QUALIFIED AUDIT OPINION, ACCOUNTING EARNINGS MANAGEMENT AND REAL EARNINGS MANAGEMENT: EVIDENCE FROM IRAN

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ABSTRACT

This study examines the relationship between qualified audit opinions and earnings management, as measured by discretionary accruals (accounting earnings management) and abnormal production cost (real earnings management), for listed firms on the Tehran Stock Exchange (TSE). For this purpose, four hypotheses are developed and tested by using multiple regressions and sample of 2818 firm-years. The results show that qualified opinions are related to accounting earnings management but are not related to real earnings management. Client financial characteristics, such as profitability, size, experience, type of audit opinion in previous year and prior year loss are determinants of the qualified audit opinion decision.

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Keywords: Audit opinion, Accounting earnings management, Real earnings management.
JEL Classification: G10, M41.

Contribution/ Originality

This study is one of very few studies which have investigated relationship between qualified audit opinions, accounting earnings management and real earnings management.

1. INTRODUCTION

In this paper, the association between audit opinions and earnings management is investigated. The aim of this study is to investigate the association between auditors reporting, as measured by auditors' willingness to issue qualified opinions; accounting earnings management, as measured based on Kasznik (1999) model; and real earnings management as measured based on Roychowdhury (2006).

Based on Iranian auditing standards, the qualified opinion divides into two categories: First, qualified for materially (not pervasively) misstated financial statements and second, qualified for inability to obtain sufficient appropriate audit evidence. In this research, I divide the qualified opinion into these two categories.

There are different definitions about earning management. Based on Ronen and Varda Yaari (2008), these definitions could be classified as white earnings management (WEM), grey earnings management (GEM) and black earnings management (BEM). WEM enhances the transparency of reports. Based on this definition, earnings management is taking advantage of the flexibility in the choice of accounting treatment to signal the manager's private information on future cash flows. GEM is manipulation of reports within the boundaries of compliance with bright-line standards, which could be either opportunistic or efficiency enhancing. Based on this definition, earnings management is choosing an accounting treatment that is opportunistic (maximizing the utility of management only) or economically efficient. BEM involves outright misrepresentation and fraud. Based on this definition, earnings management is the practice of using tricks to misrepresent or reduce transparency of the financial reports.

Prior research has investigated the association between auditor's qualified opinion and accruals-based (accounting) earnings management (Bartov *et al.*, 2001; Herbohn and Ragunathan, 2008; Tsipouridou and Spathis, 2014). These studies focused exclusively on accrual-based manipulation, and qualified audit opinion for the going-concern uncertainty and qualified for other reasons. However, firms can also manage earnings by changing real activities (Graham *et al.*, 2005; Roychowdhury, 2006; Zang, 2006). The distinction is important, because earnings management based on accruals activities have no direct cash flow consequences but real activities manipulations affect cash flows.

Although studies about real earnings management are less than accrual-based earnings management, Graham *et al.* (2005) finds that managers prefer real activities manipulation (e.g., reducing discretionary expenditures or capital investments) over accruals manipulation as a way of reported earnings managing. The difference between these real earnings management activities and accrual-based ones as they have direct effects on cash flows, is significant.

Executives' greater willingness to manage earnings through real activities than through accruals has at least two reasons. First, accrual-based earnings management is more likely to draw auditor or regulatory scrutiny than real decisions, such as those related to expenditures on R&D or advertising, product pricing and production. Second, using accrual manipulation alone is risky. The difference between unmanaged earnings and the desired threshold can exceed the amount by which it is allowed to manipulate accruals after the end of the fiscal period. If reported income is below the threshold and all accrual-based policies to meet it are exhausted, managers have no more options because real activities cannot be altered at or after the end of the fiscal year (Cohen and Zarowin, 2010).

This topic is very important because the current economic environment reveals fundamental questions about the role of auditors in maintaining users' confidence about financial statements in

the audit report. Therefore, it is vital to examine the association between audit opinion and earnings management in a situation where the propensity to manage earnings may be high. In addition, this topic has not been previously examined in the Iran and this is the first time that the association between qualified audit opinion, accounting earnings management and real earnings management is investigated in Tehran Stock Exchange (TSE).

The remainder of this study is prepared in 5 sections. In section 2, the literature review is presented. The hypotheses of this research are mentioned in section 3. In section 4 the methodology that describes the sample, outlines the analysis of the audit opinion qualifications and presents the empirical model, is discussed. Section 5 documents the results, and finally section 6 presents the study's conclusions.

2. LITERATURE REVIEW

My study revisits the potential link between earnings management and the likelihood of receiving a qualified opinion. Prior studies from other countries like US, Australia, Spain and Greece, provide mixed evidence on the nature of this relationship. In following, I consider these studies.

Francis and Krishnan (1999), after controlling the variables of client-specific financial and market risk, find that auditors of large sample of US listed firms with high levels of accruals are more likely to issue qualified opinions for asset realization uncertainties and for going-concern problems, than auditors of firms with low absolute levels of accruals.

Bartov *et al.* (2001), find that a significant positive link exists between the absolute value of discretionary accruals and the likelihood of receiving a qualified opinion.

Sengupta and Shen (2007) re-examine this issue and indicate that the likelihood of receiving a going-concern audit opinion is higher when the quality of accruals for a firm is low.

Herbohn and Ragunathan (2008) investigate the relationship between actual abnormal accruals and the probability of receiving a qualified audit opinion in Australia. They, by using a sample of firms listed on the Australian Stock Exchange over the period 1999–2003, document a negative relationship between the qualified opinion and accruals that is stem from going-concern issues for risky firms due to financial distress and audit litigation. Their results show that earnings management is not the cause of audit opinion qualifications.

Arnedo *et al.* (2008) test the relationship between qualified opinion and earnings management in a Spanish context for a sample of private pre-bankrupt firms. They divide the qualified opinions into two groups – qualified based on going-concern issues and qualified for other reasons. Their evidence reveals a negative association, which stems from reports containing uncertainty about the likelihood of a firm continuing as a going-concern. However, when the reasons for the qualification are other than the going-concern, they found a positive relationship. They suggest that auditor reporting is a positive response to earnings management and that the negative relationship in going-concern cases is outcome of auditor conservatism rather than a result of the distressed status of the firm and its liquidity strategies for survival.

Bartov *et al.* (2001) conclude that the frequency of qualified audit opinions is not higher in firms with sizeable accruals. They find that auditors do not inform investors about the increased incidence of future earnings declines and GAAP violations that are often related to high levels of accruals. The mainspring is that these earnings quality issues are beyond the scope of the audit. In other words, auditors may understand that increased accruals in one period imply a greater likelihood of future earnings declines and GAAP violations in other periods, but they are not required to share this information by investors through their audit opinions.

Butler *et al.* (2004) conclude that auditors are unlikely to issue qualified opinions for earnings-management reasons. They, based on more than 7000 qualified opinions of US firms for the period 1994–1999, investigate the relationship between abnormal accruals and audit opinion type. They find a positive relationship between modified opinions and abnormal accruals, in case accruals are measured in absolute terms. By changing the dependent variable from the absolute level to the actual amount of abnormal accruals, they discover that there is negative relationship between qualified opinions and accruals. Overall, they conclude that there is no evidence that auditors use the audit opinions to inform users of financial statement about either excessive earnings management or the consequences of high levels of positive accruals.

Tsipouridou and Spathis (2014) examine the relationship between audit opinions and earnings management, as measured by discretionary accruals, for listed firms on the Athens Stock Exchange (ASE). They divide the qualified audit opinions into two categories: qualified for the going-concern uncertainty and qualified for other reasons. They find that audit opinions are not related to earnings management and client financial characteristics, such as profitability and size are determinants of the going-concern audit opinion decision. Also, the decision of auditors to issue qualified opinions for other reasons is explained by the type of audit opinion issued in the previous year.

Roychowdhury (2006) defines real activities manipulations as management actions that deviate from normal business practices. He focuses on real activities manipulations that undertaken in order to mislead certain stakeholders into believing that earnings benchmarks have been met normally and finds evidence consistent with firms trying to avoid reporting losses in three ways: (1) boosting sales through accelerating their timing and/or generating additional unsustainable sales through increased price discounts or more lenient credit terms; (2) overproducing and thereby allocating more overhead to inventory and less to cost of goods sold, which leads to lower cost of goods sold and increased operating margins; or (3) aggressively reducing aggregate discretionary expenses to improve margins. Most likely, this reduction occurs when such discretionary expenses do not generate immediate revenues and income.

Zang (2006) examines the links between accrual manipulations and real earnings management. She concludes that making decisions about earnings management through ''real'' actions precede making decisions about earnings management through accruals. The results show that there is positive relationship between real manipulation and the costs of accrual manipulation and also, between that accrual and real manipulations there is negative relationship. Based on these results, she concludes that managers treat the two strategies as substitutes.

Gunny (2005) investigates the consequences of real earnings management. He finds that real earnings management has a significant negative impact on future operating performance. More ever, it appears that capital markets participants mostly recognize the future earnings implications of managers' short-sighted behaviors.

3. HYPOTHESES

Based on prior research that mentioned in section 2, and in order to achieve the main goal of this research that is investigating the relationship between qualified audit opinions and earnings management, 4 hypotheses are developed as follow:

H1: There is a significant relationship between accrual based earnings management and qualified opinion for materially misstated financial statements.

H2: There is a significant relationship between accrual based earnings management and qualified opinion for inability to obtain sufficient appropriate audit evidence.

H3: There is a significant relationship between real earnings management and qualified opinion for materially misstated financial statements.

H4: There is a significant relationship between real earnings management and qualified opinion for inability to obtain sufficient appropriate audit evidence.

4. METHODOLOGY

4.1. Sample

The sample for this study comprises firms listed on the Tehran Stock Exchange (TSE). The sample period is from 2003-2013. All financial firms (including banks) are excluded because this industry is regulated and is likely to have a fundamentally different cash flow and accrual processes. Firms with insufficient data are also eliminated. Financial and accounting data needed to estimate models are obtained from TSE reports on CDs and web. After applying these criteria, there are 290 firms in our sample and the final sample size is 2818 firm-years.

4.2. Estimation of Discretionary Accruals

Based on Jones (1991), total accruals are calculated as the difference between earnings and cash flow from operation. Earning is defined as net income before extraordinary items and cash flows from operation is net cash flows from operating activities reported in the Statement of Cash Flows.

Some accrual adjustments are necessary and expected by investors, which constitute the non-discretionary component of accruals, while the remaining accruals are not dictated by firm conditions but are rather managed and termed discretionary (Charitou *et al.*, 2007).

There are many models that by using them, total accruals decomposed into discretionary and nondiscretionary accrual components (Jones, 1991; Dechow *et al.*, 1995; Kasznik, 1999; Kothari *et al.*, 2005).

Akhgar *et al.* (2012a) and Akhgar *et al.* (2012b) estimate discretionary and nondiscretionary accruals by using several models in Tehran Stock Exchange during 2001-2010. They find that in TSE the model developed by Kasznik (1999) could better decompose total accruals into discretionary and nondiscretionary accrual components. So based on this research, I use the Kasznik (1999) model for estimating the discretionary accruals too. The Kasznik (1999) model is as follow:

$$\frac{ACCR_{it}}{TA_{it-1}} = a_0 \frac{1}{TA_{it-1}} + a_1 \frac{[\Delta REV_{it} - \Delta REC_{it}]}{TA_{it-1}} + a_2 \frac{PPE_{it}}{TA_{it-1}} + a_3 \frac{\Delta CFO_{it}}{TA_{it-1}} + e_{it} \qquad (1)$$

Where $ACCR_{it}$ is total accruals for firm i year t, TA_{it-1} is total assets for firm i year $t-1$, ΔREV_{it} is change in revenue for firm i from year $t-1$ to year t, ΔREC_{it} is change in net accounts receivable for firm i from year $t-1$ to year t, and ΔCFO_{it} is change in cash flow from operation for firm i from year $t-1$ to year t.

In model (1), nondiscretionary accruals are fitted values of model and discretionary accruals (DA) are defined as the residuals. So, the residuals of this model are proxy for accounting earnings management.

4.3. Estimation of Real Earnings Management

Roychowdhury (2006), Zang (2006) and Gunny (2005) consider three metrics to study the level of real activities manipulations: the abnormal levels of cash flow from operations, discretionary expenses, and production costs.

In this research, I use production costs metric as a level of real activities manipulations. In order to increase earnings, managers can increase production more than necessary. By producing more units, managers can spread the fixed overhead costs over a larger number of units, and so they can lower fixed costs per unit. As long as this reduction in fixed costs per unit is not offset by any increase in marginal cost per unit, total cost per unit declines. This decreases reported cost of goods sold (CGS) and the firm can report higher operating margins. However, the firm will still incur other production and holding costs that will lead to higher annual production costs relative to sales, and lower cash flows from operations given sales levels (Cohen and Zarowin, 2010).

Production costs are defined as the sum of CGS and change in inventory during the year. I use the following model to estimate the level of production costs:

$$\frac{PROD_{it}}{TA_{it-1}} = a_0 \frac{1}{TA_{it-1}} + a_1 \frac{SALE_{it}}{TA_{it-1}} + a_2 \frac{\Delta SALE_{it}}{TA_{it-1}} + a_3 \frac{\Delta SALE_{it-1}}{TA_{it-1}} + e_{it} \qquad (2)$$

Where $PROD_{it}$ is sum of cost of goods sold and change in inventory during the year for firm i year t, TA_{it-1} is total assets for firm i year $t-1$, $SALE_{it}$ is sales for firm i year t, $\Delta SALE_{it}$ is change in sales for firm i from year $t-1$ to year t, and $\Delta SALE_{it-1}$ is change in sales for firm i from year $t-2$ to year $t-1$.

In model (2), normal production costs are fitted values of model and abnormal production costs (APC) are defined as the residuals. So, the residuals of this model are proxy for real earnings management.

4.4. Empirical Models

I test the research hypotheses of whether the audit opinion decision is related to earnings management by estimating four logistic regression models. In these models, type of audit opinion is the dependent dichotomous variable. I divide qualified opinions into the following two categories: (i) qualified opinion for materially misstated financial statements (MFS) for testing hypotheses 1 and 3, and (ii) qualified opinion for inability to obtain sufficient appropriate audit evidence (OSAE) for testing hypotheses 2 and 4.

For testing hypotheses 1, 2, 3 and 4, I use model (3), (4), (5) and (6) respectively. In model (3) and (4), discretionary accruals (DA) is the test variable as a proxy for accounting earnings management and in model (4) and (5), abnormal production cost (APC) is the test variable as a proxy for real earnings management. These models are specified below:

$$MFS_{it} = b_0 + b_1 DA_{it} + b_2 AT_{it} + b_3 ROA_{it} + b_4 TStTA_{it} + b_5 IARtTA_{it} + b_6 TLtTE_{it} + b_7 TL_{it}$$
$$+ b_8 NY_{it} + b_9 PQO_{it-1} + b_{10} LOSS_{it-1} + e_{it} \qquad (3)$$

$$OSAE_{it} = b_0 + b_1 DA_{it} + b_2 AT_{it} + b_3 ROA_{it} + b_4 TStTA_{it} + b_5 IARtTA_{it} + b_6 TLtTE_{it} + b_7 TL_{it}$$
$$+ b_8 NY_{it} + b_9 PQO_{it-1} + b_{10} LOSS_{it-1} + e_{it} \qquad (4)$$

$$MFS_{it} = b_0 + b_1 APC_{it} + b_2 AT_{it} + b_3 ROA_{it} + b_4 TStTA_{it} + b_5 IARtTA_{it} + b_6 TLtTE_{it} + b_7 TL_{it}$$
$$+ b_8 NY_{it} + b_9 PQO_{it-1} + b_{10} LOSS_{it-1} + e_{it} \qquad (5)$$

$$OSAE_{it} = b_0 + b_1 APC_{it} + b_2 AT_{it} + b_3 ROA_{it} + b_4 TStTA_{it} + b_5 IARtTA_{it} + b_6 TLtTE_{it} + b_7 TL_{it}$$
$$+ b_8 NY_{it} + b_9 PQO_{it-1} + b_{10} LOSS_{it-1} + e_{it} \qquad (6)$$

Where,

Dependent variable:

(i) MFS_{it} = 1 if the qualified opinion is for materially misstated financial statements, 0 otherwise.

(ii) $OSAE_{it}$ = 1 if the qualified opinion is for inability to obtain sufficient appropriate audit evidence, 0 otherwise.

Test variables:

DA_{it} = Discretionary accruals estimated using model (1)

APC_{it} = Abnormal production cost estimated using model (2)

Control variables:

AT_{it} = Dummy variable equal to 1 if auditor is Iranian auditing organization, 0 otherwise.

ROA_{it} = Net income divided by total assets.

$TStTA_{it}$ = Total sales divided by total assets.

$IARtTA_{it}$ = Inventory and accounts receivable divided by total assets.

$TLtTE_{it}$ = Total liabilities divided by total equity.

TL_{it} = Natural logarithm of time lag (in days) between fiscal year end and the date of the audit report issue.

NY_{it} = Natural logarithm of the number of years since the firm was listed on the TSE.

PQO_{it-1} = Dummy variable equal to 1 if the client received a qualified opinion in the previous year, 0 otherwise.

$LOSS_{it-1}$ = Dummy variable equal to 1 if the client experienced loss in the previous year, 0 otherwise.

I control for variables that have been identified in prior literature as they are likely to affect the audit opinion decision (Carcello and Neal, 2000; Butler *et al.*, 2004; Carey and Simnett, 2006; Boone *et al.*, 2010; Tsipouridou and Spathis, 2014).

5. RESULTS

Hypothesis 1 tests the relationship between discretionary accrual as a measure of accounting earnings management and qualified opinion for materially misstated financial statements. The results of this hypothesis are shown in first paired columns in table (1).

Table-1. Results of estimating model (3) and (4)

variables	Expected sign	Model (3). Dependent variable: MFS_{it}		Model (4). Dependent variable: $OSAE_{it}$	
		coefficient	P value	coefficient	P value
C	+/-	0.063	0.000[*]	0.084	0.000[*]
DA	+/-	0.355	0.001[*]	0.464	0.003[*]
AT	-	-0.234	0.020[**]	-0.123	0.120
ROA	-	-0.318	0.000[*]	-0.165	0.000[*]
$TStTA$	-	-0.431	0.018[**]	0.156	0.285
$IARtTA$	+	0.012	0.345	0.095	0.127
$TLtTE$	+	0.178	0.184	0.210	0.229
TL	+	0.032	0.018[**]	0.103	0.146
NY	-	0.005	0.277	-0.206	0.007[*]
PQO	+	0.129	0.030[**]	0.119	0.029[**]
$LOSS$	+	0.092	0.025[**]	0.043	0.031[**]
Adjusted R^2		0.711		0.843	
F-statistic		452.241		1206.209	
P value		0.000[*]		0.000[*]	

Regression models (3) and (4):

$$MFS_{it} = b_0 + b_1 DA_{it} + b_2 AT_{it} + b_3 ROA_{it} + b_4 TStTA_{it} + b_5 IARtTA_{it} + b_6 TLtTE_{it} + b_7 TL_{it} + b_8 NY_{it} + b_9 PQO_{it-1} + b_{10} LOSS_{it-1} + e_{it}$$

$$OSAE_{it} = b_0 + b_1 DA_{it} + b_2 AT_{it} + b_3 ROA_{it} + b_4 TStTA_{it} + b_5 IARtTA_{it} + b_6 TLtTE_{it} + b_7 TL_{it} + b_8 NY_{it} + b_9 PQO_{it-1} + b_{10} LOSS_{it-1} + e_{it}$$

Variables: MFS_{it} = 1 if the qualified opinion is for materially misstated financial statements, 0 otherwise. $OSAE_{it}$ = 1 if the qualified opinion is for inability to obtain sufficient appropriate audit evidence, 0 otherwise. DA_{it} = Discretionary accruals estimated using model (1), AT_{it} = Dummy variable equal to 1 if auditor is Iranian auditing organization, 0 otherwise, ROA_{it} = Net income divided by total assets, $TStTA_{it}$= Total sales divided by total assets, $IARtTA_{it}$= Inventory and accounts receivable divided by total assets, $TLtTE_{it}$ = Total liabilities divided by total equity, TL_{it} = Natural logarithm of time lag (in days) between fiscal year end and the date of the audit report issue, NY_{it} = Natural logarithm of the number of years since the firm was listed on the TSE, PQO_{it-1}= Dummy variable equal to 1 if the client received a qualified opinion in the previous year, 0 otherwise, $LOSS_{it-1}$= Dummy variable equal to 1 if the client experienced loss in the previous year, 0 otherwise.
[*]Significant at 1%, [**] Significant at 5%

As shown in that table, the coefficient of concerned variable (DA) is positive and significant. This means that the hypothesis 1 is accepted as the DA variable explains the issuance of qualified opinion for materially misstated financial statements. The results also show that the coefficients of $AT, ROA, TStTA, TL, PQO$ and $LOSS$ are all statistically significant and the signs of the statistically significant coefficients are in the expected directions. The negative coefficients of AT ,ROA and $TStTA$ suggest that type of auditor, net income and total sales have negative relationship with the

probability of receiving a qualified opinion for materially misstated financial statements. Also, the positive coefficients of TL, PQO and $LOSS$ show that time lag between fiscal year end and the date of the audit report issue, qualified opinion in the previous year and loss experiencing in the previous year have positive relationship with the probability of receiving a qualified opinion for materially misstated financial statements.

F-statistic of model (3) is 452.241 and significant too. This issue shows that this model is significant in general. Adjusted R^2 related to this model is 0.711 and means that all variables together explain 71.1% of variation in issuing qualified opinion for materially misstated financial statements. Hypothesis 2 tests the relationship between discretionary accrual as a measure of accounting earnings management and qualified opinion for inability to obtain sufficient appropriate audit evidence. The results of this hypothesis are shown in second paired columns in table (1).

As shown, this hypothesis is accepted too, because the coefficient of concerned variable (DA) is positive and significant. So, this means that discretionary accruals explain the issuance of qualified opinion for inability to obtain sufficient appropriate audit evidence. In model (4), the coefficients of ROA, NY, PQO and $LOSS$ are all statistically significant and the signs of the statistically significant coefficients are in the expected directions too. The signs of statistically significant coefficients of ROA and NY are negative and this means that net income and number of years since the firm was listed on the TSE have negative relationship with the probability of receiving a qualified opinion for inability to obtain sufficient appropriate audit evidence. In other side, the signs of statistically significant coefficients of PQO and $LOSS$ are positive and this means that qualified opinion in the previous year and loss experiencing in the previous year have positive relationship with the probability of receiving a qualified opinion for inability to obtain sufficient appropriate audit evidence.

Significance of F-statistic of model (4) which is equal to 1206.209 shows that this model is significant in general. Adjusted R^2 of this model suggests that all variables together explain 84.3% of variation in issuing qualified opinion for inability to obtain sufficient appropriate audit evidence.

Hypothesis 3 tests the relationship between abnormal production cost as a measure of real earnings management and qualified opinion for materially misstated financial statements. The results of this hypothesis are shown in first paired columns in table (2).

Concerned variable in model (5) is APC. As shown in table (2), the coefficient of this variable is not significant and so the hypothesis 3 is rejected. This means that the abnormal product costing does not explain the issuance of qualified opinion for materially misstated financial statements.

In model (5), exactly like model (3), the coefficients of $AT, ROA, TStTA, TL, PQO$ and $LOSS$ are all statistically significant and the signs of the statistically significant coefficients are in the expected directions.

F-statistic of model (5) is 531.159 and significant. This issue shows that this model is significant in general. Adjusted R^2 of this model is 0.640 and means that all variables of model together explain 64% of variation in issuing qualified opinion for materially misstated financial statements. Hypothesis 4 tests the relationship between abnormal production cost as a measure of

real earnings management and qualified opinion for inability to obtain sufficient appropriate audit evidence. The results of this hypothesis are shown in second paired columns in table (2).

Based on results of estimating the model (6), the coefficient of concerned variable (APC) is not significant. This means that the hypothesis 4 is rejected so, abnormal product cost does not explain the issuance of qualified opinion for inability to obtain sufficient appropriate audit evidence. The results also show that in this model, the coefficients of $ROA, TStTA, NY, PQO$ and $LOSS$ are all statistically significant and the signs are in the expected directions.

Significance of F-statistic of model (6) shows that this model is significant in general. Adjusted R^2 of this model is 0.771 and suggests that all variables together explain 77.1% of variation in issuing qualified opinion for inability to obtain sufficient appropriate audit evidence.

Table-2. Results of estimating model (5) and (6)

variables	Expected sign	Model (5). Dependent variable: MFS_{it}		Model (6). Dependent variable: $OSAE_{it}$	
		coefficient	P value	coefficient	P value
C	+/-	0.033	0.000[*]	0.064	0.007[*]
APC	+/-	0.275	0.163	0.321	0.233
AT	-	-0.135	0.018[**]	-0.123	0.315
ROA	-	-0.231	0.009[*]	-0.213	0.007[*]
$TStTA$	-	-0.181	0.011[**]	-0.176	0.025[**]
$IARtTA$	+	0.081	0.215	0.072	0.172
$TLtTE$	+	0.146	0.284	0.119	0.201
TL	+	0.052	0.027[**]	0.161	0.111
NY	-	0.012	0.208	-0.192	0.017[**]
PQO	+	0.210	0.028[**]	0.181	0.037[**]
$LOSS$	+	0.102	0.015[**]	0.089	0.026[**]
Adjusted R^2		0.640		0.771	
F-statistic		531.159		1206.315	
P value		0.000[*]		0.000[*]	

Regression models (5) and (6):

$$MFS_{it} = b_0 + b_1 APC_{it} + b_2 AT_{it} + b_3 ROA_{it} + b_4 TStTA_{it} + b_5 IARtTA_{it} + b_6 TLtTE_{it} + b_7 TL_{it} + b_8 NY_{it} + b_9 PQO_{it-1} + b_{10} LOSS_{it-1} + e_{it}$$

$$OSAE_{it} = b_0 + b_1 APC_{it} + b_2 AT_{it} + b_3 ROA_{it} + b_4 TStTA_{it} + b_5 IARtTA_{it} + b_6 TLtTE_{it} + b_7 TL_{it} + b_8 NY_{it} + b_9 PQO_{it-1} + b_{10} LOSS_{it-1} + e_{it}$$

Variables: MFS_{it} = 1 if the qualified opinion is for materially misstated financial statements, 0 otherwise. $OSAE_{it}$ = 1 if the qualified opinion is for inability to obtain sufficient appropriate audit evidence, 0 otherwise. APC_{it} = Abnormal production cost estimated using model (2), AT_{it} = Dummy variable equal to 1 if auditor is Iranian auditing organization, 0 otherwise, ROA_{it} = Net income divided by total assets, $TStTA_{it}$= Total sales divided by total assets, $IARtTA_{it}$= Inventory and accounts receivable divided by total assets, $TLtTE_{it}$ = Total liabilities divided by total equity, TL_{it} = Natural logarithm of time lag (in days) between fiscal year end and the date of the audit report issue, NY_{it} = Natural logarithm of the number of years since the firm was listed on the TSE, PQO_{it-1}= Dummy variable equal to 1 if the client received a qualified opinion in the previous year, 0 otherwise, $LOSS_{it-1}$= Dummy variable equal to 1 if the client experienced loss in the previous year, 0 otherwise.
[*]Significant at 1%, [**] Significant at 5%.

6. CONCLUSION

The objective of this study is to investigate the relationship between accounting earnings management, real earnings management and qualified audit opinion. I use a sample of firms listed on the TSE for the period from 2003-2013. For measuring accounting earnings management and real earnings management, I use discretionary accruals and abnormal production cost proxies respectively. Also, I divide qualified audit opinion into two categories: (i) qualified for materially

misstated financial statements and (ii) qualified for inability to obtain sufficient appropriate audit evidence. The results provide evidence that auditor's decision to qualified opinion for both categories is positively related to discretionary accruals. It means that the higher the level of discretionary accruals, the greater the probability of receiving a qualified opinion. This results are consistent with Francis and Krishnan (1999) and Bartov *et al.* (2001).

In case of real earnings management, the results show that there not significant relationship between abnormal production cost and auditor's decision to qualified opinion for both categories. So, abnormal product cost does not explain the issuance of qualified opinion for materially misstated financial statements and inability to obtain sufficient appropriate audit evidence.

Variability in the qualified opinion is also explained by financial characteristics (control variables). The results suggest that type of auditor, pool financial performance, time lag between fiscal year end and the date of the audit report issue, audit opinion type received in the previous year and prior year losses result in a higher probability of receiving qualified opinion for materially misstated financial statements. The results also indicate that lower net income, more experience of firms in TSE, audit opinion type received in the previous year and prior year losses result in a higher probability of receiving qualified opinion for inability to obtain sufficient appropriate audit evidence.

The results of this study should be treated with caution. My interpretation is driven by proxies for auditor reporting, accounting earnings management and real earnings management. These proxies are not perfect because they are formed using publicly available information, rather than private information known to the auditors and managers. Future empirical research could explore the adverse opinion, and a disclaimer of opinion and how these opinions are affected by earnings management.

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