



The Role of Internal Audit Function on Performance of Public Higher Learning Institutions in Tanzania: A Case of the Institute of Accountancy Arusha

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Abstract: *This study investigated on role of internal audit function on performance of public higher learning institutions in Tanzania using the descriptive correlational design. From 306 staff members, 103 were selected through the simple random sampling and 83 filled and returned the questionnaires. Data was analyzed through descriptive statistics and regression analysis. The organization was found to be doing well in risk management and control mechanism aspects as part of the internal auditing function. There are adequate human and material resources for internal audit function. The internal audit staffs are qualified and the management supports the internal audit initiatives with ICT facilities and adequate budget. While risk management, control mechanism and availability of resources significantly predicted the organizational performance, governance process did not. Availability of resources for internal auditing was the best predictor for the organizational performance. It is therefore recommended that the organization should maintain the existing risk management strategies and regular presentation of risk management reports as such aspects contribute to the organizational performance. Since risk management, control mechanism and availability of resources are significant predictors for the organizational performance, there is need to keep improving the control mechanism and provide required resources for effective internal audit function.*

Keywords: Internal audit, function, effectiveness, Risk management, control mechanism, performance.

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Introduction

While internal audit function is important to public sectors, it is of great concern in higher learning institutions which Nwabueze (2011) in Francis and Imiete (2018) described as the industry that processes the manpower for socio-economic, political and cultural development of

any society. This study is justified by Siyaya, Epizitone, Jali and Olugbara (2021) who conducted a research on determinants of Internal Auditing Effectiveness and established that little research on internal audit has been conducted in the context of institutions of higher learning. The authors further argued that the most influential

determinants of internal audit function can serve as a useful barometer to identify weaknesses and strengths. This can enable auditees to identify the extent to which value can be added to the local and global performance through automation, information and transformation effects.

Manyama (2020) conducted a study on effectiveness of internal audit function in Tanzania: A case study of Arusha District and established that internal audit function is not effective since top management, inadequate internal audit staff and lack of training on part of the internal audit staff do not adequately support the internal auditors. The study recommended the allocation of more resources to support recruitment of audit staff as well as support in periodic training. Urquia (2018) conducted a study on the effect of internal control system on financial performance in an institution of higher learning. The study found that management of the institution is committed to the control systems. It was also revealed that all revenues and expenditures were properly classified, assets of the University had increased and internal control system was positively correlated with financial performance. These findings suggest a relationship between internal audit function and the organizational performance.

Tulli (2016) studied on challenges facing internal auditing function in improving organizational performance in Tanzania, using a grounded theory strategy and revealed that structural limitations and capability deficiencies in terms of staffing, funding and lack of working facilities were key challenges that faced the audit department. Mahyoro and Kasoga (2021) investigated on attributes of the internal audit function and effectiveness of internal audit services: evidence from local government authorities in Tanzania and established that audit quality, organization setting and auditee attributes have a significant positive influence on the effectiveness of internal audit services in the country. Shio (2019) investigated on factors influencing the effectiveness of the functions of internal audit in the Tanzanian Ministry of Education, Science and Technology. The study established that the internal audit function is inadequately performed in public organizations due to the reason that internal auditors have a lot of responsibilities to fulfil than their capacity. The study recommended that management should allow the internal auditors to

carry out the responsibilities in a free and independent manner in order to make appropriate judgments.

Furthermore, internal audit function has a significant contribution in strengthening internal control, hence becoming one of the key tools for corporate governance (Lerno, 2016). Salisu and Ransom (2014) pointed out that internal audit function provides information that is useful for managerial decision making, identification of organizational strengths and weaknesses, ensuring best management of resources, assisting social responsibility and minimizing organizational potential risks. Due to this, the Bank of Tanzania has made it mandatory for organizations to ensure effective internal audit functions (Ngopa, 2013). Furthermore, the Government of Tanzania has made laws and regulations that make it mandatory to have internal audit functions in all departments and institutions of the government. This is notable through the creation of the position of the Internal Auditor General (IAG) of the Government, which is independent to coordinate all internal audit activities both at the central and at the local government levels. Moreover, the National Board of Accountants and Auditors in Tanzania (NBAA) made a pronouncement on the adoption of International Professional Practices Framework (IPPF) issued by the Institution of internal Auditors (IIA) as a standard for internal audit in Tanzania (Mussa, 2015). This study focused on the role of internal audit function on the performance of higher learning institutions in Tanzania. The study was guided by the following research questions:

1. What is the effectiveness of the internal audit function in terms of (a) risk management, (b) control mechanism, (c) resources for internal auditing?
2. What is the perception of employees at the Institute of Accountancy Arusha on the performance of the organization?
3. Is there a significant effect of the internal audit function on the organizational performance at the Institute of Accountancy Arusha?

Research Methodology

Research Design

This study employed the descriptive correlational research design. The first two research questions

were descriptive in nature while the third research question sought to establish the relationship between the independent and the dependent variables.

Population and Sampling

While there are five public higher learning institutions in Arusha, the Institute of Accountancy Arusha was selected through simple random sampling to represent others. The Institute had a total of 306 staff members from whom 103 were selected through the simple random sampling procedure. Of these, 83 (80.5%) filled and returned the questionnaires. Males were 53 (63.9%) while females were 26 (31.3%). Those who did not disclose their gender were 4 (4.8%). Therefore, majority were males. In terms of work experience, 50 (60%) had the experience of five years or below, 5 (6.0%) had the experience of 6 to 10 while 22 (26.5%) had the experience of over ten years and 6 (7.2%) did not disclose their working experience. Therefore, majority had the experience of five years or below. In terms of level of education, 3 (3.6%) had secondary education, 33 (63.9%) had tertiary education, 17 (20.5%) had no formal education and 10 (12.0%) did not disclose their education level. Therefore, majority had tertiary education. This could be due to the nature of the organization under investigation. Being an academic institution of higher learning, one would expect to find more employees with tertiary education level.

Validity and Reliability

Validity of the questionnaire was established through expert judgment whereby two research experts and one experienced auditor looked into the items in the questionnaire against the research questions and gave their inputs on what should be done to improve it prior to data collection. The comments given were taken into consideration and therefore the questionnaire was valid.

Table 1: Reliability Test

Variable	Cronbach Alpha
Risk Management	.858
Control Mechanism	.876
Availability of Resources	.790

The researchers ensured the reliability of the questionnaire by calculating the Cronbach's Alpha through the Statistical package for Social Sciences (SPSS) as indicated in Table 1. Since all the

variables scored the Cronbach's Alpha of above 0.7, the questionnaire was considered reliable for data collection.

Statistical Treatment of Data

Data was coded and analyzed using the Statistical Package for Social Sciences (SPSS). Particularly, frequencies and percentages were used to describe the demographic factors of respondents while mean scores and standard deviation were used to indicate the perception of respondents regarding the internal audit effectiveness and the organizational performance. Regression analysis, on the other hand, was used to establish the existing relationship between the independent and the dependent variables.

Results and Discussion

Descriptive Analysis of Data

The first two research questions described the perception of employees on the internal audit function and performance of the institution. Respondents were given items to indicate their agreement or disagreement under five options namely 5=strongly agree, 4=agree, 3=neutral and 1=strongly disagree. Interpretation of the mean scores was based on the following criteria: 1.00-1.49=strongly disagree, 1.50-2.49=disagree, 2.50-3.49=neutral, 3.50-4.49=agree and 4.50-5.00=strongly agree.

Research Question 1: What is the effectiveness of the internal audit function in terms of (a) risk management, (b) control mechanism, (c) resources for internal auditing?

The internal auditing function was measured through four sub variables namely risk management, control mechanism, governance process and resources for internal auditing. Each of these variables had some items in the questionnaire for respondents to indicate their agreement or disagreement.

Risk Management

The mean score for all items in table 2 ranged from 3.50 to 4.49 meaning to say, employees agreed with all the items regarding the risk management effectiveness. Particularly, they agreed that there are appropriate risk management strategies, risk management reports are prepared and presented at each quarter, the organization has an appropriate risk management policy and that the risk

champions initiate the risk management process.

They also agreed that the risk management policy is adequate, risk management is done effectively, significant risks are escalated to the Audit Committee and governing Board and there is budget for risk management mitigations. Therefore, the organization under investigation was found doing well in risk management as part of the internal auditing

function. According to Haseeb, Bibi, Qureshi and Khan (2014), risk management plays significant role in the accomplishment and completion of intended projects. Therefore, it is most likely that the higher learning institution under investigation can reach its intended goals and objectives due to optimized risk management strategies which actually avoid catastrophes that may interfere with development projects of the institution.

Table 2: Perception of Employees on Risk Management

SN	Risk Management Effectiveness Items	Mean	Std. Dev	Interpretation
1	There are appropriate risk management strategies	3.9268	.82821	Agree
2	Risk management report are prepared and presented at each quarter	3.8987	.65231	Agree
3	The organization has an appropriate risk management policy	3.8831	.79429	Agree
4	The risk champions initiate the risk management process	3.8434	.78836	Agree
5	The risk management policy is adequate	3.7901	.80181	Agree
6	Risk management is done effectively	3.7831	.71650	Agree
7	Significant risks are escalated to Audit Committee and governing Board	3.7831	.92457	Agree
8	There is budget for risk management mitigations	3.7407	.87718	Agree

Table 3: Perception of Employees on Control Mechanism

SN	Control Mechanism Items	Mean	Std. Dev	Interpretation
1	Quality Assurance Unit enhances the quality education	4.2439	.69497	Agree
2	There is proper recruitment policy for competent academic staff	4.1687	.65925	Agree
3	Academic staff are committed to provide quality education	4.1687	.60120	Agree
4	Management is committed to provide quality of education.	4.1446	.73472	Agree
5	There are adequacy of academic policies to ensure quality	4.0964	.61712	Agree
6	There is adequate quality assurance to promote education quality	4.0732	.64369	Agree
7	There is adequate internal control for academic performance	4.0370	.74907	Agree
8	Management monitors and evaluates organization activities	4.0120	.68954	Agree

Control Mechanism

Control Mechanism was another ingredient under which the internal audit effectiveness was measured. Under this aspect, the mean score for all items in table 3 ranged between 3.50 and 4.49 meaning to say, employees agreed with all the items regarding the control mechanism.

Particularly, they agreed that quality Assurance Unit enhances quality education, that there is proper recruitment policy for competent academic staff members. They also agreed that academic staff members are committed to provide quality education and that management is committed to provide quality of education. They further agreed that there are adequate academic policies to ensure quality, there is adequate quality assurance to promote education, there is adequate internal control for academic performance and that management monitors and evaluates the organizational activities. This indicates that the organization did well in control

mechanism as part of the internal audit function. According to Zhang (2018), internal control plays an important role in corporate governance, and it has an important impact on to the organization in question.

Resources for Internal Auditing

Resources for Internal Auditing had eight items to which employees had to indicate their agreement or disagreement as indicated in table 4 (p. 12). The mean score for all items in the table ranged between 3.50 and 4.49 meaning to say, employees agreed with all the items regarding the resources for internal auditing. Particularly, they agreed that internal audit staffs are qualified, that there is effective communication for internal audit functions, that management supports the internal audit initiatives and that internal audit teams have satisfactory ICT services to fulfil their duties.

They also agreed that there is adequate budget allocated for internal audit, that internal audit teams have supportive working tools, that

internal audit teams have conducive working environments and that there is adequate number of staff who deal with internal audit. This means that the organization under investigation did well in terms of resources for internal audit as part of the internal audit function. These results are

commendable because scope of work by internal audit is affected by availability of resources (Asiedu & Deffor, 2017). The established availability of resources can enhance the internal audit function which may result to the optimized organizational performance.

Table 4: Perception of Employees on Resources for Internal Auditing

SN	Resources for Internal Auditing	Mean	Std. Dev	Interpretation
1	Internal audit staff are qualified	4.2222	.77460	Agree
2	There is effective communication in internal audit functions	4.0482	.81005	Agree
3	Management supports the internal audit initiatives	3.9880	.70700	Agree
4	Internal audit team have satisfactory ICT services to fulfil their duties	3.9024	.82566	Agree
5	There is adequate budget allocated for internal audit	3.8902	.84629	Agree
6	Internal audit team have supportive working tools	3.8889	.65192	Agree
7	Internal audit team have conducive working environments	3.8025	.81271	Agree
8	There is adequate number of staff who deal with internal audit	3.7625	.67961	Agree

Table 5: Organizational Performance

SN	Organizational Performance	Mean	Std. Dev	Interpretation
1	There is expansion of institution and academic programs	4.5181	.52641	Agree
2	There is achievement of the organizational strategic plan	4.2169	.60583	Agree
3	Staff development is effective at this institution	4.0361	.88958	Agree
4	The organization accomplishes its objectives as planned	3.9756	.71966	Agree
5	Staff social welfare is well managed	3.9157	.78406	Agree
6	There is a conducive working environment	3.7952	.93390	Agree

Table 6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.637 ^a	.405	.398	.39471
2	.695 ^b	.483	.470	.37044
3	.729 ^c	.532	.514	.35458

a. Predictors: (Constant), Resources

b. Predictors: (Constant), Resources, Control Mechanism

c. Predictors: (Constant), Resources, Control Mechanism, Risk Management

Research Question 2: What is the perception of employees at the Institute of Accountancy Arusha on the performance of the organization?

Since the mean scores for employees on the organizational performance was between 3.50 and 4.49, respondents agreed with all the items regarding the performance of the organization. They believed that there is expansion of institutional and academic programs, there is achievement of the organizational strategic plan and that staff development is effective. They also agreed that the organization accomplishes its objectives as planned, that the social welfare is well managed and that there is a conducive working environment.

Research Question 3: Is there a significant effect of the internal audit function on the

organizational performance at the Institute of Accountancy Arusha?

This research question called for hypothesis testing to determine whether the independent variable (internal audit function) affects the dependent variable (performance of the organization). The research question called for hypothesis testing through regression analysis as reflected in table 6 to 9. The null hypothesis stated: there no significant effect of the internal audit function on the organizational performance at the Institute of Accountancy Arusha.

Results of the regression analysis are indicated in table 6, 7, 8 and 9. While table 6 shows that three independent variables (risk management, control mechanism and availability of resources) are significant predictors of the organizational

performance, table 9 shows that governance process, with the sig of above.005, did not predict the organizational performance. Therefore, the null hypothesis is partly rejected since three out of four independent variables affect the dependent variable. While the multiple correlation coefficient (the relationship between organizational performance and the three independent variables) is .729, the coefficient of multiple determination is .514, which means 51.4% of the variance in the organizational performance is accounted for by availability of resources by 39.8%, control mechanism by 7.2% and risk management by 4.4%. Therefore,

availability of resources for internal auditing was the best predictor for the organizational performance while governance processes did not account for the organizational performance. These results differ from what Chiggai (2016) found out in Kenya that risk management was not significant in predicting the organization performance. The results Chiggai, however, matches with the findings of this study that control environment had a significant co-efficient with the organizational performance and that the increase in control activities by a unit leads to increased organizational performance.

Table 7: ANOVA^a

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.603	1	8.603	55.218	.000 ^b
	Residual	12.620	81	.156		
	Total	21.222	82			
2	Regression	10.244	2	5.122	37.327	.000 ^c
	Residual	10.978	80	.137		
	Total	21.222	82			
3	Regression	11.290	3	3.763	29.932	.000 ^d
	Residual	9.933	79	.126		
	Total	21.222	82			

a. Dependent Variable: PERFORMANCE

b. Predictors: (Constant), RESOURCES

c. Predictors: (Constant), RESOURCES, CONTROL

d. Predictors: (Constant), RESOURCES, CONTROL, RISK

Table 8: COEFFICIENTS^a

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	1.487	.351		4.234	.000
	RESOURCES	.659	.089	.637	7.431	.000
2	(Constant)	.792	.386		2.050	.044
	RESOURCES	.473	.099	.458	4.786	.000
	CONTROL	.346	.100	.331	3.459	.001
3	(Constant)	.601	.375		1.601	.113
	RESOURCES	.303	.112	.293	2.718	.008
	CONTROL	.305	.097	.291	3.148	.002
	RISK	.269	.093	.291	2.884	.005

a. Dependent Variable: PERFORMANCE

Table 9: Excluded Variables^a

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	Risk Management	.338 ^b	3.211	.002	.338	.593
	Control Mechanism	.331 ^b	3.459	.001	.361	.707
	Governance Process	.189 ^b	1.706	.092	.187	.586
2	Risk Management	.291 ^c	2.884	.005	.309	.580
	Governance Process	.173 ^c	1.661	.101	.184	.585
3	Governance Process	.119 ^d	1.163	.248	.131	.561

a. Dependent Variable: Performance

b. Predictors in the Model: (Constant), Resources

c. Predictors in the Model: (Constant), Resources, Control Mechanism

d. Predictors in the Model: (Constant), Resources, Control Mechanism, Risk Management

The results of the regression using the stepwise method indicated that the model explained 51.4% and that the model was a significant predictor of organizational Performance, $F(3, 79) = 29.932, p < .001$. Availability of resources ($\beta = .303, p < .001$), control mechanism ($\beta = .305, p < .001$), and risk management ($\beta = .269, p < .001$) contributed significantly to the model.

Conclusions and Recommendations

Conclusions

The Arusha Institute of Accountancy did well in risk management aspects as part of the internal auditing function. This is due to the fact that there are appropriate risk management strategies, risk management reports are prepared and presented at each quarter, the organization has an appropriate risk management policy, and the risk champions initiate the risk management process. The organization did well in control mechanism as part of the internal auditing function. The governance process was efficient as employees believed that there is open communication channel between the staff and the management and the governing councils contributed in achieving the institutional objectives.

There are adequate human and material resources for internal audit function. The internal audit staffs are qualified and the management supports the internal audit initiatives with ICT facilities and adequate budget. While risk management, control mechanism and availability of resources significantly predicted the organizational performance, governance process did not. Availability of resources for internal auditing was the best predictor for the organizational performance.

Recommendations

The Arusha Institute of Accountancy should maintain the existing risk management strategies and regular presentation of risk management reports as such aspects contribute to effectiveness of the audit function. The organization should maintain the current control mechanism, appropriate recruitment procedures, provision of human and material resources and effective communication strategies as part of the internal audit function which will enhance the quality of education. Since risk management, control mechanism and availability of resources are significant predictors of the organizational performance, there is need to keep improving the control mechanism and provide required resources for effective internal audit function to be further realized.

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