Current Year Audit Opinion and Next Year Audit Fees: Does Family Ownership Matter?

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Dr. Hebatallah Badawy

Abstract

The paper aims to investigate the association between current year audit opinion and the pricing of the next year audit mission and whether this relationship differs with different nature of ownership (family – non-family) in the Egyptian setting. Using a sample of 358 firm-year observations from the Egyptian Stock Exchange (EGX hereafter) over the period 2016-2019, ordinary least square (OLS) regression models are estimated to test the research hypotheses and conduct sensitivity and additional analyses. The author didn't find significant association between current year audit opinion and next year audit fees. However, if the auditor issues a qualified audit opinion for a family firm, he will ask for a fee premium for the next year audit mission. Results are robust to alternative measures of next year audit fees and current year audit opinion. The paper uses the current year audit opinion as an input to the next year audit pricing decision. The paper responds to previous calls to investigate the relationship between audit fees and type of audit opinion and the impact of family ownership on audit fees. In addition, this study uses three alternative measures of next year audit fees and an alternative measure of current year audit opinion. Finally, this study adds evidence to the corporate governance literature in developing countries.

Keywords: Audit fees, audit opinion, family ownership, Egypt.

1. Introduction

Following the corporate scandals worldwide, more attention was paid to audit quality and auditors' independence and stricter rules were set on the provision of non-audit services to enhance the auditors' independence level and prevent the recurrence of such scandals in the future. More emphasis was put on the audit opinion and the auditors' fees, which are one of the most important factors that may affect their independence level.

Dr. Hebatallah Badawy

Auditor's opinion on the financial statements, which is the output of the audit process is important from the auditor's, entity managers' and users of financial statements' point of view, who want to take different investment and credit decisions (Crucean, 2019). Several studies (Tahinakis and Samarinas, 2016; Crucean, 2019; Kaplan *et al.*, 2020) investigated the information content of audit opinion and how it might affect the users of financial statements. Despite the importance of audit report and opinion from the auditor's point of view, up to my knowledge, no prior research investigated the effect of current year audit opinion on auditor's decisions in the future; for instance, the pricing of future audit missions.

Meanwhile, according to Ng *et al.* (2018), understanding how audit fees are determined is very important. Audit fees are related to audit effort (Zhang, 2018) and are a function of the client's financial reporting system (Simunic, 1980). Prior research has focused intensively on the audit pricing process and the determinants of audit fees. According to Simunic (1980) and Smith *et al.* (2019), audit fees are a function of audit effort required to provide reasonable assurance that the financial statements as a whole are free from material misstatements, normal profits, fee premiums and the expected loss that may arise from litigation. In addition, auditors must consider clients' risks in their pricing decision (Nikkinen and Sahlstrom, 2003). According to the agency theory, which explains the relationship between management and owners, companies may demand higher audit quality and pay higher audit fees to reduce agency costs that might result from the management-owner conflict of interests (Francis, 1984).

According to ISA315, auditors are required to identify and assess the risk of material misstatements, whether they are to fraud or error, through the entity and the environment in which it works in order to design and implement suitable responses to these assessed risks. The risk of material misstatements might be affected by the nature of industry in which the audit client operates, its going concern status, profitability, complexity of transactions and ownership structure (Myoli, 2020).

Dr. Hebatallah Badawy

The auditing environment in Egypt is unique. It is known with its weak litigation risk and weak investor protection. Big4 audit firms are present in Egypt and audit firms that are affiliated to the Big4 are known with their higher audit quality and audit fees (El-Dyasty, 2017). In addition, most auditors in Egypt are offering audit and non-audit services, such as tax and consulting services to their audit clients. Also, auditors in Egypt are inclined to issue unmodified audit opinion (El-Dyasty, 2017). Next year audit fees are usually determined in the General Shareholders' meeting, which is held to approve the auditor's report on the last year financial statements. Accordingly, Egypt, as a developing country, is a good research environment and it is important in this unique environment to examine the audit pricing decision and the factors that may affect such decision. It is important to investigate the impact of issuing current year qualified audit opinion on next year audit fees and how family ownership might affect the latter relationship.

Based on the call of Hay *et al.* (2006) to investigate the effect of family ownership on audit fees and that of Caneghem (2010) to examine the association between audit fees and the type of audit opinion, **the objective of this paper** is to test the impact of issuing a qualified audit opinion on the current year financial statements on the audit fees of the next year in the Egyptian setting, and how this impact might differ in case the auditee is a family firm. **To fulfil this objective**, the author relied on a sample of 358 firm-year observations from EGX during the period from 2016-2019. Based on the OLS regression results, the author didn't find significant relationship between current year qualified audit opinion and next year audit fees, however it was found that this association differs when the firms audited are family firms. Results show that auditors will ask for higher audit fees to audit the next year financial statements when they issued a qualified audit opinion to family firms.

Dr. Hebatallah Badawy

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The importance of this study stems from the importance of investigating one of the most important factors that affect auditors' independence level, which is audit fees. This study is different from prior studies conducted in the area of audit fees, as it investigates how the issuance of qualified audit report on the current year financial statements might affect the value of the next year audit fees. **This paper contributes to the literature in three ways.** First, it documents empirical evidence of the association between current year qualified audit opinion and audit pricing decision concerning the next year financial statements. Second, as the impact of family ownership on audit fees remains understudied, this paper provides evidence of the impact of family ownership on the relationship between current year audit opinion and future audit pricing decision. Third, this paper adds to the current corporate governance literature in developing countries.

The remainder of this paper will be organized as follows: the literature on audit fees determinants, relationship between audit opinion and audit pricing and the impact of family ownership is discussed in Section 3, and the research hypotheses are developed. Sample selection, descriptive statistics and empirical results are presented in Section 4. Section 5 concludes and provides implications for future research.

2. Literature Review and Hypotheses Development

2.1 Determinants of audit fees

Extensive research was conducted in different countries to examine the main determinants of audit fees. Those determinants lie in three main categories; firm related attributes, auditor related attributes, and engagement related attributes (Hay *et al.,* 2006; Hay, 2013).

Despite the extensive research on the determinants of audit fees that are held in different countries, results were inconclusive. For instance, in Jordan, Naser and Nuseibeh (2007) used a sample of 181 companies listed on Amman Stock Exchange and found that firm size and auditor status, industry type, firm complexity and risk are the main determinants of audit fees. Using a sample of 272 companies of the top 300 publicly listed companies in Australia, Singh and Newby (2010) found that internal audit is positively associated with audit fees. In US, Harjoto *et al.* (2015)

examined a sample of 12,153 observations from 1,642 firms during the period from 2000-2010 and found that firms with female and ethnic minority CEOs ask for higher audit fees.

To examine the effect of auditor's experience on audit fees in China, Cahan and Sun (2015) investigated a sample of 1,917 firm-year observations over the period 2007-2010 and found positive association between auditor's experience and audit fees. In Indonesia, Rusmanto and Waworuntu (2015) found that client size is the main factor affecting audit fees, however complexity, profitability, audit quality and number of subsidiaries are not significantly associated with audit fees. On the other side, Akpom (2016) examined a sample of 141 companies listed on Nigeria Stock Exchange in 2013 and concluded that company size, profitability, complexity, riskiness, foreign activity level and audit firm size are main predictors of audit fees.

Focusing on another internal audit perspective, Alzeban and Sawan (2016) on gathered data from annual reports and based on the responses of 229 chief internal auditors from companies listed on London Stock Exchange, the authors found that adherence to International Standards for the Professional Practice of Internal Auditing is associated with higher audit quality and audit fees. In Japan, Hossain *et al.* (2017) found evidence that the number of senior auditors, assistant auditors and other professional staff has a significant positive effect on audit fees based on a sample of 3,981 firm-year observations during 2007-2011.

During the past two years, researchers focused extensively on the determinants of audit fees. In India, Rani (2018) investigated the association between audit committee effectiveness and audit fees. Based on a sample of 1,410 firm-year observations of listed companies in S&P Bombay Stock Exchange during 2007-2012, the author found that audit committee size and independence, company size, age, risk and audit firm size are positively related to audit fees. However, leverage and market value of firm divided by book value of assets are negatively related to audit fees. In a recent study that examined a factor that might affect future audit fees, Yen *et al.* (2018) examined whether information security breaches have a significant effect on the next year audit fees and whether this

Dr. Hebatallah Badawy

association is affected by audit firm industry expertise, size and auditor tenure. Based on a sample of 22,467 firm-year observations in US, the authors found that information security breaches have a significant positive effect on audit fees. However, the audit firm characteristics that help the auditors to understand the effect of information security breaches negatively moderate the positive association between information security breaches and audit fees.

In U.S., Paredes and Wheatley (2019) investigated the effect of changing fiscal year ends on audit fees and audit quality. Based on a sample of 223 firms that changed their fiscal year ends during the period from 2004-2014, the authors found that changing fiscal year ends to a non-busy season, audit fees and efforts will be significantly reduced. In U.S. also, Barua *et al.* (2019) examined the effect of two types of leverage; operating liability leverage and financial leverage on audit fees. Based on a sample of 38,118 firm year observations of U.S. companies during the period 2004-2016, the authors found that operating liability leverage is positively associated with audit fees, while financial leverage is negatively associated with audit fees.

From another perspective, Bicudo de Castro *et al.* (2019) investigated the impact of annual report tone on audit fees. Based on a sample of 5,034 firm-year observations of firms listed on the Australian Stock Exchange during the period from 2002-2014, the authors found that positive tone of annual reports is associated negatively with audit fees.

In India, Bhattacharya and Banerjee (2020) examined the determinants of audit fees and the effect of financial distress on audit pricing. Based on a sample of 22,644 firm year observations of Indian firms during the period from 1990-2015, the authors found that audit fees are positively associated with affiliation to Big4 audit firms, have industry specialization and offering audit and non-audit services.

Dr. Hebatallah Badawy

It is clear from discussing the prior literature on audit fees, that there is great attention paid to the importance of audit fees and the determinants used to price audit services. **Prior literature focused on the determinants of audit fees from different perspectives**; the audit firm's perspective, such as audit firm size, affiliation to international firms, auditor experience and specialization, audit team composition and auditor tenure. Another perspective is that of the client, which includes corporate governance issues, such as internal audit competencies and characteristics of the audit committee and board of directors, in addition to client size, operating and financial risk, industry, profitability and complexity. Final perspective is that of the engagement, which includes provision of non-audit services, busyness and audit report lag. Despite the extensive literature on audit fees, inconclusive results were reached.

2.2 Audit opinion and audit fees

Formulating an audit opinion is a complex process that involves evaluating client acceptance or retention decisions, understanding the clients' business, making internal control checks, collecting evidence based on substantive tests of transactions and balances and forming an opinion based on the aggregated results and evidence collected (Felix and Kinney, 1982). Auditor's opinion on the financial statements, which is the final outcome of the audit process, is important from the auditor's, entity managers' and users of financial statements' point of view (Crucean, 2019). Audit reports provide useful information for investors and it was proven that unqualified audit opinion with explanatory paragraph on financial distress and going concern opinion help in reducing information uncertainty (Kaplan *et al.*, 2020). In addition, the reason for modified audit opinion may be a reference for future auditors' missions (Crucean, 2019).

Concerning the factors that may affect auditors' opinion, they can be classified into four main categories: client related characteristics, such as firm size, risk and corporate governance, audit firm characteristics, such as audit firm size and auditor specialization, engagement characteristics, such as audit fees and auditor tenure and finally institutional factors, such as litigation and investor protection (Zhang, 2018).

Dr. Hebatallah Badawy

Prior research investigated the association between audit fees and audit opinion from different perspectives and reached different results. Based on a sample of 185 Greek companies listed on the Athens Stock Exchange, Caramanis and Spathis (2006) didn't find significant association between audit fees and the probability to issue qualified audit opinions. In Malaysia, Che Ahmad *et al.* (2006) examined a sample of 819 listed companies in 2002 and found a positive and significant association between non-audit fees and audit fees and that non-audit fees are significantly associated with the auditor's opinion.

Using audit opinion as a control variable, Kharuddin *et al.* (2019) examined the association between partner industry specialization and audit fees in UK. Based on a sample of 680 firm-year observations related to companies listed on London Stock Exchange during the period from 2009-2011, the authors found positive but insignificant relationship between audit opinion and audit fees. Using audit opinion also as a control variable, Shan *et al.* (2019) investigated the association between managerial ownership and audit fees. Based on a sample of 6,158 firm-year observations of Australian listed firms during the period from 2005-2015, the authors didn't find significant relationship between having modified audit opinion issued a year before and the audit fees.

In the same context, prior research investigated the association between audit fees and adding an additional paragraph in the audit report. Bedard *et al.* (2019) investigated the impact of adding an explanatory paragraph (justification of assessments) to the audit reports in France on investors and audit (audit delay, audit fees and audit quality). Using a sample of 1,250 firm-year observations, the authors found that the implementation of this requirement hasn't significant effect on audit fees. consistently, Reid *et al.* (2019) investigated the impact of applying new reporting regime; adding critical audit matters in the audit report on financial reporting quality, audit fees and audit delay in UK. The authors hypothesized that adding critical audit matters to the audit report will make auditors more accountable and will require more audit time and effort and

sometimes require training costs. The authors found that the new reporting regime has a positive impact on financial reporting quality, however it has no significant association with audit cost to the client in the form of audit fees or audit cost to the market in the form of audit delay

In a recent study, Xiao *et al.* (2020) noted that higher audit effort might result in deeper understanding of the client's operations and will increase the possibility of detecting material misstatements and in turn the issuance of modified audit opinion. On the other side, this deeper understanding will enhance the communication between the auditor and the client and will lead to detecting misstatements that will be modified and adjusted and so there is no need to issue modified audit opinion. Based on a sample of 7,833 firm-year observations during the period 2006-2011 from China Stock Market, the authors didn't find significant association between audit effort and issuance of modified opinion.

It is clear from the discussion above that despite the extensive research that examined the relationship between audit fees and audit opinions, most of them focused on how audit fees affect the type of audit opinion and not how the audit opinion and report already issued might be an input in the audit pricing decision for the next year audit mission. For instance, if the firm received a modified audit opinion in the previous year, auditors may decide to invest more audit effort in order to decrease audit risk (Cao *et al.,* 2015). In addition, prior research reached mixed results. Some studies didn't find significant association between audit fees and audit opinion, whether it is a qualified audit opinion or a clean opinion with a matter of emphasis paragraph. Other research found positive association between audit fees and audit opinion.

2.3 Family ownership and audit fees

To examine the effect of family ownership on audit fees, it is important to highlight two types of agency problems that result from the separation between owners and management (Type I and Type II agency problems). Type I agency problem results between managers and shareholders. According to the alignment effect hypothesis, family owners

are less likely to have such a problem because of their involvement in management and their monitoring role and they tend to forgo short term benefits for long term gains with their objective to pass their business to the future generations (Francis, 1984; Tee, 2018). Type II agency problem appears between small and large shareholders. According to the entrenchment effect hypothesis, family owners are more likely to suffer from this problem because of the probability of being involved in activities that are beneficial to them but harmful to other or minority shareholders (Ho and Kang, 2013; Tee, 2018). According to type I agency problems, family owners are less likely to hire big audit firms because of the direct monitoring of family owners. On the other side, according to type II agency problem, family owners are more likely to hire big audit firms in order to send a message on their credibility to other shareholders.

Hay *et al.* (2006) called for more research on the effect of family ownership on audit fees, as family firms are of special and important ownership structure and have different agency problems (Ho and Kang, 2013). After this call, more research was directed towards investigating the impact of family ownership on audit pricing decision. In Bangladesh, Khan *et al.* (2011) argued that family firms might limit some executive positions for family members, who take the decisions for their own interests. In this case, financial reporting might be affected and auditors might prefer to charge those firms higher audit fees because they may exert more efforts to reduce the related audit risks. Based on a sample of 183 firm-year observations from 2003-2005 of listed companies, the authors found significant and negative relationship between family ownership and audit fees., which indicates the low demand of higher audit quality by family firms. Consistently, Ho and Kang (2013) found evidence that family firms incur lower audit fees, in comparison with other firms. This result is more pronounced when family owners are active shareholders. On the other hand, Ben Ali and Lesage (2013) used sample of 476 firm year observations from listed companies on the SBF 250 French index during the period 2006-2008 and found no significant relationship between family

ownership and audit fees. In U.S., Ben Ali and Lesage (2014) examined a sample of 3,291 firm-year observations of U.S. Listed firms during the period from 2006-2008 and found a negative and significant association between family shareholdings and audit fees.

On the other side, Tee (2018) examined a sample of 3,787 firm-year observations from Malaysian Stock Exchange during the period 2002-2015 and found a significant positive association between family ownership and audit fees. This relation is pronounced with older family firms and higher family shareholdings. In addition, this association is stronger when family firms are politically connected.

Consistent with Ho and Kang (2013) and Ben Ali and Lesage (2014), Al-Okaily (2020) examined the association between family control and involvement in management and audit fees in normal economic conditions and during crisis period. The author collected data from 1,346 firm-year observations from firms listed on London Stock Exchange in UK firms during the period from 2005-2013 and found that during normal economic conditions, family ownership and involvement are associated with lower audit fees. During such periods, family members are practicing their monitoring role and substituting the qualified auditors' role and so don't seek higher audit quality services. However, during crisis period, family firms ask for higher audit quality services because of the expropriation of family to minority shareholders' wealth and so the effect on audit fees tend to be reversed.

It is clear from reviewing and analyzing prior studies that in general, family ownership has a significant effect on audit pricing. According to the alignment effect hypothesis, family members will monitor their business effectively and audit risk will be assessed at a low level. Accordingly, audit fees are expected to decrease. However, according to the entrenchment effect hypothesis, family members may achieve gains on the expense of others and so will ask for a higher quality audit and auditors will ask for a fee premium.

2.4 Development of research hypotheses

Based on the prior discussion, it can be noticed that in general, researchers paid a considerable attention to the determinants of audit fees and the impact of family ownership. In Egypt, audit fees are now publicly available, especially for firms listed on EGX, for the purpose of reducing information asymmetry and increasing the level of transparency in order to help investors and other stakeholders take rational decisions.

In Egypt, auditors whether those affiliated to Big4 or Non-Big4 must issue their audit reports within three months after the financial statements date. According to Companies Law No. 159/1981, during the General Shareholders' meeting which is held to discuss the auditor' report in the presence of the board of directors and audit committee members and the representatives of the shareholders, the auditor presents his audit report and discuss it. Once it is approved by the council, certain decisions related to the auditor are taken, for instance the change of the auditor or audit firm and the next year audit fees. During this meeting, the auditor presents his proposal for the next year audit fees and then a decision was taken; whether to accept this proposal or to set another amount of next year audit fees.

The question here is: what is the effect of issuing a qualified audit opinion on the auditor's assessment of client business risk and the pricing of the next year audit mission? And what about if the audit client is family owned, does this ownership structure affect the relationship between current year qualified audit opinion and next year audit fees?

Concerning the impact of current year qualified audit opinion, it is expected that audit reports are value relevant and has information content and qualified audit opinion will have a negative impact on investors (Hakim *et al.,* 2012). It is expected that the issuance of qualified audit opinion is a result of careful audit process and crucial investigations and serious of discussions and meetings with management to make the audit adjustments. This indicates also that the issuance of qualified audit opinion is significantly related to audit efforts and in turn to audit fees. It is expected that the issuance of a qualified audit opinion implies higher audit risk, which is expected to be held to the future. According to Habib (2013), current year audit opinion is positively associated with next year audit

opinion, and it is expected that the reason for modified audit opinions may act a reference for future audit missions (Crucean, 2019). This means that the auditor will consider his prior opinion and the reasons for this qualified opinion when he prepares his proposal of the next year audit fees. Accordingly, it is expected that current year qualified audit opinion will have a positive impact on auditor's fees for the next year financial statement audit. Based on this argument, the first research hypothesis can be developed as follows:

H1: ceteris paribus, current year qualified audit opinion has a significant positive association with next year audit fees

In Egypt, there are family firms that are listed on EGX. Family firms are of different nature and agency problems. According to the alignment effect hypothesis, it is expected that family members who are engaged in management will work for the sake of the company and will sacrifice for the future generations. According to this hypothesis, agency problems will decrease. In addition, the information asymmetry level between managers and shareholders is low, making auditors evaluate audit risk at a low level. Accordingly, family members will not ask for higher audit quality to reduce agency costs and will go for non-big4 firms and so the audit fees will be lower. On the other side, according to the entrenchment effect hypothesis, family members may work for their own benefits on the expense of minority shareholders, and in this case agency problems will exist. Here it is expected that family members might ask for higher quality audits and will go for Big4 audit firms and pay higher audit fees. According to this hypothesis, it is expected that family ownership in general will have a significant negative effect on audit fees.

Based on the discussion above, it is expected that family ownership will have a negative effect on next year audit fees, if family members monitor their business effectively. However, if family members work for their own interest on the expense of other shareholders and this is reflected on the financial reporting and auditors discover some problems, they will assess audit risk at a higher level will ask for higher quality audits and will pay higher audit fees.

Dr. Hebatallah Badawy

Accordingly, the second research hypothesis can be formulated as follows:

H2: ceteris paribus, the association between current year qualified audit opinion and next year audit fees differ significantly with different nature of ownership (family vs non-family)

3. Research Design and Methodology

In this section, the author will present the research methodology, sample selection procedures, measurement of independent, dependent, moderating and control variables used in the study and the derivation of research models.

3.1 Sample and data

This study focuses on non-financial firms listed on EGX during the period from 2016 – 2019. Financial firms are excluded from the study due to their different nature and special regulatory requirements. To reach the final sample, the author collected the data related to independent and control variables from the annual reports issued during the period from 2016 – 2019 and the data related to next year audit fees (dependent variable) from the minutes of General Shareholders' meetings held by the listed firms during the period from 2017 – 2020. After removing the observations with missing data and that which involve switching auditors, the final sample reached 358 firm-year observations (Table 1). Table (2) presents the distribution of the final sample by sector.

Table (1) Sample selection procedure

Total firm-year observations from 2016-2019	880
Less: Observations in the financial industry	(160)
Less: Observations with missing data and switching auditors	(352)
Final sample	**358**

Table (2) Sample distribution by sector

Sector	No. of firm-year observations
Basic Resources	16
Chemicals	22
Construction and Materials	51
Food and Beverages	70
Healthcare and Pharmaceuticals	33
Industrial Goods and Services and Automobiles	30
Media	4
Oil and Gas	4
Personal and Household Products	16
Real Estate	70
Retail	7
Technology	2
Telecommunications	3
Travel and Leisure	30
Total	**358**

3.2 Measurement of variables

3.2.1 Dependent variable: Audit fees

LN(AUDIT_FEES): Natural logarithm of the next year audit fees (as mentioned in the General Shareholders' meeting minutes of the firms in the sample) (Ho and Kang, 2013; Yen *et al.,* 2018; Tee, 2018; Bedard *et al.,* 2019; Shan *et al.,* 2019).

3.2.2 Independent variable: Current year audit opinion

AUDIT_OPINION: Dummy variable that takes the value (1) if the current year audit opinion is qualified, zero otherwise (Che Ahmad *et al.,* 2006).

3.2.3 Moderating variable: Family ownership

FAMILY: Dummy variable that takes the value (1) if family ownership is more than 20% and at least one of the family members participates in management, zero otherwise (Khan *et al.,* 2015).

3.2.3 Control variables

Following several prior studies, the author controlled for firm size, age, profitability, complexity and busy season. In the additional analysis, the author added an auditor related variable, which is audit quality.

Firm size (*SIZE*): Larger companies are engaged in more transactions. It is expected that large number of transactions will require more audit efforts and time, and in turn will be subject to higher audit fees (Che Ahmad *et al.,* 2006). Following Singh and Newby, 2010 and Bedard *et al.,* 2019, firm size is measured by the natural logarithm of the book value of total assets.

Firm age (*AGE*): Tee (2018) called for investigating the impact of firm age on audit fees for family firms, that's why the author includes it in the study model. It is expected that older firms will be involved in more and complex transactions that will require more time and efforts from the auditors to complete their audits (Bhattacharya and Banerjee, 2020). Accordingly, it is expected that firm age will be associated positively with audit fees. Consistent with Xiao *et al.* (2020), firm age is measured by the natural logarithm of the number of years since the firm is established.

Firm profit (*PROFIT*): Firm profitability is measure of client risk (Caneghem, 2010). Prior research reached mixed results regarding the impact of firm's profitability on audit fees. There are three scenarios. The first one is that firms that reported losses will make auditors assess audit risk at a higher level and so will ask for higher audit fees. The second scenario is that firms that reported higher profits usually pay higher audit fees, assuming that higher profits require stricter and rigorous audit procedures to test the validity of the revenues and expenses recognition and this requires more effort and time (Joshi and Al-Bastaki, 2000). The third scenario is that firms that experienced losses paid lower audit fees than better performing ones, which might be because of putting pressure on auditors and preventing them from asking for higher audit fees (Niemi,

2002). Firm profitability will be measured by a dummy variable that takes the value (1) if net income is positive, zero otherwise.

Client Complexity (*COMPLEXITY*): More complex operations need more manpower and increase the auditors' efforts and in turn, this leads to higher audit fees (Nikkinen and Sahlstrom, 2005; Che Ahmad *et al.,* 2006). Following Barua *et al.,* 2019, Bedard *et al.,* 2019 and Smith *et al.,* 2019, complexity is measured by the percentage of receivables and inventory to total assets as those accounts are considered risky balance sheet components and require special audit procedures (Simunic, 1980; Caneghem, 2010; Hay, 2013). It is recommended to use both accounts as a proxy for inherent risk than examining each account separately (Hay *et al.,* 2006).

Busy season (*BUSY*): auditors are known to have a busy season, which is the time where most of the companies issue their financial statements. Audits conducted during the busy season are considered costly, as they require more audit efforts and manpower (Hay *et al.,* 2006). Although busy season is not frequently included in prior audit fees studies, but it is a main determinant of audit pricing (Ng *et al.*, 2018). In Egypt, December 31st is the most common fiscal year-end. It is expected that audit firm will charge audit premium during their busy season. Consistent with Caneghem, 2010, Zhang, 2018 and Bedard *et al.,* 2019, busy season will be measured by a dummy variable that takes the value (1) if the financial statement date is 31st of December, zero otherwise.

In the additional analysis, audit quality (*AUDIT_QUALITY*) was added to the model to investigate its impact on audit fees. In Egypt, audit firms can be classified into two main categories; national and national audit firms affiliated to one of the Big4. It is expected that audit firms affiliated to one of the Big4 audit firms will charge their clients fee premiums because of their reputation, higher audit quality and their ability to indemnify losses for their clients' stakeholders (Hay *et al.,* 2006; Jacob *et al.,* 2019). Additionally, according to the "deep pocket" hypothesis, Big4 audit firms are wealthier than non-big4 audit firms and they have a lot of clients and so less dependent on their clients (Caneghem, 2010). Here, audit quality will be measured by the affiliation to one of the Big4 audit firms.

3.3 Models specifications

To test the effect of current year qualified audit opinion on next year audit fees, the following OLS regression model is developed:

Model 1:

$$LN(AUDIT\_FEES_{it+1}) = \beta_0 + \beta_1 AUDIT\_OPINION_{it} + \beta_2 SIZE_{it} + \beta_3 AGE_{it} + \beta_4 PROFIT_{it} + \beta_5 COMPLEXITY_{it} + \beta_6 BUSY_{it} + \varepsilon_{it}$$

To test the interaction effect of current year qualified audit opinion and family ownership on next year audit fees, the following OLS regression model is developed:

Model 2:

$$LN(AUDIT\_FEES_{it+1}) = \beta_0 + \beta_1 AUDIT\_OPINION_{it} + \beta_2 FAMILY_{it} + \beta_3 AUDIT\_OPINION*FAMILY_{it} + \beta_4 SIZE_{it} + \beta_5 AGE_{it} + \beta_6 PROFIT_{it} + \beta_7 COMPLEXITY_{it} + \beta_9 BUSY_{it} + \varepsilon_{it}$$

4. Empirical Findings

4.1 Descriptive statistics

Table (3) presents the descriptive statistics of the independent, dependent and control variables. It is obvious from the descriptive statistics that the natural logarithm of audit fees ranges from 9.5468 to 13.7642 with an average 11.4539 and standard deviation 0.8868. As shown in table (3), 19.83% of the firms in the sample receive qualified audit opinion with a standard deviation 0.3993. It is also clear that 28% of the firms in the sample are family firms. Size of firms in the sample ranges from 15.79 to 25.29 with standard deviation 1.90. Most of the firms (82%) achieved profits. Average firms' complexity is 33% with standard deviation 0.2296. 92% of the firms issue their financial statements in the busy season.

Dr. Hebatallah Badawy

Table (3) Descriptive statistics

	Expected Sign	Mean	Median	Min	Max	SD	N
LN(AUDIT_FEES)		11.4539	11.4076	9.5468	13.7642	0.8869	358
AUDIT_OPINION	+	0.1983	0.0000	0.0000	1.0000	0.3993	358
FAMILY	-	0.2800	0.0000	0.0000	1.0000	0.4490	358
SIZE	+	20.4662	20.4314	15.7935	25.2905	1.9043	358
AGE	+	3.3102	3.4012	0.0000	4.7095	0.5881	358
PROFIT	+/-	0.8200	1.0000	0.0000	1.0000	0.3860	358
COMPLEXITY	+	0.3301	0.2886	0.0000	0.9905	0.2296	358
BUSY	+	0.9200	1.0000	0.0000	1.0000	0.2770	358

4.2 Correlation analysis

From table (4), the author can initially conclude that current year qualified audit opinion is positively associated with next year audit fees. As for family ownership, it is clear that it is negatively and significantly associated with next year audit fees. Concerning the control variables, the author can conclude that firm size, age, profitability and busy season are positively associated with next year audit fees. On the other side, complexity is negatively but insignificantly associated with audit fees. As for the correlation between the independent and control variables, it is clear that the maximum correlation is 43% and from the VIF factors shown in the next section, the author can conclude that there is no multicollinearity problem that might affect the regression results.

Dr. Hebatallah Badawy

Table (4): Correlation analysis

	LN(AUDIT FEES)	AUDIT_OPINION	FAMILY	SIZE	AGE	PROFIT	COMPLEXITY	BUSY
LN(AUDIT_FEES)	1.00							
AUDIT_OPINION	0.118**	1						
FAMILY	-0.242***	-0.044	1					
SIZE	0.733***	-0.106*	-0.031	1				
AGE	0.173***	0.093*	-0.268***	-0.006	1			
PROFIT	0.130**	-0.093*	0.099*	0.162***	-0.061	1		
COMPLEXITY	-0.057	-0.040	0.130**	-0.185***	-0.132**	0.106**	1	
BUSY	0.090*	-0.431***	0.076	0.020	-0.196***	0.014	0.050	1

*** = significant at 0.01 level, ** = significant at 0.05 level, * = significant at 0.10 level

4.3 Hypotheses testing

Table (5) presents the regression results of the base model (Model1). First, the adjusted R^2 of the regression model is 58.6%, which is consistent with prior studies in this area (e.g. Cahan and Sun, 2015). Second, the VIF of all variables in the model are less than 10, which means that multicollinearity is not a problem that may affect the regression results. Third, Durbin Watson statistic, which is a measure of autocorrelation indicates no significant autocorrelation.

To test the first research hypothesis (H1), the regression results in table (5) show that *AUDIT_OPINION* is negatively but insignificantly associated with next year audit fees (Sig. = 0.867). This result, which is consistent with that of Shan *et al.* (2019), implies that current year qualified audit opinion will have no significant effect on the auditor's decision with regards to audit pricing. This result might be justified that auditors who issue qualified audit opinion for a firm have already exerted more efforts during their last year audit and have included all their comments and qualifications in their audit report. This exerted effort might save efforts for the next year audit. **Accordingly, the first research hypothesis (H1) is not supported.**

Among the control variables, regression results show that *SIZE* is positively associated with audit fees at the 1% level of significance, suggesting that large firms require more audit time and efforts and that's why auditors may charge those firms higher audit fees. This result is consistent with Joshi and Al-Bastaki (2000) and Smith *et al.* (2019). Also, consistent with Barua, *et al.* (2019) and Smith *et al.* (2019), *COMPLEXITY* is positively associated with audit fees, implying that the risks related to such accounts will require auditors to make special auditing procedures such as confirmation, and this will make auditors ask for a fee premium.

Consistent with Barua *et al.* (2019) and Bhattacharya and Banerjee (2020), regression results show that *AGE* is positively associated with audit fees at the 1% significance level, suggesting that as firms become older and more involved in transactions, they will need more efforts and sometimes require higher experience level. This will put pressure on auditors to incur higher costs and so will ask for higher audit fees. In addition, the author believes that as time passes and the general price level increases, auditors will incur higher costs and ask for higher salaries and so will charge their clients higher audit fees.

Concerning the impact of *PROFIT* on next year audit fees, regression results show positive but insignificant association between both variables. This result is inconsistent with prior research that found positive and significant association between both variables. An interpretation for this result might be due to different profitability measures, as for instance, Joshi and Al-Bastaki, 2000 used ROA to measure profitability.

Finally, unlike prior research results of Joshi and Al-Bastaki, 2000, but as expected and consistent with Ng *et al.* (2018), Zhang (2018) and Kharuddin *et al.,* (2019), firms that have their fiscal year end in December, during the busy season, require overtime audit work and auditors will be under pressure in order to issue their audit report within the required time. Accordingly, the regression result shows that *BUSY* is positively associated with audit fees at the 1% level of significance.

Dr. Hebatallah Badawy

Table (5) Regression Results: Audit opinion and audit fees

Variables	VIF	Standardized coefficients β	t	Sig.
(Constant)			6.557	0.000
AUDIT_OPINION	1.252	-0.006	-0.168	0.867
SIZE	1.085	0.750	21.129	0.000***
AGE	1.059	0.214	6.098	0.000***
PROFIT	1.056	0.008	0.225	0.822
COMPLEXITY	1.076	0.104	2.943	0.003***
BUSY	1.269	0.109	2.827	0.005***
R^2		0.593		
Adj. R^2		0.586		
Std. error		0.57095		
Durbin-Watson		1.631		
F value		85.061		
Sig. F		0.000***		
N		358		

*** = significant at 0.01 level, ** = significant at 0.05 level, * = significant at 0.10 level

　　　　To test the second research hypothesis (H2), family ownership *FAMILY* variable and a moderating variable *AUDIT_OPINION*FAMILY* showing the interaction between qualified audit opinion and family ownership have been added to the base model. Table (6) presents the results of the interaction of current year qualified audit opinion and family ownership. First, the Adj. R^2 showed improvement from 58.6% to 63.1%. Second, the VIF column shows that there is no multicollinearity problem, and the Durbin-Watson statistic shows no autocorrelation problem.

It is clear from table (6) that *AUDIT_OPINION* is negatively associated with next year audit fees at 10% significant level (Sig. = 0.091). This result indicates that auditors who issue qualified audit opinion for the current year will not ask for a fee premium for auditing the next year financial statements. Also, consistent with Khan *et al.* (2011) and Ben Ali and Lesage (2014), regression results indicate that *FAMILY* has a significant negative effect on audit fee determinacy (Sig. = 0.000), which is consistent with the alignment effect hypothesis and the low information asymmetry between managers and shareholders hypothesis.

On the other side, *AUDIT_OPINION*FAMILY* has a significant positive effect on next year audit fees (Sig. = 0.004). This result might show that, consistent with the entrenchment effect hypothesis, family members might work for their interest on the expense of minority interest and this might result in higher agency problems. When auditors discover financial problems and issue a qualified audit opinion, they will assess audit risk at a higher level and will ask for higher audit fees for the future audit missions. **Accordingly, the second research hypothesis (H2) is supported.**

Consistent with the regression results of Model (1) shown in table (5), the control variables; *SIZE* (Sig. = 0.000), *AGE* (Sig. 0.000), *COMPLEXITY* (Sig. = 0.002) and *BUSY* (Sig. = 0.014) are positively and significantly associated with next year audit fees. However, *PROFIT* is positively but insignificantly associated with next year audit fees (Sig. = 0.353).

Dr. Hebatallah Badawy

Table (6) Regression Results: The interaction effect of family ownership and current year audit opinion on next year audit fees

Variables	VIF	β	t	Sig.
		Model 2		
		Standardized coefficients		
	VIF	β	t	Sig.
(Constant)			7.927	0.000
AUDIT_OPINION	1.717	-0.072	-1.697	0.091*
FAMILY	1.322	-0.247	-6.685	0.000***
*AUDIT_OPINION*FAMILY*	1.638	0.120	2.925	0.004***
SIZE	1.088	0.749	22.301	0.000***
AGE	1.130	0.158	4.619	0.000***
PROFIT	1.068	0.031	0.929	0.353
COMPLEXITY	1.102	0.108	3.191	0.002***
BUSY	1.322	0.091	2.462	0.014**
R^2		0.639		
Adj. R^2		0.631		
Std. error		0.5391		
Durbin-Watson		1.817		
F value		77.150		
Sig. F		0.000***		
N		358		

*** = significant at 0.01 level, ** = significant at 0.05 level, * = significant at 0.10 level

4.4 Sensitivity analyses

To test the robustness of the main empirical results, several analyses were conducted. First, three alternative measures for audit fees and an alternative measure for audit opinion are being used. Second the total sample is divided according to family ownership variable and the effect of audit opinion on audit fees is examined on each subsample (family vs non-family firms).

Dr. Hebatallah Badawy

4.4.1 Alternative measures of audit fees

The first alternative measure is the total value of audit fees (in Egyptian pounds) following Ben Ali and Lesage (2014). Based on this alternative measure, the following OLS regression model is developed:

Model 3:

$$TOTAL\_AUDIT\_FEES_{it+1} = \beta_0 + \beta_1 AUDIT\_OPINION_{it} + \beta_2 FAMILY_{it} + \beta_3 AUDIT\_OPINION*FAMILY_{it} + \beta_4 SIZE_{it} + \beta_5 AGE_{it} + \beta_6 PROFIT_{it} + \beta_7 COMPLEXITY_{it} + \beta_8 BUSY_{it} + \varepsilon_{it}$$

Consistent with Dhaliwal *et al.* (2008), the second alternative measure of audit fees is total fees divided by square root of total assets. Based on this alternative measure, the following OLS regression model is developed:

Model 4:

$$AUDIT\_FEES_{it+1}/SQR\_TOTAL\_ASSETS = \beta_0 + \beta_1 AUDIT\_OPINION_{it} + \beta_2 FAMILY_{it} + \beta_3 AUDIT\_OPINION*FAMILY_{it} + \beta_4 SIZE_{it} + \beta_5 AGE_{it} + \beta_6 PROFIT_{it} + \beta_7 COMPLEXITY_{it} + \beta_8 BUSY_{it} + \varepsilon_{it}$$

The third alternative measure of audit fees is total fees divided by total assets, following Foster and Shastri (2016). Based on this alternative measure, the following OLS regression model is developed:

Model 5:

$$AUDIT\_FEES_{it+1}/TOTAL\_ASSETS = \beta_0 + \beta_1 AUDIT\_OPINION_{it} + \beta_2 FAMILY_{it} + \beta_3 AUDIT\_OPINION*FAMILY_{it} + \beta_4 SIZE_{it} + \beta_5 AGE_{it} + \beta_6 PROFIT_{it} + \beta_7 COMPLEXITY_{it} + \beta_8 BUSY_{it} + \varepsilon_{it}$$

Table (7) shows the regression results after using the three alternative measures of audit fees, where audit fees are measured by total value of audit fees in Model (3), total fees divided by square root of total fees in Model (4) and total fees divided by total assets in Model (5).

Consistent with Harjoto *et al.* (2015), the results in table (7) are weaker because of the skewness of the variable, measured by the value of audit fees. It is obvious that *AUDIT_OPINION* is negatively and significantly associated with next year audit fees in Model (3) only (Sig. = 0.016). However, *AUDIT_OPINION* turned to be negatively but insignificantly associated with the next year audit fees in Model (4) (Sig. = 0.127) and Model (5) (Sig. = 0.411). This result indicates that auditors who issue qualified audit opinion for the current year will not ask for a fee premium for auditing the next year financial statements.

Dr. Hebatallah Badawy

Consistent with the main results shown in table (6), *FAMILY* is negatively and significantly associated with next year audit fees in Model (3) (Sig. = 0.000), Model (4) (Sig. = 0.000) and Model (5) (Sig. = 0.003).

Additionally, *AUDIT_OPINION*FAMILY* is positively and significantly associated with next year audit fees in Model (3) (Sig. = 0.023), Model (4) (Sig. = 0.0013) and Model (5) (Sig. = 0.000). **This indicates that the results of the study concerning the second research hypothesis (H2) are robust to the three alternative measures of audit fees.**

Concerning the control variables, *SIZE* is positively and significantly associated with next year audit fees in Model (3) (Sig. = 0.000), however, it turned to be negative and significant in Model (4) (Sig. = 0.000) and Model (5) (Sig. = 0.000). This result might be due to using alternative measures of audit fees that rely on the firm's assets to be calculated. *AGE* is positively and significantly associated with next year audit fees in Model (3) (Sig. = 0.049) and Model (4) (Sig. = 0.0045). However, in model (5), it turned to be negatively and significantly associated with next year audit fees (Sig. = 0.000).

Concerning *PROFIT*, it is positively but insignificantly associated with next year audit fees in Model (3) (Sig. = 0.287), but this relationship turned to be positive and significant in Model (4) (Sig. = 0.094) at 10% significance level and Model (5) (Sig. = 0.008). This result is consistent with the study of Joshi and Al-Bastaki (2000), which found that profitable firms might require more audit effort and stricter audit investigations to test the validity of the expenses and revenues recognition. *COMPLEXITY* is positively but insignificantly associated with next year audit fees in Model (3) (Sig. = 0.128), Model (4) (Sig. = 0.102) and Model (5) (Sig. = 0.906).

Finally, *BUSY* is positively and significantly associated with next year audit fees in models (3) (Sig. = 0.080) and (4) (Sig. = 0.022), implying that firms that have financial year end on December 31st require a lot of effort and more audit work and so higher audit fees will be requested by their auditors. On the other side, and consistent with Firth (2002) and Ben Ali and Lesage (2014), *BUSY* is insignificantly associated with audit fees in model (5) (Sig. = 0.105).

Table (7) Regression results: Alternative measures of next year audit fees

Variables	Model 3			Model 4			Model 5		
	β	t	Sig.	β	t	Sig.	β	t	Sig.
(Constant)		-8.903	0.000		4.111	0.000		16.264	0.000
AUDIT_OPINION	-0.137	-2.429	0.016**	-0.098	-1.531	0.127	-0.040	-0.823	0.411
FAMILY	-0.256	-5.190	0.000***	-0.274	-4.883	0.000***	-0.125	-2.951	0.003***
*AUDIT_OPINION*FAMILY*	0.250	2.291	0.023**	0.156	2.489	0.013**	0.211	4.470	0.000***
SIZE	0.517	11.552	0.000***	-0.244	-4.791	0.000***	-0.651	-16.886	0.000***
AGE	0.090	1.978	0.049**	0.104	2.014	0.045**	-0.226	-5.743	0.000***
PROFIT	0.047	1.067	0.287	0.085	1.678	0.094*	0.102	2.672	0.008***
COMPLEXITY	0.069	1.528	0.128	0.084	1.640	0.102	0.005	0.119	0.906
BUSY	0.087	1.757	0.080*	0.129	2.295	0.022**	0.069	1.625	0.105
R^2		0.358			0.169			0.524	
Adj. R^2		0.343			0.150			0.513	
Std. error		124527.7			2.8772			0.00028	
Durbin-Watson		1.655			1.873			1.992	
F value		24.303			8.845			47.981	
Sig. F		0.000***			0.000***			0.000***	
N		358			358			358	

*** = significant at 0.01 level, ** = significant at 0.05 level, * = significant at 0.10 level

4.4.2 Alternative measure of current year audit opinion

In this section, the author used a detailed measure for audit opinion through including two dummy variables, *EMPHASIS_OPINION* if the current year audit opinion is clean with a matter of emphasis (explanatory) paragraph and *QUALIFIED_OPINION* if the audit opinion is qualified (Tahinakis and Samarinas, 2016). Based on this alternative measure, the following OLS regression model is developed:

Model 6:

$$LN(AUDIT\_FEES_{it+1}) = \beta_0 + \beta_1 EMPHASIS\_OPINION_{it} +$$
$$\beta_2 QUALIFIED\_OPINION_{it} + \beta_3 FAMILY_{it} +$$
$$\beta_4 EMPHASIS\_OPINION*FAMILY_{it} +$$
$$\beta_5 QUALIFIED\_OPINION*FAMILY_{it} + \beta_6 SIZE_{it} + \beta_7 AGE_{it} + \beta_8 PROFIT_{it}$$
$$+ \beta_9 COMPLEXITY_{it} + \beta_{10} BUSY_{it} + \varepsilon_{it}$$

Table (8) shows that the effect of current year audit opinion on next year audit fees is not significant. It is clear that *QUALIFIED_OPINION* is negatively but insignificantly associated with next year audit fees (Sig. = 0.124), however *EMPHASIS_OPINION* is positively but also insignificantly associated with next year audit fees (Sig. = 0.690). This result is consistent with Bedard *et al.* (2019) that found that expanded audit reports which include justification of assessment or critical audit matters or key audit matters doesn't have a significant effect on audit fees.

Consistent with the regression results shown in tables (6) and (7), *FAMILY* is negatively and significantly associated with next year audit fees (Sig. = 0.000) and *QUALIFIED_OPINION*FAMILY* has a significant positive impact on next year audit fees, indicating that auditors ask for a higher fee premium if the firm is defined as a family firm and the auditor issued a qualified audit opinion (Sig. = 0.007). However, *EMPHASIS_OPINION*FAMILY* has an insignificant negative effect, indicating that auditors will not ask for a fee premium (Sig. = 0.767).

Regarding the effect of control variable, table (8) reveals that *SIZE* (Sig. = 0.000), *AGE* (Sig. = 0.000), *COMPLEXITY* (Sig. = 0.001) and *BUSY* (Sig. = 0.016) have a significant positive impact on next year audit fees. On the other side, *PROFIT* is positively but insignificantly associated with next year audit fees (Sig. = 0.340).

Dr. Hebatallah Badawy

Table (8) Regression results: Alternative measure of current year audit opinion

Variables	VIF	Model 6 Standardized coefficients β	t	Sig.
(Constant)			7.890	0.000
EMPHASIS_OPINION	1.641	0.016	0.399	0.690
QUALIFIED_OPINION	1.833	-0.067	-1.543	0.124
FAMILY	1.935	-0.241	-5.367	0.000***
*EMPHASIS_OPINION*FAMILY*	2.205	-0.014	-0.297	0.767
*QUALIFIED_OPINION*FAMILY*	1.764	0.117	2.736	0.007***
SIZE	1.113	0.748	21.984	0.000***
AGE	1.141	0.157	4.566	0.000***
PROFIT	1.076	0.032	0.956	0.340
COMPLEXITY	1.105	0.109	3.200	0.001***
BUSY	1.338	0.091	2.429	0.016**
R^2		0.639		
Adj. R^2		0.629		
Std. error		0.5405		
Durbin-Watson		1.821		
F value		61.412		
Sig. F		0.000		
N		358		

*** = significant at 0.01 level, ** = significant at 0.05 level, * = significant at 0.10 level

4.4.3 Family vs Non-Family

The sample is divided according to family ownership into two subsamples, the first one includes 258 observations (non-family firms) and the second one includes 100 observations (family firms). The OLS regression model (Model 1) will be run on each sample separately.

Dr. Hebatallah Badawy

To test the differences in mean, two tailed t-test was used. From table (9), it is clear that there is significant difference between audit fees of family firms and that of non-family firms. Audit fees are higher in non-family firms in comparison with family firms. This result confirmed the author's prior justification and results that showed that family firms don't suffer from higher agency costs and according to the alignment effect hypothesis, family members will monitor their firms and will do their best to pass a successful business to the future generations. Accordingly, family firms will not seek higher quality audits and will be less reluctant to demand Big4 audit services. Also, it is obvious that there are significant differences between the two subsamples with regard to firm age, profitability and complexity.

Table (9) Differences in means between family and non-family samples

	Non-family		Family		
	Mean	**Std. Dev.**	**Mean**	**Std. Dev.**	**Differences in Mean**
LNAUDIT FEES	11.5875	0.8953	11.1092	0.7675	0.4783***
AUDIT_OPINION	0.2093	0.4076	0.17	0.3775	0.0393
SIZE	20.5026	1.6716	20.3723	2.4104	0.1303
AGE	3.4082	0.5714	3.0574	0.5569	0.3508***
PROFIT	0.79	0.405	0.88	0.327	-0.09*
COMPLEXITY	0.3116	0.2170	0.3779	0.2545	-0.0664**
BUSY	0.90	0.296	0.95	0.219	-0.05

*** = significant at 0.01 level, ** = significant at 0.05 level, * = significant at 0.10 level

It is clear from table (10) that for non-family firms, *AUDIT_OPINION* is negatively but insignificantly associated with next year audit fees (Sig. = 0.275). The most significant determinants of audit fees are *SIZE* (Sig. = 0.000), *AGE* (Sig. = 0.008) and *BUSY* (Sig. = 0.005). On the other side, *PROFIT* (Sig. = 0.719) and *COMPLEXITY* (Sig. = 0.153) are positively but insignificantly associated with next year audit fees.

Dr. Hebatallah Badawy

However, for family firms, *AUDIT_OPINION* is positively but insignificantly associated with next year audit fees (Sig. = 0.152). This result is consistent with that of Firth (2002) and Kharuddin *et al.* (2019). Analogous to the results of non-family firms, regression results in table (11) provide evidence that *SIZE* (Sig. = 0.000) and *AGE* (Sig. = 0.000) are positively and significantly associated with next year audit fees. However, family firms are different from non-family firms in the impact of complexity and busy season, as *COMPLEXITY* was shown to be positively and significantly associated with next year audit fees (Sig. = 0.000) and *BUSY* is negatively and insignificantly associated with next year audit fees (Sig. = 0.591). Also, consistent with non-family firms, *PROFIT* is positively and insignificantly associated with next year audit fees (Sig. = 0.874).

Table (10) Regression results: family vs non-family

Variables	Non-Family				Family			
	VIF	β	t	Sig.	VIF	β	t	Sig.
(Constant)			4.206	0.000			8.291	0.000
AUDIT_OPINION	1.376	-0.050	-1.093	0.275	1.176	0.080	1.443	0.152
SIZE	1.084	0.760	18.679	0.000***	1.119	0.890	16.534	0.000***
AGE	1.071	0.108	2.681	0.008***	1.055	0.238	4.553	0.000***
PROFIT	1.039	0.014	0.360	0.719	1.305	0.009	0.160	0.874
COMPLEXITY	1.078	0.058	1.432	0.153	1.266	0.261	4.564	0.000***
BUSY	1.401	0.131	2.844	0.005***	1.031	-0.028	-0.539	0.591
R^2	0.617						0.759	
Adj. R^2	0.608						0.744	
Std. error	0.5606						0.3887	
Durbin-Watson	1.911						1.600	
F value	67.414						48.832	
Sig. F	0.000***						0.000***	
N	258						100	

*** = significant at 0.01 level, ** = significant at 0.05 level, * = significant at 0.10 level.

4.5 Additional analysis

In this section, an audit related control variable, audit quality (*AUDIT_QUALITY*) is added to the OLS regression model to show its impact on next year audit fees. Accordingly, the following OLS regression model is developed:

Model 7:

$$LN(AUDIT\_FEES_{it+1}) = \beta_0 + \beta_1 AUDIT\_OPINION_{it} + \beta_2 FAMILY_{it} + \beta_3 AUDIT\_OPINION*FAMILY_{it} + \beta_4 SIZE_{it} + \beta_5 AGE_{it} + \beta_6 PROFIT_{it} + \beta_7 COMPLEXITY_{it} + \beta_8 BUSY_{it} + \beta_9 AUDIT\_QUALITY_{it} + \varepsilon_{it}$$

Consistent with Ben Ali and Lesage (2014) and Jacob *et al.* (2019), *AUDIT_QUALITY* has a significant positive impact on next year audit fees (Sig. = 0.000) (table 11). This result suggests that Big4 audit firms charge their clients fee premiums because of their reputation, experience and superior audit quality. Again, *FAMILY* has a significant negative impact on next year audit fees (Sig. = 0.000) and *AUDIT_OPINION*FAMILY* is positively and significantly associated with next year audit fees (Sig. = 0.002). *SIZE* (Sig. = 0.000), *AGE* (Sig. = 0.000) and *COMPLEXITY* (Sig. = 0.005) are positively and significantly associated with next year audit fees. On the other side, *PROFIT* (Sig. = 0.201) and *BUSY* (Sig. = 0.125) were proven to be positively but insignificantly associated with next year audit fees.

Dr. Hebatallah Badawy

Table (11) Regression results: Additional analysis

Variables	VIF	β	t	Sig.
		Model 7		
		Standardized coefficients		
	VIF	β	t	Sig.
(Constant)			10.002	0.000
AUDIT_OPINION	1.739	-0.045	-1.104	0.270
FAMILY	1.340	-0.223	-6.280	0.000***
*AUDIT_OPINION*FAMILY*	1.638	0.120	3.047	0.002***
SIZE	1.361	0.653	18.232	0.000***
AGE	1.148	0.133	4.057	0.000***
PROFIT	1.071	0.041	1.281	0.201
COMPLEXITY	1.111	0.090	2.796	0.005***
BUSY	1.361	0.055	1.540	0.125
AUDIT_QUALITY	1.385	0.216	5.988	0.000***
R^2		0.673		
Adj. R^2		0.664		
Std. error		0.5140		
Durbin-Watson		1.827		
F value		79.410		
Sig. F		0.000***		
N		358		

*** = significant at 0.01 level, ** = significant at 0.05 level, * = significant at 0.10 level

5. Conclusions and implications

The objective of this paper is to investigate the impact of current year audit opinion on next year audit fees and whether this impact will differ with different nature of ownership. The author reviewed prior literature that focused on the determinants of audit fees, the association between audit opinion and audit fees and the association between family ownership and audit fees.

Dr. Hebatallah Badawy

The author hypothesized that current year audit opinion is positively and significantly associated with next year audit fees and that the interaction of current year qualified audit opinion and family ownership will have a significant impact on next year audit fees.

Based on a sample of 358 firm-year observations of firms listed on EGX during the period from 2016-2019, the author didn't find significant relationship between current year qualified audit opinion and next year audit fees, however results show that auditors will ask for fee premium to audit the next year financial statements when the auditor issued a qualified audit opinion to family firms.

The findings of this study should be considered in the light of its limitations. One limitation is the lack of a very large data set of audit fees, as although the study covers 180 firms over a period of 4 years, the final sample includes 358 firm year observations, which means that nearly half of the data is unavailable. Second, adding audit related variables, such as auditor switch, expertise, industry specialization and non-audit services to the regression model in future research may add further evidence. Finally, financial companies are excluded from this study due to their different nature of operation and regulatory environment.

Additionally, the author recommends future studies to investigate the effect of different ownership structures on the audit pricing decisions in Egypt. For example, whereas the author focuses on the impact of family ownership on the relationship between current year audit opinion and next year audit fees, it would be interesting to study the effect of institutional and government ownership on the latter relationship. Also, it will be interesting if future research concentrates on the association between other audit related factors, such as auditors' experience level in addition to the type of audit opinion on next year audit fees. Finally, future research may conduct comparative study between Egypt and other developing countries.

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العلاقة بين رأى مراقب الحسابات للسنة الحالية وتسعير مهمة المراجعة للسنة القادمة: هل تؤثر الملكية العائلية على هذه العلاقة؟

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ملخص البحث

يهدف البحث إلى اختبار العلاقة بين رأى مراقب الحسابات للسنة الحالية وتسعير مهمة المراجعة للسنة القادمة وما إذا كانت هذه العلاقة تختلف باختلاف نوع الملكية (عائلية – غير عائلية) في البيئة المصرية. باستخدام عينة من ٣٥٨ مشاهدة (شركة – سنة) من بورصة الأوراق المالية المصرية، خلال الفترة من ٢٠١٦-٢٠١٩، تم تطوير نماذج انحدار ordinary least square لاختبار فروض البحث وإجراء تحليلات الحساسية والتحليل الإضافي. لم يتوصل الباحث إلى وجود علاقة جوهرية بين رأى مراقب الحسابات للسنة الحالية وأتعابه المحددة لإتمام مهمة المراجعة للسنة القادمة. على الجانب الآخر، توصل الباحث إلى زيادة أتعاب المراجعة المطلوبة من قبل مراقب الحسابات لإتمام مهمة المراجعة للسنة القادمة في حالة إصداره لرأى متحفظ لشركة عائلية. لم تتغير نتائج البحث عند استخدام الباحث لمقاييس بديلة لأتعاب المراجعة للسنة القادمة ورأى المراجعة الصادر للسنة الحالية. استخدم البحث رأى مراقب الحسابات للسنة الحالية كمدخل لقرار تسعير مهمة مراجعة السنة القادمة. جاء البحث كاستجابة لدعوات الباحثين السابقة للتحقق من العلاقة بين أتعاب المراجعة ونوع رأى مراقب الحسابات وأثر الملكية العائلية على أتعاب المراجعة. إضافة إلى ذلك، قام الباحث باستخدام ثلاثة مقاييس بديلة لأتعاب المراجعة للسنة القادمة ومقياس بديل لرأى مراقب الحسابات للسنة الحالية. وأخيراً، يقوم البحث بإضافة دليل إلى بحوث حوكمة الشركات في الدول النامية.

الكلمات المفتاحية: أتعاب المراجعة، رأى المراجعة، الملكية العائلية، مصر