling (SEM) techniques AMOS 23 software was used for data analysis purpose [18].

Results and discussion

Sample characteristics

Most of the respondents 191, (62%), are male auditors, while the remaining 117 (38%), and are female auditors. A considerable number of respondents (115, or 37.3%) are between the ages of 20 and 29. The educational background of the auditors 193 (62.7%) of the respondents are bachelor's degree holders, 113 (36.7%) are master's degree holders, and the two remaining (0.6%) are Ph.D. degree holders. This indicates that the auditors have a good educational background.

Confirmatory Factor Analysis and Reliability Test

The construct and scale validity and reliability were assessed using Confirmatory Factor Analysis (CFA). To accomplish this, a measurement model consisting of six latent constructs was estimated, as shown in Figure 1, the results of which are shown in Table 1. Model fit was assessed using ($\chi^2 = 278.324$, $df = 134$, $\chi^2/df = 2.077$, ($p < 0.001$), SRMR = .0368 and RMSEA = .059,

Incremental Fit Index (IFI) = 0.963, Tucker Lewis Index (TLI) = 0.953, Comparative Fit Index (CFI) = 0.963 the estimated model fits the data well, and all indices are within acceptable limits. The discriminant and convergent validity for the measurement model are shown in the above table, with a composite and average variance extracted. According to [19], CR > 0.70 and AVE > 0.50 are the

acceptable thresholds for the composite reliability and discriminant validity of constructs. As a result, the SEM measurement model meets the required cutoff point for confirmatory analysis. When the coefficient of Cronbach's alpha, the internal consistency criterion, is greater than 0.70, the measurement items' internal consistency is satisfied [20]

Table 1.**Measurement Model**

Construct and Items	β	T-value (Significance)	(AVE)	(CR)	α
Auditors competence			0.658	0.852	0.848
AC1	.79	Fixed			
AC2	.88	15.897***			
AC3	.76	14.441***			
Organizational Independence			0.737	0.849	r 0.737 p < 0.001
OI 4	.87	Fixed			
OI 5	.85	15.778***			
Auditor Independence			0.688	0.887	0.902
ADI1	.82	Fixed			
ADI2	.80	15.765***			
ADI3	.86	18.119***			
ADI5	.84	17.039***			
Government support			0.625	0.869	0.857
GOV2	.80	Fixed 15.897***			
GOV7	.85	14.441***			
GOV9	.76	13.424***			
GOV10	.75				
Audit Effectiveness			0.72	0.885	0.882
EA1	.93	Fixed			
EA2	.87	20.799***			
EA7	.74	16.136***			
Public Expenditure Management			0.67	0.857	0.875
PEM3	.82	Fixed			
PEM4	.74	16.975***			
PEM5	.88	15.703***			

Table 2**Fornell-Larcker criterion**

Const- ructs	GOV	ACOM	PEM	OI	AEF	AI
GOV	0.791					
ACOM	0.499***	0.811				
PEM	0.707***	0.570***	0.816			
OI	0.689***	0.576***	0.609***	0.858		
AEF	0.607***	0.586***	0.618***	0.592***	0.849	
AI	0.721***	0.517***	0.725***	0.703***	0.642***	0.83

Note: **GOV**=government support, **ACOM**=Auditor Competence, **PEM**=public expenditure management, **I**= organizational Independence **AEF**=Audit effectiveness, **AI**=Auditor Independence

Fornell-Larcker Criterion: Diagonal elements (bold) are the square root of variance shared between the constructs and their measures (AVE). Off-diagonal elements are the correlation among

constructs. For discriminant validity, diagonal elements should be larger than the off-diagonal elements. In addition, the square root of the AVE was larger than the inter-construct correlations [21],

showing that the discriminant validity was attained.

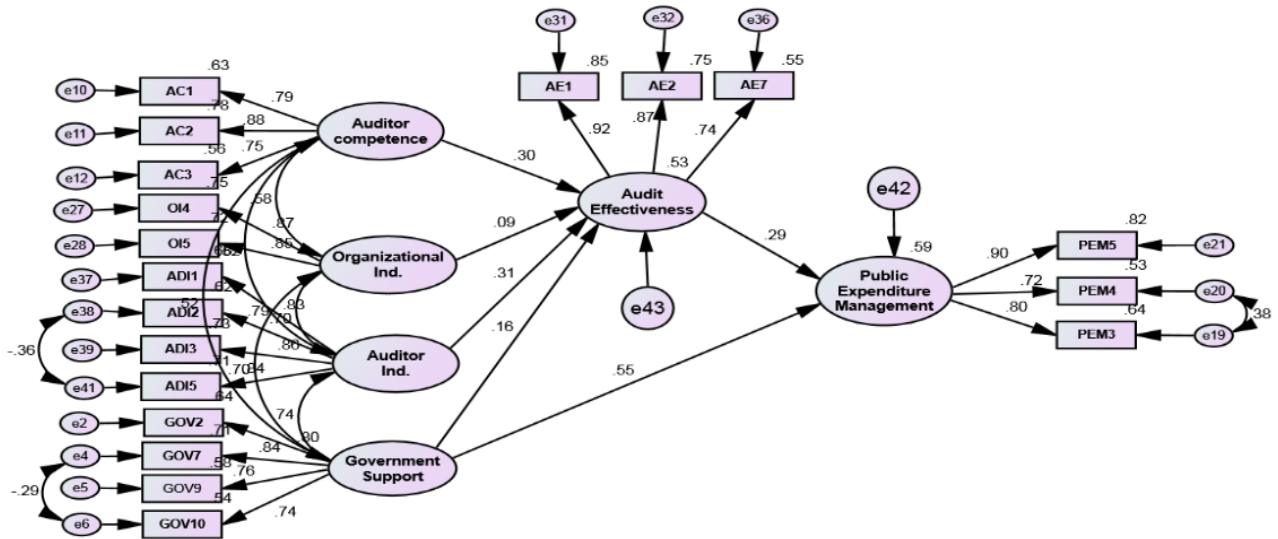


Figure 2

Model 1. $Audit_Effectiveness = \beta_0 + \beta_1 Com + \beta_2 Aud_Ind + \beta_3 Org_Ind + \beta_4 Gov_supp + \epsilon$

Model 2. $PEM = \beta_0 + \beta_1 Audit\ Effectiveness + \beta_2 Government\ support + \epsilon$

Table 3

Regression weights		Estimates	standardized estimates	p value	SRC	
Endogenous variables	Audit effectiveness	.365	.296	<0.001	53	
	PEM	Organizational independence	.110	.093	.280	59
		Auditor independence	.447	.311	<0.001	
		Government Support	.239	.161	0.056	

Table 3 above shows the square multiple correlations for audit effectiveness was 0.53, indicating that auditor competence, organizational independence, government support, and auditor independence accounted for 53% of the variance in audit effectiveness. The study assesses the role of audit effectiveness in public expenditure management. The square multiple correlations for public expenditure management were 0.59, showing the effect of the four independent variables through the mediating variable of audit effectiveness, and the direct effect of government support accounted for a variation of 59% in public expenditure management.

Mediation analysis

The mediation analysis was performed by treating auditor competence, organizational independence, auditor independence, and government

support as independent variables, audit effectiveness as a mediator variable, and public expenditure management as a dependent variable. Based on 5000 bootstrapping samples with 95% biased corrected confidence intervals, mediation analysis, which was performed using direct and indirect effects.

The mediation analysis (see table 5) revealed that the indirect effect of auditor competence on public expenditure management through audit effectiveness was found to be significant ($\beta = .086, p = 0.001$). This shows that the relationship between auditor competence and public expenditure management is fully mediated by audit effectiveness. The indirect effect of organizational independence on public expenditure management as measured by audit effectiveness was found to be positive but insignificant ($\beta = .027, p = .292$). This shows that

the relationship between organizational independence and public expenditure management is not mediated by audit effectiveness. The indirect effect of auditor independence on public expenditure management through audit effectiveness was found to be positive and significant ($\beta = .091$, $p = .001$). This shows that the relationship between auditor independence and public expenditure management is mediated by audit effectiveness. The total effect of government support on public

expenditure management ($\beta = .60$, $p = 0.001$) was positive and significant, but the indirect effect of government support on public expenditure management through audit effectiveness was found to be insignificant ($\beta = .047$, $p = .109$), showing that there was no mediation effect. The direct effect of the mediating variable, audit effectiveness, has a positive and significant effect on the dependent variable, public expenditure management.

Table 4.

Model Hypothesis Testing					
Relationship	Hypothesis	Standardized estimate	p-value	t- value	Decision
Auditor competence->Audit effectiveness	H1	0.296	0.001	4.598	Support
Organizational Independence->Audit effectiveness	H2	0.093	0.280	1.079	Not supported
Auditor Independence-> Audit effectiveness	H3	0.311	0.001	3.693	Support
Government Support->Audit effectiveness-	H4	0.161	0.056	1.913	Not supported
Government Support-> public expenditure management	H5	0.553	0.001	7.691	Supported
Audit effectiveness-> public expenditure management	H6	0.292	0.001	4.517	Supported

Table 5.

Mediation analysis							
Relationship	Total Effect	Direct Effect	Indirect Effect	Confidence Interval		P value	Conclusion
				Lower Bound	Upper Bound		
Auditor Competence->Audit effectiveness ->PEM	.086	-	.086	.031	.168	<.001	full Mediation
Organizational Independence->Audit effectiveness->PEM	.027	-	.027	-.026	.099	.292	No mediation
Auditor Independence ->Audit effectiveness->PEM	.091	-	.091	.025	.187	.002	Full mediation
Government Support >Audit effectiveness->PEM	.60	.553	.047	-.012	.130	<.109	No mediation
Audit effectiveness->PEM	.292	.292	-	.146	.435	<.001	Complete mediation

Conclusions

Based on the findings of the research, the following conclusions were drawn.

The main aim of the study is to examine the role of audit effectiveness in public expenditure management in the federal government of Ethiopia. The established model proposed the main factors that affect audit effectiveness and public expenditure management. An effective audit sys-

tem is part of the governance process to ensure accountability and responsibility in public-sector organizations. The lack of continuous training and development programs is the main challenge facing auditors in improving their competence. It can be concluded that auditor competence plays a significant role in improving both audit effectiveness and public expenditure management in the Ethiopian federal government. The auditor needs to be independent of both facts and appearance.

The mediating variable audit effectiveness has significant impact in public expenditure management in federal government Ethiopia. MOF audit departments should work with OFAG to exchange information about public sector institutions and a follow-up system. The procurement laws and regulations should be reviewed regularly so that loopholes can be addressed.

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РОЛЬ ЭФФЕКТИВНОСТИ АУДИТА В УПРАВЛЕНИИ ГОСУДАРСТВЕННЫМИ РАСХОДАМИ В СЛУЧАЕ ФЕДЕРАЛЬНОГО ПРАВИТЕЛЬСТВА ЭФИОПИИ: ПРИНЦИПАЛЬНАЯ ТЕОРИЯ ГЛАВНОГО АГЕНТА

Резюме

Цель исследования заключается в оценке роли эффективности аудита в управлении государственными расходами в случае Федеративной Демократической Республики Эфиопии на федеральном уровне.

Метод исследования - Первичные данные были собраны от трех федеральных правительственных организаций, которые имеют непосредственное участие в системе управления государственными финансами страны. Были разработаны и распространены структурированные вопросники среди аудиторов, работающих в федеральном офисе генеральных аудиторов (ФОГА), министерстве финансов (МФ) и агентстве по государственным закупкам и управлению имуществом (АГЗУИ). Из 358 вопросников, распространенных среди респондентов, было собрано 308, и на основе них был проведен анализ.

Результаты исследования - в основном, подтверждают отношения, которые были предположены в теоретической модели. МФ следует создать интерфейс с бюджетными учреждениями для регулярного обмена информацией. Реализация результатов исследования значительно улучшает управление государственными расходами в стране и повышает эффективность государственных услуг.

Ключевые слова: аудит, компетентность, независимость государственных расходов, структурное уравнение.

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EFİOPIYA FEDERAL HÖKUMƏTİNİN TİMSALINDA DÖVLƏT XƏRCLƏRİNİN İDARƏ EDİLMƏSİNDƏ AUDİTİN EFEKTİVLİYİNİN ROLU: BAŞ AGENTİN PRİNSİPİAL NƏZƏRİYYƏSİ

Xülasə

Tədqiqatın məqsədi federal səviyyədə Efiopiya Federativ Demokratik Respublikasında dövlət xərclərinin idarə edilməsində auditin effektivliyinin rolunu qiymətləndirməkdən ibarətdir.

Tədqiqat metodu - İlkin məlumatlar ölkənin dövlət maliyyə idarəetmə sistemində birbaşa iştirak edən üç federal hökumət təşkilatından toplanmışdır. Strukturlaşdırılmış sorğu vərəqələri hazırlanmış və Baş Auditorların Federal İdarəsində (BAFI), Maliyyə Nazirliyində (MN) və Dövlət Satınalmaları və Əmlakın İdarə Edilməsi Agentliyində (DSƏİEA) çalışan auditorlara paylanmışdır. Respondentlərə paylanmış 358 anketdən 308-i toplanaraq təhlil edilib.

Tədqiqatın nəticələri - əsasən nəzəri modeldə verilən əlaqələri təsdiqləyir. Maliyyə Nazirliyi müntəzəm məlumat mübadiləsi üçün büdcə qurumları ilə əlaqə yaratmalıdır. Tədqiqatın nəticələrinin tətbiqi ölkədə dövlət xərclərinin idarə edilməsini əhəmiyyətli dərəcədə təkmilləşdirir və dövlət xidmətlərinin səmərəliliyini artırır.

Açar sözlər: audit, səriştə, dövlət xərclərinin müstəqilliyi, struktur bərabərliyi.