



**The Relative Importance of the Factors Determining  
Internal Audit Effectiveness in Jordanian Public  
Shareholding Companies**

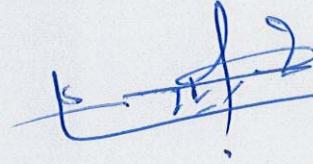
401110022:

2014-2013

## التفويض

أنا علي عبد الرحيم ريان أفوض جامعة الشرق الأوسط بتزويد نسخ من رسالتي ورقياً وإلكترونياً للمكتبات، أو المنظمات، أو الهيئات والمؤسسات المعنية بالأبحاث والدراسات العلمية عند طلبها.

الاسم: علي عبد الرحيم ريان

التوقيع: 

التاريخ: 2014 /02/03

## قرار لجنة المناقشة

نوقشت هذه الرسالة وعنوانها " الأهمية النسبية للعوامل المحددة لفاعلية

التدقيق الداخلي في الشركات المساهمة العامة الأردنية"

وأجيزت بتاريخ 2014 / 02 / 03

التوقيع

لجنة المناقشة

رئيساً ومشرفاً .....

الأستاذ الدكتور محمد مطر

عضواً .....

الدكتور مضر عبد اللطيف

ممتحناً خارجياً .....

الاستاذ الدكتور علي ذنبيات





		1
		2
		3
		4
		5
		6
		7
		8
		9
		9
		10
:		
2		1-1
4		2-1
6		3-1
6		4-1
7		5-1
9		6-1
9		7-1
10		8-1
11		9-1

:		
		:
14		1-2
15		2-2
17		3-2
20		4-2
22		5-2
26		6-2
30		7-2
40		8-2
42		:
:		
61		1-3
61		2-3
62		3-3
63		4-3
63		5-3
65		6-3
66		7-3
:		
68		1-4
71		2-4
84		3-4
:		
93		1-5
95		2-5

2

97		
106		
112		

62		1-3
64		2-3
68		1-4
71		2-4
74		3-4
77		4-4
79		5-4
82		6-4
85	( One Sample T. Test )	7-4
86	( One Sample T. Test )	8-4
87	( One Sample T. Test )	9-4
88	( One Sample T. Test )	10-4
89	(ANOVA)	11-4

90	(ANOVA)	12-4

9		1-1
29		1-2

:

:

:

-1

-2

-3

-4

:

:

:

## **Abstract**

# **The Relative Importance of the Factors Determining Internal Audit Effectiveness in Jordanian Public Shareholding Companies**

**Prepared By: Ali Rayyan**  
**Supervised By: Prof. Dr. Mohammad Matar**

This study aimed at showing the relative importance of factors determining the effectiveness of internal auditing in Jordanian public shareholding companies. To achieve this aim, the researcher used a questionnaire survey that covered internal auditors, external auditors and audit committee members. The study found the following:

- 1- There is a very strong statistically significant relation between personal attributes of the internal auditor and effectiveness of internal auditing in Jordanian public shareholding companies.
- 2- There is a strong statistically significant relation between the internal environment of management of the internal auditing function and how it facilitates his performance of his duties, and effectiveness of internal auditing in Jordanian public shareholding companies.
- 3- There is a strong statistically significant relation between policies and procedures for performing the internal audit function and effectiveness of internal auditing in Jordanian public shareholding companies.
- 4- There is a strong statistically significant relation between performance measurement standards and the necessary channels needed for communicating internal audit findings to the intended parties, and effectiveness of internal auditing in Jordanian public shareholding companies.

The study suggested several recommendations including emphasizing the importance of personal attributes of internal auditors (such as integrity, independence and objectivity), and enhancing the independence framework for internal auditing. The study also recommended emphasizing the existence of an internal audit chapter including objectives, policies, authorities, procedures and responsibilities in the company, given its importance in performing internal auditing. This includes fair distribution of tasks among the internal audit team and effective supervision on them during performing their jobs.

1-1

2-1

3-1

4-1

5-1

6-1

7-1

8-1

9-1

1-1

.(65 2010 )

.(2007 )

" 1957

2009 ) "

.(36



:

:

:

:

:

( - - )

:

.

3-1

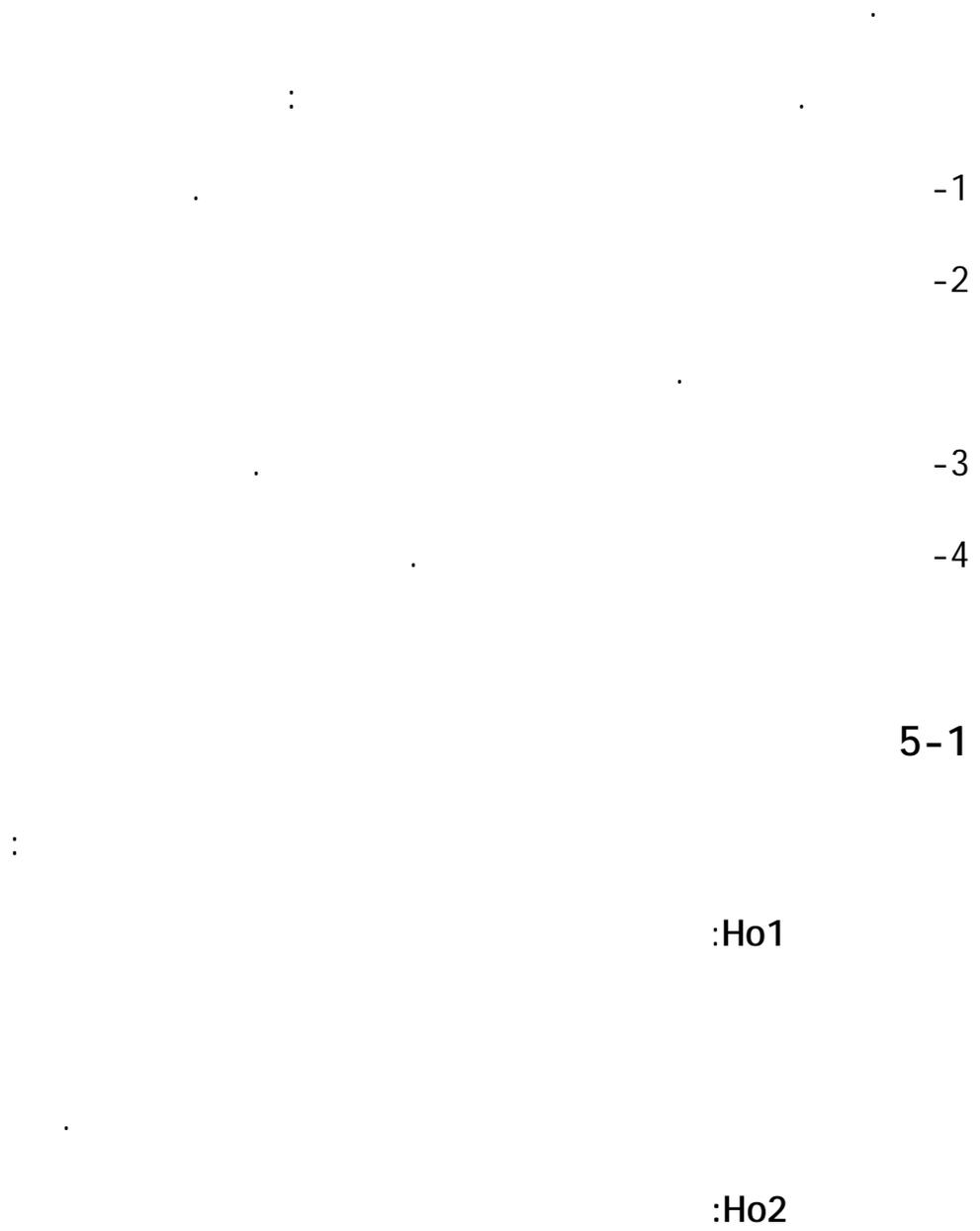
:

-1

-2

-3

4-1



:Ho3

: Ho4

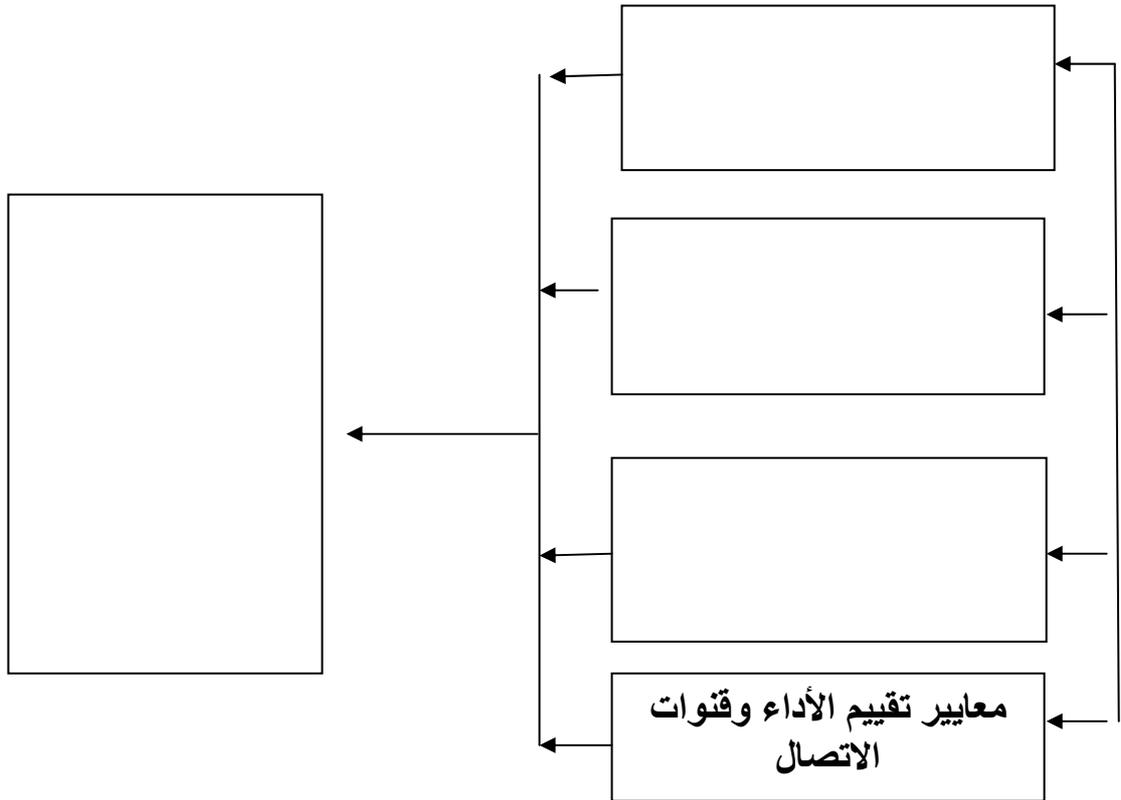
:Ho5

( )

: Ho6

6-1

(1-1)



(1-1)

7-1

:

.2013-2012

:

-1

:

-2

: : -3

.

**8-1**

:

.

-1

-2

.

-3

.

-4

.

9-1

:

.(183 2004 )

:

2004 )

.(25

:

IIA, )

.(2004 , p:8

:

.(209 2004 )

:

:

.(Porter, et.al. 2008, p: 92 )

:

)

(25 2009

:

1-2

2-2

3-2

4-2

5-2

6-2

7-2

8-2

9-2

:

:

1-2

:

.(66 2010 )

-

-

.(2002 )

**2-2**

.(2005 )

.

. (2007 )

.(1995 )

.(Guy, 1999) "

(IIA)

" (2000 )

"

"

.(IFAC, 2001, P: 213 ) "

" Institute of Internal Auditors (IIA)

.(IIA ,2004 , P: 2 ) "

(IIA)

.(3 2005 ) "

" (2005 )

"

"

.( 173 2006 ) "

" (103 2006 )

"

" :

."

.(41 2007 )

": (2008 )

."

.(2010 )

" : (2010 )

"

4-2

(96 2002 )

:

:

-1

: -2

: -3

: -4

: -5

:

(23 2003 )

: -1

: -2

: -3

--4

5-2

(178 2006 )

:

-1

-2

-3

-4

-5

-6

(347 2006 ) :

-1

-2

-3

: (89 2009 )

-1

-2

-3

-4

-5

:

:

-1

)

.(

:

(228 2011 )

-

-

- - -

. -

: -2

(229 2011 ) :

-

-

)

.(187 2005

.

6-2

.

:

(142 2007 ) :

: -1

.

: -2

.  
(144 2007 )

:

:

-

:

-

:

-3

( )

:

-4

.

:

:

(2005 ) :

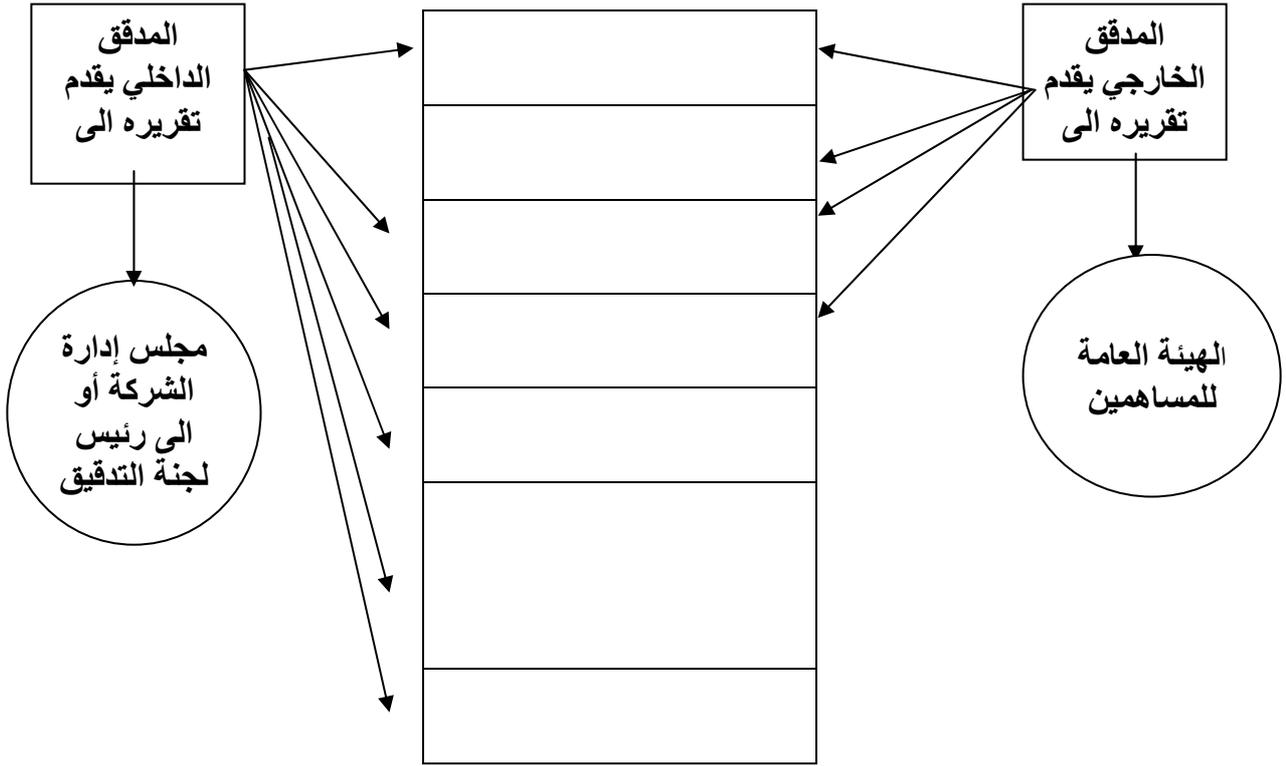
-1

.

-2

.

(1-2)



(1-2)

:

Rodney J , (1981), Developing a Working Relationship With Your External Auditors , **The Internal Auditor** PP: 22-29 .

.( 75 2004 )

.(75 2006 )

(IIA)

(IIA)

2004

2003

( 78 2005 ) :

(Attribute Standards)

:

(79 2005 ) :

: -1

: -2

) ( 50 2007 ) ( 47 2003 ) :

( 49 2003

: -

: -

"

"

: -

: -3

2003 )

.( 48 2003 ) ( 52

: -

.

: -

.

" : -4

"

) :

(51 2007 ) ( 54 2003

: -

: -

: -

: -

.(Performance Standards) :

) ( 42 2000 ) ( 81 2005 ) :

( 52 2007

" : -1

:

: -

: -

: -

: -

: -

" : -2

"

) ( 57 2003 ) :

.( 82 2005 ) ( 49 2003

: -

: -

: -

: -3

) ( 59 2003 ) ( 49 1999 ) :

.(84 2005

- :

-

:-

:-

:-

" : -4

"

(55 2007 ) ( 61-60 2003 ) :

.( 39 2000 )

: -

: -

: -

: -

: -

" : -5

"

( 85 2005 ) ( 62 2003 ) :

( 56 2007 )

: -

.

: -

.

: -

.

: -

.

: -6

.(86 2005 )

: -7

.(86 2005 )

.(Implementation Standards ) :

Consulting (C)

Assurance (A)

-

.(34 2009 )

8-2

(IIA , 2004, P: 4-5 ):

:  
:  
-1

: -2

: -3

: -4

-5

-6

:  
:  
-1

-2

-3

	.	-4
	.	-5
	.	-6
:	:	:
	.	-1
	.	-2
	.	-3
	.	-4
	.	-5
.	.	-6
	:	:
	.	-1
.	.	-2
	.	-3
	.	-4
	.	-5
.	.	-6

:

- -

:

: -1

" : (2003)

."

.

. ( 54 )

": ( 2003 )

."

:

-1

.2001

-2

.

-3

.

.

" : ( 2003 )

."

.

. (58.59)

" : (2003)

( )

( )

:

( )

-1

-2

( )

-3

": (2005)

."

( 33 )

": ( 2006 )

."

": (2006)

."

(46)

" : ( 2007 )

"

(spss)

" (2008)

"

: ( 2009 )

SIX SIGMA

" (2011)

"

SIX SIGMA

(67)

(67)

:

)

Sigma

(

Six Sigma

)

)

(

(

" (2012)

"

.

114

.

.

.

-

-

-

-

-

)

(

.

: ( 2013 )

.

( 150)

( 5)

: -2

: **Ahlawat (2000)**

**“Internal Auditor Objectivity In –House Versus Outsourcing”**

(Outsourcing

(In- )

house )

(35) ( )

(31) In-House

Outsourcing

.( )

: **Allegrini, & Onza,(2003)**

**“Internal Auditing and Risk Asseement in Large Italian Companies  
an Empirical survey “**

: (2004)

**“The role of Internal auditor in risk management “**

: **Jantan, et al, (2005)**

**“Internal Auditing Practices and internal control system “**

**(IIA)**

:

: **( 2006) Abdullatif**

**“ The Effectiveness of Audit Committees in Jordanian Public Shareholding Companies and Potential Company Characteristics Affecting It:Perceptions from Auditors in Jordan “**

: Yan,et..al,(2007)

**“Audit committee quality , auditor independence, and internal weaknesses “**

sarbans-oxley

: Willimson, (2009)

**"Guiding Auditors Along the Information SuperhighWay: The Implication of Electronic Evidence",**

(80)

(31)

:

.

(80)

:

.

: Tucker, (2011)

**An E-Risk Primer (Altamonte Springs), FL: "The Institute of Internal Auditors"**

(AICPA)

.

:

(94)

.

.

.

.

-3

:

-1

.

-2

(2006)

"

.

1-3

2-3

3-3

4-3

5-3

6-3

7-3

1-3

2-3

( )

( )

(110)

:

(1-3)

%			
%83	50	60	
%84	38	45	
%73	22	30	
%81	110	135	

3-3

)

3

4

5

:

(

:

:

(1)

4-3

Pilot )

(10) (Study

5-3

(Sekeran, 2003)

(% 70.8 )

( 2-3 )

(2-3)

	%75.3	
	%79.5	
	%71.8	
	%72.8	
	<b>%70.9</b>	

: ( )

.(5) (4.5)

.(4.5) (3.75)

.(3.75) - (3)

.(3) -(2)

.(2)

(SPSS)

:

:

-1

:( T-Test )

( )

-2

:(One Way Anova) ( ANOVA )

-3

7-3

:

:

-1

:

-

-

-

-

:

-2

.

**1-4**

**2-4**

**3-4**

(1 -4)

%			
%45.5	50		
%34.5	38		
%20	22		
%10.9	12		
%69.1	76		
%16.4	18		
%3.6	4		
%60.9	67		
%15.5	17		
%12.7	14		
%10.9	12		
%21.8	24		
%42.7	47	10	5
%21.8	24	20	11
%13.6	15	21	
%20.0	22	CIA	
%16.4	18	CPA	
%18.2	20	JCPA	
%4.5	5	CFA	
%7.3	8	CISA	
%33.6	37		
%100	110		

: (1 -4)

: -1

(%45.5)

%20.0

( %34.5)

: -2

( )

.(%69.1)

( %16.4)

(%10.9)

(%3.6)

: -3

% 60.9

%12.7

%15.5

%10.9

: -4

( 20 11 ) ( 10 5 )

%42.7

% 21.8

: -5

37

CIA %33.6

CPA %20.0 22

JCPA %16.4

CFA %18.2

%7.3 8 CISA %4.5

(2-4)

2		.5322	<b>4.654</b>	4.649	4.669	4.645		1
1		.5088	<b>4.672</b>	4.685	4.665	4.668		2
3		.6396	<b>4.590</b>	4.581	4.588	4.601		3
5		.5671	<b>4.436</b>	4.388	4.401	4.521		4
6		.7632	<b>4.309</b>	4.299	4.319	4.311		5
4		.6437	<b>4.445</b>	4.458	4.439	4.439		6
		<b>.4115</b>	<b>4.518</b>	<b>4.538</b>	<b>4.498</b>	<b>4.519</b>		

	:		:
( 4.518 )			-1
		.	
			-2
	( 4.672 )		
	. ( 4.309 )		
			:
			-1
( 4.519 )		( 4.538 )	
. ( 4.498 )			
			-2
		( 5 )	
	.		
			.

.

.

-

-

-3

.

:

"

.

(3-4)

2		.6967	<b>4.427</b>	4.332	4.501	4.448		1
4		.7868	<b>4.309</b>	4.292	4.302	4.335		2
1		.7130	<b>4.472</b>	4.464	4.472	4.481		3
4		.7135	<b>4.309</b>	4.342	4.281	4.304		4
6		.7602	<b>4.190</b>	4.18	4.191	4.201		5
3		.6851	<b>4.354</b>	4.351	4.364	4.348		6
		<b>.5109</b>	<b>4.343</b>	<b>4.392</b>	<b>4.336</b>	<b>4.301</b>		

:

:

( 4.343 )

-1

-2

( 4.472 )

. ( 4.190 )

:

-1

( 4.336 )

( 4.392 )

. ( 4.301 )

-2

( 5 )

-

-

.

-3

.

:

.".

(4-4)

2		.6127	<b>4.427</b>	4.419	4.414	4.448		1
1		.5864	<b>4.509</b>	4.512	4.501	4.516		2
4		.7708	<b>4.218</b>	4.214	4.229	4.211		3
6		.7083	<b>4.109</b>	4.101	4.115	4.113		4
3		.6984	<b>4.354</b>	4.349	4.358	4.357		5
5		.8068	<b>4.136</b>	4.141	4.135	4.133		6
		<b>.4521</b>	<b>4.292</b>	<b>4.316</b>	<b>4.314</b>	<b>4.248</b>		

:

:

( 4.292 )

-1

-2

( 4.509 )

. ( 4.109 )

:

-1

( 4.314 )

( 4.316 )

. ( 4.248 )

-2

( 4 )

-3

:

"

(5-4)

5		.7051	<b>4.209</b>	4.209	4.206	4.212		1
2		.6711	<b>4.300</b>	4.306	4.289	4.307		2
5		.6509	<b>4.209</b>	4.205	4.209	4.213		3
4		.6416	<b>4.254</b>	4.252	4.265	4.247		4
3		.8028	<b>4.281</b>	4.265	4.287	4.292		5
1		.6763	<b>4.318</b>	4.317	4.327	4.311		6
		<b>.4922</b>	<b>4.262</b>	<b>4.261</b>	<b>4.263</b>	<b>4.263</b>		

:

( 4.262 )

:

-1

.

-2

.

( 4.317 )

. ( 4.209 )

:

(

)

-1

( 4.263 )

. ( 4.261 )

-2

( 3 )

( 1 )



## (6-4)

الترتيب	مستوى الاهمية	الوسط الحسابي											
1	مرتفع جداً	4.518	1	مرتفع جداً	4.538	1	مرتفع	4.498	1	مرتفع جداً	4.519		1
2	مرتفع	4.343	2	مرتفع	4.392	2	مرتفع	4.336	2	مرتفع	4.301		2
3	مرتفع	4.292	3	مرتفع	4.316	3	مرتفع	4.314	4	مرتفع	4.248		3
4	مرتفع	4.262	4	مرتفع	4.261	4	مرتفع	4.263	3	مرتفع	4.263		4
	مرتفع	4.354	3	مرتفع	4.331	1	مرتفع	4.352	2	مرتفع	4.332		

:

-1

. 4.354

4.518

4.262

-2

4.352

. 4.331

-3

3-4

:

HO1, HO2, HO3, )

(T) -1

.(HO4

(Scheffee)

(ANOVA)

-2

(HO5)

:

(F) (T)

(Ha)

(HO)

(Sig)

(0.05 ≥ α)

:

:Ho1

( One Sample T. Test )

(7 - 4)

( 7 -4)

( One Sample T. Test )

	T	T المحسوبة	Sig.	
	1.671	115.137	.000	

(0.05 ≥ Sig)

(115.137)

t

(1.671)

t

"

(Ha)

(HO)

Sig.

."

:Ho2

( One Sample T. Test )

(8 - 4)

( 8 -4)

( One Sample T. Test )

	T	T المحسوبة	Sig.	
	1.671	89.161	.000	

(0.05  $\geq$  Sig)

(89.161)

t

(1.671)

t

"

(Ha)

(HO)

."

Sig.

:Ho3

( One Sample T. Test )

(9 - 4)

( 9 -4)

( One Sample T. Test )

	T	T المحسوبة	Sig.	
	1.671	99.558	.000	

(0.05  $\geq$  Sig)

(99.558)

t

(1.671)

t

"

(Ha)

(HO)

Sig.

."

: Ho4

( One Sample T. Test )

(10 - 4)

( 10 -4)

( One Sample T. Test )

	T	T المحسوبة	Sig.	
	1.671	90.806	.000	

(0.05  $\geq$  Sig)

(90.806)

t

(1.671)

t

"

(Ha)

(HO)

."

Sig.

:Ho5

(ANOVA)

(Scheffee)

(ANOVA)

: (11 -4)

(11-4)

(ANOVA)

	Sig	F	F	df		
				4	.649	
	.434	3.92	.957	105	17.814	
				109	18.464	

(.957) F ( 11 -4)

F ( 3.92)

F F

"

)

(

"

0.05 (.434)

: Ho6

"

(ANOVA)

: (12 -4)

(12-4)

(ANOVA)

	Sig	F	F	df		
				3	.353	
	.698	3.92	.479	106	26.061	
				109	26.414	

(.479) F ( 12 -4)

F ( 3.92)

F F

"

(.698) "

0.05

**1-5**

**2-5**

:

**1-5**

:

)

-1

(

.

.

-2

-3

-4

(T

-5

(Anova)

-6

)

(

## Scheffe Test

2-5

:

-1

-2

-3

-4

-5

-6

.(IIA)

	:	
(2001) IFAC	.1	
(1994)	.2	
" (2008)	.3	
( 2007 )	.4	
.179-161 (2) (27)		
(2002)	.5	
" (2003)	.6	
- (1987)	.7	
(2003)	.8	

	:	2003	25-23	
				. (2005) .9
				.
.	"		" (2009)	.10
			-	
			(2009)	.11
				.
			. (2005)	.12
			:	
		(2)	(40)	
				(2010) .13
				.
:			" (2010)	.14
				"
				.
<b>SIX SIGMA</b>			" .(2011) .	.15
			"	
			:	

	" . (2005 )	.16
	"	
. 77-59	(1) (1)	
	: (2007)	.17
	:	
"	" (2010)	.18
	.	
"	" (2006)	.19
	.	
	" (2009)	.20
	.	
" (2002)		.21
	"	
	.	
	.(2005)	.22
	(610)	
	.	
" (2006)		.23
	.	
	"	
	.	

" (2005)	.24
"	
. (2004)	.25
.	
.	
( 2005 )	.26
( )	
.	
:	.(2004) .27
.	
"	" (2000) .28
.	
.	
" (2003)	.29
"	
" .(2012)	.30
"	
.	
:	

	:	(1990)	.31
	"	(2006)	.32
	"		
	361-346	3 (2)	
		" (2008)	.33
	"	-	
1	:	45 1	
			.51 -
		(2003)	.34
	"	" (2006)	.35
		(2005)	.36
	"	" (2011)	.37

" (2007) .38

-

"

. ( 2006) .39

.

"

" (2009) .40

" (2010) .41

20

"

-

. ( 1995 ) .42

158-71

.(2006) .43

(

. (2006) .44

:

1. Abdullatif, M. ( 2006) “ The Effectiveness of Audit Committees in Jordanian Public Shareholding Companies and Potential Company Characteristics Affecting it: Perceptions from Auditors in Jordan” ***Dirasat, Administrative Sciences***, Vol (33), No.( 2) pp: 450 – 468
2. Ahlawat, S. (2000) , ***Internal Auditor Objectivity: In-House Versus Outsourcing***, Rutgers University, On Line Available: <http://papers.ssrn.com/so13>, .
3. Allegrini,M and D'onza, G, (2003), "Internal auditing risk assessment in large Italian companies: an Empirical survey", ***International Journal of Auditing***, Vol 1, No.(7), p p. 191-208.
4. Arens, M, Arnaboldi, M. and Azzone, G, (2006)"Internal audit in Italian organizations: A multiple case study"***Managerial Auditing Journal***. Vol. (21) No. (3) pp: 275-292.
5. Arens , A.,Elder,J and Beasley , S. (2003), ***Essentials of Auditing and Assurance Services*** , Prentice – Hall .
6. Bailey,A. D., Gramling ,A. A. and Ramamoorti , S , (2003), ***Research Opportunities in Internal Auditing*** ,The Institute of Internal Auditors.
7. Basel Committee on banking supervision,( 2001), ***Internal Audit in Banks***.
8. Chambers, A. D. ,Selim, G. M. and Vinten, G , (1990), ***Internal Auditing***, Second Edition, Britain, Pitman Publishing.
9. Guy D., Wayne C. and Winters J ., (1999) .***Auditing*** , Fifth Edition ,Harcourt Brace &Company , USA .

10. Institute of Internal Auditors UK and Ireland ,(2004) ,”The role of Internal auditor in risk management” , On Line Available: [www.iaa.org.uk](http://www.iaa.org.uk), International Auditing Practice Statement .
11. Jantan , H, Fadzil ,F.H. and, Haron, H, (2005) "internal auditing practices and internal control system", *Managerial Auditing Journal*, volume.(20), issue 8, , pp 844 866.(Electronic copy), On Line Available :[http:// www.emeraldinsight.com](http://www.emeraldinsight.com).
12. Pickett, K.H. S and Vinten, G, (2000), *The Internal Auditing Handbook*, First Edition, England, John Wiley & Sons.
13. Porter,B,Simon,J,& Hatherly , D ,(2008) ,*Principles of External Auditing*, 3th edition , John Wiley and Sons : England
14. Rodney J , (1981), Developing a Working Relationship With Your External Auditors , *The Internal Auditor*, vol 2, no 3, PP: 22-29 .
15. Sarens , G . ( 2007 ) “*The role of internal auditing in corporate governance: qualitative and quantitative insights on the influence of organizational characteristics*” Doctoral dissertation. University of Arkansas: USA.
16. Tucker, X.L, (2011), "An E-Risk Primer" (Altamonte Springs), FL: The Institute of Internal Auditors" , New Jersey, USA.
17. Williamson, A. L, (2009, Feb),"Guiding Auditors Along the Information Superhigh Way: The Implication of Electronic Evidence", *Journal of Accountancy*, Chicago, Vol. 30, No., 4, pp:212-231.
18. Yan Z, Jian Z, and Nan Z ,(2007), Audit committee quality , auditor independence, and internal weaknesses. *International Journal of Auditing*, Vol.35. No.4 .pp.327-549

:(1)

:(2)

(1)

-

/

"

"

.

.

.

.

:

( √ )

-1

-2

-3

10 5   
 21  20 11

:

-4

CIA  CPA  CFA  CISA

:

: (  $\sqrt{\quad}$  )

" ( HO1) :

."

(  $\sqrt{\quad}$  )

.

						-1
						-2
						-3
						-4
						-5
						-6

" ( HO2) :

"

(√)

						-1
						-2
						-3
						-4
						-5
						-6

" ( HO3) :

."

(√)

						-1
						-2
						-3
						-4
						-5
						-6

" ( HO4) :

."

(√)

						-1
						-2
						-3
						-4
						-5
						-6

(2)

**Reliability****Case Processing Summary**

		N	%
Cases	Valid	110	100.0
	Excluded <sup>a</sup>	0	.0
	Total	110	100.0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

Cronbach's Alpha	N of Items
.709	24

**Case Processing Summary**

		N	%
Cases	Valid	110	100.0
	Excluded <sup>a</sup>	0	.0
	Total	110	100.0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

Cronbach's Alpha	N of Items
.753	6

**Case Processing Summary**

		N	%
Cases	Valid	110	100.0
	Excluded <sup>a</sup>	0	.0
	Total	110	100.0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

Cronbach's Alpha	N of Items
.795	6

**Case Processing Summary**

		N	%
Cases	Valid	110	100.0
	Excluded <sup>a</sup>	0	.0
	Total	110	100.0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

Cronbach's Alpha	N of Items
.718	6

## Frequencies

**Edu**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	1.8	1.8	1.8
	2	10	9.1	9.1	10.9
	3	76	69.1	69.1	80.0
	4	18	16.4	16.4	96.4
	5	4	3.6	3.6	100.0
	Total	110	100.0	100.0	

**Spe**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	67	60.9	60.9	60.9
	2	17	15.5	15.5	76.4
	3	14	12.7	12.7	89.1
	4	12	10.9	10.9	100.0
	Total	110	100.0	100.0	

**Exp**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	24	21.8	21.8	21.8
	2	47	42.7	42.7	64.5
	3	24	21.8	21.8	86.4
	4	15	13.6	13.6	100.0
	Total	110	100.0	100.0	

## Descriptives

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
q1	110	3.00	5.00	4.6545	.53220
q2	110	3.00	5.00	4.6727	.50880
q3	110	2.00	5.00	4.5909	.63960
q4	110	3.00	5.00	4.4364	.56710
q5	110	1.00	5.00	4.3091	.76321
q6	110	2.00	5.00	4.4455	.64376
q1toq6	110	3.00	5.00	4.5182	.41157
Valid N (listwise)	110				

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
r1	110	2.00	5.00	4.4273	.69677
r2	110	1.00	5.00	4.3091	.78688
r3	110	2.00	5.00	4.4727	.71304
r4	110	2.00	5.00	4.3091	.71351
r5	110	2.00	5.00	4.1909	.76020
r6	110	2.00	5.00	4.3545	.68518
r1tor6	110	3.00	5.00	4.3439	.51098
Valid N (listwise)	110				

## Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
p1	110	3.00	5.00	4.4273	.61270
p2	110	3.00	5.00	4.5091	.58648
p3	110	2.00	5.00	4.2182	.77082
p4	110	2.00	5.00	4.1091	.70834
p5	110	2.00	5.00	4.3545	.69844
p6	110	2.00	5.00	4.1364	.80682
p1top6	110	3.00	5.00	4.2924	.45219
Valid N (listwise)	110				

## Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
e1	110	2.00	5.00	4.2091	.70510
e2	110	2.00	5.00	4.3000	.67116
e3	110	3.00	5.00	4.2091	.65098
e4	110	3.00	5.00	4.2545	.64162
e5	110	2.00	5.00	4.2818	.80288
e6	110	3.00	5.00	4.3182	.67636
e1toe6	110	3.00	5.00	4.2621	.49227
Valid N (listwise)	110				

## T-Test

**One-Sample Statistics**

	N	Mean	Std. Deviation	Std. Error Mean
q1toq6	110	4.5182	.41157	.03924
r1tor6	110	4.3439	.51098	.04872
p1top6	110	4.2924	.45219	.04311
e1toe6	110	4.2621	.49227	.04694

**One-Sample Test**

	Test Value = 0					
					95% Confidence Interval of the Difference	
	t	Df	Sig. (2-tailed)	Mean Difference	Lower	Upper
q1toq6	115.137	109	.000	4.51818	4.4404	4.5960
r1tor6	89.161	109	.000	4.34394	4.2474	4.4405
p1top6	99.558	109	.000	4.29242	4.2070	4.3779
e1toe6	90.806	109	.000	4.26212	4.1691	4.3551

## ANOVA

q1toq6

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.649	4	.162	.957	.434
Within Groups	17.814	105	.170		
Total	18.464	109			