

The Effect of Joint Audit on Audit Quality: Empirical Evidence

from Companies Listed on the Egyptian Stock Exchange

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DOI: 10.5296/ijafr.v5i2.8431 URL: http://dx.doi.org/10.5296/ ijafr.v5i2.8431

Abstract

The purpose of this paper is to investigate the effect of joint audit on earnings conservatism, our proxy for audit quality, of companies listed on the Egyptian stock exchange, by examining whether companies audited by two independent auditors are more conservative than companies audited by a single auditor. In addition, we investigate whether this relationship is affected by the type of joint audit regimes (i.e., voluntary versus mandatory), and the mix of joint auditors appointed (i.e., two big 4 auditors, or two non-big 4 auditors, or one Big 4 auditor paired with one non-big 4 auditor). To test our hypotheses, we use a sample of 32 companies listed on the Egyptian stock exchange during the period 2009 through 2013. The results of our multiple regression analyses show that companies audited by joint auditors are more conservative than companies audited by single auditors. However, we find no significant difference in levels of earnings conservatism between companies audited by joint auditors by two big4 auditors and companies audited by joint auditors, or by one big4 auditor paired with one non-big 4 audited by joint auditors provided by joint auditors are more conservative than companies audited by single auditors. However, we find no significant difference in levels of earnings conservatism between companies audited by joint auditor paired with one non-big4 auditor by two non-big4 auditors, or by one big4 auditor paired with one non-big4 auditor.

Keywords: Joint audit, Audit quality, Earnings conservatism, Joint audit regimes, Mix of joint auditors.

1. Introduction

The recent business and financial scandals have led regulators and other stakeholders around the world to criticize the audit profession and to question whether external auditors really have the required levels of independence, expertise, and incentive to provide the true and fair view of audit client affairs. This question has led The European Commission, in its Green Paper issued in 2010, to suggest the use of several mechanisms to improve both auditors' abilities to detect material misstatements in financial statements and auditors' incentives to report detected material misstatements (Lobo et al., 2013). One of the most important



mechanisms proposed by the European Commission was the practice of Joint Audit to improve audit quality through improving auditor competence and independence, and reduce audit market concentration through encouraging the emergence of small audit firms.

Egypt is considered as one of the few countries where the use of joint audit is required by law, whether voluntarily or mandatorily, even before the release of the Green Paper by the European Commission. The concept of joint audit has become voluntary in Egypt for first time in 1981, when the Ministry of Trade and Industry issued Law No. 159/1981, stating that joint stock companies listed on the Egyptian stock exchange must appoint at least one independent auditor. However, this concept has become mandatory in Egypt for first time in 2003, when the Central Bank issued Law No. 88/2003, stating that banks listed on the Egyptian stock exchange must have at least two independent auditors who have no dependent link with each other.

There is a general agreement between researchers with regard to Joint audit definition. Previous studies (Zerni et al., 2012; Alanezi et al., 2012; Baldauf & Steckel, 2012; Ratzinger-Sakel et al., 2013; Paugam et al., 2015) define joint audit as an audit in which two or more independent auditors, from separate audit firms, are appointed to audit financial statements of an audit client, in such a way that involves: developing the audit plan jointly; performing the audit work jointly; making periodic cross reviews and mutual quality controls; issuing and signing a single audit report; and bearing joint liability in case of audit failure.

The concept of joint audit should be differentiated from the concept of dual audit, where two or more independent auditors from separate audit firms are appointed to audit financial statements of an audit client in a way that involves: developing the audit plan separately; performing the audit work separately; no periodic cross reviews and mutual quality controls; and issuing two or more audit reports, in which every auditor is not responsible for the audit opinion expressed by the others (Alanezi et al., 2012; Ratzinger-Sakel et al., 2013; Jane lin et al., 2014). Also, the concept of joint audit differs from the concept of Double Audit, where a single auditor is required to fully perform the audit work twice (Alanezi et al., 2012; Ratzinger-Sakel et al., 2013).

There is a strong debate raised by proponents and opponents of the joint audit. Proponents of joint audit (Baldauf & Steckel, 2012; Zerni et al., 2012; Lobo et al., 2013) argue that the practice of joint audit could increase audit quality for the following reasons. First, the type of audit report issued by two auditors seems to be more precise than the type of audit report issued by a single auditor because having four eyes obtain audit evidence could increase the precision of audit opinion that will be issued based on this evidence. Second, Joint audit could improve the auditors' ability to detect material misstatements because it allows each auditor to check the work done by the others to make sure that the other auditors have taken the appropriate audit procedures to obtain the appropriate and sufficient audit evidence. Third, joint audit could improve auditor independence by weakening the economic relationship between the auditors and the client because joint auditors share audit fees between them. In addition, it weakens the economic relationship between the auditors instead of one. Fourth, Joint Audit could improve auditor competence through preserving knowledge that results from auditors' meetings. Finally, joint audit could reduce audit market concentration



by reducing the domination of big audit firms and allowing small audit firms to collaborate with big audit firms, resulting in the emergence of new generation of big audit firms.

On the other side, opponents of joint audit (Marmousez, 2009; Zerni et al., 2012; Alsadoun & Aljaber, 2014; Deng et al., 2014) argue that the practice of Joint Audit could reduce audit quality for the following reasons. First, it could result in Free Riding problem because the small audit firm has fewer resources than the big audit firm, so it will have an incentive to withhold its limited resources and free ride the big audit firm's effort. Second, joint audit could result in Opinion Shopping problem because management may offer to purchase the audit opinion of the small audit firm, and the small audit firm may accept this offer because, in this case, the big audit firm will bear the reputation costs alone. Third, joint audit may result in insufficient information exchange, resulting in compromising audit quality because auditors from competitive audit firms may not have an incentive to cooperate while conducting the audit.

The impact of joint audit on audit quality has been investigated in prior research, and the empirical evidence on this impact confirms the mixed theoretical predictions. A stream of research documents that joint audit has no significant effect on audit quality (Holm & Thinggaard, 2010; Alanezi et al., 2012; Alfaraih & Alanezi, 2012; Lesage et al., 2012; Khatab, 2013; Velte & Azibi, 2015). In addition, it may result in a lower level of audit quality (Deng et al., 2014). However, another stream of research documents that joint audit may result in a higher level of audit quality (Baldauf & Steckel, 2012; Zerni et al., 2012; Benali, 2013; Ittonen & Tronnes, 2015; Relvas & Pais, 2015). Furthermore, another stream of research concluded that the effect of joint audit on audit quality depends on the type of joint audit regimes (Voluntary versus Mandatory joint audit regimes) (Lesage et al., 2012; Alsadoun & Aljaber, 2014; Andre' et al., 2015), and by the mix of joint auditors appointed (two big 4 auditors, or two non-big 4 auditors, or one Big 4 auditor paired with one non-big 4 auditor) (Francis et al., 2009; Marmousez, 2009; Alfaraih & Alanezi, 2012; Paugam & Casta, 2012; Chihi & Mhirsi, 2013; Lobo et al., 2013; Alsadoun & Aljaber, 2014).

Based on the previous discussion, three important questions that can inform the debate on the implications of joint audit for audit quality are phrased as follows:

Q1: Does joint audit, when compared to single audit, provide higher audit quality, as measured by earnings conservatism?

Q2: In case of joint audit, does level of audit quality depend on the type of joint audit regimes (i.e., whether the company uses two auditors in a voluntary joint audit regime or a mandatory joint audit regime)?

Q3: In case of joint audit, does level of audit quality depend on the mix of joint auditors appointed (i.e., whether the company uses two big 4 auditors, or two non-big 4 auditors, or one Big 4 auditor and one non-big 4 auditor)?

The objective of this study is to compare the effect of joint audit and single audit on audit quality in companies listed on the Egyptian stock exchange, and investigate whether the effect of joint audit on audit quality depends on the type of joint audit regimes (i.e., Voluntary versus mandatory joint audit regimes), and the mix of joint auditors appointed (i.e., two big 4 auditors, or two non-big 4 auditors, or one Big 4 auditor paired with one non-big 4 auditor).



The importance of this study can be addressed along two aspects: this study would provide additional contribution to the accounting literature in general, and especially in Egypt, by presenting appropriate analysis of the Egyptian environment which has unique characteristics. Also, this study would draw the attention of Egyptian companies and shareholders, as well as regulators to joint audit and its role in enhancing audit quality and strengthening stakeholders' confidence in financial reports issued by companies opting for joint audits.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT:

Prior research attempting to compare the effect of joint audit and single audit on audit quality is limited. However, previous studies examining the effect of joint audit on audit quality can be classified into four categories as follows:

First: Studies that found that joint audit has no or negative impact on audit quality (Holm & Thinggaard, 2010; Alanezi et al., 2012; Alfaraih & Alanezi, 2012; Lesage et al., 2012; Khatab, 2013; Deng et al., 2014; Velte & Azibi, 2015). In the Egyptian Settings, (Khatab, 2013) investigated whether joint audit affects firm value and auditor independence, as proxies for audit quality. Using a sample of 34 companies listed on the Egyptian Stock Exchange during the period 2005 through 2009, (Khatab, 2013) showed that joint audit has no effect on firm value or auditor independence.

In the Kuwaiti settings, (Alanezi et al., 2012) examined the effect of joint audit, as opposed to dual audit, on the level of compliance with IFRS- disclosure requirements, as a proxy for audit quality. Using a sample of 33 financial institutions listed on the Kuwait Stock Exchange (KSE) in 2006, (Alanezi et al., 2012) found that financial institutions audited by joint auditors are less compliant with IFRS- disclosure requirements than financial institutions audited by dual auditors. Another study in the Kuwaiti Settings by (Alfaraih & Alanezi, 2012) confirmed the previous study and found that none of KSE-listed companies audited by joint auditors fully complies with IFRS-disclosure requirements; however, the joint auditors of all KSE-listed companies attest to full compliance with IFRS-disclosure requirements.

In the Danish Settings, (Holm & Thinggaard, 2010; Lesage et al., 2012) investigated the effect of joint audit, compared to single audit, on the level of abnormal accruals, as a proxy for audit quality, of companies listed on the Copenhagen Stock Exchange. Their main findings documented that there is no significant difference between level of abnormal accruals in companies audited by two audit firms and level of abnormal accruals in companies audited by two audit firms. In other words, single audit is more effective in constraining earnings management than joint audit.

In the same context, (Velte & Azibi, 2015) examined the effect of joint audit on the level of abnormal accruals and discretionary accruals, as proxies of audit quality. Using a sample of 307 German and French listed companies during the period 2008 through 2012, (Velte & Azibi, 2015) documented that joint audit has no significant impact on the level of abnormal accruals or discretionary accruals in both countries.

Furthermore, (Deng et al., 2014) developed a theoretical model to examine the effect of joint audit on audit evidence precision and auditor independence, as proxies of audit quality. By developing three audit regimes – Single audit by one big audit firm (Regime B), Joint audit

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by two big audit firms (Regime BB), and joint audit by one big audit firm paired with one small audit firm (Regime BS), (Deng et al., 2014) documented that the level of audit evidence precision is lower under regime BS than under regime B, but is the same for regimes BB and B. In addition, the level of auditor independence is lower under regimes BB and BS than under regime B. In other words, joint audit impairs audit quality through lowering both audit evidence precision and auditor independence.

Second: Studies that found that joint audit has positive effect on audit quality (Baldauf & Steckel, 2012; Zerni et al., 2012; Benali, 2013; Ittonen & Tronnes, 2015; Relvas & Pais, 2015). Most of these studies examined the impact of voluntary joint audit on audit quality. For example, (Zerni et al., 2012) examined the use of voluntary joint audit on actual audit quality, as measured by levels of earnings conservatism and abnormal working capital accruals, and perceived audit quality, as measured by credit ratings and risk forecasts of insolvency. Using a sample of Swedish listed companies during the period 2001 through 2007, (Zerni et al., 2012) documented that companies employing voluntarily joint auditors have higher levels of earnings conservatism, lower levels of abnormal working capital accruals, higher credit ratings, and lower risks forecasts of insolvency than companies employing a single auditor.

In the same context, (Ittonen & Tronnes, 2015) examined whether voluntarily appointing two auditors is associated with audit quality, as measured by total accruals, abnormal accruals, the probability of reporting profit, and timely recognition of economic losses. Using a sample of Finnish and Swedish listed companies during the period 2005 through 2010, (Ittonen & Tronnes, 2015) showed that joint audit improves audit quality on the dimensions of abnormal accruals and timely recognition of economic losses, but not on the dimensions of total accruals and the probability of reporting profit.

In a case study conducted by (Baldauf & Steckel, 2012) to investigate whether joint audit, as opposed to single audit, improves the degrees of auditor's report consensus and accuracy, as proxies of audit quality, (Baldauf & Steckel, 2012) found that audit reports issued by auditors involved in joint audit process are more conservative and more accurate than that issued by auditors involved in single audit process, as the communication between auditors involved in joint audit process and the discussion of audit findings between them improves the accuracy of audit opinion expressed, thus enhancing the level of audit quality.

Furthermore, (Benali, 2013) examined the effect of joint audit on shareholders' confidence of joint auditors, and found that, with a sample of 145 French listed companies during the period 2005 through 2010, the use of joint auditors, especially two big-4 auditors, by French listed companies has a positive and significant impact on the shareholders' confidence. In the same context, (Relvas & Pais, 2015) investigated the impact of joint audit on cost of debt, as a proxy for audit quality. Using a sample of largest European listed companies during the period 2005 through 2010, (Relvas & Pais, 2015) showed that the cost of debt in companies audited by two auditors is lower than that in companies audited by two big-4 auditors.

Third: Studies that found that the effect of joint audit on audit quality is affected by the type of joint audit regimes (Lesage et al., 2012; Alsadoun & Aljaber, 2014; Andre' et al.,



2015). Two of these studies (Lesage et al., 2012; Andre' et al., 2015) investigated the effect of mandatory joint audit regime, as opposed to voluntary joint audit regime, on both audit fees and abnormal accruals, as proxies of audit quality. They found that audit fees paid by companies under mandatory joint audit regime are higher than audit fees paid by companies under voluntary joint audit regime. Moreover, they showed that level of abnormal accruals reported by companies under mandatory joint audit regime does not differ significantly from level of abnormal accruals reported by companies under voluntary joint audit regime.

In contrast, (Alsadoun & Aljaber, 2014) examined the effect of mandatory joint audit regime, as opposed to voluntary joint audit regime, on required rate of return, as proxy for audit quality, and showed that companies subject to mandatory joint audit regimes have higher required rate of return than companies subject to voluntary joint audit regimes. Thus, investors' perception of joint audit is stronger under voluntary joint audit regime.

Fourth: Studies that found that the effect of joint audit on audit quality is affected by the mix of joint auditors appointed (Francis et al., 2009; Marmousez, 2009; Alfaraih & Alanezi, 2012; Paugam & Casta, 2012; Chihi & Mhirsi, 2013; Lobo et al., 2013; Alsadoun & Aljaber, 2014). Some of these studies (Francis et al., 2009; Alfaraih & Alanezi, 2012; Alsadoun & Aljaber, 2014) found that companies audited by two big 4 auditors tend to have lower abnormal accruals (Francis et al., 2009), lower cost of equity capital (Alsadoun & Aljaber, 2014), and are likely to be more compliant with IFRS- disclosure requirements (Alfaraih & Alanezi, 2012) than companies audited by one big 4 auditor paired with one non-big 4 auditor and companies audited by two non-big 4 auditors.

In contrast, most of these studies (Marmousez, 2009; Paugam & Casta, 2012; Chihi & Mhirsi, 2013; Lobo et al., 2013) agree that companies audited by one big 4 auditor paired with one non-big 4 auditor are more conditionally and unconditionally conservative, more likely to record goodwill impairment (Paugam & Casta, 2012; Lobo et al., 2013), and to report abnormal accruals (Marmousez, 2009; Chihi & Mhirsi, 2013; Lobo et al., 2013) than companies audited by two big 4 auditors and companies audited by two non-big 4 auditors. Thus, a pair of big 4 auditor and non-big 4 auditor could result in higher audit quality, as unequal sharing of reputation risks between big and small audit firms could improve auditors' independence and, therefore, is likely to enhance audit quality (Lobo et al., 2013). Based on the preceding discussions, we formulate our hypotheses as follows:

H1: Companies audited by joint auditors are more conservative than companies audited by a single auditor.

H2: Companies audited by joint auditors voluntarily are more conservative than companies audited by joint auditors mandatorily.

H3: Companies audited by two big4 auditors are more conservative than companies audited by one big4 auditor paired with one non-big 4 auditor and companies audited by two non-big 4 auditors.



3. SAMPLE SELECTION:

Our sample is comprised of 32 companies listed on the Egyptian Stock Exchange in the period 2009 through 2013 representing 160 firm-year observations. To test our **first hypothesis** (**H1**), we divide our sample into two main categories; 16 companies audited by a single auditor and 16 companies audited by joint auditors. To test our **second hypothesis** (**H2**), we divide our joint audit sample into two sub categories: 8 companies subject to mandatory joint audit regime and 8 companies subject to voluntary joint audit regime. To test our **third hypothesis** (**H3**), we divide each group of joint audit sample into three categories: 4 companies audited by two Big4 auditors, 3 companies audited by two non-big4 auditors, and 9 companies audited by one Big 4 auditor paired with one non-Big4 auditor. Our research data were obtained from the annual disclosure book of the Egyptian stock exchange and the Egyptian database (Egypt for Information Dissemination EGID).

4. RESEARCH DESIGN:

To test our **first hypothesis (H1)**, we run a multiple regression model based on the earnings conservatism framework of Basu (1997) to determine whether there are differences in levels of earnings conservatism between companies audited by a single auditor and companies audited by joint auditors:

 $X_{i,t} / P_{i,t-1} = \beta_0 + \beta_1 R_{i,t} + \beta_2 D_{i,t} + \beta_3 DR_{i,t} + \beta_4 AuditType + \beta_5 AuditType x R_{i,t} + \beta_6$ (1) AuditType x $D_{i,t} + \beta_7 AuditType x DR_{i,t} + \varepsilon_{i,t}$

Where $\mathbf{X}_{i,t} / \mathbf{P}_{i,t-1}$ is the earnings per share of company (i) in fiscal year (t) divided by share price at the beginning of the fiscal year (t). $\mathbf{R}_{i,t}$ is the annual return on share of company (i) through the fiscal year (t). $\mathbf{D}_{i,t}$ is a dummy variable with the value 1 if ($\mathbf{R}_{i,t}$) is negative, and the value 0 otherwise. Audit Type is a dummy variable with the value 1 if the company is audited by joint auditors, and the value 0 otherwise.

To test our **second hypothesis** (H2), we use a multiple regression model based on the earnings conservatism framework of Basu (1997) to determine whether there are differences in levels of earnings conservatism between companies audited by joint auditors mandatorily and those audited by joint auditors voluntarily:

 $X_{i,t} / P_{i,t-1} = \beta_0 + \beta_1 R_{i,t} + \beta_2 D_{i,t} + \beta_3 DR_{i,t} + \beta_4 Mand-Volun + \beta_5 Mand-Volun x R_{i,t} + (2)$ $\beta_6 Mand-Volun x D_{i,t} + \beta_7 Mand-Volun x DR_{i,t} + \varepsilon_{i,t}$

Where **Mand-Volun** is a dummy variable with the value 1 if the company is audited by joint auditors mandatorily, and the value 0 otherwise.

To test our **third hypothesis (H3)**, we run three multiple regression models based on the earnings conservatism framework of Basu (1997) to determine whether there are differences in levels of earnings conservatism between companies with two big 4 auditors, companies with two non-big 4 auditors, and those with one big 4 auditor paired with one non-big auditor:

 $X_{i,t} / P_{i,t-1} = \beta_0 + \beta_1 R_{i,t} + \beta_2 D_{i,t} + \beta_3 DR_{i,t} + \beta_4 Big4 - Big4 + \beta_5 Big4 - Big4 x R_{i,t} + \beta_6$ (3a) Big4-Big4 x D_{i,t} + $\beta_7 Big4 - Big4 x DR_{i,t} + \varepsilon_{i,t}$



 $X_{i,t} / P_{i,t-1} = \beta_0 + \beta_1 R_{i,t} + \beta_2 D_{i,t} + \beta_3 DR_{i,t} + \beta_4 Big4-NonBig4 + \beta_5 Big4-NonBig4 x$ (3b) $R_{i,t} + \beta_6 Big4-NonBig4 x D_{i,t} + \beta_7 Big4-NonBig4 x DR_{i,t} + \varepsilon_{i,t}$

 $X_{i,t} / P_{i,t-1} = \beta_0 + \beta_1 R_{i,t} + \beta_2 D_{i,t} + \beta_3 DR_{i,t} + \beta_4 NonBig4-NonBig4 + \beta_5$ (3c) NonBig4-NonBig4 x R_{i,t} + \beta_6 NonBig4-NonBig4 x D_{i,t} + \beta_7 NonBig4-NonBig4 x DR_{i,t} + \varepsilon_{i,t}

Where **Big4-Big4** is a dummy variable with the value 1 if the company is audited by two big 4 auditors, and the value 0 otherwise. **Big4-NonBig4** is a dummy variable with the value 1 if the company is audited by one big 4 auditor paired with one non-big 4 auditor, and the value 0 otherwise. **NonBig4-NonBig4** is a dummy variable with the value 1 if the company is audited by two non-big 4 auditors, and the value 0 otherwise.

5. DESCRITPIVE STATISTICS:

Table (1) represents the distribution of the companies of our sample according to audit types. In our sample, 16 companies (50%) audited by a single auditor and 16 companies (50%) audited by joint auditors.

| | Number of observations | Percent | Cumulative Percent |
|--------------|------------------------|---------|-----------------------|
| Single Audit | 80 | 50% | 50% |
| Joint Audit | 80 | 50% | 100% |
| Total | 160 | 100% | |

Table 1 Distribution of companies according to audit types:

Table (2) represents the distribution of the companies of our sample according to joint audit regimes. In our sample, 8 companies (50%) are subject to mandatory joint audit regime and 8 companies (50%) are subject to voluntary joint audit regime.

Table 2 Distribution of companies according to joint audit regimes:

| | Number of observations | Percent | Cumulative Percent |
|-----------------------|------------------------|---------|-----------------------|
| Mandatory Joint Audit | 40 | 50% | 50% |
| Voluntary Joint Audit | 40 | 50% | 100% |
| Total | 80 | 100% | |

Table (3) represents the distribution of the companies of our sample according to auditor pair types. In our sample, 4 companies (25%) audited by two big 4 auditors, 9 companies (56%) audited by one big 4 auditor paired with one non-big 4 auditor, and 3 companies (19%) audited by two non-big 4 auditors. We notice that 13 companies (81%) have decided to appoint at least one big 4 auditor.



| | Number of observations | Percent | Cumulative Percent |
|-----------------------|------------------------|---------|-----------------------|
| Big 4 – Big 4 | 20 | 25% | 25% |
| Big 4 – Non Big 4 | 45 | 56% | 81% |
| Non Big 4 – Non Big 4 | 15 | 19% | 100% |
| Total | 80 | 100% | |

Table 3 Distribution of companies according to auditor pair types:

6. EMPIRICAL RESULTS:

Table (4) represents results of our multiple regression analyses. Model (1) used to test (**H1**) explains about 16% of the variability in earnings. The coefficient on *Audit Type* is negative and statistically significant at 0.05 level, indicating that joint audits are associated with more conservative earnings than single audits. Thus, we accept our **first hypothesis (H1**) which states that companies audited by joint auditors are more conservative than companies audited by single auditors.

| Model | Variables | Coefficient | T-Statistic | P Value | Adjusted R ² |
|------------|-----------------|-------------|-------------|---------|-------------------------|
| Model 1 | R | -0.008 | -1.140 | 0.256 | |
| | D | -0.085 | -1.497 | 0.136 | |
| | RD | 0.127 | 0.972 | 0.332 | |
| | Audit Type | -0.104 | -2.692 | 0.008 | 0.160 |
| | Audit Type * R | 0.165 | 4.215 | 0.000 | |
| | Audit Type * D | 0.095 | 1.167 | 0.245 | |
| | Audit Type * RD | -0.207 | -1.092 | 0.277 | |
| Model 2 | R | 0.161 | 4.355 | 0.000 | |
| | D | 0.050 | 0.715 | 0.477 | |
| | RD | -0.077 | -0.497 | 0.621 | |
| | Mand-Volun | 0.081 | 1.426 | 0.158 | 0.316 |
| | Mand-Volun * R | -0.005 | -0.066 | 0.947 | |
| | Mand-Volun * D | -0.079 | -0.794 | 0.430 | |
| | Mand-Volun * RD | -0.019 | -0.081 | 0.936 | |
| Model 3(a) | R | 0.103 | 2.048 | 0.044 | 0.298 |

Table 4 Results of multiple regression analyses:



| | 7 | 1 | 1 | 1 | |
|------------|----------------------|--------|--------|-------|-------|
| | D | -0.016 | -0.276 | 0.783 | |
| | RD | -0.017 | -0.128 | 0.899 | |
| | Big4-Big4 | -0.013 | -0.176 | 0.861 | |
| | Big4-Big4 * R | 0.078 | 1.094 | 0.278 | |
| | Big4-Big4 * D | 0.046 | 0.378 | 0.707 | |
| | Big4-Big4 * RD | -0.119 | -0.426 | 0.671 | |
| | R | 0.158 | 3.900 | 0.000 | |
| | D | 0.034 | 0.423 | 0.674 | |
| | RD | -0.121 | -0.541 | 0.591 | |
| Model 3(b) | Big4-NonBig4 | 0.024 | 0.426 | 0.672 | 0.281 |
| | Big4-NonBig4 * R | 0.014 | 0.191 | 0.849 | |
| | Big4-NonBig4 * D | -0.042 | -0.401 | 0.690 | |
| | Big4-NonBig4 * RD | 0.030 | 0.113 | 0.910 | |
| | R | 0.179 | 5.754 | 0.000 | |
| Model 3(c) | D | 0.008 | 0.159 | 0.874 | |
| | RD | -0.102 | -0.965 | 0.338 | |
| | NonBig4-NonBig4 | 0.059 | 1.031 | 0.306 | 0.446 |
| | NonBig4-NonBig4 * R | -0.419 | -4.118 | 0.000 | |
| | NonBig4-NonBig4 * D | -0.050 | -0.333 | 0.740 | |
| | NonBig4-NonBig4 * RD | 0.495 | 0.898 | 0.372 | |

Model (2) estimated to test (H2) explains about 31% of the variability in earnings. All coefficients on *Mand-Volun* variables are statistically insignificant at 0.05 level. Thus, we reject our **second hypothesis (H2)** which states that companies audited by joint auditors voluntarily are more conservative than companies audited by joint auditors mandatorily.

Models (3a, 3b, & 3c) used to test (H3) explain about 29.8%, 28.1%, and 44.6% of the variability in earnings respectively. All coefficients on *Big4-Big4* and *Big4-NonBig4* variables are statistically insignificant at 0.05 level. However, the coefficient on *NonBig4-NonBig4* * R variable is negative and statistically significant, indicating that, contrary to previous studies, companies audited by non-big4 auditors issue more conservative financial statements than companies audited by big4 auditors do. Thus, we reject our **third hypothesis** (H3) which states that companies audited by two big 4 auditors are more conservative than companies audited by one big 4 auditor paired with one non-big 4 auditor and companies audited by two non-big 4 auditors.



7. CONCLUSIONS:

This study investigates whether joint audit affects earnings conservatism, as a proxy for audit quality, of companies listed on the Egyptian stock exchange. In addition, we investigate whether this relationship is affected by the type of joint audit regimes, and the mix of joint auditors appointed. The results of our multiple regression analyses show that companies audited by joint auditors are more conservative than companies audited by single auditors are. However, we find no significant difference in levels of earnings conservatism between companies audited by joint auditors mandatorily and companies audited by joint auditors voluntarily. We also find no significant difference in levels of earnings conservatism between companies audited by two big4 auditors and companies audited by two non-big4 auditors, or by one big4 auditor paired with one non-big4 auditor.



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