# The Effect of Audit Firm Reputation and Busyness on Financial Reporting Timeliness: The Moderating Role of Client Complexity and Floatation of Exchange Rate Empirical Evidence from Egypt

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#### **Abstract**

Annual financial reports are the best way to convey the financial situation of companies to different stakeholders. To fulfill their expected objectives, financial reports should be issued on time. The objective of this research is to study and investigate the effect of audit firm reputation and busyness on financial reporting timeliness of the nonfinancial companies listed on the Egyptian stock exchange (EGX), and whether this effect might differ according to client complexity and the floatation decision of the exchange rate of the Egyptian pound which took place at the end of 2016.

Based on a sample of 820 firm-year observations during the period from 2017 to 2021, the researchers found empirical evidence that audit firm reputation has a negative and significant effect on financial reporting timeliness, while audit firm busyness contributes significantly towards issuing timelier financial reports. Furthermore, client complexity was proven to delay the issuance of financial reporting, however, the negative effect of client complexity on financial reporting timeliness is outweighed by the positive effect of small audit firm reputation. Additionally, the researchers didn't find evidence concerning the moderating effect of client complexity on the relationship between audit firm busyness and financial reporting timeliness nor the moderating effect of the exchange rate floatation on the aforementioned relationships.

This research adds empirical evidence to the literature focusing on the financial reporting quality in the developing countries and the audit related characteristics affecting financial reporting timeliness. It is of interest to academics, company management and stakeholders, auditors, and regulators.

**Keywords:** Audit Firm Reputation, Busyness, Financial Reporting Timeliness, Client Complexity, Floatation of Exchange Rate.

أثر سمعة وإنشغال مكتب المراجعة على توقيت إعداد التقارير المالية: الدور المعدل لتعقد العميل وتعويم سعر الصرف دليل تجريبي من مصر

#### الملخص

تعتبر التقارير المالية السنوية بمثابة أفضل الطرق لعكس الوضع المالي للشركات لمختلف أصحاب المصالح، وحتى يمكن تحقيق كافة الأهداف المرجوة من تلك التقارير، يجب إصدارها في الوقت المحدد لها. لذا يهدف هذا البحث إلى دراسة واختبار أثر سمعة وانشغال مكاتب المراجعة على توقيت إعداد التقارير المالية للشركات غير المالية المدرجة في البورصة المصرية، وما إذا كان هذا الأثر يختلف باختلاف تعقد العميل وقرار تعويم سعر صرف الجنيه المصري الذي تم اتخاذه في نهاية عام ٢٠١٦.

استنادًا إلى عينة مكونة من ٨٢٠ مشاهدة خلال الفترة من ٢٠١٧ وحتى ٢٠٢١، وجد الباحثان دليلًا تجريبيًا على أن لسمعة مكاتب المحاسبة تأثير سلبي ومعنوي على توقيت التقارير المالية، في حين أن انشغال مكاتب المراجعة يساهم وبشكل كبير في إصدار التقارير المالية في الوقت المناسب. علاوة على ذلك، توصل الباحثان إلى أن تعقد العملاء يؤخر إصدار التقارير المالية، ومع ذلك، فإن التأثير السلبي لتعقد العميل على توقيت التقارير المالية يفوقه التأثير الإيجابي لسمعة مكاتب المراجعة الصغيرة. بالإضافة إلى ذلك، لم يجد الباحثان دليلًا بشأن التأثير المعدل لكل من تعقد العميل وتعويم سعر الصرف على العلاقة بين انشغال مكاتب المراجعة وتوقيت إعداد التقارير المالية.

كما يضيف هذا البحث دليلاً تجريبياً إلى الدراسات التي تركز على جودة التقارير المالية في الدول النامية والعوامل المتعلقة بالمراجعة والتي تؤثر في توقيت التقارير المالية. تعتبر هذه الدراسة محل اهتمام الأكاديميين وإدارة الشركة وأصحاب المصلحة، ومراقبي الحسابات، والمنظمين. الكلمات المفتاحية: سمعة مكتب المراجعة، الانشغال، توقيت اعداد التقارير المالية، تعقد العميل، تعويم سعر الصرف.

#### 1. Introduction

Companies' annual financial reports are a main source of financial information to current and prospective investors and creditors and other stakeholders that helps them in taking rational economic decisions (Ebaid, 2022). This information should have certain characteristics in order to be useful. One of those main characteristics is relevance, that is to make a difference in the decision. In addition, information should be characterized by its timeliness, that is to be available in the right time to help decisions makers in making their decisions before it loses its relevance.

Timeliness is one of the main ingredients of financial reporting quality (Ebaid, 2022). It has several benefits to different internal and external parties. For instance, company managers may issue timely financial reports to give positive signals to market participants regarding the financial performance and position of the company (Surachyati, et al., 2019). Also, the information gap between managers on one side and investors and creditors on the other side will be reduced (Adela & Badera, 2022), and accordingly, rational, and better decisions related to scarce resource allocation will be taken and right fund providers will be reached.

Because of its paramount importance, timeliness of financial information received a great attention in prior literature. Some studies investigated the factors that affect the financial reporting timeliness, whether these are company related, such as profitability, complexity, leverage, liquidity, size, and ownership structure (Sunarto, et al., 2021), and/or audit/auditor related, such as auditor industry specialization, audit opinion, auditor reputation and busyness. Furthermore, other studies analyzed the consequences of issuing timely financial reports on different aspects, such as value relevance of accounting information (Saleh, 2022), cost of equity (Fu, et al., 2012) and analysts forecasts.

Audit firms play an important role in adding value to the companies' financial reports through auditing and completing their audit engagements on time. Accordingly, audit firms are incentivized to build good brand names and offer high audit quality services by issuing timelier audit reports

to maintain this good reputation and increase their market share. On the other hand, audit firms, which are auditing financial statements in the busy season are working under pressure to issue these audit reports before the deadline. Meanwhile, there are other factors that may affect the auditors' work completion and may delay the issuance of their audit reports. These factors might be company specific, such as client complexity or might be nationwide, such as the decision taken by the Central Bank of Egypt (CBE) to float the exchange rate of the Egyptian pound in November 2016.

The objective of this research is to study and investigate the effect of audit firm reputation and busyness on financial reporting timeliness in Egypt, and whether these effects might differ according to client complexity and the floatation of exchange rate which took place at the end of 2016.

This research stems its importance from the point being discussed, which is the effect of audit firm reputation and busyness on the timeliness of financial reporting of nonfinancial firms listed on the EGX, and how this effect may differ with client complexity and the decision to float the exchange rate of the Egyptian pound taken in November 2016. Although several studies investigated the factors that affect financial reporting timeliness or the factors that affect it, however, most of these studies analyzed those determinants of factors in developed countries. Accordingly, it is of paramount importance to give more attention to capital markets in developing countries, because financial reports are the main source of information for investors and other decision makers in those countries (Ebaid, 2022). In addition, this research analyzed the moderating effect of two important variables that might delay the issuance of financial reports and might demand more audit time and efforts to complete the audit engagements, which are client complexity and the floatation of exchange rate. This research is of interest of academics, firm managers, investors and other stakeholders, auditors, and regulators.

The remainder of this research is organized as follows: Section 2 analyzes prior literature and develops the research hypotheses. Section 3 describes the research variables and design. Section 4 presents and analyzes the empirical results. Section 5 concludes and presents the research limitations and implications for future research.

# 2. Literature Review and Hypotheses Development

# 2.1. Financial Reporting Timeliness

Company investors and other stakeholders demand financial information to take their economic decisions. In order for financial information to be useful, it has to be characterized by its relevance and faithful representation. In addition, this information should have four enhancing characteristics, which are comparability and understandability, verifiability, and timeliness (IASB, 2018). Relevance of financial information means that it is capable to make a difference in a decision (Savitri & Surya, 2019). This characteristic involves three ingredients, which are predictive value, confirmatory value, and materiality. This indicates that information to be relevant, it is expected that it will help the investors and other decision makers in predicting the future financial performance of the companies and in confirming their related past decisions. This will not be applicable unless the financial information is presented to decision makers on a timely manner.

If financial information is not presented at the right time, it will lose its relevance and its value for economic decision making (Aigienohuwa & Ezejiofor, 2021). In addition, and as a result of information gap between providers and users of financial information, scare resources will not be allocated efficiently. This justifies why the timeliness of financial information received a considerable attention in prior literature.

Previous studies justify the reason behind management incentive to issue their financial reports on a timely manner by referring to the agency and signaling theories. As according to the agency theory, company managers are expected to take the decisions that benefited them, and this creates information asymmetry between managers and principals. In order to reduce this information asymmetry, managers seek to issue their financial reports on time (Adela & Badera, 2022). In the same context and according to the signaling theory, company managers may send positive signals to the market by issuing their financial reports on a timely manner (Surachyati, et al., 2019). This is expected for firms that are having good news concerning

their financial performance and position. Profitable firms will be seeking to send their good news to the market to attract capital providers.

In the same context, previous studies investigated the determinants of financial reporting timeliness in different capital markets and focusing on different sectors. In Indonesia, Surachyati, et al. (2019) analyzed the effect of firm leverage, size, liquidity and profitability, and audit firm reputation and audit opinion on the timeliness of financial reporting based on a sample of 30 transportation companies during the period from 2011 to 2015. The authors found that audit opinion, firm liquidity and profitability have a positive and significant effect and firm leverage has a negative and significant effect on the timeliness of financial reporting. On the other hand, firm size and audit firm reputation don't have a significant effect on financial reporting timeliness. In the same country, Kusuma & Indayani (2020) analyzed the effect of audit firm reputation, audit opinion and institutional ownership on the timeliness of financial reporting. Based on a sample of 262 firm-year observations from 67 manufacturing firms listed on the Indonesia Stock Exchange during the period from 2015 to 2017, the authors found that audit firm reputation, measured by audit firm size, enhances the timeliness of financial reporting. The authors justified this positive and significant effect as firms asked for the services of reputable audit firms, who are of a higher quality, and this is reflected on the credibility and timeliness of financial reporting.

On the other hand, Aigienohuwa & Ezejiofor (2021) investigated the effect of firm leverage of financial reporting timeliness. Based on a sample of 145 quoted companies in Nigeria during the period from 2010 to 2019, the authors didn't find significant effect of leverage on financial reporting timeliness.

In Saudi Arabia, Ezat et al. (2021) investigated the effect of audit quality, measured by audit firm reputation and specialization on audit report lag. Based on a sample of 216 observations from firms listed on Saudi stock exchange, the authors found evidence that audit firm reputation and specialization have a negative and significant effect on audit report lag. In the same country, Ebaid (2022) analyzed the factors that affect the financial reporting timeliness in Saudi Arabia. Based on a sample of 67 nonfinancial

companies during the period from 2015 to 2018, the author found that firm's leverage, size, and profitability are the company characteristics that affect the timeliness of financial reports. In addition, the author found that audit firm size and opinion have a positive and significant effect on financial reporting timeliness.

In Vietnam, Thinh et al. (2022) investigated the company characteristics that affect the timeliness of financial reporting. Based on a sample of the top 100 listed firms on Vietnam stock exchange during the period from 2016 to 2020, the authors found that return on equity and audit type have a significant and negative effect on audit report lag (as an inverse measure of financial reporting timeliness). On the other hand, firm size, leverage, and earnings per share don't have a significant impact on the timeliness of financial reports.

In a recent study in Indonesia, Adela & Badera (2022) investigated the effect of company size, profitability, auditor opinion and audit firm reputation on audit delay. Based on a sample of 78 firm-year observations during the year from 2014 to 2019, from the agricultural sector companies listed on the Indonesian stock exchange, the authors didn't find evidence that audit firm reputation and auditor opinion have a significant effect on the audit delay. On the other hand, company size and profitability are shown to affect audit delay negatively and significantly.

Based on the previous discussion, it is clear that timeliness of financial reporting is of great importance and attracted great attention in the prior literature. Financial reporting timeliness helps in reducing information asymmetry between company management, shareholders, and other stakeholders (Al-Mulla & Bradbury, 2020). Also, offering financial information on time enhances its relevance and in turn will help investors and other stakeholders in their decision making. There are several factors that contribute towards enhancing or impeding the financial reporting timeliness, such as company size, leverage, profitability, and audit related characteristics, such as audit opinion and quality, audit firm reputation and busyness, and audit quality and auditor industry specialization. Although there is huge amount of research conducted to investigate the factors that

determine the financial reporting timeliness and its consequences on the capital market participants, results are inconclusive and require more future research, mainly in developing countries.

# 2.2. Audit Firm Reputation

Based on the resource-based view (RBV), corporate reputation is one of the main intangible assets that a company has and is dependent on people and is considered a driver for its performance (Pires & Trez, 2018). A good firm reputation increases the stakeholders' trust in the firm's performance and creates its value. In addition, it helps in building a competitive advantage that differentiate the firm from other firms. Prior research findings differ concerning the relationship between firm reputation and its performance. Some studies viewed corporate reputation as an outcome and argued that building a good corporate reputation is a result of the high organizational performance that accumulates over time. Other studies (e.g., Dowling, 2006) viewed corporate reputation as a driver of future performance, that is a good reputation is an incentive for a good performance and creates value to the organization.

In the audit setting, audit firm reputation refers to the corporate image that the audit firm builds and accumulates over time (Lin, 2020). Building good firm reputation is a result of different audit and auditors' aspects. That is, audit firm reputation is built as a result of offering highquality audit services to the audit firm's clients by competent and specialized auditors who have high industry expertise using sufficient and appropriate technical audit resources. That's why prior literature relates audit firm reputation with the audit firm size (DeAnglo, 1981). This correlation may be justified as follows: First, Big4 audit firms have more competent and trained auditors. Second, Big4 audit firms invest in high technological programs that enable them to detect errors and misstatements efficiently and issue accurate audit reports. Third, Big4 audit firms enjoy greater independence, as they have a lot of customers from different sectors and don't rely on customer revenues. Fourth, Big4 audit firms have access to international standards of the profession because of their international affiliation. Fifth, according to the "deep pocket" hypothesis, Big4 audit firms are subject to high litigation cost in case of being accused as negligent

(Lennox, 1999). As a result, Big4 audit firms are keen to offer high quality audit and non-audit services, invest heavily in training and technological resources to sustain their good reputation (Lennox, 1999).

On the other hand, there are several reasons why audit firms with good reputation are willing to keep offering high-quality audit services. According to the auditor reputational hypothesis, audit firms that have good reputation in the audit market will be incentivized to maintain and safeguard this good reputation to attract more clients and ask for high fee premiums (Bergner et al., 2020) and accordingly, will be more likely to perform an audit quality enhancing action (Blum et al., 2022).

In the same context, company management has an incentive to hire reputable firms, because according to the signaling theory, hiring high-quality auditors, such as Big4 audit firms will send a positive signal to the market and the company stakeholders (Sunarto, et al., 2021). Investors and other stakeholders will have more trust in the company's financial performance and position because good audit firm reputation is related to high audit quality.

Prior literature used different measures to measure auditor/audit firm reputation. In addition to audit firm size, which was used intensively in prior studies (for example, Nursiam, et al., 2021), other measures include auditor industry specialization (Lou & Vasvari, 2013) as audit firms may specialize the services, they offer to their clients through industry expertise to build their own reputation (Bergner et al., 2020).

To investigate the positive effect of good audit firm reputation on different aspects. Focusing on bond issuance, Lou & Vasvari (2013) examined the effect of hiring reputable auditors on the bond issuing process. Based on a sample of 9517 firm year observations during the period from 1995 to 2006 in the USA, the authors found that firms hiring reputable industry specialist auditors will obtain longer term bonds and lower bond yields. Turning to the impact of audit firm reputation on financial quality, Kouaib & Jarboui (2014) examined the effect of auditor reputation on earnings management using a sample of 61 listed and unlisted firms on the

Tunisian Stock Exchange and found that auditor reputation affected earnings management negatively and significantly. Focusing on its impact on audit quality, Nursiam et al. (2021) investigated the impact of audit firm reputation on audit quality. Based on a sample of 345 manufacturing firms listed on the Indonesian Stock Exchange during 2014 to 2018, the authors found that audit firm reputation has a positive and significant effect on audit quality.

**Based on the discussion above**, we can notice that companies are having great incentive to hire reputable auditors to send positive signals to the market regarding the quality of their financial reports and the company' future financial performance and position. Meanwhile, audit firms are incentivized to build good reputation and maintain this reputation because of its positive consequences on the financial reporting quality and timeliness, and as a result, will be reflected on their market share in the competitive professional market.

# 2.3. Audit Firm Busyness

Most of the companies issue their financial statements by the end of the calendar year (December). As a result, audit firms are very busy during this time (busy season), and auditors are having high workload. This workload might put pressure on the auditors to complete their audit processes and issue the audit reports before the deadlines (Haghi & Sabouri, 2022; Li et al., 2023), as according to the limited attention theory, the human processing is restricted, and the brain can process a limited amount of information in a given time (Dukes, 2004).

Prior research reached mixed results concerning the association between auditor busyness and audit quality and outcome. On one side, some studies (for example, Goodwin & Wu, 2016) argue that auditing multiple clients at the same time might benefit auditors in their work due to the increased experience added from auditing them. Although adding more clients will add to their revenues, there are costs associated with auditing a large number of clients above their available technological and human resources, which might be of offering low quality audit and affecting their brand name and reputation negatively. Thus, auditors might need to compare the benefits and costs associated with accepting a large number of

clients and offering their audit reports in a tight time. accordingly, it is expected that auditors will reach the equilibrium level and will not accept a large number of clients beyond their capabilities. Meanwhile, auditors auditing many companies will benefit from their experience and will spill over their knowledge and accordingly, auditor busyness might have a positive effect on the financial reporting timeliness.

On the other hand, other research papers (Lai et al., 2016; Gul et al., 2017; Lai et al., 2018; Man, 2019; Singh, et al., 2022) argue that auditor busyness is associated with low audit quality and late filing of engagements, because putting pressure on auditors to complete their audit engagements, given the limited resources, will prevent auditors from exercising the expected due professional care and in turn will result in lower audit quality and delay the completion of the audit process. For instance, Gul et al. (2017) investigated the effect of audit partner busyness on audit quality and whether this effect differs with audit tenure. Based on a sample of A-share firms listed on the Chinese Stock Market over the period from 2000 to 2009. the authors found that audit partner busyness, measured by the number of public clients audited by the audit partner, is negatively associated with audit quality and this effect is significant in case of short audit tenure. The authors added that audit firms may allocate more resources and efforts to reduce the negative effect of audit busyness. Consistently, Lai et al. (2018) examined the relationship between auditor busyness, measured by the number of clients, and audit quality, measured by total and discretionary accruals. Based on sample of 2803 firm-year observations of Malaysian firms during the period from 2010 to 2013, the authors found that auditors with large number of clients are less able to detect earning management and accordingly, is associated with lower earnings quality.

In a very recent study, Singh, et al. (2022) analyzed the effect of audit partner busyness on financial reporting quality. Based on a sample of 9051 firm-year observations from Australia during the period from 2004 to 2015, the authors found evidence that busy audit partners who audit multiple public companies take longer time to complete their audits, and as

a result they delay in issuing their audit report, and their busyness is reflected negatively on the financial reporting quality.

Based on the discussion above, we can conclude that auditor busyness will affect auditors work and might put pressure and time constraints to complete the audit process and issue the audit reports on time. This pressure and given the restricted human processing ability and the obligation to exercise due professional care might have a negative effect on the auditing procedures and leave the level of audit quality questionable and might have a negative consequence on the financial reporting timeliness. On the other hand, we might expect that auditor busyness will have its positive consequences on audit quality, through its positive effect on auditor industry experience and knowledge sharing resulting from auditing several companies at the same time.

# 2.4. Audit Firm Reputation and Financial Reporting Timeliness

Prior literature investigated the impact of auditor or audit firm reputation on audit report lag and financial reporting timeliness and results were inconclusive. On one hand, some studies concluded that audit firm reputation will have a positive and significant effect on financial reporting timeliness. For instance, Kusuma & Indayani (2020) investigated the impact of audit firm reputation on the timeliness of financial reporting and then on company value based on a sample of manufacturing firms listed on the Indonesian stock exchange during the period from 2015 to 2017 and found evidence that audit firms affiliated to Big4 audit firms are issuing quicker audit reports and this is reflected positively on the corporate value. Consistently, Dwiyanti et al. (2022) examined the effect of audit firm reputation on audit delay and based on a sample of 327 manufacturing companies listed on the Indonesia Stock Exchange during the period from 2017 to 2019, the authors found a negative relationship between audit firm reputation and audit report lag.

On the other hand, some studies didn't find significant relationship between auditor or audit firm reputation on one side and audit and financial report timeliness on the other side, implying that offering timelier audit reports is not necessarily tied to reputable audit firms. For instance, Jessica, et al. (2021) analyzed the aforementioned relationship on a sample of 246 service companies listed on Indonesia Stock Exchange during the period from 2017 to 2019 and found no significant effect of public accounting firms and those affiliated to Big4 audit firms, as a proxy for audit firm reputation on audit delay. In the same context, Adela & Badera (2022) examined the effect of audit firm reputation on audit delay focusing on agricultural sector firms listed on the Indonesian Stock Exchange from 2014 to 2019. The authors didn't find a significant relationship between the reputation of audit firms and the audit delay. Consistently, Rosalina & Syaiful (2021) found no significant relationship between audit firm reputation and financial reporting timeliness based on a sample of 139 manufacturing companies listed on the Indonesian Stock Exchange during the period from 2018 to 2020.

Based on the inconclusive prior literature findings, we can't confirm that audit firm reputation is necessarily affecting the timeliness of audit and financial reporting positively. That is small audit firms or those which are not affiliated to one of the Big4 audit firms might be incentivized to offer high quality audit services and timely audit reports. accordingly, it is expected that those audit firms will exert considerable effort to build their brand name and professional reputation and remain in the professional competitive audit market. At the same time, after accumulating their brand names, audit firms and reputable auditors will be keen to safeguard their good reputation by maintaining high audit quality services, offering their audit reports on time, and enhancing the financial reporting timeliness.

Accordingly, the first research hypothesis (*H1*) will be developed in a non-directional form as follows:

H1: Audit firm reputation has a significant effect on financial reporting timeliness of firms listed on the Egyptian stock exchange.

# 2.5. Audit Firm Busyness and Financial Reporting Timeliness

According to prior literature, we can note that there are two contradicting point of view concerning the effect of audit firm or auditor

busyness on financial reporting and audit quality. The first point of view supports the negative effect that audit firm busyness might have on the quality of audit (Singh, et al., 2022). It refers to the limited attention theory that shows that human processing ability is restricted and decreases with high workload. The same applies on auditors, because during busy season, auditors are loaded with many audit tasks, suffer from capacity stress (Gul et al., 2017) and face time pressure and constraints to finalize the audit process on time. Even reputable auditors who are expected to have high industry expertise will be working under pressure to issue the audit reports before the deadline. Putting time pressure on auditors might result in reducing audit quality and delaying the issuance of audit reports in case the audit firm didn't allocate more effort and resources or put some limitations on the number of clients to be audited. This is because auditors will be afraid from litigation risk and cost in case being accused to be negligent and not performing their work with due professional care.

The other point of view supports the positive effect of audit firm busyness on financial reporting and audit quality. It is expected that busy auditors will benefit from auditing many clients and will become more experienced. This view is supported by the knowledge spillover theory which proposes that people benefit from their knowledge in different situations. The same applies on auditors who are engaged in auditing multiple clients in the same industry and those who offer non-audit services to their clients. In this case, auditors will be more effective in auditing their clients during the busy season and will issue quicker audit report, thus enhancing the level of financial reporting quality (Goodwin & Wu, 2016). Meanwhile, it is important to note that auditors will accept more clients until they reach the equilibrium point, equating between the benefits from accepting more clients in the form of higher income and the related costs in the form of higher litigation risk and offering lower audit quality which will affect their reputation negatively.

Based on these two contradicting views, we can notice that audit firm busyness might have a positive or a negative effect on financial reporting timeliness depending on how this workload compression is handled (Ashton, et al., 1989) and distributed among the audit team members and on the availability of technological and human resources.

Accordingly, the second research hypothesis (*H2*) will be developed in a non-directional form as follows:

H2: Audit firm busyness has a significant effect on financial reporting timeliness of firms listed on the Egyptian stock exchange.

# 2.6. The Moderating Effect of Client Complexity

Client complexity might be measured by the number of subsidiaries the company has or by the percentage of inventory and receivables balances relative to total assets. Increasing client complexity will involve more work on the side of the company and will require more effort on the side of the auditors (Gul et al., 2017). Auditors will need to examine a larger number of subsidiaries and satisfy themselves that the recognition, measurement, and disclosure of related accounts are according to the applicable accounting framework. The same applies if the inventory and receivable balances are high relative to the company's total assets. Those accounts involve great estimates and require more efforts from the side of the auditor to satisfy himself that the estimates are reasonable and in accordance with the accounting framework.

It is expected that audit firm reputation will have a significant effect on financial reporting timeliness, however, in case of auditing clients with larger inventory and receivables balances that involve larger estimates or have high number of subsidiaries, will audit firm reputation still have the same significant effect or it will differ with this client complexity. In other words, if audit firm reputation has a positive effect and client complexity has a negative effect on financial reporting timeliness, what will be the final effect in case both factors exist? Will client complexity reduce the positive effect of audit firm reputation and the final effect will be negative or the audit firm reputation will mitigate the negative effect of client complexity and the final effect will be positive, or both of them are of the same strength, leaving insignificant effect on financial reporting timeliness?

Accordingly, the third research hypothesis (H3) will be developed as follows:

H3: The significant effect of audit firm reputation on financial reporting timeliness of firms listed on the Egyptian stock exchange differs according to client complexity.

In the same context, we can expect that busy auditors, required to complete their audit work and issue their audit reports before the deadline will be under more pressure when the client complexity level is evaluated at a higher level. If it is expected that auditor busyness will have a significant effect on financial reporting timeliness, we can expect that this effect will be affected in case the level of client complexity is high in comparison to that of a lower level.

Accordingly, the fourth research hypothesis (H4) will be developed as follows:

H4: The significant effect of audit firm busyness on financial reporting timeliness of firms listed on the Egyptian stock exchange differs according to client complexity.

# 2.7. The Moderating Effect of the Floatation of Exchange Rate

The Central Bank of Egypt (CBE) has taken a decision to float the exchange rate of the Egyptian pound on Thursday 3<sup>rd</sup> of November 2016 in order to meet the requirements from the International Monetary Fund (IMF). According to this decision, the exchange rate of the Egyptian pound will float freely, and its price will be determined according to the forces of supply and demand. As a result of this decision, the Egyptian pound lost 50% of its value in front of the US dollar. Firms in Egypt faced a high level of uncertainty concerning the valuation of different accounting balances and transactions. In addition, the effect of the decision differs among the Egyptian sectors, as the food and cement industries are among the most losing sectors, and the petrochemical and real state sectors are highly and positively affected by the floatation decision (El Rashidy & Elsayed, 2017).

Furthermore, the effect of the decision to float the exchange rate differs with whether the company is importing or exporting goods and

whether they have assets valued in foreign currency. As for importing companies, the devaluation of the Egyptian pound has left these companies in an unfavorable and disadvantageous position. Importing companies have to pay more to import their goods or fulfil their contracts previously held in foreign currency. On the other hand, exporting companies and those with assets valued in foreign currency became in a favorable and advantageous position, as they will receive highly valued foreign currency when their contracts are settled.

As a result of this decision, and to guide companies in understanding the effect of this decision on the companies' financial statements and the related accounting treatment, an appendix to the Egyptian Accounting Standard No. 13 "Effects of Changes in Foreign Currency Rates" was issued in February 2017. According to the appendix, the companies may recognize the differences in foreign currencies resulting from translating assets and liabilities valued in foreign currency on the floating exchange rate date in the other comprehensive income.

Given this accounting complexity and uncertainty and high information risk related to the floatation of the exchange rate and its effect on the elements of financial statements, it is expected that auditors will exert more effort, in comparison to the situation before this decision – to evaluate the impact of this decision on the financial position of the companies. In addition, auditors will exert more efforts and devote more time to evaluate the audit evidence related to the valuation and disclosure of assets and liabilities valued in foreign currencies.

It is expected that audit firm reputation will have a significant effect on financial reporting timeliness. However, when the Egyptian government decided to float the exchange rate and accordingly, high level of uncertainty prevails on the level company management and capital market, will audit firm reputation still have the same effect or it will differ as a result of this decision. In other words, if audit firm reputation has a positive effect and the floatation of the exchange rate has a negative effect on financial reporting timeliness, what will be the final effect in case both factors exist? Will this decision reduce the positive effect of audit firm reputation and the final

effect will be negative or the audit firm reputation will mitigate the negative effect of the floatation of exchange rate and the final effect will be positive, or both of them are of the same strength, leaving an insignificant effect on financial reporting timeliness.

Accordingly, the fifth research hypothesis (*H5*) will be developed as follows:

H5: The significant effect of audit firm reputation on financial reporting timeliness of firms listed on the Egyptian stock exchange differs with the floatation of exchange rate.

In the same context, if we expect that busy auditors, required to complete their audit work and issue their audit reports before the deadline will be under pressure to complete their audit work before the deadline, and this will affect the time of audit report issuance, what will be the case when the Egyptian government took a decision to float the Egyptian pound. In other words, if it is expected that auditor busyness will have an effect on financial reporting timeliness, and the floatation of the exchange rate will put a pressure on the auditors to understand the effect of the floatation decision on the financial position of the company, what will be the final effect on the financial reporting timeliness in case both variables are present? Will the final effect on the financial reporting timeliness will be more significant as a result of the interaction between auditor busyness and floatation of exchange rate?.

Accordingly, the final and sixth research hypothesis (H6) will be developed as follows:

H6: The significant effect of audit firm busyness on financial reporting timeliness of firms listed on the Egyptian stock exchange differs with the floatation of exchange rate.

# 3. Research Design and Methodology

This section presents the population and sample selection, research variables and measurement and the research model designed to test the effect of audit firm reputation and busyness on financial reporting timeliness and the moderating effect of client complexity and floatation of the exchange rate.

## 3.1. Population and Sample Selection

The research population involves all non-financial firms listed on the Egyptian Stock Exchange (EGX) during the period from 2017 to 2021. Banks and financial firms are excluded because they are subject to different regulatory requirements and corporate governance practices. In addition, financial firms have their unique characteristics and different operations, which might require specific audit efforts (Ezat, 2015). After excluding observations of firms with missing data, the final sample was 820 firm-year observations. **Table (1)** presents the sample selection process.

**Table (1) Sample Selection Process** 

| No. of firms registered on the EGX            | 220 |
|-----------------------------------------------|-----|
| Less: financial firms                         | 40  |
| Total number of non-financial firms           | 180 |
| Total number of firm-year observations        | 900 |
| Less: observations of firms with missing data | 80  |
| Final sample                                  | 820 |

Table (2) Sample Distribution by Sector

|                                            | Number of observations | %   |
|--------------------------------------------|------------------------|-----|
| Chemicals                                  | 51                     | 6   |
| Food and Beverage                          | 168                    | 22  |
| Industrial goods, Services and Automobiles | 35                     | 4   |
| Personal and Household                     | 64                     | 8   |
| Construction and Materials                 | 118                    | 14  |
| Real Estate                                | 141                    | 17  |
| Healthcare and Pharmaceuticals             | 82                     | 10  |
| Technology, Telecommunications and Media   | 36                     | 4   |
| Travel and Leisure                         | 58                     | 7   |
| Utilities                                  | 24                     | 3   |
| Basic Resources                            | 43                     | 5   |
| Total                                      | 820                    | 100 |

Table (2) shows the distribution of firm-year observations across the sectors and the percentage of firm-year observations selected from each sector relative to the whole sample. Nearly half of the research sample

observations is from the food and beverage, real estate and construction and materials sectors.

#### 3.2. Research Variables and Measurement

As reported in **Table (3)** and shown in **Figure (1)**, the research involves two independent variables, one dependent variable and two moderating variables. The first **independent variable** is the **audit firm reputation** (*REP*), which is the image of the audit firm accumulated over years. This variable is a categorical variable that takes the value (1) if the audit firm belongs to Big4 or the Accountability State Authority (ASA), (2) if the audit firm belong to the second tier, (3) if the audit firm belongs to the third tier, and (4) otherwise. The researchers used two alternate measures to measure the audit firm reputation in the sensitivity analyses section. The first alternative measure is the natural logarithm of the value assigned to each group of auditors. The second measure is a dummy variable that takes the value (1) in case the audit firm is one of the Big4 audit firms or the ASA, and (0) otherwise.

The second **independent variable** is the **audit firm busyness** (*BUSY*), which refers to the period where auditors are busy auditing the firms which financial statements are dated December 31<sup>st</sup>. This variable is a dummy variable that takes the value (1) in case the financial statement date audited by the auditor or audit firm is December 31<sup>st</sup>, and (0) otherwise.

The **dependent variable** is the **financial reporting timeliness** (*FRT*), which refers to the issuance of financial reports without delay. This variable is measured by audit report lag (an inverse measure of financial reporting timeliness), which is the number of days elapsing between the financial statement date and audit report date.

The first **moderating variable** is **client complexity** (*COMPLEX*), which is measured as a dummy variable that takes the value (1) in case the percentage of the inventory and receivable balances to the firm's total assets is greater than the sample average, (0) otherwise.

The second moderating variable is the floatation of exchange rate (FLOAT), which is a dummy variable that takes the value (1) if the

observation year is 2017, which is the year following the decision to float the exchange rate, and (0) otherwise.

Table (3) Research Variables and Measurement

| Variable                             | Туре        | Acronym    | Measurement                                                                                                                                                                                                                                                                                    |
|--------------------------------------|-------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Financial<br>Reporting<br>Timeliness | Dependent   | FRT        | Natural logarithm of the number of days elapsing between the financial statement date and the audit report date of the firm i for the year t (Johnston & Zhang, 2018; Singh, et al., 2022).                                                                                                    |
| Audit Firm<br>Reputation             | Independent | REP        | Categorical variable that takes the value (1) if the audit firm belongs to Big4 or ASA, (2) if audit firm belong to the second tier (foreign audit firms), (3) if the audit firm belongs to the third tier (Big local audit firms), and (4) otherwise (Othman, 2021; El-Dyasty & Elamer, 2021) |
| Audit Firm<br>Busyness               | Independent | BUSY       | Dummy variable that takes the value (1) if the financial statement date of the firm i for the year t is December 31 and (0) otherwise (Murthy, et al., 2023).                                                                                                                                  |
| Client<br>Complexity                 | Moderator   | COMPLEX    | Dummy variable that takes the value (1) if the ratio of total inventory, accounts receivable and notes receivable of the firm i to its total assets is greater than the sample average, and (0) otherwise (Talkhan, 2017).                                                                     |
| Floatation of Exchange Rate          | Moderator   | FLOAT      | Dummy variable that takes the value (1) if the observation year is 2017 (when the CBE took the decision to float the exchange rate of the Egyptian pound), and (0) if the observation year is after 2017 (from 2018 to 2021).                                                                  |
| Firm Size                            | Control     | SIZE       | Natural logarithm of the total assets of the firm i for the year t (Rudyanto, et al. 2017; Al-Mulla & Bradbury, 2020; Sunarto, et al., 2021; Haghi & Sabouri, 2022; Singh, et al., 2022).                                                                                                      |
| Firm<br>Profitability                | Control     | PROFIT     | Dummy variable that takes the value (1) if the profits of the firm i for the year t is greater than the average profits of the whole sample, and (0) otherwise (Talkhan, 2017).                                                                                                                |
| Firm<br>Efficiency                   | Control     | EFFICIENCY | Net profit after tax divided by the total assets of the firm<br>i for the year t (ROA) (Singh, et al., 2022)                                                                                                                                                                                   |

The research involves three control variables that were used in previous studies. The control variables are **firm size** (SIZE), which is measured by the natural logarithm of the firm's total assets, **firm profitability**, (PROFIT), which is a dummy variable that takes the value (1) in case the firm's profit in year (t) is greater than the average profits of the whole sample, (0) otherwise, and **firm efficiency**, which refers to the management's efficiency in using its assets to generate profits, and is

measured by the return on assets (ROA) (*EFFICIENCY*). The researchers added another control variable in the additional analyses section, **firm leverage** (*LEVERAGE*), which is measured by the natural logarithm of the ratio of the firm's total liabilities to its total assets in year (t).

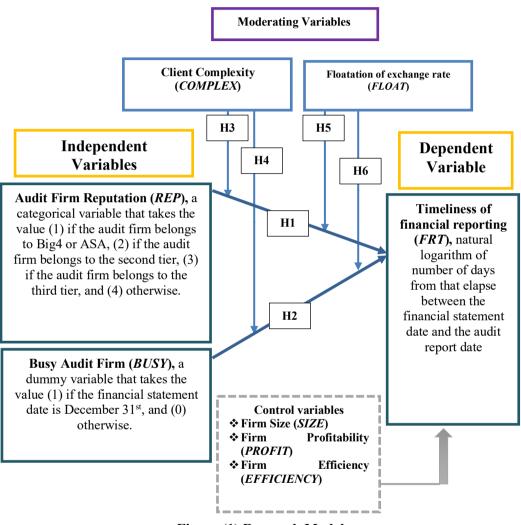


Figure (1) Research Model (Source: the researchers)

## 3.3. Regression Models

# **Model 1: The Effect of Audit Firm Reputation on Financial Reporting Timeliness**

$$FRT_{ti} = \beta_0 + \beta_1 REP_{ti} + \varepsilon_{ti}$$

# Model 2: The Effect of Audit Firm Busyness on Financial Reporting Timeliness

$$FRT_{ti} = \beta_0 + \beta_1 BUSY_{ti} + \varepsilon_{ti}$$

**Model 3: Main Model** 

$$FRT_{ti} = \beta_0 + \beta_1 REP_{ti} + \beta_2 BUSY_{ti} + \varepsilon_{ti}$$

#### Model 4: Extended Model

$$FRT_{ti} = \beta_0 + \beta_1 REP_{ti} + \beta_2 BUSY_{ti} + \beta_3 SIZE_{ti} + \beta_4 PROFIT_{ti} + \beta_5$$

$$EFFICIENCY_{ti} + \varepsilon_{ti}$$

Model 5: The Moderating Effect of Client Complexity on the Relationship Between Audit Firm Reputation and Financial Reporting Timeliness

$$FRT_{ti} = \beta_0 + \beta_1 REP_{ti} + \beta_2 COMPLEX_{ti} + \beta_3 REP_{ti} *COMPLEX_{ti} + \varepsilon_{ti}$$

Model 6: The Moderating Effect of Client Complexity on the Relationship between Audit Firm Busyness and Financial Reporting Timeliness

$$FRT_{ti} = \beta_0 + \beta_1 BUSY_{ti} + \beta_2 COMPLEX_{ti} + \beta_3 BUSY_{ti} *COMPLEX_{ti} + \varepsilon_{ti}$$

Model 7: The Moderating Effect of the Floatation of Exchange Rate on the Relationship between Audit Firm Reputation and Financial Reporting Timeliness

$$FRT_{ti} = \beta_0 + \beta_1 REP_{ti} + \beta_2 FLOAT_{ti} + \beta_3 REP_{ti} *FLOAT_{ti} + \varepsilon_{ti}$$

# Model 8: The Moderating Effect of the Floatation of Exchange Rate on the Relationship between Audit Firm Busyness and Financial Reporting Timeliness

$$FRT_{ti} = \beta_0 + \beta_1 BUSY_{ti} + \beta_2 FLOAT_{ti} + \beta_3 BUSY_{ti} *FLOAT_{ti} + \varepsilon_{ti}$$

Model 9: The Joint Interaction Effect of Client Complexity and Floatation of Exchange Rate on the Relationship between Audit Firm Reputation and Financial Reporting Timeliness

$$FRT_{ti} = \beta_0 + \beta_1 REP_{ti} + \beta_2 BUSY_{ti} + \beta_3 COMPLEX_{ti} + \beta_4 FLOAT_{ti} + \beta_5 REP_{ti}*COMPLEX*FLOAT_{ti} + \beta_6 SIZE_{ti} + \beta_7 PROFIT_{ti} + \beta_8 EFFICIENCY_{ti} + \varepsilon_{ti}$$

Model 10: The Joint Interaction Effect of Client Complexity and Floatation of Exchange Rate on the Relationship between Audit Firm Busyness and Financial Reporting Timeliness

$$FRT_{ti} = \beta_0 + \beta_1 REP_{ti} + \beta_2 BUSY_{ti} + \beta_3 COMPLEX_{ti} + \beta_4 FLOAT_{ti} + \beta_5 BUSY_{ti}*COMPLEX*FLOAT_{ti} + \beta_6 SIZE_{ti} + \beta_7 PROFIT_{ti} + \beta_8 EFFICIENCY_{ti} + \varepsilon_{ti}$$

# 4. Empirical Findings

# 4.1. Descriptive Statistics

In this section, we will present the descriptive statistics, mean, median, standard deviation and quartiles, of the independent, dependent, moderating and control variables used in our research. Table (4) reports the descriptive statistics for the research variables. It is clear from the table that *FRT* ranges from 2.71 to 5.59, with an average of 4.2459. *REP* ranges from 1 to 4, with an average 2.29. As for *BUSY*, it ranges from 0 to 1, where 75.61% of the research sample represent companies that issue their financial statements on December 31<sup>st</sup> (busy season). *COMPLEX* ranges from 0 to 1, where 42.2% of the sample observations is below the sample mean. 21% of the firm observations in the sample is related to 2017 (the year following the floatation of the exchange rate).

|                   |       | FRT     | REP     | BUSY        | COMP<br>LEX | FLOA<br>T   | SIZE    | PROFI<br>T  | EFFICIE<br>NCY |
|-------------------|-------|---------|---------|-------------|-------------|-------------|---------|-------------|----------------|
| N                 | Valid | 820     | 820     | 820         | 820         | 820         | 820     | 820         | 820            |
| Mean              |       | 4.2459  | 2.2939  | 0.7561      | 0.4220      | 0.2110      | 20.7787 | 0.1829      | 0.0576         |
| Median            |       | 4.1897  | 2.0000  | 1.0000      | 0.0000      | 0.0000      | 20.7142 | 0.0000      | 0.0511         |
| Std.<br>Deviation |       | 0.32100 | 1.36240 | 0.4297<br>0 | 0.4941<br>7 | 0.4082<br>5 | 1.59598 | 0.3868<br>4 | 0.16352        |
| Minimum           |       | 2.71    | 1.00    | 0.00        | 0.00        | 0.00        | 16.82   | 0.00        | -1.68          |
| Maximum           |       | 5.59    | 4.00    | 1.00        | 1.00        | 1.00        | 25.12   | 1.00        | 0.55           |
| Percentiles       | 25    | 4.0604  | 1.0000  | 1.0000      | 0.0000      | 0.0000      | 19.6778 | 0.0000      | 0.0085         |
|                   | 50    | 4.1897  | 2.0000  | 1.0000      | 0.0000      | 0.0000      | 20.7142 | 0.0000      | 0.0511         |
|                   | 75    | 4.4659  | 4.0000  | 1.0000      | 1.0000      | 0.0000      | 21.6636 | 0.0000      | 0.1239         |

**Table (4) Descriptive Statistics** 

As for the control variables, it is worth noting that *SIZE* ranges from 16.82 to 25.12, with an average of 20.7787, and standard deviation 1.59598, *PROFIT* ranges from 0 to 1, denoting that 18.29% of the observations involved in the sample is for firms making profits below the sample average, and *EFFICIENCY* ranges from -1.68 to 0.55, with a mean of 0.0576 and standard deviation 0.16352.

#### 4.2. Bivariate Correlations

To make a preliminary analysis of the relationship between financial reporting timeliness and the research variables, the researchers made a Pearson Correlation test as demonstrated in **Table (5)**.

It is clear from the table that financial reporting timeliness (FRT) is negatively and significantly associated with audit firm reputation (REP). This indicates that as auditors move from tier (1) to higher tiers, the audit report lag (an inverse measure of financial reporting timeliness) will be lower. Surprisingly, auditors who are not affiliated to Big4 audit firms or international audit firms are issuing their audit reports faster that Big4 audit firms and the like. Concerning the relationship between audit firm reputation (REP) and audit firm busyness (BUSY), we can notice from the table that audit firms which are busy and required to issue their audit reports for financial statements dated December 31st (during the busy season) are issuing their audit reports faster in comparison to those auditing financial statements issued on another date. This result means that audit firms having more clients are gaining experience and can benefit from this advantage in

auditing other financial statements on time and without delay. On the other hand, **Table (5)** shows that client complexity (COMPLEX) and the decision to float the exchange rate (FLOAT) in November 2016 have positive but insignificant relationship with financial reporting timeliness (FRT).

|           |                        | 1        | able (3  | ) rear   | son Cori | eiatioi | 18      |         |                |
|-----------|------------------------|----------|----------|----------|----------|---------|---------|---------|----------------|
|           |                        | FRT      | REP      | BUSY     | COMPLEX  | FLOAT   | SIZE    | PROFIT  | EFFICIENC<br>Y |
|           | Pearson<br>Correlation | 1        |          |          |          |         |         |         | •              |
| FRT       | Sig. (2-<br>tailed)    |          |          |          |          |         |         |         |                |
|           | N                      | 820      |          |          |          |         |         |         |                |
|           | Pearson<br>Correlation | -0.157** | 1        |          |          |         |         |         |                |
| REP       | Sig. (2-<br>tailed)    | 0.000    |          |          |          |         |         |         |                |
|           | N                      | 820      | 820      |          |          |         |         |         |                |
|           | Pearson<br>Correlation | -0.165** | 0.229**  | 1        |          |         |         |         |                |
| BUSY      | Sig. (2-<br>tailed)    | 0.000    | 0.000    |          |          |         |         |         |                |
|           | N                      | 820      | 820      | 820      |          |         |         |         |                |
|           | Pearson<br>Correlation | 0.050    | 0.024    | -0.188** | 1        |         |         |         |                |
| COMPLEX   | Sig. (2-<br>tailed)    | 0.155    | 0.490    | 0.000    |          |         |         |         |                |
|           | N                      | 820      | 820      | 820      | 820      |         |         |         |                |
|           | Pearson<br>Correlation | 0.100    | -0.465   | -0.555   | 0.061    | 1       |         |         |                |
| FLOAT     | Sig. (2-<br>tailed)    | 0.004    | 0.000    | 0.000    | 0.083    |         |         |         |                |
|           | N                      | 820      | 820      | 820      | 820      | 820     |         |         |                |
|           | Pearson<br>Correlation | 0.076*   | -0.365** | 0.038    | -0.188** | 0.037   | 1       |         |                |
| SIZE      | Sig. (2-<br>tailed)    | 0.030    | 0.000    | 0.274    | 0.000    | 0.291   |         |         |                |
|           | N                      | 820      | 820      | 820      | 820      | 820     | 820     |         |                |
|           | Pearson<br>Correlation | -0.154** | -0.179** | 0.004    | -0.110** | 0.028   | 0.590** | 1       |                |
| PROFIT    | Sig. (2-<br>tailed)    | 0.000    | 0.000    | 0.902    | 0.002    | 0.420   | 0.000   |         |                |
|           | N                      | 820      | 820      | 820      | 820      | 820     | 820     | 820     |                |
| EFFICIENC | Pearson<br>Correlation | -0.173** | -0.058   | -0.077*  | -0.005   | -0.075* | 0.222** | 0.337** | 1              |
| Y         | Sig. (2-<br>tailed)    | 0.000    | 0.097    | 0.027    | 0.884    | 0.032   | 0.000   | 0.000   |                |

**Table (5) Pearson Correlations** 

820

As for the control variables, the table provided us with preliminary evidence that client size (SIZE) is positively and significantly associated with audit report lag. On the other hand, firm profits (PROFIT) and efficiency (EFFICIENCY) are negatively and significantly associated with audit report lag, implying that profitable firms and those which are efficient

<sup>\*\*</sup>Correlation is significant at the 0.01 level (2-tailed).

<sup>\*</sup>Correlation is significant at the 0.05 level (2-tailed).

in using their assets in generating profits are having good news and keen to issue their financial reports without delay.

Furthermore, from **Table (5)**, we can note that the maximum correlation between the research variables is between firm profitability (*PROFIT*) and its size (*SIZE*) and it is 59%, which is an initial indication that multicollinearity problem is not a serious problem.

# 4.3. Hypotheses Testing

# **4.3.1.** Testing (H1)

To test the first research hypothesis (H1), which assumes that audit firm reputation has a significant effect on financial reporting timeliness, the researchers ran the first regression model (Model 1) and regress audit firm reputation against financial reporting timeliness. Before we present our regression results, it is important to note that audit firm reputation is measured as a categorical variable, where higher categories imply lower reputation. Accordingly, if the sign of the t-statistic is negative, this means that unreputable audit firms are issuing quicker audit reports and audit firm reputation is positively associated to audit report lag and consequently negatively related to financial reporting timeliness.

As presented in **Table (6)**, the regression F-test model is significant (F = 20.728, Sig. = 0.000), indicating that we can rely on the results of the model to analyze the effect of *REP* on *FRT*. Also, it is shown in the same table that Adj.  $R^2$  is 0.024, indicating that *REP* can interpret and predict 2.4% from the changes in *FRT*. Furthermore, Durbin Watson statistic indicates that the regression model in **Table (6)** does not contain serial correlation (Aigienohuwa, & Ezejiofor, 2021).

Concerning the effect of REP on FRT, **Table (6)** shows that REP is positively and significantly associated with audit report lag (t = -4.553, Sig. = 0.000) and consequently is negatively and significantly associated with FRT. This result contradicts with prior studies' findings (Kusuma & Indayani, 2020; Sunarto, et al., 2021; Dwiyanti, et al., 2022) which concluded that as audit firms become more reputable, they will be keener to

exert more efforts to safeguard and maintain their audit reputation and this will be reflected on the timeliness of financial reporting. As a result, and consistent with (Pham et al., 2017), small audit firms and those which are not affiliated to one of the Big4 audit firms will provide higher and better audit quality services. Also, they will be focusing on issuing their audit reports on time before the deadline to build their own good reputation. This result might be justified that small audit firms will strive to show high professionalism in delivering their audit services (Adela & Badera, 2022) and will try to build their own reputation and issue their audit reports quickly to meet the expectations of their clients. Meanwhile, small audit firms or those not affiliated to one of the Big4 audit firms don't have many clients as in the case of Big4 audit firms and the ASA. This gives us another justification why those audit firms are issuing timelier audit reports.

As a result, the first research hypothesis (H1) which states that "Audit firm reputation has a significant effect on financial reporting timeliness of firms listed on the Egyptian stock exchange" is supported.

Table (6) The Effect of Audit Firm Reputation on Financial Reporting Timeliness (Testing H1)

| Model (1)                  |        |          |          |       |  |  |  |  |  |  |
|----------------------------|--------|----------|----------|-------|--|--|--|--|--|--|
|                            | β      | t        | Sig.     | VIF   |  |  |  |  |  |  |
| (Constant)                 |        | 199.555  | 0.000*** |       |  |  |  |  |  |  |
| REP                        | -0.157 | -4.553   | 0.000*** | 1.000 |  |  |  |  |  |  |
| R2                         |        |          | 0.025    |       |  |  |  |  |  |  |
| Adj. R2                    |        |          | 0.024    |       |  |  |  |  |  |  |
| Std. Error of the Estimate |        |          | 0.31721  |       |  |  |  |  |  |  |
| Durbin-Watson              |        |          | 1.722    |       |  |  |  |  |  |  |
| F                          |        |          | 20.728   |       |  |  |  |  |  |  |
| Sig.                       |        | 0.000*** |          |       |  |  |  |  |  |  |
| N                          |        |          | 820      |       |  |  |  |  |  |  |

<sup>\*\*\* =</sup> significant at 0.01 level.

# 4.3.2. Testing (H2)

To test the second research hypothesis (H2), which expects that audit firms which are auditing many financial statements issued in the busy season (December  $31^{st}$ ) will affect the timeliness of financial reporting

significantly, the researchers ran the second regression model (Model 2) and regress audit firm busyness against financial reporting timeliness.

As presented in **Table (7)** the regression model is significant, with an Adj.  $R^2 = 0.026$ , indicating that *BUSY* can interpret and expect 2.6% from the changes in *FRT*. **Table (7)** shows that *BUSY* is negatively and significantly associated with audit report lag (t = -4.789, Sig. = 0.000). This finding might result from audit firms allocating more resources and efforts to mitigate the negative effect of audit firm busyness (Gul et al., 2017) and indicates that audit firms are becoming more experienced as a result of auditing several companies at the same time and as a result, they issue their audit reports on time.

Table (7) The Effect of Audit Firm Busyness on Financial Reporting Timeliness (Testing H2)

|                            | Model (2) |         |          |       |  |  |  |  |  |  |  |  |
|----------------------------|-----------|---------|----------|-------|--|--|--|--|--|--|--|--|
|                            | β         | t       | Sig.     | VIF   |  |  |  |  |  |  |  |  |
| (Constant)                 |           | 193.709 | 0.000*** |       |  |  |  |  |  |  |  |  |
| BUSY                       | -0.165    | -4.789  | 0.000*** | 1.000 |  |  |  |  |  |  |  |  |
| R2                         |           | 0.0     | )27      |       |  |  |  |  |  |  |  |  |
| Adj. R2                    |           | 0.0     | )26      |       |  |  |  |  |  |  |  |  |
| Std. Error of the Estimate |           | 0.31    | 679      |       |  |  |  |  |  |  |  |  |
| Durbin-Watson              |           | 1.7     | 15       |       |  |  |  |  |  |  |  |  |
| F                          |           | 22.     | 939      |       |  |  |  |  |  |  |  |  |
| Sig.                       |           | 0.00    | 00***    |       |  |  |  |  |  |  |  |  |
| N                          |           | 82      | 20       |       |  |  |  |  |  |  |  |  |

<sup>\*\*\* =</sup> significant at 0.01 level.

Our finding confirms prior studies' findings (Ashton, et al., 1989) and indicates that audit firms are issuing timelier audit reports during the busy season. On the other hand, this result contradicts with the findings of (Al-Mulla & Bradbury, 2020) which found evidence that audit firm busyness will affect the timeliness of financial reporting negatively, because of the workload compression and the human limited attention theory, which assumes that auditors will delay in issuing their audit reports.

As a result, the second research hypothesis (H2) which states that "Audit firm busyness has a significant effect on financial reporting timeliness of firms listed on the Egyptian stock exchange" is supported.

Confirming our results related to the first and second research hypotheses, we ran Model (4), which includes the control variables in addition to the main two independent variables. The Adj.  $R^2$  in **Table (8)** has improved to be 12%, indicating that the independent and control variables included in the model can explain and predict 12% of the changes in FRT. Also, it is important to mention that all VIF statistics are below 10, which means that multicollinearity is not a serious problem (Jessica et al., 2021).

The results in **Table (8)** confirmed our findings and give us additional evidence that REP is positively and significantly associated to FRT (t = -2.416, Sig. = 0.016) but at 5% significance level. Consistently, BUSY is still having a negative and significant effect on audit report lag (t = -4.833, Sig. = 0.000) at 1% significance level, which means a positive and significant effect on financial reporting timeliness.

Concerning the effect of control variables; *SIZE*, *PROFIT* and *EFFICIENCY*, the results in **Table (8)** demonstrate that *SIZE* is positively and significantly associated to audit report lag (t = 5.425, Sig. = 0.000) and consequently will have a negative and significant effect on *FRT*. This result contradicts the findings of previous studies (Abidin & Ahmad-Zaluki, 2012; Adela & Badera, 2022), which found that larger companies issue timelier audited financial statements because they are closely monitored by different external parties, such as investors, government, and other stakeholders. On the other hand, this result is consistent with our prior expectations that larger firms require more time and efforts from the auditors' side, as they have a lot of transactions, and accordingly, audit reports might be delayed.

Conversely, and consistent with the findings of Sunarto, et al. (2021) EFFICIENCY, as measured by ROA, is positively and significantly related to FRT (t = -4.499, Sig. = 0.000), indicating that firms operating efficiently in generating profits will be keen to send positive signals to the market participants by issuing their audited financial statements before the deadline so as to reduce information asymmetry and help investors and other

stakeholders in taking better and timelier decisions. Also, consistent with prior studies' findings (for example, Abidin & Ahmad-Zaluki, 2012; Adela & Badera, 2022), the regression results provided evidence that profitable firms, which are making higher profits in comparison to other companies in the sample will offer their financial statements on time to reduce the level of information asymmetry and avoid high volatility in their market value, thus PROFIT has a significant and positive effect on FRT (t = -6.054, Sig. = 0.000).

Table (8) The Effect of Audit Firm Reputation and Busyness on Financial Reporting Timeliness

|                               |        | Model (3) N | Iain Model    |       | N       | Todel (4) Ex | tended Mode   | el    |  |
|-------------------------------|--------|-------------|---------------|-------|---------|--------------|---------------|-------|--|
|                               | β      | t           | Sig.          | VIF   | β       | t            | Sig.          | VIF   |  |
| (Constant)                    |        | 165.521     | 0.000***      |       |         | 18.818       | 0.000***      |       |  |
| REP                           | -0.126 | -3.582      | $0.000^{***}$ | 1.055 | -0.088  | -2.416       | 0.016**       | 1.243 |  |
| BUSY                          | -0.136 | -3.876      | $0.000^{***}$ | 1.055 | -0.165  | -4.833       | $0.000^{***}$ | 1.085 |  |
| SIZE                          |        |             |               |       | 0.235   | 5.425        | 0.000***      | 1.751 |  |
| PROFIT                        |        |             |               |       | -0.255  | -6.054       | 0.000***      | 1.652 |  |
| EFFICIENCY                    |        |             |               |       | -0.157  | -4.499       | $0.000^{***}$ | 1.139 |  |
| R2                            |        | 0.0         | 142           |       | 0.126   |              |               |       |  |
| Adj. R2                       |        | 0.0         | 140           |       | 0.120   |              |               |       |  |
| Std. Error of the<br>Estimate |        | 0.31        | 452           |       | 0.30110 |              |               |       |  |
| Durbin-Watson                 |        | 1.7         | 65            |       |         | 1.3          | 812           |       |  |
| F                             |        | 18.         | 052           |       | 23.373  |              |               |       |  |
| Sig.                          |        | 0.00        | 00***         |       |         | 0.0          | 00***         | •     |  |
| N                             |        | 82          | 20            |       |         | 8            | 20            | •     |  |

<sup>\*\*\*=</sup> significant at 0.01 level, \*\*= significant at 0.05 level.

# **4.3.3.** Testing (H3)

To test the third research hypothesis (H3) which examines the moderating effect of client complexity on the relationship between audit firm reputation and financial reporting timeliness, the researchers ran the fifth regression model (Model 5) after adding the moderating variable (COMPLEX) and the interaction variable (REP\*COMPLEX) which is the multiplication of audit firm reputation by client complexity.

**Table (9)** presents the results of the regression model (Model 5), which is examining the effect of the main research variables (*REP*, *COMPLEX*, and *REP\*COMPLEX*) on *FRT* in its first section and that after adding the control variables in its second section. In the first section of **Table (9)**, we found that the regression model is significant with Adj. R<sup>2</sup>

4.4%, which is higher than that of the main model shown in **Table (8)** (4%), indicating an improvement of the interpretation of the model after adding the aforementioned variables. The VIF statistics indicate that multicollinearity is not a serious problem, and the Durbin Watson Statistic implies the absence of serial autocorrelation.

Table (9) The Moderating Effect of Client Complexity on the Relationship between Audit Firm Reputation and Financial Reporting Timeliness (Testing H3)

|                               |        |         |          | Mode     | 1 (5)       |        |          |       |  |
|-------------------------------|--------|---------|----------|----------|-------------|--------|----------|-------|--|
|                               |        | Sectio  | n (1)    |          | Section (2) |        |          |       |  |
|                               | β      | t       | Sig.     | VIF      | β           | t      | Sig.     | VIF   |  |
| (Constant)                    | •      | 123.040 | 0.000*** |          | -           | 17.531 | 0.000*** |       |  |
| REP                           | -0.065 | -1.418  | 0.156    | 1.821    | -0.036      | -0.760 | 0.448    | 2.130 |  |
| COMPLEX                       | 0.153  | 2.223   | 0.026**  | 4.076    | 0.137       | 2.025  | 0.043**  | 4.299 |  |
| REP*COMPLEX                   | -0.158 | -2.101  | 0.036**  | 4.856    | -0.123      | -1.679 | 0.094*   | 5.013 |  |
| BUSY                          | -0.117 | -3.222  | 0.001*** | 1.133    | -0.148      | -4.217 | 0.000*** | 1.152 |  |
| SIZE                          |        |         |          |          | 0.249       | 5.668  | 0.000*** | 1.80  |  |
| PROFIT                        |        |         |          |          | -0.252      | -5.980 | 0.000*** | 1.654 |  |
| EFFICIENCY                    |        |         |          |          | -0.154      | -4.405 | 0.000*** | 1.145 |  |
| R2                            |        | 0.0     | 48       |          |             | 0.1    | 130      |       |  |
| Adj. R2                       |        | 0.0     | 44       |          | 0.122       |        |          |       |  |
| Std. Error of the<br>Estimate |        | 0.31    | 393      |          |             | 0.30   | 0071     |       |  |
| Durbin-Watson                 |        | 1.7:    | 58       |          |             | 1.8    | 323      |       |  |
| F                             |        | 10.328  |          |          |             | 17.    | 328      |       |  |
| Sig.                          |        | 0.00    | 0***     | 0.000*** |             |        |          |       |  |
| N                             |        | 82      | 0        | -        |             | 8:     | 20       |       |  |

<sup>\*\*\* =</sup> significant at 0.01 level, \*\* = significant at 0.05 level, \*= significant at 0.10 level.

After adding the moderating variable (COMPLEX) to our model, we found that REP turned to be insignificant (t = -1.418, Sig. = 0.156), which means that COMPLEX is more significant concerning its effect on FRT, in comparison to REP. Consistently, COMPLEX is proven to delay the issuance of financial reports (t = 2.223, Sig. = 0.026) at 5% significance level, as having a large balance of inventory and receivables, which involve a large number of estimates and uncertainty, require considerable time and efforts from the auditors. As a result, COMPLEX will have a negative impact on financial reporting timeliness. However, the interaction variable (REP\*COMPLEX) is shown to have a negative and significant effect on audit report lag (t = -2.101, Sig. = 0.036) at 5% significance level. This result means that small audit firms issue their faster audit reports for companies characterized by their high complexity level. The negative impact of complexity is mitigated by the positive effect of small audit firm reputation on financial reporting timeliness. This finding might be justified that small audit firms will devote more time and resources and exert more effort to audit clients with high degree of complexity and issue their audit reports on time in order to build a good reputation.

Again, after adding the control variables to Model (5) as shown in **Table (9)**, the research results remain, concluding that COMPLEX is having a negative and significant effect on FRT at 5% significance level (t = 2.025, Sig. = 0.043), the interaction term REP\*COMPLEX is having a positive and significant effect on FRT but at 10% significance level (t = -1.679, Sig. = 0.094). While firm EFFICIENCY and PROFIT are having positive and significant effect on financial reporting timeliness, SIZE is proven to affect the financial reporting timeliness negatively and significantly.

Accordingly, we can conclude that the third research hypothesis (H3) which states that "The significant effect of audit firm reputation on financial reporting timeliness of firms listed on the Egyptian stock exchange differs according to client complexity" is supported.

## 4.3.4. Testing (H4)

To test the fourth research hypothesis (*H4*) which examines the moderating effect of client complexity on the relationship between audit firm busyness and financial reporting timeliness, the researchers ran the sixth regression model (Model 6) which includes the moderating variable (*COMPLEX*) and the interaction variable (*BUSY\*COMPLEX*).

**Table (10)** provides the results of the sixth regression model (Model 6) which focuses on the main research variables in its first section and that after adding the control variables in its second section and shows that the regression models are significant. The Adj.  $R^2$  is 3.8%, which is lower than that of the main model (4%) shown in **Table (8)**, giving an indication of the insignificance of the added variables. Consistently, the researchers found that *BUSY* is proven to have a positive and significant effect on *FRT* (t = -2.693, Sig. = 0.007), the moderating variable *COMPLEX* will not delay the issuance of financial reports in general (t = 0.241, Sig. = 0.810), and the interaction term (*BUSY\*COMPLEX*) has no significant effect on *FRT* (t = 0.191, Sig. = 0.849). This result means that the positive effect of *BUSY* is

outweighed by the negative effect of *COMPLEX*, leaving the interaction variable insignificant concerning its effect on *FRT*.

Table (10) The Moderating Effect of Client Complexity on the Relationship between Audit Firm Busyness and Financial Reporting Timeliness (Testing H4)

|                               |        |         | Model (6 | 6)       |             |        |          |      |
|-------------------------------|--------|---------|----------|----------|-------------|--------|----------|------|
|                               |        | Section | (1)      |          | Section (2) |        |          |      |
|                               | β      | t       | Sig.     | VIF      | β           | t      | Sig.     | VIF  |
| (Constant)                    |        | 114.185 | 0.000*** |          |             | 17.906 | 0.000*** |      |
| REP                           | -0.129 | -3.620  | 0.000*** | 1.080    | -0.093      | -2.500 | 0.013**  | 1.27 |
| BUSY                          | -0.137 | -2.693  | 0.007*** | 2.220    | -0.184      | -3.700 | 0.000*** | 2.30 |
| COMPLEX                       | 0.017  | 0.241   | 0.810    | 4.146    | -0.005      | -0.068 | 0.946    | 4.37 |
| BUSY*COMPLEX                  | 0.014  | 0.191   | 0.849    | 4.624    | 0.053       | 0.729  | 0.466    | 4.84 |
| SIZE                          |        |         |          |          | 0.239       | 5.442  | 0.000*** | 1.80 |
| PROFIT                        |        |         |          |          | -0.252      | -5.970 | 0.000*** | 1.66 |
| EFFICIENCY                    |        |         |          |          | -0.163      | -4.582 | 0.000*** | 1.18 |
| R2                            |        | 0.04    | 3        |          |             | 0.1    | 128      |      |
| Adj. R2                       |        | 0.03    | 8        |          |             | 0.1    | 20       |      |
| Std. Error of the<br>Estimate |        | 0.314   | 78       |          |             | 0.30   | )113     |      |
| Durbin-Watson                 |        | 1.74    | 4        |          |             | 1.7    | 773      |      |
| F                             |        | 9.18    |          |          | 16.         | 954    | •        |      |
| Sig.                          |        | 0.000   | ***      | 0.000*** |             |        |          |      |
| N                             |        | 820     |          |          |             | 8:     | 20       |      |

<sup>\*\*\* =</sup> significant at 0.01 level, \*\* = significant at 0.05 level.

After adding the control variables to Model (6) as presented in section (2) in **Table (10)**, the research results remain, concluding that the audit firm busyness is having a positive and significant effect on financial reporting timeliness, however this positive effect is outweighed by the negative impact of client complexity, leaving the interaction effect of both *BUSY* and *COMPLEX* insignificant (t = 0.729, Sig. = 0.466). In addition, while *EFFICIENCY* and *PROFIT* are having positive and significant effect on *FRT*, *SIZE* is proven to affect the financial reporting timeliness negatively and significantly.

Accordingly, we can conclude that the fourth research hypothesis (H4) which states that "The significant effect of audit firm busyness on financial reporting timeliness of firms listed on the Egyptian stock exchange differs according to client complexity" is not supported.

# 4.3.5. Testing (H5)

To test the fifth research hypothesis (H5) which examines the moderating effect of the floatation of exchange rate on the relationship between audit firm reputation and financial reporting timeliness, the

researchers ran the seventh regression model (Model 7) which includes the moderating variable (*FLOAT*) and the interaction variable (*REP\*FLOAT*).

The researchers found in **Table (11)** that the moderating variable, which is the decision to float the exchange rate (FLOAT) (t = -0.425, Sig. = 0.671), and the interaction variable (REP\*FLOAT) (t = 0.266, Sig. = 0.790) do not have a significant effect on the financial reporting timeliness. In general, the floatation decision will not delay the issuance of financial reports. However, and as shown in **Table (11)** both REP (t = -3.706, Sig. = 0.000) and BUSY (t = -3.923, Sig. = 0.000) are proven to have a positive and significant effect on FRT. This indicates that significant effect of REP has turned to be insignificant as a result of the floatation decision.

Table (11) The Moderating Effect of the Floatation of Exchange Rate on the Relationship between Audit Firm Reputation and Financial Reporting Timeliness (Testing H5)

|                            | Model (7) |         |               |             |          |        |               |       |  |  |  |  |  |
|----------------------------|-----------|---------|---------------|-------------|----------|--------|---------------|-------|--|--|--|--|--|
|                            |           | Section | on (1)        | Section (2) |          |        |               |       |  |  |  |  |  |
|                            | β         | t       | Sig.          | VIF         | β        | t      | Sig.          | VIF   |  |  |  |  |  |
| (Constant)                 |           | 111.364 | 0.000***      |             |          | 18.169 | 0.000***      |       |  |  |  |  |  |
| REP                        | -0.146    | -3.706  | 0.000***      | 1.320       | -0.107   | -2.567 | 0.010**       | 1.604 |  |  |  |  |  |
| BUSY                       | -0.163    | -3.923  | $0.000^{***}$ | 1.481       | -0.185   | -4.612 | 0.000***      | 1.490 |  |  |  |  |  |
| FLOAT                      | -0.039    | -0.425  | 0.671         | 7.316       | -0.041   | -0.466 | 0.641         | 7.357 |  |  |  |  |  |
| REP*FLOAT                  | 0.022     | 0.266   | 0.790         | 5.731       | 0.002    | 0.031  | 0.975         | 5.741 |  |  |  |  |  |
| SIZE                       |           |         |               |             | 0.228    | 5.160  | 0.000***      | 1.809 |  |  |  |  |  |
| PROFIT                     |           |         |               |             | -0.254   | -6.034 | $0.000^{***}$ | 1.653 |  |  |  |  |  |
| EFFICIENCY                 |           |         |               |             | -0.157   | -4.479 | 0.000***      | 1.139 |  |  |  |  |  |
| R2                         |           | 0.0     | 45            |             |          | 0.     | 127           |       |  |  |  |  |  |
| Adj. R2                    |           | 0.0     | 40            |             |          | 0.     | 119           |       |  |  |  |  |  |
| Std. Error of the Estimate |           | 0.31    | 455           |             |          | 0.30   | 0129          |       |  |  |  |  |  |
| Durbin-Watson              |           | 1.7     | 96            |             |          | 1.     | 730           |       |  |  |  |  |  |
| F                          |           | 9.4     |               |             |          |        | 815           |       |  |  |  |  |  |
| Sig.                       |           | 0.00    | 0***          | •           | 0.000*** |        |               |       |  |  |  |  |  |
| N                          |           | 82      | 20            |             |          | 8      | 20            |       |  |  |  |  |  |

<sup>\*\*\* =</sup> significant at 0.01 level, \*\* = significant at 0.05 level.

Again, after adding the control variables to Model (7), the research results remain, concluding that both small audit firm reputation and audit firm busyness are having a positive and significant effect on financial reporting timeliness. In addition, SIZE is proven to affect the financial reporting timeliness negatively and significantly (t = 5.160, Sig. = 0.000),

while *PROFIT* and *EFFICIENCY* are having positive and significant effect on *FRT*.

Accordingly, we can conclude that the fifth research hypothesis (H5) which states that "The significant effect of audit firm reputation on financial reporting timeliness of firms listed on the Egyptian stock exchange differs with the floatation of exchange rate" is not supported.

#### 4.3.6. Testing (H6)

To test the sixth research hypothesis (*H6*) which examines the moderating effect of the floatation of exchange rate on the relationship between audit firm busyness and financial reporting timeliness, the researchers ran the eighth regression model (Model 8) which includes the moderating variable (*FLOAT*) and the interaction term (*BUSY\*FLOAT*).

**Table (12)** presents the results of running Model (8). The regression model is found to be significant with Adj.  $R^2$  3.8%, which is lower than that of the main model (4%). This indicates that the effect of the moderating variable on the main relationship is not significant. As shown in **Table (12)**, the main research variables, REP (t = -3.598, Sig. = 0.000) and BUSY (t = -3.531, Sig. = 0.000) are having a negative and significant effect on the audit report lag, indicating that small audit firms and those which are not affiliated to international or Big4 audit firms are issuing their audit reports on a timely manner. The same goes for audit firms which are auditing financial statements in the busy season. Those audit firms are learning from having high workload and benefiting from auditing many companies at the same time. This results from knowledge spillovers that shortens the audit completion time.

Concerning the effect of the floatation of exchange rate, the researchers found that the decision taken by the CBE to float the exchange rate of the Egyptian pound on the 3<sup>rd</sup> of November 2016 didn't have a significant effect on the financial reporting timeliness, nor does it affect the relationship between busyness and audit firm reputation. will not delay the issuance of financial reports in general, and audit firm busyness is proven to have a positive and significant effect on financial reporting timeliness.

Table (12) The Moderating Effect of the Floatation of Exchange Rate on the Relationship between Audit Firm Busyness and Financial Reporting Timeliness (Testing H6)

|                            | Model (8)         |         |          |             |        |        |          |       |  |
|----------------------------|-------------------|---------|----------|-------------|--------|--------|----------|-------|--|
|                            |                   | Sectio  | n (1)    | Section (2) |        |        |          |       |  |
|                            | β                 | t       | Sig.     | VIF         | β      | t      | Sig.     | VIF   |  |
| (Constant)                 |                   | 152.216 | 0.000*** |             |        | 17.790 | 0.000*** |       |  |
| REP                        | -0.127            | -3.598  | 0.000*** | 1.058       | -0.103 | -2.494 | 0.013**  | 1.582 |  |
| BUSY                       | -0.139            | -3.531  | 0.000*** | 4.871       | -0.155 | -3.150 | 0.002*** | 2.243 |  |
| FLOAT                      | -0.032            | -0.460  | 0.646    | 4.188       | -0.001 | -0.016 | 0.987    | 3.413 |  |
| BUSY*FLOAT                 | 0.013             | 0.183   | 0.855    | 7.967       | 0.049  | 1.039  | 0.299    | 2.059 |  |
| FIRM SIZE                  |                   |         |          |             | 0.230  | 5.215  | 0.000*** | 1.811 |  |
| PROFIT                     |                   |         |          |             | -0.256 | -6.071 | 0.000*** | 1.654 |  |
| EFFICIENCY                 |                   |         |          |             | -0.154 | -4.389 | 0.000*** | 1.146 |  |
| R2                         |                   | 0.04    | 43       |             | 0.1    | 28     |          |       |  |
| Adj. R2                    |                   | 0.00    | 38       |             | 0.1    | 20     |          |       |  |
| Std. Error of the Estimate |                   | 0.314   | 483      |             |        | 0.30   | )109     |       |  |
| Durbin-Watson              |                   | 1.79    | 98       | 1.732       |        |        |          |       |  |
| F                          | 9.111 16.991      |         |          |             | •      |        |          |       |  |
| Sig.                       | 0.000*** 0.000*** |         |          |             |        | •      |          |       |  |
| N                          |                   | 82      | 0        |             |        | 82     | 20       |       |  |

<sup>\*\*\* =</sup> significant at 0.01 level, \*\* = significant at 0.05 level.

After adding the control variables to Model (8), our results confirmed our previous findings, and we can notice that REP is having a positive and significant effect on FRT at 5% level, implying that small audit firm reputation affects the financial reporting timeliness positively, and BUSY affects FRT positively and significantly at 1% significance level. However, the moderating effect of the floatation of exchange rate is proven to be insignificant (t = 1.039, Sig. = 0.299), concluding that although audit firm busyness is having a positive and significant effect on financial reporting timeliness, however this positive effect is outweighed by the negative impact of the floatation of exchange rate.

Regarding the control variables, our analysis confirms our results in the previous sections, *EFFICIENCY* and *PROFIT* are having positive and significant effect on *FRT*, and *SIZE* is shown to affect the financial reporting timeliness negatively and significantly.

Accordingly, we can conclude that the sixth research hypothesis (H6) which states that "The significant effect of audit firm busyness on financial reporting timeliness of firms listed on the Egyptian stock exchange differs with the floatation of exchange rate" is not supported.

#### 4.4. Sensitivity Analyses

To test the robustness of our results, we used two alternative measures to measure audit firm reputation and two alternative measures for financial reporting timeliness.

#### 4.4.1. Using a Transformation of Audit Firm Reputation

In our first sensitivity analysis, as shown in **Table (13)**, we followed Singh, et al. (2022) and tried the log transformation of audit firm reputation  $(LN\_REP)$  and rerun the extended model while measuring audit firm reputation with the natural logarithm of the values given to audit firms according to their belonging to the different tiers.

Table (13) Sensitivity Analysis (1) (Using a Transformation of Audit Firm Reputation)

|                            | β                 | t      | Sig.          | VIF    | β       | t      | Sig.          | VIF   |
|----------------------------|-------------------|--------|---------------|--------|---------|--------|---------------|-------|
| (Constant)                 |                   | 19.195 | $0.000^{***}$ |        |         | 17.212 | $0.000^{***}$ |       |
| $LN\_REP$                  | -0.095            | -2.630 | 0.009***      | 1.229  | -0.062  | -1.179 | 0.239         | 2.615 |
| BUSY                       | -0.163            | -4.781 | $0.000^{***}$ | 1.085  | -0.188  | -3.130 | 0.002***      | 3.379 |
| COMPLEX                    |                   |        |               |        | 0.031   | 0.424  | 0.672         | 4.901 |
| LN REP*COMPLEX             |                   |        |               |        | -0.105  | -1.768 | $0.077^{*}$   | 3.276 |
| BUSY*COMPLEX               |                   |        |               |        | 0.082   | 1.095  | 0.274         | 5.195 |
| FLOAT                      |                   |        |               |        | -0.018  | -0.300 | 0.765         | 3.553 |
| $LN_REP*FLOAT$             |                   |        |               |        | 0.002   | 0.053  | 0.957         | 1.129 |
| BUSY*FLOAT                 |                   |        |               |        | 0.028   | 0.581  | 0.562         | 2.234 |
| SIZE                       | 0.233             | 5.405  | $0.000^{***}$ | 1.738  | 0.235   | 5.263  | $0.000^{***}$ | 1.868 |
| PROFIT                     | -0.254            | -6.031 | $0.000^{***}$ | 1.652  | -0.248  | -5.858 | $0.000^{***}$ | 1.671 |
| EFFICIENCY                 | -0.157            | -4.499 | $0.000^{***}$ | 1.139  | -0.158  | -4.431 | $0.000^{***}$ | 1.191 |
| R2                         | 0.127             |        |               |        |         | 0.     | 134           |       |
| Adj. R2                    |                   | 0.1    | 121           |        |         | 0.     | 122           |       |
| Std. Error of the Estimate |                   | 0.30   | 0090          |        | 0.30074 |        |               |       |
| Durbin-Watson              | 1.726 1.741       |        |               |        |         |        |               |       |
| F                          | 23.619            |        |               | 11.369 |         |        |               |       |
| Sig.                       | 0.000*** 0.000*** |        |               |        |         | •      |               |       |
| N                          |                   | 8:     | 20            |        | 820     |        |               |       |

<sup>\*\*\*=</sup> significant at 0.01 level, \*\*= significant at 0.05 level, \*= significant at 0.10 level.

The regression results in **Table (13)** are in line with our findings in the main analysis, where  $LN\_REP$  is proven to have a negative and significant effect on FRT and became insignificant when the moderating variable (COMPLEX) is added to the model. Also, BUSY is still affecting FRT positively and significantly. Regarding the control variables, SIZE is having a negative and significant effect on FRT and PROFIT and EFFICIENCY are affecting FRT positively and significantly.

# 4.4.2. Using Big4 & ASA vs non-Big 4 to measure Audit Firm Reputation

Consistent with prior studies (Pham, et al., 2017; Rudyanto, et al., 2017; Nursiam, et al., 2021; Sunarto, et al., 2021; Adela & Badera, 2022; Dwiyanti, et al., 2022, Nugroho & Pesudo, 2022), we measured the audit firm reputation as a dummy variable that takes the value (1) if the company is audited by an audit firm that is affiliated to one of the Big4 audit firms or the ASA, and (0) otherwise.

Table (14) Sensitivity Analysis (2) (Using Big4 & ASA vs non-Big4 to Measure Audit Firm Reputation)

|                            | β        | t      | Sig.          | VIF   |  |  |
|----------------------------|----------|--------|---------------|-------|--|--|
| (Constant)                 |          | 19.870 | 0.000***      |       |  |  |
| BIG REP                    | 0.110    | 3.092  | 0.002***      | 1.174 |  |  |
| BUSY                       | -0.160   | -4.722 | $0.000^{***}$ | 1.078 |  |  |
| SIZE                       | 0.233    | 5.487  | $0.000^{***}$ | 1.686 |  |  |
| PROFIT                     | -0.251   | -5.978 | $0.000^{***}$ | 1.655 |  |  |
| EFFICIENCY                 | -0.157   | -4.513 | $0.000^{***}$ | 1.138 |  |  |
| R2                         |          | 0.1    | 130           |       |  |  |
| Adj. R2                    |          | 0.1    | 124           |       |  |  |
| Std. Error of the Estimate |          | 0.30   | 0042          |       |  |  |
| Durbin-Watson              |          | 1.7    | 726           |       |  |  |
| F                          | 24.220   |        |               |       |  |  |
| Sig.                       | 0.000*** |        |               |       |  |  |
| N                          |          | 8:     | 20            |       |  |  |

<sup>\*\*\* =</sup> significant at 0.01 level, \*\* = significant at 0.05 level.

As reported in **Table (14)**, and in contrast with the finding of Abidin & Ahmad-Zaluki, (2012),  $BIG\_REP$  has a positive and significant effect on audit report lag and consequently a negative and significant effect on FRT (t = 3.092, Sig. = 0.002). On the other hand, BUSY has a positive and

significant effect on FRT (t = -4.722, Sig. = 0.000). This result provides additional evidence that Big4 audit firms and ASA are delaying the issuance of their audit reports in comparison to non-Big4 audit firms.

Consistently, same results were reached concerning the effect of the control variables, *SIZE*, *PROFIT* and *EFFICIENCY* on *FRT*.

## 4.4.3. Using Audit Report Lag (in days) to measure Financial Reporting Timeliness

After running Model (4), while measuring the financial reporting timeliness using the number of days that elapse between the financial statement date and the audit report date, **Table (15)** confirmed our prior findings that *REP* and *BUSY* are affecting *FRT* negatively and significantly. The same results were found concerning the impact of *SIZE*, *PROFIT*, and *EFFICIENCY*.

Table (15) Sensitivity Analysis (3) Using Audit Report Lag (in days) to measure Financial Reporting Timeliness

|                            | β      | t        | Sig.          | VIF   |  |  |  |
|----------------------------|--------|----------|---------------|-------|--|--|--|
| (Constant)                 |        | 1.054    | 0.292         |       |  |  |  |
| REP                        | -0.082 | -2.212   | 0.027**       | 1.243 |  |  |  |
| BUSY                       | -0.129 | -3.729   | $0.000^{***}$ | 1.085 |  |  |  |
| SIZE                       | 0.215  | 4.889    | 0.000***      | 1.751 |  |  |  |
| PROFIT                     | -0.227 | -5.298   | $0.000^{***}$ | 1.652 |  |  |  |
| <i>EFFICIENCY</i>          | -0.146 | -4.096   | $0.000^{***}$ | 1.139 |  |  |  |
| R2                         |        | (        | 0.098         |       |  |  |  |
| Adj. R2                    |        | (        | 0.093         |       |  |  |  |
| Std. Error of the Estimate |        | 24       | .22513        |       |  |  |  |
| Durbin-Watson              |        | 1        | .788          |       |  |  |  |
| F                          |        | 17.697   |               |       |  |  |  |
| Sig.                       |        | 0.000*** |               |       |  |  |  |
| N                          |        |          | 820           |       |  |  |  |

<sup>\*\*\*=</sup> significant at 0.01 level, \*\*= significant at 0.05 level.

## 4.4.4. Measuring Financial Reporting Timeliness as a Dummy Variable

To check the robustness of our results, we used another measure of financial reporting timeliness. We followed Rosalina & Syaiful (2021) and Sunarto, et al. (2021) and measured FRT as a dummy variable that takes the value (1) in case there is a delay in issuing the audit report, that is when audit report lag is greater than 90 days (time allowed by the EGX for

companies to issue their audited financial reports), and (0) otherwise. To test our research relationships, we used binary logistic regression, as our dependent variable is a dichotomous variable.

According to **Table (16)**, we can notice that *BUSY* affect audit report lag (*FRT*) negatively (positively) and significantly, however, and consistent with Rosalina & Syaiful (2021) that didn't find a significant relationship between audit firm reputation and financial reporting timeliness, our results showed that *REP* turned to have a negative (positive) but insignificant effect on audit report lag (*FRT*). Concerning our control variables, we can confirm our previous findings and conclude that *SIZE* has a negative and significant effect on *FRT*, consistent with the findings of Rosalina & Syaiful (2021), and *PROFIT* and *EFFICIENCY* affect *FRT* positively and significantly.

Table (16) Sensitivity Analysis (4) Measuring Financial Reporting Timeliness as a Dummy Variable

|                      | β      | Wald   | Sig.          | Exp (β) |
|----------------------|--------|--------|---------------|---------|
| (Constant)           | -5.888 | 14.055 | $0.000^{***}$ | 0.003   |
| REP                  | -0.105 | 2.001  | 0.157         | 0.900   |
| BUSY                 | -0.545 | 6.872  | 0.009***      | 0.580   |
| SIZE                 | 0.258  | 11.862 | 0.001***      | 1.294   |
| PROFIT               | -1.363 | 15.868 | $0.000^{***}$ | 0.256   |
| EFFICIENCY           | -1.634 | 10.182 | 0.001***      | 0.195   |
| Cox & Snell R Square |        | 0      | .055          |         |
| Nagelkerke R Square  |        | 0      | .087          |         |
| Chi square           |        | 40     | 5.028         |         |
| df                   |        |        | 5             |         |
| Sig.                 |        | 0.0    | 000***        |         |
| N                    |        |        | 820           |         |

<sup>\*\*\*=</sup> significant at 0.01 level.

#### 4.5. Additional Analyses

In this section, we conducted multiple additional analyses to enhance our understanding of the main research relationships and give more insights of our findings.

## **4.5.1.** Using Client Complexity and the Floatation of Exchange Rate as Control Variables

After treating the moderating variables, *COMPLEX* and *FLOAT* as control variables and adding them to the extended model, as presented in **Table (17)**, we confirmed our findings concerning the positive and significant effect of *REP* on audit report lag, implying that small audit firm reputation are affecting the timeliness of financial reporting positively, and the negative and significant effect of *BUSY* on audit report lag, indicating that busy audit firms tend to issue timelier audit reports. The variables *COMPLEX* and *FLOAT* didn't show to have a significant effect on *FRT*.

Table (17) Using Client Complexity and the Floatation of Exchange Rate as Control Variables

|                            | β        | t      | Sig.          | VIF   |  |  |
|----------------------------|----------|--------|---------------|-------|--|--|
| (Constant)                 |          | 17.536 | 0.000***      |       |  |  |
| REP                        | -0.105   | -2.569 | 0.010**       | 1.570 |  |  |
| BUSY                       | -0.177   | -4.398 | $0.000^{***}$ | 1.507 |  |  |
| COMPLEX                    | 0.037    | 1.081  | 0.280         | 1.078 |  |  |
| FLOAT                      | -0.041   | 921    | 0.357         | 1.832 |  |  |
| SIZE                       | 0.235    | 5.273  | $0.000^{***}$ | 1.847 |  |  |
| RESULT                     | -0.254   | -6.031 | 0.000***      | 1.652 |  |  |
| EFFICIENCY                 | -0.158   | -4.509 | 0.000***      | 1.140 |  |  |
| R2                         |          | C      | 0.128         |       |  |  |
| Adj. R2                    |          | C      | 0.120         |       |  |  |
| Std. Error of the Estimate |          | 0      | 30107         |       |  |  |
| Durbin-Watson              |          | 1      | .734          |       |  |  |
| F                          | 17.006   |        |               |       |  |  |
| Sig.                       | 0.000*** |        |               |       |  |  |
| N                          |          |        | 820           |       |  |  |

<sup>\*\*\* =</sup> significant at 0.01 level.

#### 4.5.2. Adding a Control Variable to the Extended Model

In this subsection, we followed previous studies (for example, Singh, et al., 2022) and added client financial risk, as measured by the natural logarithm of the firm's leverage. **Table (18)** showed that *LN\_LEVERAGE* is proven to affect the audit report lag positively and significantly (t = 2.756, Sig. = 0.006). This result is consistent with our expectation and previous studies' findings (such as that of Abidin & Ahmad-Zaluki, 2012; Al-Mulla & Bradbury, 2020) and indicates that companies with high business risk, as a result of their high debt percentage, tend to delay the issuance of their

audited financial statements. Furthermore, auditors take more time to finalize the auditing process of financial statements of high risky firms.

Table (18) Adding a Control Variable (Leverage) to the Extended Model

|                            | β        | t      | Sig.     | VIF   |  |  |
|----------------------------|----------|--------|----------|-------|--|--|
| (Constant)                 |          | 19.074 | 0.000*** |       |  |  |
| REP                        | -0.079   | -2.171 | 0.030**  | 1.253 |  |  |
| BUSY                       | -0.153   | -4.456 | 0.000*** | 1.104 |  |  |
| SIZE                       | 0.215    | 4.917  | 0.000*** | 1.800 |  |  |
| PROFIT                     | -0.238   | -5.616 | 0.000*** | 1.687 |  |  |
| EFFICIENCY                 | -0.138   | -3.870 | 0.000*** | 1.187 |  |  |
| LN_LEVERAGE                | 0.095    | 2.756  | 0.006*** | 1.124 |  |  |
| R2                         |          | 0      | .134     |       |  |  |
| Adj. R2                    |          | 0      | .127     |       |  |  |
| Std. Error of the Estimate |          | 0.2    | 29989    |       |  |  |
| Durbin-Watson              |          | 1      | .734     |       |  |  |
| F                          | 20.902   |        |          |       |  |  |
| Sig.                       | 0.000*** |        |          |       |  |  |
| N                          |          |        | 820      |       |  |  |

<sup>\*\*\* =</sup> significant at 0.01 level, \*\* = significant at 0.05 level.

# 4.5.3. Effect of Audit Firm Reputation and Busyness on Financial Reporting Timeliness (After the Floatation of Exchange Rate)

To investigate whether the effect of audit firm reputation and busyness on financial reporting timeliness differ as a result of the decision to float the exchange rate of the Egyptian pound, we split the sample into two subsamples, the first subsample includes 2017 firm-year observations (173 observations), which is the year following the floatation decision and the second subsample includes the rest of the sample observations related to 2018 to 2021 (647 observations). Before we discuss our findings, it is important to note that it is expected that the floatation of exchange rate will affect the audit process and will require more efforts from auditors to understand the consequences of this decision on the financial recording and process. Moreover, auditors will need update their audit plan to set the relevant audit procedures for this issue.

**Table (19)** revealed that in 2017 (floatation = 1), REP was not significantly affecting FRT, which confirmed our expectation that the floatation decision will result in higher uncertainty regarding the effect of this decision on the financial reporting process and as a result all audit firms, whatever their reputation, will need to exert more efforts to

understand the consequences of this decision on the financial reporting process and audit procedures. The reputation of the auditor will not be a significant factor in expediting the financial reporting process. On the other hand, after 2017, the level of uncertainty related to the consequences of the floatation decision is reduced and the relationship between *REP* and *FRT* returned back to be significant as in the previous regression results. Meanwhile, *BUSY* is positively and significantly affecting *FRT*, and is not affected by the decision to float the exchange rate.

Table (19) Effect of Audit Firm Reputation and Busyness on Financial Reporting Timeliness (After the Floatation of Exchange Rate)

|                               |              | Floatati | ion = 1  |       |        | Floata   | tion = 0 |       |
|-------------------------------|--------------|----------|----------|-------|--------|----------|----------|-------|
|                               | β            | t        | Sig.     | VIF   | β      | t        | Sig.     | VIF   |
| (Constant)                    |              | 10.120   | 0.000*** |       |        | 15.321   | 0.000*** |       |
| REP                           | -0.068       | -0.861   | 0.390    | 1.183 | -0.096 | -2.312   | 0.021**  | 1.268 |
| BUSY                          | -0.286       | -3.788   | 0.000*** | 1.093 | -0.116 | -3.116   | 0.002*** | 1.025 |
| SIZE                          | 0.009        | 0.090    | 0.928    | 2.080 | 0.262  | 5.277    | 0.000*** | 1.809 |
| PROFIT                        | -0.040       | -0.422   | 0.673    | 1.731 | -0.293 | -6.164   | 0.000*** | 1.665 |
| EFFICIENCY                    | -0.158       | -1.891   | 0.060*   | 1.328 | -0.150 | -3.807   | 0.000*** | 1.142 |
| R2                            |              | 0.13     | 28       |       |        | 0.       | 128      |       |
| Adj. R2                       |              | 0.1      | 02       |       |        | 0.       | 121      |       |
| Std. Error of the<br>Estimate |              | 0.25590  |          |       |        | 0.3      | 1081     |       |
| Durbin-Watson                 |              | 1.7      | 21       |       | 1.801  |          |          |       |
| F                             | 4.894 18.833 |          |          |       | .833   |          |          |       |
| Sig.                          |              | 0.000*** |          |       |        | 0.000*** |          |       |
| N                             |              | 17       | 3        |       |        | 6        | 47       |       |

<sup>\*\*\* =</sup> significant at 0.01 level, \*\* = significant at 0.05 level, \*= significant at 0.10 level

# 4.5.4. Comparing the Effect of Audit Firm Busyness on Financial Reporting Timeliness between Big4 & ASA and Non-Big4 Audit Firms

To compare the effect of audit firm busyness on financial reporting timeliness between Big4 and non-Big4 audit firms, we split the sample into two subsamples, the first subsample includes firms audited by the ASA or one of the Big4 audit firms (KPMG, Pwc, Deloitte & Touche, and Ernst & Young) (390 firm-year observations), and the other subsample includes other firms audited by one of the non-Big4 audit firms (490 firm-year observations).

**Table (20)** provided empirical evidence that *BUSY* has the same negative and significant effect on audit report lag, indicating that audit firms, whatever their size or affiliation, which audit financial statements

during the busy season are issuing their audit reports on a timely manner. This might be justified by the strict rules set by EGX on listed firms to submit their financial statements on time (within 90 days from the financial statement date), especially that a considerable percentage of the listed firms issue their financial statements in December of year (75.6% of the sample). In addition, audit firms are committed to provide their timely audit reports to listed firms to keep their customers and sustain their reputation in the audit market.

Table (20) Comparing the Effect of Audit Firm Busyness on Financial Reporting Timeliness between Big4 & ASA and Non-Big4 Audit Firms

|                            |          | Big4 & ASA |          |       |        | Non-Big4 |          |       |  |
|----------------------------|----------|------------|----------|-------|--------|----------|----------|-------|--|
|                            | β        | t          | Sig.     | VIF   | β      | t        | Sig.     | VIF   |  |
| (Constant)                 |          | 13.261     | 0.000*** |       |        | 13.693   | 0.000*** |       |  |
| BUSY                       | -0.177   | -3.412     | 0.001*** | 1.136 | -0.134 | -2.915   | 0.004*** | 1.031 |  |
| SIZE                       | 0.171    | 2.634      | 0.009*** | 1.765 | 0.274  | 4.925    | 0.000*** | 1.513 |  |
| RESULT                     | -0.252   | -3.946     | 0.000*** | 1.717 | -0.255 | -4.470   | 0.000*** | 1.593 |  |
| EFFICIENCY                 | -0.107   | -2.051     | 0.041**  | 1.141 | -0.218 | -4.526   | 0.000*** | 1.135 |  |
| R2                         |          | 0.0        | 083      |       |        | 0.1      | 130      |       |  |
| Adj. R2                    |          | 0.0        | )73      |       |        | 0.1      | 122      |       |  |
| Std. Error of the Estimate | 0.29513  |            |          |       |        | 0.30     | 0415     |       |  |
| Durbin-Watson              |          | 1.7        | 797      |       |        | 1.7      | 788      |       |  |
| F                          |          | 8.704      |          |       | 15.908 |          |          |       |  |
| Sig.                       | 0.000*** |            |          |       |        |          |          |       |  |
| N                          |          | 390 430    |          |       |        |          |          |       |  |

<sup>\*\*\* =</sup> significant at 0.01 level.

## 4.5.5. The Joint Interacting Effect of Client Complexity and Floatation of Exchange Rate

To test the joint interaction effect of both *COMPLEX* and *FLOAT* on the relationship between *REP* and *BUSY* on one side and the *FRT* on the other side, the researchers developed two interaction variables (*REP\*FLOAT\*COMPLEX*) and (*BUSY\*FLOAT\*COMPLEX*) that result from the multiplication of the two moderating variables with the *REP* and *BUSY* variable respectively.

**Table (21)** shows in its three sections that *REP* and *BUSY* are affecting *FRT* positively and significantly, implying timelier financial reporting for small audit firms and those auditing firms during the busy season. Also, *COMPLEX* and *FLOAT* don't show a significant effect on *FRT*. Concerning the interactions terms, (*REP\*FLOAT\*COMPLEX*) and

(BUSY\*FLOAT\*COMPLEX), **Table** (21) shows that REP\*FLOAT\*COMPLEX in sections (1) and (3) and the interactions term BUSY\*FLOAT\*COMPLEX in sections (2) and (3) do not affect the audit report lag, and consequently, the FRT significantly.

Table (21) The Joint Interacting Effect of Client Complexity and Floatation of Exchange Rate

|                               | Sec     | tion (1) Mo | del 9    | Sec     | tion (2) Mo   | del 10   |          | Section (3 | )        |
|-------------------------------|---------|-------------|----------|---------|---------------|----------|----------|------------|----------|
|                               | β       | t           | Sig.     | β       | t             | Sig.     | β        | t          | Sig.     |
| (Constant)                    |         | 17.445      | 0.000*** |         | 17.503        | 0.000*** |          | 17.385     | 0.000*** |
| REP                           | -0.104  | -2.534      | 0.011**  | -0.106  | -2.569        | 0.010**  | -0.105   | -2.533     | 0.011**  |
| BUSY                          | -0.174  | -4.173      | 0.000*** | -0.178  | -4.346        | 0.000*** | -0.174   | -4.070     | 0.000*** |
| COMPLEX                       | 0.032   | 0.843       | 0.400    | 0.036   | 1.057         | 0.291    | 0.032    | 0.841      | 0.401    |
| FLOAT                         | -0.048  | -0.943      | 0.346    | -0.042  | -0.927        | 0.354    | -0.048   | -0.944     | 0.345    |
| REP*FLOAT*<br>COMPLEX         | 0.015   | 0.289       | 0.773    |         |               |          | 0.014    | 0.267      | 0.789    |
| BUSY*FLOAT<br>*COMPLEX        |         |             |          | 0.004   | 0.125         | 0.901    | 0.002    | 0.062      | 0.951    |
| SIZE                          | 0.236   | 5.278       | 0.000*** | 0.235   | 5.265         | 0.000*** | 0.235    | 5.268      | 0.000*** |
| PROFIT                        | -0.255  | -6.030      | 0.000*** | -0.254  | -6.029        | 0.000*** | -0.255   | -6.027     | 0.000*** |
| EFFICIENCY                    | -0.155  | -4.320      | 0.000*** | -0.158  | -4.508        | 0.000*** | -0.156   | -4.309     | 0.000*** |
| R2                            |         | 0.128       |          | 0.128   |               |          |          | 0.128      |          |
| Adj. R2                       |         | 0.119       |          |         | 0.119         |          |          | 0.118      |          |
| Std. Error of<br>the Estimate | 0.30124 |             |          | 0.30125 |               |          | 0.30143  |            |          |
| Durbin-<br>Watson             |         | 1.781       |          |         | 1.780         |          | 1.862    |            |          |
| F                             |         | 14.874      |          |         | 14.864        |          | 13.205   |            |          |
| Sig.                          |         | 0.000***    |          |         | $0.000^{***}$ |          | 0.000*** |            |          |
| N                             |         | 820         |          |         | 820           |          |          | 820        |          |

<sup>\*\*\*=</sup> significant at 0.01 level, \*\*= significant at 0.05 level, \*= significant at 0.10 level.

#### Table (22) Summary of Research Hypotheses Results

| No. | Hypothesis                                                                                                                                                               | Result                     | Decision         |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|------------------|
| Н1  | Audit firm reputation has a significant effect on financial reporting timeliness of firms listed on the Egyptian stock exchange.                                         | Negative and significant   | Supported        |
| Н2  | Audit firm busyness has a significant effect on financial reporting timeliness of firms listed on the Egyptian stock exchange.                                           | Positive and significant   | Supported        |
| НЗ  | The significant effect of audit firm reputation on financial reporting timeliness of firms listed on the Egyptian stock exchange differs according to client complexity. | Negative and significant   | Supported        |
| Н4  | The significant effect of audit firm busyness on financial reporting timeliness of firms listed on the Egyptian stock exchange differs according to client complexity.   | Negative and insignificant | Not<br>supported |

| No. | Hypothesis                                                                                                                                                                     | Result                     | Decision         |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|------------------|
| Н5  | The significant effect of audit firm reputation on financial reporting timeliness of firms listed on the Egyptian stock exchange differs with the floatation of exchange rate. | Positive and insignificant | Not<br>supported |
| Н6  | The significant effect of audit firm busyness on financial reporting timeliness of firms listed on the Egyptian stock exchange differs with the floatation of exchange rate.   | Positive and insignificant | Not<br>supported |

# 3. Conclusions, Limitations, and Implications for future Research

The objective of this research is to investigate the effect of audit firm reputation and busyness on financial reporting timeliness of the non-financial companies listed on the EGX during the period from 2017 to 2021. In addition, the research aims to investigate the moderating effect of client complexity and the floatation of exchange rate that took place in November 2016 on the aforementioned relationships.

To fulfil the research objective, the researchers analyzed the related prior literature that focused on the financial reporting timeliness, and audit firm reputation and busyness to develop the research hypotheses.

Based on the relevant theories; agency theory, signaling theory, reputational theory, and limited attention theory, the researchers hypothesized that audit firm reputation and busyness will have a significant effect on financial reporting timeliness. In addition, the researchers expected that client complexity will have a moderating effect on the relationship between the reputation and busyness of audit firm and financial reporting timeliness. Finally, the researchers expected that the decision taken by the CBE to float the exchange rate of the Egyptian pound will moderate the relationship between audit firm reputation and busyness on one side and financial reporting timeliness on the other side.

After developing the relevant regression models and using a sample of 820 firm-year observations of non-financial companies listed on the EGX, the researchers found empirical evidence that audit firm reputation has a

negative and significant effect on financial reporting timeliness, indicating that small audit firms and those which are not affiliated to one of the Big4 audit firms are issuing timelier audit reports in comparison with the Big4 audit firms and the ASA. This result indicates that non-reputable small audit firms or those not affiliated to the Big4 audit firms are incentivized to issue their audit reports on time to meet their client expectations and build their own professional reputation in the audit market. In addition, the weak litigation audit environment, the absence of accountability and the dominance of the ASA and the Big4 audit firms might be the real reasons behind this delay. Our finding is robust to two alternative measures of audit firm reputation and an alternative measure of financial reporting timeliness.

Concerning the effect of audit firm busyness on financial reporting timeliness, the researchers ran several regression models and made several additional analyses and concluded that audit firm busyness has a positive and significant effect on financial reporting timeliness, indicating that audit firms deliver higher and better audit quality services during the busy season. This result might be justified by several reasons. First, according to the knowledge spillover hypothesis, audit firms benefit from auditing several companies in the busy season and become more experienced and this is reflected on the quality of audit services and the timeliness of audit reporting. Second, audit firms will not accept many clients until they make the required arrangements and ensure that they have the sufficient and relevant technological and human resources. Accordingly, audit firms will tend to accept more clients to enhance their revenues, however, this acceptance will continue until the equilibrium position is reached, where the benefits of increasing the number of clients is equated with the related costs.

As for the moderating effect of client complexity, the researchers found evidence that small or non-reputable audit firms which are auditing complex clients will issue timelier audit reports. This indicates that the positive effect of non-reputable audit firms' reputation mitigates the negative effect of client complexity. The researchers didn't find any significant evidence concerning the moderating effect of client complexity on the relationship between audit firm busyness and financial reporting timeliness. The same is applied on the moderating effect of the floatation of exchange rate on the aforementioned relationships.

Finally, concerning the effect of control variables used in the research, it is proven that larger companies will delay their issuance of their audited financial reports. On the other side, profitable firms and those which are efficient in managing their assets to generate profits will be keen to send this good news to the outside parties and as a result will issue their audit reports in a timely manner.

**Based on the research results, the researchers recommend** the EGX to emphasize the importance of issuing audited financial statements on time to maintain the relevance of accounting information and to ensure its usefulness from the investors and other stakeholders' point of view.

The research results are subject to several limitations. The research focuses on the effect of audit firm reputation and busyness on financial reporting timeliness based on a sample of nonfinancial companies listed on the EGX during the period from 2017 to 2021. Accordingly, it would be interesting if future research investigates the effect of other factors that affect the financial reporting timeliness, whether they are related to company characteristics, such as ownership structure, board of directors' or audit committee's effectiveness, or auditor characteristics, such as auditor tenure, fees, non-audit services, gender, experience, or prior period opinion. In addition, the researchers recommend future researchers to deeply investigate the reasons behind the delay of audit report issuance by the Big4 audit firms and the ASA in Egypt. Furthermore, more future research papers are needed to examine the effect of information technology developments and digitalization on the timeliness of financial and audit reporting by giving more attention towards the implications of cloud computing, cybersecurity, and cryptoassets in this regard. Finally, still more research is needed to investigate the factors that enhance the timeliness of financial reporting in the developing countries, where the financial statements are the main source of information for decision makers.

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