

# DETERMINANTS OF INTERNAL AUDIT EFFECTIVENESS: EVIDENCE FROM SAUDI ARABIA

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## ABSTRACT

*This paper aims to examine the factors that influence the quality of internal audits in public administration in the Saudi socio-cultural context. The internal organization of audit bodies, the competence of auditors, process evaluation and the exogenous impact factors of an audit mission in the public administration are used to identify which of them affected the quality of internal audit in public Saudi administration. Data was collected from a questionnaire to gather information about 150 officials of different categories from some state audit bodies. First, factor analysis was conducted on several items to extract the underlying dimensions. Then, a bivariate analysis was performed to identify and analyse which factors influence the quality of internal audits in Saudi Arabia. The main results showed that the Saudi public internal audit bodies have an appropriate internal organization, make a good evaluation of the audit process and that the internal auditors are competent and independent. The results also showed a significant and positive relationship between these factors and the quality of the internal audit of the Saudi public administration.*

**Keywords:** Internal audits; Internal organization; Audit process; Saudi Arabia.

## INTRODUCTION

The question of improving the governance of organizations, both private and public, has never lacked interest in the literature. Business managers have implemented control systems that separate certain tasks to guard against fraud and protect assets. The problems which result from the separation of ownership and control have been debated at length (Jensen & Meckling, 1976; Fama & Jensen, 1983). For the past fifteen years, the focus has been on strengthening corporate governance (Arwinge, 2013,). Today, there is a growing emphasis on terms such as governance, organizational governance and corporate governance (Netter et al., 2009).

The problem thus raised is not the prerogative of private sector organizations alone, but also concerns public sector organizations. Indeed, there are strong similarities in the management of these various organizations in terms of accountability and strategic decision-making. Public services play a central role in the well-being, sustainability and growth of communities, cities and nations.

Conflicts of interest and unethical behaviour are critical issues in defining and successfully implementing a system of governance and accountability of public service providers. Thus, in a context characterized by doubt, conflict, uncertainty and mistrust, any system which must establish accountability and transparency becomes a necessity. Quality assurance, a guarantee of good organizational practices, involves the establishment of self-observation, inspection, external monitoring of control systems and auditing. New developments in this direction seem to entrust this role to the audit committee (Sulaiman, 2017).

In the context of public administration, the establishment of such an accountability system (including social accountability and social audit) involves the participation of citizens-users-taxpayers-clients, hence new public governance in the sense of Osborne (2006;

2009). The Saudi Arabian public administration has set up several oversight bodies to improve the governance of public structures. In this logic, the reorganization of the state control structures was imposed and several decrees reorganizing the control and inspection bodies of the public administration in Arabia Arabia were born. The aim is to repress governance more effectively in the Saudi public administration. Thus, a focus on the factors that influence the quality of internal audits in the Saudi public administration constitutes the main objective of this article.

## LITERATURE REVIEW

The quality of the audit can be approached from several approaches. Indeed, according to Palmrose (2009), the audit must be able to assure the organization's risk control. Thus, the quality of the audit depends on the level of assurance offered. From the point of view of its purpose, Beatty (1989) assessed audit quality in terms of the level of accuracy, precision and reliability of financial statements. Wallace (1980) views audit quality in terms of its ability to reduce noise about publicly disclosed financial information.

From a process point of view, Ayadi (2013) adds that the quality of the audit depends, on the one hand, on its ability to discover any anomalies present in the financial statements and, on the other hand, on its ability to reveal the anomalies discovered. The quality of public internal audits can then be seen at several levels. The first level reflects the capacity of internal audit to understand and assess the formal quality of internal control processes (Brenneis et al., 2015). Systemic and systematic formal control over auditing is exercised over internal control, which is an organization is not just formal (Barnard, 1940). Indeed, social foundations can render the objective of organizational transparency of auditing opaque and even diminish auditor independence. A crucial aspect of auditor independence is linked to their inclusion in the strategic decision-making process and organizational management. To minimize the negative influence of these social considerations on the quality of his mission, the internal auditor must rely on his competence and his feeling (Ayadi, 2013). This evaluation logic, which can be qualified as an ex-ante evaluation of the quality of public internal audit, aims to create value for its beneficiaries and is based on the following hypothesis:

*H1: The competence of auditors positively affects the quality of internal audits in public administration.*

The auditors set up their due diligence in a socio-economic environment pursuing specific objectives. The level of audit risk control depends on the auditor's ability to identify dysfunctions that may hinder the achievement of audit objectives. This, in the particular context of public administration, is about the adaptability of internal audit work. Ultimately, it is a question of ensuring whether the techniques and means of control implemented by the auditors will make it possible to detect and explain the dysfunctions of the organization. This second factor in the quality of internal audit refers to the systems that should lead to the results (output approach) of the audit work.

*H2: The internal organization of audit bodies has a positive impact on the quality of internal audits in public administration.*

Vinten (19996) dealt with both the current scope of audit intervention and the scope of its objectives. Examining the actual audit process, they conclude that the quality of the audit depends on the appropriateness of the audit process in place. Sulaiman (2017) asserted that the efficiency of the audit process is an essential element of the four axes of audit quality: the independence of the auditor, the competence of the auditor, the internal

organization of the audit team and the evaluation of the audit process. In this sense, a better evaluation of the system put in place to accomplish the mission is a guarantee of its quality in public administration where the possibility of the auditor's influence by the auditee (Fearnley et al., 2005) or contestation (Lyer & Rama, 2004) are far from negligible.

*H3: Process evaluation improves the quality of internal audits in public administration.*

Audit company requires that compliance (programs with rules and practices with programs) be validated by auditors, concerning an alignment of the object of assessment with defined standards and benchmarks by the community of evaluators. In this regard, and according to Bruna et al. (2017a), any certification, labelling or verification of compliance is found to be located in time, in space, including cultural space. The assessment is then sensitive to the value systems, axiologies and ethos prevailing within a space (Bruna et al., 2017a). In this so-called outcome approach to the quality of internal audit, it is a question of seeing the participation of internal audit in the quality of the decision-making process and the organizational functioning of the public administration.

In this sense, the audit should adopt new complementary social audit methods and techniques (Bruna et al., 2016; Bruna et al., 2017b) to find the social pillars of " better governance of public organizations. This approach is part of the ex-post assessment of the quality of public internal audit and explains the interrelationship between the social foundations and the quality of public internal audit. Fama and Jensen (1983) concluded that the competence and independence of the auditor are in fact under very strong pressures. Along the same lines, Goldman & Barlev (1974) assert that different sources of pressure induce different types of conflicts of interest which can lead the auditor not to remain independent when formulating his judgment. Socio-cultural and politico-legal factors also have influence on the adoption and implementation of management control systems in Saudi local communities.

*H4: Exogenous pressures negatively influence the quality of internal audits in public administration.*

## METHODOLOGY

Data is collected from a questionnaire. A total of 150 officials of different categories from some state audit bodies are invited to choose on a three-point Likert scale; disagree (1), neutral (2), and agree (3), the propositions that correspond to their perceptions. After the surveys were carried out, we used a simple encoding of the data, carried out progressively by ourselves. This involves listing by item the number of scores assigned by respondents. We performed a Cronbach alpha test on the resulting database to ensure the consistency and internal reliability of the items constituting each variable. The alpha coefficient indicates the extent to which it is possible to add the scores of the different items to obtain an overall score for the scale. Reliability of more than 0.80 is good; reliability in the range of 0.70 is acceptable and reliability of less than 0.60 is considered poor. To examine the relationships between the independent variables taken individually and the dependent variable, Pearson's chi-square test was used to investigate these possible associations. The methodology used is based on the Logit and Logit multinomial models. We estimated a logit equation to show the extent to which explanatory variables influence the likelihood that the quality of internal audits depends on them.

## STATISTICAL ANALYSIS

The aim here is to present, on the one hand, the analysis of the internal consistency of each variable, to lead to a descriptive analysis of each of them and, on the other hand, the validation of the hypotheses. Table 1 shows the results of Cronbach's alpha test.

Factor	Variable	Alpha-Cronbach	Number of Items
The internal organization of audit bodies	OI	0,654	04
Competence of State internal auditors	CAA	0,559	04
Evaluation of the internal audit process	EP	0,753	09
Exogenous factors affecting the impact of an audit assignment	FE	0,693	04
Quality of internal audit	QUI	0,826	04

The results of this table show that all the variables have an alpha coefficient greater than 0.6. They therefore all have internal reliability that is at least acceptable for analysis. This internal reliability of the variables led us to the analysis by comparison of the single sample mean of each variable.

	T	Ddl	Probability	Mean difference	95% confidence interval	
					Lower	Upper
OI1	1,782	112	0,077	0,159	-0,02	0,34
OI2	4,656	112	0,000	0,345	0,20	0,49
OI3	7,220	112	0,000	0,522	0,38	0,67
OI4	7,236	112	0,000	0,531	0,39	0,68
CAA1	1,677	112	0,000	0,119	0,005	0,235
CAA2	9,968	112	0,113	0,451	0,345	0,56
CAA3	16,251	112	0,000	0,823	0,72	0,92
CAA4	17,360	112	0,000	0,779	0,69	0,87
EP1	10,604	112	0,000	0,659	0,52	0,68
EP2	7,985	112	0,000	0,531	0,40	0,66
EP3	8,544	112	0,000	0,469	0,36	0,58
EP4	7,307	112	0,000	0,469	0,34	0,60
EP5	10,294	112	0,000	0,646	0,52	0,77
EP6	7,585	112	0,000	0,743	0,55	0,94
EP7	10,333	112	0,000	0,637	0,51	0,76
EP8	9,359	112	0,000	0,487	0,38	0,59
EP9	7,042	112	0,000	0,451	0,32	0,58
FE1	-5,241	112	0,000	-0,398	-0,55	-0,25
FE2	-4,257	112	0,000	-0,327	-0,48	-0,18
FE3	1,181	112	0,240	0,088	-0,06	0,24
FE4	-1,766	112	0,080	-0,124	-0,26	0,02
QUI1	3,907	112	0,000	0,327	0,16	0,49
QUI2	3,556	112	0,001	0,292	0,13	0,45
QUI3	4,362	112	0,000	0,336	0,18	0,49
QUI4	9,448	112	0,000	0,611	0,48	0,74

Reading Table 2 shows a positive value for the Student T statistic for all items at the 1% level except item OI1 which also shows a positive but significant link at the 10% level. This confirms that state audit bodies have an average practice of internal organization and that this has a link with the quality of internal audit.

The Student T statistic is positive and significant for all items at the 1% level, except the CAA2 item which also shows a positive but non-significant link. We can therefore say in general that all internal state auditors have the average competence enabling them to carry out their mission.

The Student T statistic is positive for all items. We can therefore conclude in general that during the missions there is an average evaluation of the process. This shows that at the 1% threshold, the assessment of the audit process has a significant positive link with the quality of the internal audit.

Items FE1 and FE2 have their Student's T value negative but significant at the 1% level while item FE4 has its Student T value negative but significant at the 10% level. As for item FE3, its Student's T value is positive but not significant. All in all, the religious and ethnic affiliation (FE1 and FE2) and the administrative attachment of the internal audit department do not seem to have any connection with the quality of the internal audit of the Saudi public administration. Only the financial capacity and financial autonomy of the members of the internal audit team (FE3) seems to have a weak link with the quality of internal audit.

Reading this table shows a positive value for the Student T statistic for all items at the 1% level. This confirms the quality of the work of the state internal auditors in our sample. In general, we can conclude that state internal audit bodies leave a positive impact on the quality of work on average when they pass through state structures.

The ultimate aim of this article is to examine the influence of several factors on the effectiveness of internal audit engagements in the Saudi public administration. This analysis, which is carried out between audit quality and each of the explanatory variables, was based on Pearson's chi-square test to confirm or invalidate the link between the variables (dependent and independent), then on a Logit regression. Multinomial which served as the basis for the verification of the hypotheses.

The results of this table show a significant positive link at 5% and 10% respectively between the independent variables "Evaluation of the audit process", "internal organization of audit bodies" and the dependent variable "quality of the internal audit". The link is positive but weak and less significant between the variable "auditor competence and advantages" and the variable "internal audit quality". However, there is a virtual absence of a link between the independent variable: "exogenous factors" and the dependent variable: "quality of the internal audit" of the Saudi public administration.

For the model of the equation, from all the factors contained (or explanatory variables of the model), we were able to measure the probability of production of the event, i.e., the probability that a factor is contained in the final equation and is significant in predicting the quality of internal audit in the Saudi administration. Thus, among all the factors retained in the model, we stand out those which are the most relevant and the most discriminating in.

	<b>Parameter</b>	<b>St. Error</b>	<b>Wald</b>	<b>DDL</b>	<b>Probability</b>	<b>Exp(B)</b>
Constant	0,113	1,552	0,005	1	0,942	
[OI =2,00]	0,731	0,405	3,263	1	0,071	0,482
[CAA =2,00]	0,367	0,424	0,751	1	0,386	1,444
[EP =2,00]	0,868	0,438	3,940	1	0,047	2,383
[FE =2,00]	0,335	1,513	0,049	1	0,825	0,716

This table makes it possible to highlight the factors retained in this model and to identify those which are retained as being significant for the model.

It shows that among the four starting factors of the model used, two are significant at the 10% and 5% threshold. These are an internal organization (OI) and audit process evaluation (EP) factors. These two factors that are found to be significant are more likely to be part of the group of factors for the quality of public administration internal audit. The odds ratios are 0.482 and 2.383 respectively for these significant factors.

The values of the Odds Ratio given by column Exp (B) associated respectively with the variables "Internal organization" and "Evaluation of the audit process" are 0.482 and 2.383. Indeed, there is respectively approximately 1 time more chance and 3 times more chance that the quality of the internal audit is influenced by the variables "Internal organization" and "Evaluation of the audit process". The positive coefficients obtained for these variables suggest that the internal organization of public audit bodies and the evaluation of the audit process led to the strengthening of the quality of internal audit of public administration.

These results thus confirm hypotheses 2 and 3 which respectively stipulate that the internal organization of organs has a positive impact on the quality of internal audit in the Saudi public administration and that the evaluation of the process improves the quality of the internal audit in the Saudi public administration.

Indeed, the skills and advantages of auditors are positively associated with the quality of the audit. Despite the low significance of the dependence of the quality of the internal audit on the skills and advantages of the auditors, these results confirm the first hypothesis of this research which states that the competence of the auditors positively affects the quality of the internal audit in Saudi public administration. However, the relationship between exogenous factors and the quality of internal audit is negative, but not significant. Although the logistic regression shows a new element regarding the negative influence of exogenous factors on the quality of internal audit, the very low significance of this influence confirms the chi-square test which shows a virtual absence of a link between these two variables. We can therefore retain that these results invalidate the last hypothesis which predicts that exogenous factors negatively influence the quality of the internal audit of the Saudi public administration.

## CONCLUSION

In a hypothetico-deductive approach, this article has studied a certain number of factors influencing the quality of public internal audit resulting from the modified theoretical framework of DeAngelo (1981), Chemangui (2009) and Manita & Elommal (2010). The data is collected by questionnaire from several Saudi public internal audit bodies. The various statistical tests carried out have shown, on the one hand, that the Saudi public internal audit bodies have an appropriate internal organization, make a good evaluation of the audit process and that the internal auditors are competent and independent. The results also showed a link between these factors and the quality of the internal audit of the Saudi public administration and that these technical and professional parameters positively influence it. However, the article did not, on the one hand, find a link between the quality of public internal audit and the poor governance of the Saudi administration and state-owned enterprises. On the other hand, research has not been able to justify the successive transformations of certain public audit structures by the quality of their services. The other limitation of this research is linked to the fact that the article was unable to address the quality of internal audit in its outcomes approach, i.e., its influence on the quality of the decision-making process strategic decision and operational management.

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