

**AUDITNG UNCERTAINTY OF THE ACCOUNTING ESTIMATES IN FAIR
VALUE ACCORDANCE WITH THE PROCEDURES OF THE
INTERNATIONAL STANDARDS ON AUDITNG NO.540 FILED STUDY ON
THE AUDIT OFFICES OPERATING IN JORDAN**

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Received: 15.03.2019, Accepted: 10.04.2019

Abstract

Accounting estimate in fair value is one of the most problems facing auditors during their career, this study try to investigate how auditors compliance with the procedures required by ISA 540 when auditing cases of the uncertainty of accounting estimates plus fair value measurement and disclosures in the financial statements. The researchers distribute a questionnaire to the auditing offices operating in Jordan (311 offices) to know how auditors comprehend the audit responses provided in ISA 540, questionnaires distributed to all these (150) auditors selected randomly, (117) questionnaires were returned. The study found the auditors in general compliance with procedures followed in international standard on auditing 540 when auditing cases of the uncertainty of accounting estimates with a high level except examination the management's assumptions about accounting estimates came with average level which may appear from management bias, then we found that the auditors compliance with procedures for measurement and disclosures in the financial statements, we recommended Follow-up changes and recent developments that may arise in the international accounting standards related to accounting estimates and the auditors should know the new procedures and policies established by the companies' managements to follow up the preparation of the accounting estimates.

Keywords: Auditing uncertainty, accounting estimates, Fair Value, ISA 540

JEL Codes: M40, M41, M42

1. Introduction

The role of the auditor is to provide reasonable assurance about weather financial statements are free from material misstatements. This includes providing an objective and independent opinion on the appropriateness of management's assertions about the true state of the financial reports (Eilifsen et al. 2013). In addition Auditor presents an important role in the business environment in contemporary organizations, where a lot of parties rely on these services provided for decision-making which related to nature of organizations. This represented in the quality of the audit process by the auditors. In order to present a requested services and work on improving it. (Abdallah et al. 2015)

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This study focused on problem of the attitude and opinion of the audit offices in Jordan regarding the auditor's response to the development of accounting estimates in order to maintain the auditor opinion independence, which in turn constitutes a challenge in evaluating the objective assumptions and determining external data, which not appear in accounting estimates of fair value precisely if there is a bias by management. IFRS (13) clearly sets out that fair value is not an entity specific measurement it is a market-based measurement (Chaudhry, Asif, et al. 2015). And the auditor shall determine whether, in the auditor's judgment, any of those accounting estimates that have been identified as having high estimation uncertainty give rise to significant risk (ISA 540, para.10, 2016) because some financial statement items cannot be measured exactly, but can only be estimated (ISA 540, para.2, 2016).

Closely related studies conducted by Montague Norma R.(2010) "examine the effects of audit guidance and uncertainty of estimation on auditors' confirmation bias and professional skepticism when evaluating the estimates of fair value, she found that auditors show the greatest confirmation bias when they are directed to disagree versus support management's estimate or generate their own estimate, and that this bias increases the degree of professional skepticism exercised by auditors when they evaluate fair value estimates".

In this study the researchers has dealt with the auditor's responsibilities relating to the fair value estimates and related disclosures through clarify the risks arising from the material errors, procedures and audit evidence that the auditor will follow towards the accounting estimates that contain the fair value estimates disclosed in the financial statements, and to consider the extent of irrationality those values, and the extent of the auditor's response to such estimates in accordance with the ISA 540, which focuses on the fair value estimates.

The purpose of this study is to dissect how auditors comprehend the audit responses provided in ISA 540, the outright purpose is to inspect how the auditors perform the auditing uncertainty of accounting estimates in fair value, and therefore the research questions of the study is:

To what extent the auditors compliance with procedures followed in international standard on auditing 540 when auditing cases of the uncertainty of accounting estimates

To what extent the auditors compliance with auditing of the uncertainty of accounting estimates relating to fair value measurement and disclosures in the financial statements

2. Literature Review

2.1. Changes in Accounting Estimate

Accounting estimate is a monetary amount approximation in the absence of accurate means of measurement, this term is used for an amount measured at fair value where there is estimation of uncertainty, as well as for other amounts that require estimation (ISA 540, para.7a, 2016). More than that some accounting standards (IAS No.8 Accounting Policies, Changes in Accounting Estimates and Errors) state that changes in accounting estimates arise from new information or developments. Accordingly, disclosure of a change in accounting estimate is an unambiguous signal of new information which is significant to the stakeholders (Beaulieu, Philip, et al. 2017).

Making accounting estimates is a very complex process that connotes obtaining of all required information about the topic (Sacer, Ivana, et al. 2016). The financial statements preparation requires frequent use of estimates such as asset residual values, fair values of financial assets or financial liabilities (Chaudhry, Asif, et al. 2015) which may include uncertainty. ISA 540 clarifies that there is a significant variation in reliability, which in turn refers to uncertainties of accounting estimates, Uncertainties are defined as "The capability of an accounting estimate and related disclosures to an inherent lack of fineness in its measurement" (ISA 540, para.7c, 2016). IAS 8 requires that changes in estimates be recognized prospectively by including it in profit or loss in the period of change if the change affects that period only or the period of change and future periods if the change affects both (Chaudhry, Asif, et al. 2015).

Asbahr and Ruhnke (2017) analyses whether reporting an accounting estimate as a key audit matter (KAM) can impact auditors' professional judgment about the reported estimate under the difference condition of tacit or without client pressure, through using the moral licensing theory, reasoning of motivated and accountability, they found that auditors' professional judgment about the rationality of a biased accounting estimate is not affected by the (KAM) reporting requirements and pressure of client, and provide Initial evidence that the reporting (KAM) format can serve as moral license to concede an adjustment.

Other authors concentrate on the learning effect, like Asthana (2002) in her study posits that the precision of accounting estimates should be an increasing function of experience due to learning effects she conducted regression analyses to examine the precision of two estimates (discount rates and health care cost inflation rates) required under SFAS 106. She found show that the estimation errors for the health care cost inflation estimates decrease with experience, but those for discounts rates do not.

2.2. Auditor's responsibility in estimating accounting estimates accordance to ISA 540

Auditors have difficulty obtaining conclusive evidence to challenge management's estimates (Kaplan and Reckers, 1995), they should obtain sufficient and appropriate evidence as to whether the disclosures relating to the financial statements are appropriate or not, in the context of the applicable financial reporting framework, And whether accounting estimates, including accounting estimates of fair value in the financial statements, whether recognized or disclosed, are reasonable or not (IFAC, para.6, 2010), Boumediene, Salem, et al. (2017) "they studied the effect of audit challenges related to fair value on the quality of audit and the role of the (ISA) 540 in alleviate these challenges from point of view the external auditors in Tunisia, they found that the fair value may cause technical difficulties for auditors. These challenges at fair value have no negative effect on audit quality and respondents approve that the ISA 540 play a major role in alleviate the audit challenges related to fair value". Some other researchers Griffith.E. (2016) investigate how auditors use valuation specialists in audits of fair values through interviewed 28 auditors and 14 valuation specialists with extensive experience auditing to help auditors to improve the quality of audits of fair values. The interviews reveal a tendency among auditors to make specialists' work conform to the prevailing audit team view, in addition to that he finds that while valuation specialists perform many of the most difficult and important elements of auditing fair values, auditors retain responsibility for making overall conclusions about fair values yet who must rely on the expertise of specialists to make these judgments.

Based on the above, the following responsibilities related to the auditor when auditing and assessment risk of accounting estimates (Alshwabkeh, Zaid, 2013):

- 1 Understand accounting estimates requirements
- 2 Assessing how management perform accounting estimates
- 3 Reviewed previous year's estimates
- 4 Assessing of compliance with the requirements of the Accounting Standards related to accounting estimates
- 5 Follow up of subsequent events and provide it to audit evidence

2.3. Auditing of the uncertainty of the accounting estimates in Fair Value

As we explain above ISA 540 define Estimation uncertainty as the capability of an accounting estimate and related disclosures to an inherent scarcity of rigor in its measurement. (ISA 540, para.7c, 2016). Estimation uncertainty and the prevalence of fair value measurements in financial statements have increased over time (Christensen, B. et al. 2012) it is associated with higher inherent risk assessments, which are in turn predictive of client problems identified during the engagement (Cannon and Bedard 2016). Measurements of complex fair value usually are characterized by greater uncertainty regarding the measurement process reliability (PCAOB, AS 2502, para.24, Dec, 2017). In his study Griffin (2014) "examine how uncertainty affects adjustment of auditors' decisions when assess fair values through measuring outcome imprecision and input subjectivity, supplemental disclosure, and choosing one report, he found that auditors probably require modifications if fair value contain both more outcome inaccuracy and more input subjectivity but it's may decrease when client complement recognized fair values as an additional disclosure". Some other studies reflecting the challenges auditor faces in their evaluation of accounting estimates, DeZoort,F.et al. (2003) they found that, in auditor-management disagreements, audit committees lend greater support to auditors when there is less measurement uncertainty, and Kang, Y, et al. (2015) they found that audit committees find more comfort in accounting estimates audited using innovative audit procedures. While auditors tend to follow management's lead and routinely audit the process management uses (Griffith.E et al. 2015), auditors are less influenced by management when auditors develop their own estimate expectation (Fitzgerald, and Smith 2015) and when auditors practice critical thinking (Griffith.E. et al. 2015). These previous studies typically rely on experimental research design or small survey data.

3. Method

The researchers used the analytical descriptive method to collect data, analyze and test the hypotheses by relying on questionnaires distributed to the auditing offices operating in Jordan (311 offices) to know how auditors comprehend the audit responses provided in ISA 540. In which the auditors were asked to state the likelihood (on a 5-point scale: [5] strongly agree; [4] agree; [3] neutral; [2] disagree; [1] strongly disagree).

To get the primary data, the number of auditors were (150) selected randomly, questionnaires distributed to all these (150) auditors, (117) questionnaires were returned (percentage of 78%); these 117 copies were accepted and used in the pilot analysis of the original distributed questionnaires. (33) Questionnaires were excluded for incomplete filling and clear randomization during filling at (percentage of 22%)

Secondary data is collected from Arabic and Foreigners articles published by the well-known periodicals, books, and dissertations related to uncertainty of the accounting estimates in Fair Value.

4. Study Hypothesis

The auditor has to understand how accounting estimates are verified, Griffith et al. (2012) interviewed 24 auditors belonging to six major audit firms, during the months of October and November. These interviewees noticed that the accounting estimates are difficult to verify because they must assess the reasonableness of the estimates rather than simply verify their accuracy. More over Kumarasiri and Fisher (2011) sought to identify and examine the issues and challenges faced by auditors in auditing estimates at fair value in a context of developing countries based on a survey of 156 auditors in Sri Lanka. Among the problems they found is the prevalence of inactive markets in developing countries, According to the above-mentioned studies, we can formulate the following hypothesis:

H1: auditors are not compliance with procedures followed in international standard on auditing 540 when auditing cases of the uncertainty of accounting estimates.

H2: auditors are not compliance with auditing of the uncertainty of accounting estimates relating to fair value measurement and disclosures in the financial statements.

5. Design of the Study & Statistical Treatment

The Exploratory and Confirmatory Factor analysis was carried out in order to verify the validity of the study tool, as illustrate in table (1)

Table no.1- Matrix of factors, paragraphs and their saturation values

paragraphs	Factors/ saturation values	
	Factor (1)	Factor (2)
1	0.989	
4	0.983	
5	0.960	
6	0.952	
2	0.951	
3	0.947	
9		0.925
7		0.903
8		0.745

The saturation value adopted in the analysis was (0.40) as the value between the important saturation and the unimportant saturation. These result were accepted accordance to Kaiser-Meyer-Olkin (KMO) (Kaiser,1970) which use for test a measure of how suited data is for factor analysis, the value of this scale is (0.859) and it is acceptable because it is greater than (0.5). The value of the (Bartlett) test is statistically significant, which means that there is a minimum of variables that enable to make the Exploratory and Confirmatory Factor analysis for variables. As shown in table (2)

Table no. 2- Sampling appropriateness and the variables validity to conduct the factor analysis

KMO test	0.859	
Bartlett test	Chi-Square	6160.06
	Degree of freedom	351

	significance level	0.000
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6. Data Analysis and Findings

6.1. Reliability Test

Cronbach's alpha was used to test the Internal Consistency Coefficient In this study 0.60 or higher is considered acceptance (Sekrran, 2013). As shown in table (3) the Cronbach's alphas for first factor was (0.986) and for second factor was (0.819) and for the questionnaire as a whole was (0.876)

Table no. 3- Internal Consistency Coefficient (Cronbach's alpha)

Factor	Cronbach's alpha
1(paragraphs 1-6)	0.986
2(paragraphs 7-9)	0.819
questionnaire as a whole	0.876

6.2. Normal distribution Test

In order to identify the normal distribution of the study data and check whether appropriate for a regression analysis for hypothesis tests, we using (Kolmogorov-Smirnov). Table (4) shown that the result of (Kolmogorov-Smirnov) test was (0.08) with significant level more than (0.05) which equal (0.063)

Table no. 4- Kolmogorov-Smirnov test for normal distribution

Test value	Degree of freedom	Significant level
0.08	117	0.063

6.3. Multicollinearity Test

In order to verify the multicollinearity between variables we used (Variance Inflation Factor) and (Tolerance). Table (5) shown all Variance Inflation Factor less than (5), and all Tolerance values more than (0.1), that is mean all data are free from multicollinearity problem.

Table no. 5- Multicollinearity Test Results

Variables	Variance Inflation Factor	Tolerance
1	1.036	0.965
2	1.074	0.931

6.4. Sample Characteristics

The respondents were (n=117,100%) an accountants, most of them were (n=86, 74%) had accounting degree, (n=19, 16%) had diploma, (n=12, 10%) had master degree, note that no one of sample had Ph. Degree. Most of respondents were (n=101, 86%) specialist in accounting, (n=14, 12%) specialist in banking and financial sciences, (n=2, 2%) specialist in business management. Furthermore most respondents (n=96, 82%) had experience between 10-15 years, then (n= 14, 12%) had experience less than 5 years, (n=7, 6%) had experience between 5-10 years. As illustrate in table (6).

Table no.6- Demographic Description of the Study Sample

Category	Position/ Job title		Professional Certificate		Scientific qualification		Years of experience	
	Frequencies	%	Freq.	%	Freq.	%	Freq.	%
Partner	-	-						

Financial manager	-	-						
Chief of accounts	-	-						
Auditors	117	100						
Total	117	100%						
Bachelor			86	74				
Diploma			19	16				
Master			12	10				
Total			117	100%				
Accounting					101	86		
banking and financial					14	12		
business management					2	2		
other					-	-		
Total					117	100%		
Less than 5 years							14	12%
Between 5-10 years							7	6%
Between 10-15 ears							96	82%
More than 15 years							-	-
Total							117	100%

6.5. Test of Hypotheses

6.5.1. First Hypothesis

“Auditors are not compliance with procedures followed in international standard on auditing 540 when auditing cases of the uncertainty of accounting estimates”

To verify the validity of this hypothesis, the arithmetic means and standard deviations of the items concerning compliance with procedures followed in international standard on auditing 540 when auditing cases of the uncertainty of accounting estimates, as it is illustrated in the following table

Table no.7- Arithmetic means and standard deviations of the items concerning compliance with procedures followed in international standard on auditing 540 when auditing cases of the uncertainty of accounting estimates

Rank	N	Items	Mean	Std.	Sig.
1	1	The auditor has the ability to understand the methods and procedures followed by management when preparing accounting estimates	3.90	1.192	High
2	4	performing an audit on assess uncertainties of accounting estimates and risks arising from them	3.88	1.183	High
3	2	The auditor complies with the standards used to assess fair values and accounting estimates	3.85	1.222	High
4	5	The auditor is complies to compare the results submitted by the management, with the actual results from the auditing of uncertainty cases	3.84	1.181	High
5	3	The auditor shall verify the information provided by the management and shall be authenticated by the necessary signatures and documents.	3.79	1.126	High
6	6	The auditor examines the management's assumptions about accounting estimates	3.62	1.312	Average

Average	-	-	3.81	1.202	High
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The table above showed that the arithmetic mean range between (3.62) and (3.90). Item (1): “The auditor has the ability to understand the methods and procedures followed by management when preparing accounting estimates” came first with a mean (3.90) while item (6): “The auditor examines the management's assumptions about accounting estimates” came last with a mean (3.62). And the mean of the compliance with procedures followed in international standard on auditing 540 when auditing cases of the uncertainty of accounting estimates was (3.81).

- *Testing the First Hypothesis Using T-test*

Table no. 8- Testing the First Hypothesis Using T-test

Rank	N	Items	Mean	Std.	Sig.	t-value	Sig.level
1	1	The auditor has the ability to understand the methods and procedures followed by management when preparing accounting estimates	3.90	1.192	High	8.145	0.000
2	4	performing an audit on assess uncertainties of accounting estimates and risks arising from them	3.88	1.183	High	8.050	0.000
3	2	The auditor complies with the standards used to assess fair values and accounting estimates	3.85	1.222	High	7.490	0.000
4	5	The auditor is complies to compare the results submitted by the management, with the actual results from the auditing of uncertainty cases	3.84	1.181	High	7.660	0.000
5	3	The auditor shall verify the information provided by the management and shall be authenticated by the necessary signatures and documents.	3.79	1.126	High	7.636	0.000
6	6	The auditor examines the management's assumptions about accounting estimates	3.62	1.312	Average	5.073	0.000
Average	-	-	3.81	1.202	High		

Significant level at ($\alpha \leq 0.05$)

For testing this hypothesis we used items (1) to (6) to extraction means, standards deviations and t-value for one sample, the result on table (8) showed that the auditors are compliance with procedures followed in international standard on auditing 540 when auditing cases of the uncertainty of accounting estimates, with total mean for (3.81) and standards deviations for (1.202). The t-value for all items was consider statistically significant at ($\alpha \leq 0.05$) and therefore the null hypothesis was rejected and the alternative one was accepted.

6.5.2. Second Hypothesis

“Auditors are not compliance with auditing of the uncertainty of accounting estimates relating to fair value measurement and disclosures in the financial statements”

To verify the validity of this hypothesis, the arithmetic means and standard deviations of the items concerning compliance with auditing of the uncertainty of accounting estimates relating to fair value measurement and disclosures in the financial statements, as it is illustrated in the following table

Table no. 9- Arithmetic means and standard deviations of the items concerning compliance with auditing of the uncertainty of accounting estimates relating to fair value measurement and disclosures in the financial statements

Rank	N	Items	Mean	Std.	Sig.
7	1	The lack of clear accounting policies, affect the management company in dealing with uncertainty cases	3.78	0.911	High
8	2	The auditor has the ability to track the subsequent events associated with the uncertainty of accounting estimates	3.74	1.001	High
9	3	The auditor has the ability to verify the relevant management decisions in the accounting estimates and the extent of their credibility or bias	3.72	1.065	High
Average	-	-	3.75	0.992	High

The table above showed that the arithmetic mean range between (3.72) and (3.78). Item (1): “The lack of clear accounting policies, affect the management company in dealing with uncertainty cases” came first with a mean (3.78) while item (3): “The auditor has the ability to verify the relevant management decisions in the accounting estimates and the extent of their credibility or bias” came last with a mean (3.72). And the mean of the compliance with auditing of the uncertainty of accounting estimates relating to fair value measurement and disclosures in the financial statements (3.75).

- Testing the Second Hypothesis Using T-test

Table no.10- Testing the Second Hypothesis Using T-test

Rank	N	Items	Mean	Std.	Sig.	t-value	Sig.level
7	1	The lack of clear accounting policies, affect the management company in dealing with uncertainty cases	3.78	0.911	High	9.237	0.000
8	2	The auditor has the ability to track the subsequent events associated with the uncertainty of accounting estimates	3.74	1.001	High	8.033	0.000
9	3	The auditor has the ability to verify the relevant management decisions in the accounting estimates and the extent of their credibility or bias	3.72	1.065	High	7.288	0.000
Average	-	-	3.75	0.992	High		
Significant level at ($\alpha \leq 0.05$)							

For testing this hypothesis we used items (7) to (9) to extraction means, standards deviations and t-value for one sample, the result on table (10) showed that the auditors are compliance with auditing of the uncertainty of accounting estimates relating to fair value measurement and disclosures in the financial statements, with total mean for (3.75) and standards deviations for (0.992). The t-value for all items was consider statistically significant at ($\alpha \leq 0.05$) and therefore the null hypothesis was rejected and the alternative one was accepted.

7. Results and Recommendations

7.1. Results

Accordance to the pervious discussion, we note that the auditors in general compliance with procedures followed in international standard on auditing 540 when auditing cases of the

uncertainty of accounting estimates with a high level except examination the management's assumptions about accounting estimates came with average level. and the ISA 540 play a major role in alleviate the audit challenges related to fair value, as appeared in (Boumediene, Salem Lotfi, et al. 2017).

For compliance with auditing of the uncertainty of accounting estimates relating to fair value measurement and disclosures in the financial statements, we found that the auditors compliance with procedures for measurement and disclosures in the financial statements. Is different from results by Griffin (2014) when he found that auditors probably require modifications if fair value contains both more outcome inaccuracy and more input subjectivity when they examine how uncertainty affects their adjustment

7.2. Recommendations

Depending on the previous results, the researchers recommended the following:

Follow-up changes and recent developments that may arise in the international accounting standards related to accounting estimates, and also changes and recent developments in the procedures followed in the international standards on auditing, to ensure that the values of these estimates are disclosed in the companies. Plus,

The auditor should know the new procedures and policies established by the companies' managements to follow up the preparation of the accounting estimates and assumptions so that they are clear, reliable, and the need to confirm the continuity of the follow up of the estimates for the current accounting period and future periods.

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