

## THE ROLES, CHALLENGES AND BENEFITS OF INTERNAL AUDITING IN ORGANIZATIONS

**Stanley Lazarus**

Department of Commerce  
Manipal Academy of Higher Education  
Karnataka, India

**Dr. Roslin Lazarus**

**Assistant Professor**

Professional Studies and Undergraduate Department  
College of Banking and Financial Studies  
Muscat, Sultanate of Oman  
E-mail: roslin@cbfs.edu.om

**Dr. Ambigai Rajendran**

**Associate Professor**

Department of Commerce  
Manipal Academy of Higher Education  
Karnataka, India

### ABSTRACT

*This research examined the roles, challenges & benefits of Internal Auditing in Organizations: Evidence from Oman. A semi-structured questionnaire based on research objectives was used to collect primary data from 141 respondents associated to various service, manufacturing and merchandising organizations in Muscat, Oman. Three areas were examined (i) Roles performed by IAD in organizations. (ii) Factors being a challenge for IA in organization. (iii) Benefits derived by organizations following internal audit practices. Factor analysis technique & T-test were applied to gauge the respondent's perception about the three areas of this study. The factor analysis findings revealed (i) three key factors were extracted of perceived roles performed by IAD in organization, explaining 61.015% of variance. (ii) Four key factors were extracted of the perceived challenging factors for internal audit in organization, explaining 63.358% of variance. (iii) And three key factors were extracted of the perceived benefits derived by organizations as result of internal audit practices, explaining 62.559% of variance. Moreover, the result of the three hypotheses revealed a P value of  $p < 0.01$ , thus, evinced that a significant role performed by the IAD in organizations, relevant benefits derived as result of internal audit practices & existence of challenging factor for IAD in organizations.*

**Keywords:** Internal Auditing (IA), Internal Audit Department (IAD), Organizations, Roles, Challenges, Benefits.

**JEL Classification Codes:** M42, Auditing.

## INTRODUCTION

In today's time of globalization of business, technological advancements, rapidly changing business environment, complex business operations, emerging risks, significant risk management failures, increasing market volatility & more frequent economic crises as compared to past, all such crucial factors can lead to business reputational loss, to regulatory and a significant financial impact. The survival and prosperity of any organization depends on the potentiality to attune to the rapidly changing business environment, to manage organizational risk and to ensure the business process & systems effectively working to successfully achieve its objectives. Thus, the need for effective and efficient governance and accountability in organizations has become a prominent element for overall success of the organization, along with the effective and efficient role of the internal auditing functions in an organization. IA is not only a business process risk and controls assurance functions but a combination of assurance and consulting that brings extensive insights in dealing with areas of emerging risks, employing an effective strategic plan, tactics & analytics in its functions.

In this context, IA assurance function assures that system and process are effectively working & planned business operations are successfully performed, with consultancy function ensures a best practice are applied, environment and regulatory guidelines are well complied and pose challenges for current practices to ensure improvement wherever required.

IA presents not only an independent affirmation of effective functioning of an organization's internal control system, risk management, governance processes but also makes a significant contribution in improving an organization's effectiveness and efficiency regarding its internal control processes, risk management, governance and compliance with corporate policies, procedures & business practices. Overall, IA function assist organizations at achieving financial, operational, and strategic goals with application of systematic & disciplined approach, adding value to its key functional areas and to the achieve sustainable success & growth.

At present time organizations vary in its objectives, size, nature of operation and structure & so is the internal auditing functions which is carried out in varied legal, environmental, and cultural domain. Hence, a study in this area is an attempt to gain & contribute an insight towards the perception with regards to roles performed by IAD, challenges faced by IAD in performing IA function and key benefits of IAD services attained by organizations.

## LITERATURE REVIEW

Numerous authors globally have undertaken the study on internal auditing covering varied areas of IA, some related research literature review in area of internal audit, role & challenges covered in this section.

Hung and Han (1998) investigated the factors that influence the effectiveness of internal auditing for listed firms in Taiwan. The findings revealed that professionalism is useful to increase the audited department head's perception of performance & on average, regular performance evaluation of internal auditors, positive attitude of controller to IA job, well-designed education & training of internal auditors are useful to enhance the management perceived performance. The results also revealed a significant influence on the performance of internal auditing department by some factors both inside and outside internal auditing department.

Keitany (2002) in his exploratory research design study and with the population of all companies active in the NSE and their external auditors on the IA control function and its implication for risk assessment by the external auditor. The study aimed to establish whether the existence of an adequate internal audit function translates into a strong internal system that can be

relied upon by the external auditor. Study concluded that though the extent of reliance of internal controls is not sensitive to the strength of IADs, companies should not do away with it, as a management tool, it should assist management in its day-to-day operations and not necessarily of relevance to the external auditor.

Coram, Ferguson, and Moroney (2008) assessed whether organizations with IA function are more likely to detect than those without IA function. They found that organizations with an IA function are more likely to detect fraud within their organizations than those that do not have IA function. Further, organizations that rely solely on outsourcing for their IA function are less likely to detect fraud than those that undertake at least part of their IA function themselves. Findings suggested that internal audit adds value through improving the control and monitoring environment within organizations to detect fraud. These results also suggest that keeping the IA function within the organization is more effective than completely outsourcing that function.

Kibet (2008) in this study on the role of internal audit in promoting good corporate governance in SOE's aimed to explore the role and the use of internal audit function in promoting good corporate governance in public sector enterprises and the challenges faced by the internal auditors in SOEs. The study followed an exploratory research design and with a sample of 43 state corporations was selected by way of geographical location and government shareholding, the population comprised of all SOEs with government equity of over 50% located in Nairobi. Time constraints and restricted to state owned corporations were the limitations & study concluded that internal audit function played a role in corporate governance.

Christopher, Sarens, and Leung (2009) examined the independence of the IA function through its relationship with management and the audit committee. Findings revealed a number of threats to independence stemming from internal audit's relationship with the audit committee. These threats include CAEs not reporting functionally to the committee, the audit committee not having sole responsibility for appointing, dismissing, and evaluating the CAE and not having all audit committee members or at least one member qualified in accounting.

Study by Lin, Pizzini, Vargus, and Bardhan (2011) reported that IA aid to improvement in internal control systems. Soh and Martinov-Bennie (2011) study result provide insights into the current roles and responsibilities of the IA function and the factors perceived to be necessary to ensure its effectiveness & suggested significant expansion and refocus of the role of IA and perceptions of its effectiveness. Ma'ayan and Carmeli (2016) stated that though the prevention and identification of fraud cases can be achieved through direct action by internal audit, the indirect influence of promoting the ethical culture in organizations is also part of this added value.

Drogalas, Pazarskis, Anagnostopoulou, and Papachristou (2017) explored the relationship between IA effectiveness, internal auditor's responsibility, training, and fraud detection. Result revealed that the detection of fraud audit positively and significantly affected by audit effectiveness, auditor responsibility and auditor training. Further, the importance of IA in detecting accounting fraud and the need of companies to invest on internal audit processes and training to achieve enhanced corporate performance is also highlighted by the result. While Carcello, Eulerich, Masli, and Wood (2020) examined whether internal auditing provides value to organizations by reducing risk & found that IA reduces the perceived risks of the audited units more compared to non-audited units & presented evidence suggesting that audited units perceive greater improvements in performance relative to non-audited units.

In addition to roles & benefits of IA, challenges for internal audit exist such as expectations of various stakeholders. Management considers IA for not only assurances but also beyond this core assurance role in quest of a greater return for the organization's IA investment & at building,

maintaining, and improving shareholder value in challenging business environment. Regulatory bodies also have expectations from IA. Moreover, application of new technologies in business operations, it is important for IAD to be vigilant of security risk to avoid any exposure to cyber-attacks. Failing to protect business data could result in serious implications such as financial losses, a temporary or permanent loss of data files, networks, or damage systems software functioning, can result to loss of business clients, negatively impact on the brand's reputation & quality of service. Another, challenge can be shortage of qualified & experienced employees to work in IAD, companies sometimes struggle to find and retain individuals with the right audit skills set and data analytics experience to adequately respond to or at identifying risks using a data-driven approach.

In today's time of rapidly changing business environment the significant role, challenges & benefits of IA in organizations cannot be ignored. Effective and efficient functioning of IA is must for the organizations to achieve its financial, operational, and strategic goals. Additionally, key stakeholders like directors, management & employees effectively contributes towards the sound financial & operating performance, overall success, & sustainable growth of an organization. Therefore, the perception of those who are either directly or indirectly associated to IA function may be useful to gain an insight of perceived IA roles, key benefits derived & challenges that exist. Moreover, several studies been carried out in area of Internal auditing only few studies have been initiated in Gulf region. So, to add to the existing literature developed by previous authors this paper is an attempt to fill some gap by examining respondent's perception in all the three key aspects of Internal Auditing (i) the Roles, (ii) challenges and (iii) benefits of Internal Auditing in Organizations: evidence from Oman.

## RESEARCH METHODOGY

### Introduction

This section asserts the design of research, primary data collection & analysis techniques, response rate, research objectives, hypothesis, conceptual framework, research significance, reliability, and validity of research data.

### Research Design

To examine respondents' perception a descriptive method of research has been applied. After reviewing some existing literature in context of a research topic and considering the research objectives a semi-structured, five Likert scale questionnaire was developed by the researchers to collect primary data, Respondents were ensured that primary data gathered will be used exclusively for research purpose and their identity will not appear in this research paper. The targeted respondents of the study were: Directors, CEO's, Finance managers, Internal Auditor, Chief Finance Officer, Accountant, other Finance staff, & other department managers who were aware of the roles performed, challenges faced, and benefits derived by the functioning of Internal Audit Department (IAD) in their organization.

### Data Collection

A semi-structured questionnaire comprised of four parts was used to collect primary research. Part A of the questionnaire related to demographic statistics. Part B of the questionnaire referred to the perceived roles performed by IAD in organizations. Part C about perceived challenging factors that exist for Internal Auditing department in an organization & part D about the perceived benefits derived by organizations following internal audit practices.

### **Data Analysis Techniques**

Primary data for study collected through the distribution of semi-structured questionnaire to targeted respondents. A five-point Likert scale questionnaire with Part B, C & D were categories as follows: ‘Strongly disagree=1’; ‘Disagree=2’; ‘Neither agree nor disagree=3’; ‘Agree=4’; ‘Strongly agree=5’. Research objectives and hypotheses were tested using SPSS- version 20 program applying Factor analysis & T- test.

### **Response Rate**

A sample of 175 respondents were targeted for the study who were Directors, Chief Executive Officers, Finance Managers, Internal Auditors, Chief Finance Officers, Accountants, other finance staff, managers working in various service business, merchandising, and manufacturing organizations in Muscat, Oman However, 141 filled in questionnaire were received from 175 respondents, representing 80.57% response rate. As Mugenda and Mugenda (2003) stated that “50% of response rate is sufficient for data analysis and presentation, at 60% response rate data is reliable and excellent at response rate of 70% or more”, so 80.57% response rate from the targeted respondents is a justifiable response.

### **Research Objectives**

The present paper aims to examine the Roles, challenges, and benefits of Internal Auditing in Organizations: evidence from Oman. Research objectives were achieved by examining the three aspects (i) Roles performed by IAD in organizations. (ii) Factors being a challenge for IA in organization. (iii) Benefits derived by organizations following internal audit practices.

Specific research objectives were: -

- To determine the key perceived roles performed by IAD in organization.
- To determine the key perceived challenges that exist for Internal Auditing department in an organization.
- To determine the key perceived benefits derived by organizations following internal audit practices.
- To examine the level of respondents’ perception regarding the roles performed by the IAD in organizations.
- To examine the level of respondents’ perception regarding the challenging factors that exist for IAD in an organization.
- To examine the level of respondents’ perception regarding the benefits achieved by organizations following internal audit practices.

### **Hypothesis of the Study**

To examine the level of respondent’s perception based on research objectives the following hypothesis were developed:

Hypothesis 1:

H<sub>0a</sub> Respondents’ perception reveals no significant role performed by the IAD in organizations.

H<sub>1a</sub> Respondents’ perception reveals a significant role performed by the IAD in organizations.

Hypothesis 2:

H<sub>0b</sub> Respondents’ perception reveals no significant challenging factors exist for IAD in an organization.

H<sub>1b</sub> Respondents’ perception reveals a significant challenging factor exist for IAD in an organization.

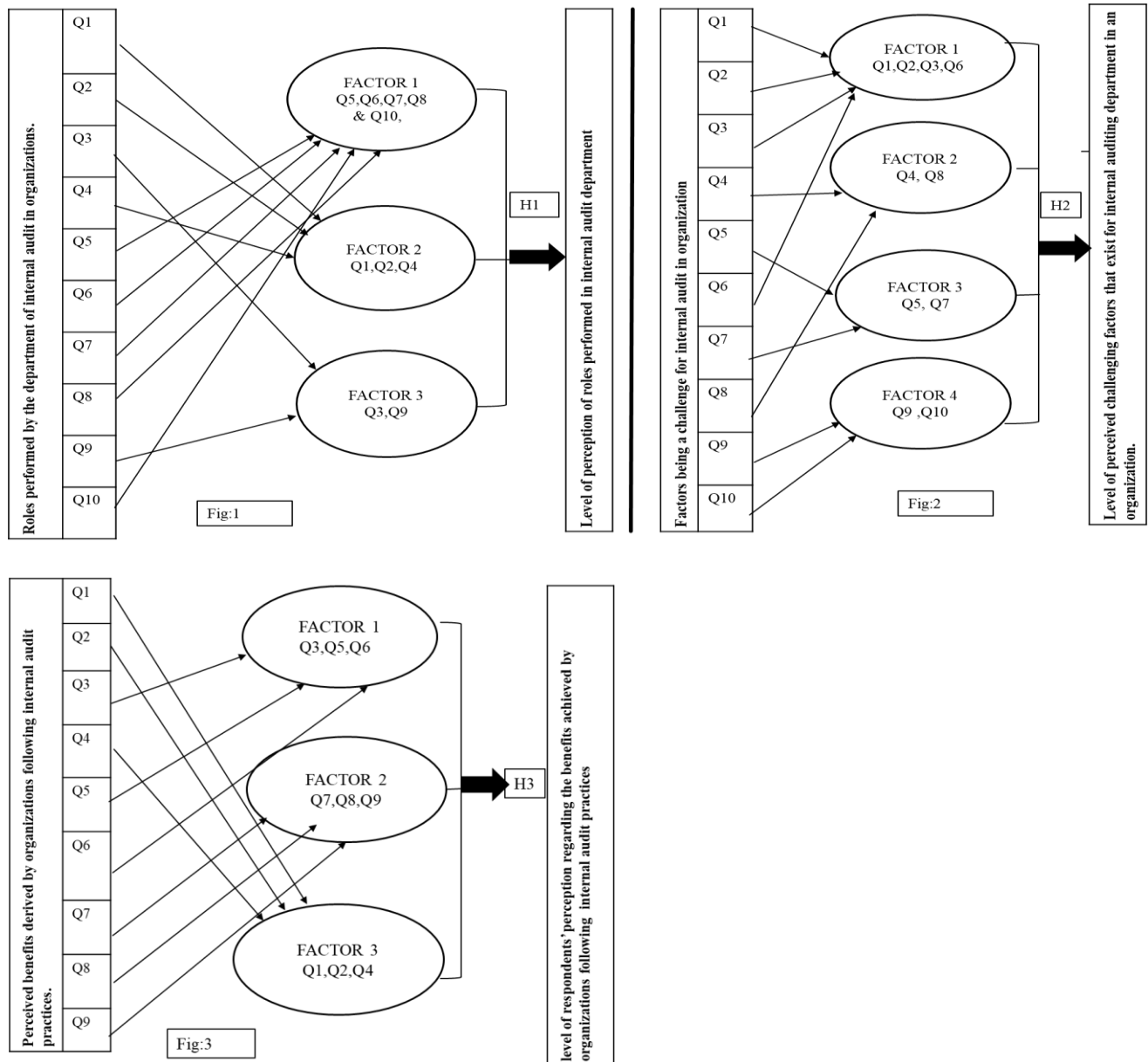
Hypothesis 3:

H<sub>0c</sub> Respondents’ perception reveals no significant benefits are achieved by organizations following internal audit practices.

H<sub>1c</sub> Respondents’ perception reveals significant benefits are achieved by organizations following internal audit practices.

**Conceptual Framework of Research Objectives & Hypothesis**

Figure 1, 2 & 3: Conceptual framework of research objectives & hypothesis



### Data Reliability and Validity

The pilot testing was conducted was undertaken to check and validate the data collection instrument applying random sampling by distributing 25 questionnaires to internal Auditors, Professionals- ACCA, finance managers and auditing subject academic staff. The aim behind the pilot test was to identify any ambivalent questions, determining appropriateness of the questionnaire for achieving the objectives of the study. To measure “the internal consistency for the roles, challenges and benefits” Cronbach's alpha ( $\alpha$ ) was used & in all the three cases measurements was over 0.70. The findings of the pilot study for sample size 141 respondents as shown in Table 1 below.

Table 1. A Respondents perception

		Cronbach's alpha
1.	Perceived roles performed by the IAD in organization. (Number of items=10).	( $\alpha=0.818$ )
2.	Perceived Challenging factors that exist for IAD in an organization. (Number of items=10).	( $\alpha=0.722$ )
3.	Perceived benefits achieved by organizations following internal audit practices. (Number of items=9).	( $\alpha=0.766$ )

Source: Research findings, SPSS output

### DATA ANALYSIS AND FINDINGS

Data analysis and findings representing respondents' perspective about the Roles, challenges & benefits of IA in Organizations: Evidence from Oman, are discussed in his section.

#### Demographic Information

According to the findings 62.4% of the respondents were male & 37.6% were female. This implies that male respondents contributed more towards the study. From the study as shown by Table 3, 19.9% of the respondents were below the age of 30 years, 47.5% were between the age of 30-39 years, 19.9% were between the age of 40-49 years and 12.8% were of the age of 50 years and above. From the study as shown by Table 4, result reveals that 27.7% of the respondents work duration were between 0 to 5 years, 34.8% were having a work duration between the 6-10 years, 22% of the respondents work duration were between 11 to 15 years, 9.2% of the respondents work duration were between 16 to 20 years and 6.4% of the respondents work duration were above 21 years.

From the study as shown by Table 5, respondents' level of education states 36.2% of the respondents having professional qualification, 5.7% Ph.D. holders, 37.6 % of the respondents having master's degree qualification. 19.1 % of the respondents holding bachelor's degree qualification and 1.4 % of the respondents holding diploma level qualification.

Table 2. Respondents -Gender wise

	Frequency, f	Percent %
Male (1)	88	62.4
Female (2)	53	37.6
Total	141	100.0

Source: Research findings, SPSS output

Table 3. Respondents-Age wise

	Frequency	Percent %
Below 30	28	19.9
'30-39' years	67	47.5
'40-49' years	28	19.9
'50' years and above	18	12.8
Total	141	100.0

Source: Research findings, SPSS output

Table 4. Duration respondent served the organization

	Frequency	Percent %
0 to 5 Years	39	27.7
6 to 10 Years	49	34.8
11 to 15 Years	31	22.0
16 to 20 Years	13	9.2
21 years and above	9	6.4
Total	141	100.0

Source: Research findings, SPSS output

Table 5. Respondents highest level of education

	Frequency	Percent %
Professional Qualification	51	36.2
Ph.D degree	8	5.7
Master's degree	53	37.6
Bachelor's degree	27	19.1
Certificate/diploma level	2	1.4
Total	141	100.0

Source: Research findings, SPSS output

### Factor Analysis: Respondents' Perception

The Kaiser-Meyer-Okin (KMO) sampling adequacy measure was employed for reliable extraction of relevant factors. Normally KMO values between 0.60 - 0.69 considered mediocre, values between 0.70 - 0.79 considered good, values between 0.80 to 0.89 considered meritorious, between 0.90 to 1.00 considered excellent. So more 0.7 considered sufficient to run a Factor Analysis.



Table 6, 7 & 8 shows KMO results for data collected from 141 respondents.

Table 6. KMO & Bartlett's Test- Perceived roles performed by IAD in organization.

Kaiser-Meyer-Olkin	'Measure of Sampling Adequacy'.	.83
'Bartlett's -Test of Sphericity'	Approx. Chi-Square.	372.90
	df	45
	Sig.	.00

Source: Research findings, SPSS output

Table 7. KMO & Bartlett's Test - The perceived challenging factors that exist for IAD in an organization.

Kaiser-Meyer-Olkin	'Measure of Sampling Adequacy'.	.76
'Bartlett's -Test of Sphericity'	Approx. Chi-Square	232.67
	df	45
	Sig.	.00

Source: Research findings, SPSS output

Table 8. KMO & Bartlett's Test -Perceived benefits achieved by organizations following internal audit practices.

Kaiser-Meyer-Olkin	'Measure of Sampling Adequacy'.	.73
'Bartlett's -Test of Sphericity'	Approx. Chi-Square	302.99
	df	36
	Sig.	.00

Source: Research findings, SPSS output

Above results as KMO values for each of the three areas of study were more than .720 indicating that the sample & statements were adequate for each factor. Also, the Bartlett's 'Test of Sphericity' applied to measure a multivariate normality of set of distribution. Research findings as indicated in Table 6, 7 & 8, Bartlett's -Test of sphericity revealed  $\alpha = 0.05$  at considering a 95% level of Significance, the p-value (Sig.) of  $.000 < 0.05$  this means that the variables qualify to provide a reasonable basis for factor analysis as are highly correlated thus, an appropriate technique & results confirms that there is a good scope for reducing the dimensions to some key factors.

The next is a table of communalities indicating the degree an item correlates with all other items in an area of study, higher the result of communalities the better it is. Communalities results of respondents' perception regarding the roles performed by IAD in organization (Number of items=10) ranges between ranges between .512 and .673, shown in Table 9. For the perceived challenging factors that exist for IAD in an organization (Number of items=10), ranges between .524 and .755 shown in Table 10 & the perceived benefits derived by organizations following internal audit practices. (Number of items=9), ranges between .519 and .731 exhibited in Table 11.

Table 9. Perceived roles performed by IAD in organization

	Initial	Extraction
Provide independent appraisals of risk management, internal control, and governance processes.	1.000	.616
Evaluating systems/processes established to ensure complying with the appropriate requirements of policies, procedures, and with relevant laws & regulations.	1.000	.663
Evaluating operational & financial information for ensuring reliability and integrity.	1.000	.673
Assessing the techniques of safeguarding assets from losses and at validating the existence of such assets.	1.000	.512
Assessing economy, efficiency & effectiveness whereby organization economic resources are utilized.	1.000	.553
Performing fraud operational & financial detection and inspection activities.	1.000	.629
Assessing organization management of Risk and emerging business risks.	1.000	.606
Evaluation of organization projects and activities performances.	1.000	.621
Checking budgetary implementation.	1.000	.654
Identifying insufficiency or gaps in processes, evaluating the design and effectiveness of internal control system in organization.	1.000	.574

Method: Principal Component Analysis (PCA)

Source: Research findings, SPSS output

Table 10. The perceived challenging factors that exist for IAD in an organization.

	Initial	Extraction
Aligning of internal audit scope with expectation of stakeholder.	1.000	.617
Reconfiguring the skills to address new changes in operational processes.	1.000	.610
Efficiently addressing IA role in appraising risk management.	1.000	.558
Leveraging & application of newest technology to Enhance Audit Quality and Effectiveness.	1.000	.524
Inadequate number of audit staff.	1.000	.755
Demonstrating it as a value-added function and thus contributing to the bottom line.	1.000	.586
Stay focused to prevent and detect fraud.	1.000	.738
Enforcement of the new International Professional Practices Framework (IPPF).	1.000	.647
Management's disinclination to implement proposed recommendations on weak business areas/activities on a timely basis.	1.000	.584
Combining operational and audit expertise to enhance performance.	1.000	.715

Method: Principal Component Analysis (PCA)

Source: Research findings, SPSS output

Table 11. The perceived benefits achieved by organizations following internal audit practices

	Initial	Extraction
Improvement in Effectiveness & efficiency of organizational internal control processes.	1.000	.731
Reliability & integrity of organization's operational & financial information improved.	1.000	.705
Compliance with contracts, laws & regulations witnessed an improvement in organization owing to internal audit process.	1.000	.679
Identifying weakness in operational and control procedures and provides recommendations to improve & strengthen the procedures.	1.000	.536
Provides an Early Warning System, at identifying imperfections/errors and rectifying on a timely basis, basically prior to external or compliance audits.	1.000	.529
Internal Audit function increases Organizational accountability.	1.000	.667
Making the organization applying process/system-dependent not a person-dependent approach.	1.000	.664
Regularly upgrade the audit process.	1.000	.602
Providing recommendations for improvements by applying best practices in those areas/activities where weaknesses are identified.	1.000	.519

Method: Principal Component Analysis (PCA)

Source: Research findings, SPSS output

To achieve the first three objective of study factor analysis principal component analysis (PCA) method, rotation: varimax with Kaiser Normalization were applied. The Kaiser's eigenvalue-one criterion, where the variables with eigenvalue above 1 were retained. The varimax rotation allowed the researchers to identify what variables belonged to each of the identified major extracted factors & is computed with Kaiser Normalization by suppressing small coefficients of values below 0.5.

From ten variables of perceived roles performed by IAD in organization, three factors were extracted by combining the relevant variables, which explained 61.015% of variance. The first factor accounts 24.304%, second factor accounts 19.971% and of the total variance of factor third accounts for 16.741 %, as depicted in Table 12 & Table 13 result depicted that factor '1' composed of five variables of rotated component matrix, results of factor '2' composed of three variables & result of factor '3' composed of two variables for perceived roles performed by IAD in organization.

Table 12. Total Variance Explained-Perceived roles performed by IAD in organization

Component	Initial -Eigenvalues			Extraction- Sums of Squared Loadings			Rotation- Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.870	38.704	38.704	3.870	38.704	38.704	2.430	24.304	24.304

2	1.202	12.016	50.720	1.202	12.016	50.720	1.997	19.971	44.274
3	1.030	10.295	61.015	1.030	10.295	61.015	1.674	16.741	61.015
4	.736	7.359	68.374						
5	.677	6.770	75.143						
6	.662	6.624	81.767						
7	.566	5.659	87.426						
8	.473	4.732	92.158						
9	.436	4.358	96.516						
10	.348	3.484	100.000						

Source: Research findings, SPSS output

Table 13. Rotated Component Matrix<sup>a</sup>

	Component		
	1	2	3
Assessing organization management of risk and emerging business risks.	.751		
Evaluation of organization projects and activities performances.	.749		
Performing fraud operational & financial detection and inspection activities.	.615		
Identifying insufficiency or gaps in processes, evaluating the design and effectiveness of internal control system in organization.	.607		
Assessing economy, efficiency & effectiveness whereby organization economic resources are utilized.	.564		
Provide independent appraisals of risk management, internal control, and governance processes.		.768	
Evaluating systems/processes established to ensure complying with the appropriate requirements of policies, procedures, and with relevant laws & regulations.		.757	
Assessing the techniques of safeguarding assets from losses and at validating the existence of such assets.		.667	
Evaluating operational & financial information for ensuring reliability and integrity.			.759
Checking budgetary implementation			.682

Method: Principal Component Analysis (PCA)

Source: Research findings, SPSS output

Perceived challenging factors that exist for IAD in an organization ten variables were used in factor analysis (Table 14). From ten variables of the perceived challenging factors during internal audit in organization the four factors were extracted by combining the relevant variables, explaining 63.358% of variance. The first factor accounts 21.695%, second factor accounts 16.330%, the third factor accounts 13.205% of the total variance and of the total variance the fourth factor accounts 12.129%. Table 15, Result depicted that factor 1 composed of four variables of Rotated Component Matrix, results of factor 2, 3 & 4 each having a composed of two variables of

the perceived challenging factors during internal audit in organization.

Table 14. Total Variance Explained- The perceived challenging factors that exist for IAD in an organization.

Component	Initial- Eigenvalues			Extraction- ' Sums of Squared' Loadings			Rotation-Sums of Squared Loadings		
	Total	% of Variance	Cum %	Total	% of Variance	Cum %	Total	% of Variance	Cum%
1	3.025	30.249	30.249	3.025	30.249	30.249	2.169	21.695	21.695
2	1.220	12.199	42.448	1.220	12.199	42.448	1.633	16.330	38.025
3	1.075	10.747	53.194	1.075	10.747	53.194	1.321	13.205	51.230
4	1.016	10.164	63.358	1.016	10.164	63.358	1.213	12.129	63.358
5	.827	8.271	71.629						
6	.733	7.326	78.955						
7	.631	6.312	85.267						
8	.543	5.435	90.701						
9	.495	4.945	95.646						
10	.435	4.354	100.000						

Source: Research findings, SPSS output

Table 15. Rotated Component Matrix<sup>a</sup>

	Component			
	1	2	3	4
Aligning of internal audit scope with expectation of stakeholder.	.778			
Reconfiguring the skills to address new changes in operational processes.	.767			
Efficiently addressing IA role in appraising risk management.	.646			
Demonstrating it as a value-added function and thus contributing to the bottom line.	.569			
Enforcement of the new International Professional Practices Framework (IPPF).		.788		
Leveraging & application of latest Technology to Enhance Audit Quality and Effectiveness.		.625		
Inadequate number of audit staff.			.800	
Stay focused to prevent and detect fraud.			.718	
Combining operational and audit expertise to enhance performance.				.816
Management's disinclination to implement proposed recommendations on weak business areas/activities on a timely basis.				.631

Method: Principal Component Analysis (PCA)

Source: Research findings, SPSS output

Perceived benefits achieved by organizations following internal audit practices nine variables were used in factor analysis. From nine variables of the perceived benefits achieved by organizations following internal audit practices the three factors were extracted by combining the relevant variables, explaining 62.559% of variance. The first factor accounts 22.819%, second factor accounts 20.218%, and of the total variance the third factor accounts 19.521%, as shown in Table 16 & Table 17 result depicts factor 1,2 & 3 each composed of three variables each of rotated component matrix of the perceived benefits achieved by organizations following internal audit practices.

Table 16. Total Variance Explained- The perceived benefits achieved by organizations following internal audit practices.

Component	Initial -Eigenvalues			Extraction 'Sums of Squared' Loadings			Rotation- Sums of Squared Loadings		
	Total	% of Variance	Cum %	Total	% of Variance	Cum %	Total	% of Variance	Cum %
1	3.228	35.870	35.870	3.228	35.870	35.870	2.054	22.819	22.819
2	1.278	14.201	50.071	1.278	14.201	50.071	1.820	20.218	43.038
3	1.124	12.488	62.559	1.124	12.488	62.559	1.757	19.521	62.559
4	.888	9.862	72.421						
5	.640	7.116	79.537						
6	.558	6.197	85.734						
7	.515	5.720	91.454						
8	.456	5.069	96.523						
9	.313	3.477	100.000						

Source: Research findings, SPSS output

Table 17. Rotated Component Matrix<sup>a</sup>

	Component		
	1	2	3
Compliance with contracts, laws & regulations witnessed an improvement in organization owing to internal audit process.	.778		
Internal Audit function increases Organizational accountability.	.762		
Provides an Early Warning System, at identifying imperfections/errors and rectifying on a timely basis, basically prior to external or compliance audits.	.663		
Making the organization applying process/system-dependent not a person-dependent approach.		.749	
Providing recommendations for improvements by applying best practices in those areas/activities where weaknesses are identified.		.713	
Regularly upgrading of the audit process		.630	

Improvement in Effectiveness & efficiency of organizational internal control processes.			.828
Reliability & integrity of organization's operational & financial information improved.			.732
Identifying weakness in operational and control procedures and provides recommendations to improve &strengthen the procedures.			.636

Method: Principal Component Analysis (PCA)

Source: Research findings, SPSS output

### Hypothesis Testing

One sample t-test was applied to test research hypothesis 1,2 &3, where  $\mu \leq 3$  =Null-Hypothesis ( $H_0$ ),  $\mu > 3$ = Alternative – Hypothesis ( $H_1, H_2, H_3$ ). Table 18 illustrates t-test result based on the mean scores of the factors for the perceived roles performed by IAD in organization (research hypothesis 1).

Table 18. One-Sample Statistics

	N	Mean	Std. Dev	Std. Error Mean		
Mean_IA_Roles_Factor 1	141	4.123	.489	.041		
Mean_IA_Roles_Factor 2	141	4.176	.486	.041		
Mean_IA_Roles_Factor 3	141	4.130	.526	.044		
	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Mean_IA_Roles_Factor 1	27.289	140	.000	1.123	1.042	1.204
Mean_IA_Roles_Factor 2	28.765	140	.000	1.176	1.095	1.257
Mean_IA_Roles_Factor 3	25.508	140	.000	1.130	1.042	1.217

Source: Research findings, SPSS output

The perceived roles performed by internal audit department in organization one -sample test reveals factor 1 ( $t = 27.289$ ), factor 2 ( $t = 28.765$ ), & factor 3 ( $t = 25.508$ ) all three factors result recorded  $p < 0.01$ , (Table 18), hence, null hypothesis is rejected. And the mean values for each of the three factors are more than 4, wherein factor 2 recorded highest mean value, followed by second highest mean value by factor 3 and then factor 1, thus alternative hypothesis that postulates "respondents' perception reveals a significant role performed by the IAD" is accepted.

Table 19 illustrates t-test result based on the mean scores of the perceived challenges that exist for Internal Auditing department in an organization. , (research hypothesis 2).

Table 19. One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Mean_Challenges_Factor 1	141	3.651	.674	.057
Mean_Challenges_Factor 2	141	3.502	.638	.054
Mean_Challenges_Factor 3	141	3.493	.851	.072

Mean_Challenges_Factor 4				141	3.472	.683	.057
	t	df	Sig.(2-tailed)	Mean Difference	95% Confidence Interval of the Difference		
					Lower	Upper	
Mean_Challenges_Factor 1	11.463	140	.000	.651	.539	.763	
Mean_Challenges_Factor 2	9.343	140	.000	.502	.396	.608	
Mean_Challenges_Factor 3	6.874	140	.000	.493	.352	.635	
Mean_Challenges_Factor 4	8.195	140	.000	.472	.358	.585	

Source: Research findings, SPSS output

From the mean scores of the perceived challenges that exist for Internal Auditing department in an organization, one -sample t- test result reveals factor 1 ( $t= 11.463$ ), factor 2 ( $t= 9.343$ ), & factor 3 ( $t =6.874$ ), factor 4 ( $t= 8.195$ ), (Table.19) all four factors result recorded  $p < 0.01$ . And the mean values for each of the four factors are more than 3 , where factor 1 recorded highest mean ,followed by second highest mean by factor 2 and then factor 3 & 4, hence, the alternative hypothesis that postulates “Respondents’ perception reveals a significant challenging factors exist for IAD in an organization.” is accepted. Table 19 illustrates– t-test result based on the mean scores of the perceived benefits derived by organizations following internal audit practices (research hypothesis 3).

Table 20. One-Sample Statistics

	N	Mean	Std. Dev	Std. Error Mean		
Mean_Benefits_Factor 1	141	4.060	.558	.047		
Mean_Benefits_Factor 2	141	4.017	.605	.051		
Mean_Benefits_Factor 3	141	4.114	.556	.047		
	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Mean_Benefits_Factor 1	22.679	140	.000	1.066	.973	1.156
Mean_Benefits_Factor 2	19.963	140	.000	1.017	.916	1.117
Mean_Benefits_Factor 3	23.776	140	.000	1.114	1.020	1.206

Source: Research findings, SPSS output

From table 20, above reveals benefits of factor 1 ( $t =22.679$ ), factor 2 ( $t =19.963$ ), & factor 3 ( $t =23.776$ .) all three factors result recorded  $p < 0.01$ , hence, rejecting null hypothesis. And the mean values for each of the three factors are more than 3, where factor 3 recorded highest mean, followed by second highest mean by factor 1 and then factor 2, hence, accepting the alternative hypothesis that postulates “Respondents’ perception reveals significant benefits are achieved by organizations following internal audit practices”.

## FINDINGS AND CONCLUSION

### Summary of Findings and Conclusion

This paper examined the roles, challenges, and benefits of internal auditing in organizations:



evidence from Oman. Primary data for study was collected through the distribution of semi-structured questionnaire to targeted respondents. Filled in questionnaire were successfully collected from 141 respondents of the study who were: - directors, CEO's, finance managers, internal auditors, chief finance officers, accountants, other finance department staffs, & other department managers who were aware of the roles performed, challenges faced, and benefits derived by the functioning of Internal Audit Department (IAD) in their organization.

To achieve the first three objective of study factor analysis principal component analysis (PCA) method, rotation: varimax with Kaiser Normalization were applied & three factors were extracted by combining the relevant variables, which explained 61.015% of variance. From the research result addressing the first specific objective 'Perceived roles performed by IAD in organization' five prominent roles of IAD in organization (with factor loading scores of more than .700 of three factors) identified as: Assessing organization management of risk and emerging business risks. Evaluation of organization projects and activities performances. Provide independent appraisals of risk management, internal control, and governance processes. Evaluating systems/processes established to ensure complying with the appropriate requirements of policies, procedures, and with relevant laws & regulations. Evaluating operational & financial information for ensuring reliability and integrity. Thus, by examining the perspective of respondents some of the prominent role performed by IAD in organization are identified concluding that contribution of IAD in an organization cannot be ignored and no doubt assist organizations at achieving financial, operational, and strategic goals with application of systematic & disciplined approach for its sustainability, success & growth.

The study results addressing second specific objective, four factors were extracted by combining the relevant variables, explaining 63.358% of variance & six key perceived challenges that exist for Internal Auditing department in an organization (with factor loading scores of more than .700 of four factors) identified as: Aligning of internal audit scope with expectation of stakeholder. Reconfiguring the skills to address new changes in operational processes. Reconfiguring the skills to address new changes in operational processes. Enforcement of the new International Professional Practices Framework (IPPF). Inadequate number of audit staff. Stay focused to prevent and detect fraud. Combining operational and audit expertise to enhance performance. Thus, the factor analysis result confirms existences of some prominent challenging factor for IAD in an organization. The result can provide an insight to management on some of the key perceived challenging factors that exist for IAD and awareness will enable them to proactively work at resolving it to ensure effective & efficient utilization of IAD role in an organization & to reap the numerous benefits. To some extent the identified key challenges can be resolved by ensuring IAD's independent position in organization with no undue pressure of top management , by hiring more employees to work in IAD with IA skill sets and experience, by motivating current employees to become qualified Certified Internal Auditors, internal and relevant IA training can be provided to IAD employees , ensuring no compromise in the objectivity when auditing is undertaken and by complying with International Standards, effective application of professional practice of International Professional Practices Framework (IPPF) & Code of Ethics .

The findings addressing third specific research objective, three factors were extracted by combining the relevant variables, explaining 62.559% of variance & six key perceived benefits achieved by organizations following internal audit practices (with factor loading scores of more than .700 of three factors) are: Compliance with contracts, laws & regulations witnessed an improvement in organization owing to internal audit process. Internal Audit function increases Organizational accountability. Making the organization applying process/system-dependent not a

person-dependent approach. Providing recommendations for improvements by applying best practices in those areas/activities where weaknesses are identified. Improvement in Effectiveness & efficiency of organizational internal control processes. Reliability & integrity of organization’s operational & financial information improved. Thus, examination of respondents’ perspective it is evinced that prominent benefits are reaped by the organization which in turn no doubt contributes towards the sound performance and growth of organization.

Table 21. T-test result summary.

Key area of study	1.Perceived Roles performed by IAD in organizations	2. The perceived challenging factors for IA in organization.	3. The perceived benefits derived by organizations following internal audit practices.
T-test ( p < 0.01)			
Factor 1	(t= 27.289)	(t =11.463)	(t =22.679)
Factor 2	(t= 28.765)	(t= 9.343)	(t= 19.963)
Factor 3	(t= 25.508)	(t= 6.874)	(t= 23.776)
Factor 4	-	(t = 8.195)	-

Source: Research findings, SPSS output

Above T-test summary results as revealed in table 21, addressing last three specific objective & hypotheses confirms that a significant role performed by the IAD in organizations, & a significant benefit is achieved by organizations following Internal Audit practices. The result supports the concept that IA provides an assurance that organization internal control system, governance and risk management function are operating effectively & planned business operations are successfully performed. A significant challenging factor exist for IAD in an organization and awareness of such factors enables management to proactively resolve it & with effective and efficient function of IA numerous benefits are derived.

This research results may be useful to organization stakeholders. May assist shareholders, board of directors, management to appreciate the vital roles and benefits of IAD & its importance in achieving organizations financial, operational, and strategic goals with application of systematic & disciplined approach. Management may get an insight about the challenging factors faced by IAD in organization and the awareness of such factors may assist them in proactively resolving it. Also, the study result can be useful for management to evaluate the effectiveness of IA process ensuring key benefits are derived & to determine whether the benefits achieved from IA process outweigh the cost of running IAD, if not then, to take appropriate actions to ensure benefits outweighs the cost. The study result may help current and potential investors to apprehend the contribution of IAD in an organization and enhance their confidence about the investment. Findings of the study may assist the internal auditors to appraise their role in IAD and for better understanding of challenging factors that exists for IAD and to efficiently address it. Research findings may be useful for researchers to undertake further research on the identified key factors of three areas of this study and its impact on other prospective dependent variables not considered in this study. Furthermore, the study findings will be useful to identify some key roles, challenges, benefits of internal auditing in any organizations as per organizational objectives to ensure effective and efficient functioning of IAD.

### Research Limitations

- The limitation of this research was that the sample used for this research may be too small. Since result of the study is elicited from the perception of 141 respondents associated/ working in various organizations in Muscat region, Oman, as such the result may not represent the perception pertaining to a specific industry and other regions or countries.
- To examine the objectives & hypothesis of the study only Factor analysis and T- test were considered.

### Recommendation for Further Studies

As the role, challenges and benefits of internal audit may differ according to sectors and because different industries apply different management strategies. Researchers propose that a related study can be done with larger sample size, on a specific industry sector in Oman or any other country or a comparative study covering other relevant variables /factors not considered in this study. Multivariate Regression analysis can also be applied to analyze the associations between the dependent (responses) and independent variables (predictors). Thus, the result of this research can be further studied to evaluate the impact of the perceived key identified roles, benefits and challenges of IAD (as independent variables) on organizations' performance and growth or on other relevant dependent variables. A study can be also be undertaken to examine the factors that influence IAD functions & at exploring the possible ways of overcoming the prominent challenges that are faced by internal auditors during the audit process in organizations.

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