

## Audit Report Lag, Audit Tenure and Auditor Industry Specialization; Empirical Evidence from Jordan

Abdelrahman Yousef Al Bhoor<sup>1</sup>, Basheer Ahmad Khamees<sup>2</sup>

### ABSTRACT

This study examined the association between audit-firm tenure and audit report lag (ARL) and how this association is affected by auditor industry specialization. Using two methods for measuring auditor industry-specialization, the study sample included 691 Jordanian firm year observations listed in Amman Stock Exchange during the period (2009-2013). The data collected was analyzed by using a number of basic statistical techniques such as descriptive statics, correlation and multiple-regression. This study revealed that there is no significant relationship between audit report lag and audit tenure. Additionally, industry specializations auditors will not influence on the relation between audit report lag and audit tenure in Jordan. Policy makers and regulators are encouraged to take into consideration that mandatory auditor rotation in Jordan will not result in longer audit report lag. Although audit industry specialization didn't influence on the relation between audit report lag and audit tenure, auditor industry specialization has a significant effect on audit report lag, therefore, the Jordanian companies are recommended to hire industry-specialized auditors to reduce audit report lag. The researchers also recommend farther researches with different measurements of auditor industry specialization.

**Keywords:** Jordan, Audit report lag, Audit firm tenure, Auditor industry specialization.

### INTRODUCTION

Audit Report Lag (ARL) which indicates the number of days between the client's fiscal year end and the date of auditor's report, is considered a crucial element for investors, companies, external auditors and regulators. As they believe that it can affect the timeliness of financial statements which in turn affects the level of uncertainty of the accounting information and market reaction to the release of this information (Givoly and

Palmon, 1982; Chambers and Penman, 1984; Ashton et al., 1987; Dao and Pham, 2014).

Several previous studies have been conducted to examine determinants of ARL, a number of studies indicated that ARL is affected by firm-related factors such as; client's size, type of industry, type of information earnings, and the existence of extraordinary item (Ashton et al., 1989; Al-Shwiat, 2013). While other studies showed that the length of ARL depends on audit-related factors for example; the extent of audit work required, audit opinion, incremental audit effort, auditor tenure and audit staff experience (Bamber et al., 1993; Knechel and Payne, 2001; Lee and Jahng, 2008). Meanwhile, prior studies have given restricted proof on whether companies can decrease ARL or not (Dao and Pham, 2014). Therefore, this study will focus firstly on the relation between audit firm tenure and ARL, then the influence of industry-specialized auditor on this relation.

\* The market share approach was vastly utilized in previous studies, but calculations of this approach were not unified. One method of calculation the firm's market share is by total audit fees earned by an auditing firm (i) in the industry (k) deflated by the total audit fees generated from all clients (k).

<sup>1</sup> Al-Quds Open University, School of Business, Accounting Department. Email: abd.bhoor@outlook.com

<sup>2</sup> The University of Jordan, School of Business, Accounting Department. Email: basheer@ju.edu.jo

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There have been various discussions on the mandatory auditor rotation. Some prior studies indicated that changing auditors may increase investor's confidence in the auditing industry and bring 'new eyes' to the engagement (Lee et al., 2009). While other studies showed that a mandatory auditor rotation result in lower audit quality because the auditor may need at least two to three years to become adequately knowledgeable with a client's operations (Johnson et al., 2002; Lim and Tan, 2010).

In addition to the possible decrease in audit quality that related to audit firm rotation, ARL is expected to be longer when auditor tenure decreases due to the longer period and more effort these firm's auditors would spend to obtain needed information and knowledge about their client's operations within the early years of audit-client relationship (GAO, 2003; Lee et al., 2009; Habib and Bhuiyan, 2011; Dao and Pham, 2014). In return, empirical evidence showed that auditors gain additional comprehensive understanding of client's operations as auditor tenure increases. Accordingly audit efficiency and effectiveness are expected to increase, resulting in shorter ARL (Lee and Jahng, 2008; Lee et al., 2009).

Previous studies indicated that industry-specialized auditors are better able to detect errors within their industry specialization than non-specialized ones (Dao and Pham, 2014). Additionally, audit firm industry specialization have higher ability to access physical facilities, technologies, personnel and organizational control systems, which results in higher audit efficiency and audit quality (Kwon et al., 2007). It is also found that auditor industry specialization is related to higher audit efficiency, resulting in shorter ARL (Habib and Bhuiyan, 2011; Whitworth and Lambert, 2014). Therefore, it's reasonable to conclude that audit firm industry specialization can shorten the ARL resulting from short-tenured auditors with no experience in

auditing clients and that long-tenured auditors with industry specialization can conduct the audit more quickly (Dao and Pham, 2014).

The first part of this study will focus on the relation between audit tenure and ARL, this examination is considered an introductory for the second part, which discusses whether choosing an industry-specialized auditor can be an effective way to influence the relation between audit firm tenure and ARL.

It's clear how important is studying and measuring how companies can reduce ARL as its influence on timeliness of financial reporting information and firms' financial performance, therefore this study is expected to provide first time evidence-according to the researcher's knowledge- on the relationship between audit tenure and ARL and the role of auditor industry specialization in moderating this relation. Moreover, this study is expected to assist regulators and policy makers in respect of their intention to request firms to rotate external auditors. In addition, this study is expected to provide evidence for Jordanian companies when choosing their external auditors; ARL could be minimized within the initial few years of the audit engagement if companies audited by auditor specialization.

### **Research Problem and Research Questions**

Prior studies on the delay within the issuance of the financial reports of Jordanian firms indicated that a mean period of signing an audit report for Jordanian firms is about 91 days (Nour and Al-Fadel, 2006). According to Nour and Al-Fadel (2006) "*if the delay duration remained the same in the future, it would affect Amman's capital market*". While Al Daoud (2014) demonstrated that the audit delay for Jordanian companies reaches about 69 days, and that fourteen percent of the companies had an ARL of more than

ninety days. This leading to that timeliness of financial report of Jordanian firms is still below Jordanian standard, which stated that listed firms should release their annual financial statements within 90 days of the year end (Al Daoud, 2014).

This study focuses on the Jordanian environment in respect of the association between ARL and audit tenure and whether hiring an industry-specialized auditor can be an effective way to influence the relationship between audit tenure and ARL.

Thus, the problem of this study can be highlighted through the following questions:

1. Is there any relationship between audit tenure and ARL within the Jordanian environment context?
2. Is there any statistical significant effect of audit specialization on the relationship between ARL and audit tenure within the Jordanian environment context?

### **Literature Review and Hypotheses Development Effects and Determinants of Audit Report Lag**

As ARL is considered as one of the most important determinants of information timeliness (Givoly and Palmon, 1982), a number of prior studies have focused on the determinants of audit report lag (ARL).

Some of these studies indicate that ARL is affected by firm-related factors. For example, Ashton et al. (1989) aimed to identify several factors expected to cause delay in ARL from a firm-related aspect. 465 of 588 of Canadian firms that were listed on the Toronto Stock Exchange (TSE) from 1977-1982 were used as a sample size where the regression model was used to verify the relation between variables in each year included in the study.

The study found that four such factors were significantly related to audit delay for at least four of the six years, while other factors had consistent signs in

every year but showed significant effect for three years or less. On average, large and financial companies, as well as companies with years-ends in their "busy season," were associated with shorter ARL. While companies with loss and which had extraordinary item had larger ARL, the modest explanatory power of their model (adjusted R<sup>2</sup> is relatively low in each of the six years,) suggests a need for additional explanatory variables.

Other studies have shown that the length of ARL depends on audit-related factors. Bamber et al. (1993) tried to identify determinants of ARL mainly depending on audit-related factors. The study used a comprehensive model of ARL mainly developed based on three determinants; (1) the volume of audit work needed, (2) incentives to supply timely reports, and (3) audit firm structure. A regression model was applied to the data of total 972 U.S. companies during the period 1983 to 1985, the results were as follow:

- Regarding the extent of audit work, the ARL increases as identified factors of audit work extent increase, these factors are represented in auditor business risk, audit complexity, extraordinary items, net losses, and qualified audit opinions.
- Regarding incentives to supply timely reports, ARL decreases as these incentives increase
- And regarding the audit structure, the results showed that greater structure was generally associated with longer ARLs, however, accounting firms with greater structure also reacted more quickly to unanticipated events.

In addition, Knechel and Payne (2001) applied a study on the 226 engagements from an international public accounting companies for the year 1991, aiming at testing the three previously uninvestigated audit firm factors that they assumed would potentially influence ARL and are controllable by the auditor: (1) incremental

audit effort (e.g., hours), (2) resource allocation by audit team effort measured by rank (partner, manager, or staff), and (3) the provision of non audit services. By applying a regression model the following results were found: as for incremental audit effort, the presence of contentious tax issues, and the use of less experienced audit staff are positively correlated with ARL. Further, ARL is decreased by the potential synergistic relationship between management advisory service (MAS) and audit services.

In order to examine the effect of audit tenure on ARL, Lee, et al. (2009) conducted their study on a sample of 18,473 U.S. firm years, and observations were available on Wharton Research Data Services. Regression analysis, which was used in this study, revealed that auditor tenure is significantly associated with ARL. They showed that there is a negative relationship between audit tenure and audit delay, this indicates that auditors with long tenure are able to audit their clients more efficiently. This finding suggests that changing auditor, mandatory or otherwise, imposes additional costs on clients and increase informational inefficiencies in the form of delayed information to markets.

In Jordan, Alkhatib and Marji (2012) conducted a study to examine several factors that may impact on the ARL. They used a sample of 127 companies which were divided into two sectors, services and industrial, listed on ASE for the year 2010, where a linear regression model was applied and showed the following results: for the service sector, there is a negative relationship between ARL and each of; audit firm type, company size and profitability ratio. Whereas, for the industrial sector firms', a negative relationship was addressed between ARL and each of company size, profitability ratio, leverage, and type of the audit firm. The researches of this study considered it to be original, significant, and

among the first studies that examined ARL in Jordan.

Moreover, Al Daoud et al. (2014) observed the impact of auditor's opinion, board size, board independence, profitability and industry sector, on ARL within firms in Jordan. a multiple regression analysis was used on a sample of 114 companies listed on the ASE for the year 2012. Results showed that firms with good news (improved performance) aimed at presenting their financial reports faster than those who had bad news (declining performance). It also showed that financial reports are released earlier by unqualified audit opinion compared to those that did not receive a clean opinion. The study also found that firms with a smaller board reported their financial statements faster than those with a larger board. The study showed no relation however between the timeliness of financial reporting and the two factors; directors' independence and the sector type.

#### **Effects of Auditor Industry Specialization**

A number of 502 firm-year observations listed on New Zealand Stock Exchange were observed during the period 2004 to 2008 by Habib and Bhuiyan (2011) who provided evidence on the relationship between audit firm's industry specialization and the audit report lags. By using regression analyses with two completely different definitions of industry specialization, and controlling for defined determinants of ARL, the results indicated that firms audited by an industry specialist auditor have shorter ARL. They also found that ARL is longer for all auditors except for industry specialist auditors if the firm adopted International Financial Reporting Standards (IFRS).

Abidin and Zaluki (2012) investigated whether firms which are audited by industry specialist auditors could have shorter ARL examining a sample of 873 public firms listed on a Malaysia Stock Exchange for the year

2007. Where the Multivariate method was used in this study, results indicated that: specialist auditors didn't provide significant and faster auditing compared with non-specialists, and they asserted that "result would vary strongly according to the different definitions of industry specialists". However, Abidin and Zaluki found that the BIG 4 companies offered significantly faster audit process than non-Big 4 companies. In Addition, the results of study revealed: a positive relation between ARL and each of; existence of extraordinary income, high leverage, and presence of qualified audit opinion, and a negative relation between ARL and each of financial firms, reporting profit, and firm size.

Moreover, Whitworth and Lambert (2014) examined the effect of office-level characteristics and environment in the Big 4, as specialized audit firm, on the audit report lag. They examined whether office size, office-industry expertise, and the significance of the client to the local office have a relation with ARL. A sample of total 14,948 firm-year observations, available on Audit Analytics and financial information from Compust at during the period between 2003 and 2008 were used as a sample size where regression model was applied to measure the level of significance. Results indicated a negative relationship between office-specific industry expertise and ARL, while office size and client importance showed a positive relation with ARL.

Finally, Dao and Pham(2014) investigated the relationship between ARL and audit tenure and the influence of auditor industry specialization on this relation, the study sample covered 7,291 firm-year observations from 2008 to 2010. Where two methods of measuring auditor industry specialization were used regression results showed that auditor industry specialization (regardless of city-level, national-level and joint city- and national-level industry specialization) weakens the positive relation between short audit firm

tenure and ARL, *suggesting that auditor industry specialization weaken the negative effect of ARL and short audit tenure.*

This study is distinguished from prior studies by being conducted within different environment using a different period. This study will supply new insights regarding the timeliness of financial reporting of Jordanian firms. A number of previous studies have discussed the determinant of ARL as the most important determinant of the timeliness of financial information (Bamber et al., 1993; Knechel and Payne, 2001; Al Daoud et al., 2014). Moreover, other studies discussed the impact of audit tenure on ARL (Lee et al., 2009) and the effect of audit firm industry specialization on ARL (Habib and Bhuiyan, 2011). Habib and Bhuiyan (2011) found that auditor industry specialization may result in a shorter ARL, however, this study tries to examine whether this impact of auditor industry specialization still holds over the initial few years of audit among Jordanian firms.

### **Development of Hypotheses**

Previous studies found that there is a negative relationship between audit tenure and ARL (Lee et al. 2009; Habib and Bhuiyan, 2001; Dao and Pham, 2014). In this study, the researcher will reexamine the relationship between audit firm tenure and ARL as a first step.

**H<sub>01</sub>:** There is no significant negative relationship between audit tenure and audit report lag.

The second hypothesis will discuss the influence of auditor industry specialization on the relation between audit firm tenure and audit report lag. As discussed previously, it is sensible to suggest that industry-specialized auditors can shorten the ARL resulting from short-tenured auditors without previous experience and knowledge in auditing clients. Also, it is sensible to

suggest that long-tenured auditors with industry specialization can perform the audit more rapidly (Dao and Pham, 2014). Therefore, auditor industry specialization is expected to moderate the negative association between audit firm tenure and ARL.

**H<sub>02</sub>:** There is no statistical significant effect of audit specialization on the relationship between ARL and audit tenure.

## Research design and methodology

### Data and sample selection

The target population of this research will consist of all Jordanian firms listed in Amman Stock Exchange (ASE) during the period 2009-2013. The objective of this research is to examine the relation between ARL and audit firm tenure and the moderating effect of auditor specialization on this association. In order to achieve this objective, data will be collected from ASE website; and the required financial data of selected firms will be obtained from the firms' annual report during the period 2009-2013.

To ensure data availability, firm-year observations that meet the following conditions were included in the study sample:

1. All firms must be issued their financial statements to the public during the period 2009-2013.
2. These firms were established in 2001 for the purpose of obtaining long audit tenure (LTEN9) data.
3. The annual reports of the listed firms must have audit fees to calculate auditor industry-specialization.
4. The auditor's report, auditor's opinion, date of issuing the audit report and other financial data must be available for each firm during the period 2009-2013.

After considering all previous factor the initial sample of this study consists of 1100 firm-year observations from 2009-2013 from the available data on

ASE website. To achieve the objectives of the study, a total 394 observations were observed without audit tenure data, 5 observations were observed without industry-specialization data, and 10 observations were observed without financial and other data. These observations were eliminated to finally reach a sample of 691 firm-year observations. The detailed sample selection process is illustrated in table (1):

**Table 1. Sample Selection**

Sample Selection Process	No.
Initial sample with available data for audit lag calculation	1100
Less	
Missing long audit tenure data	394
Missing industry specialization data	5
Missing financial and other data	10
<b>Final sample</b>	<b>691</b>

### Regression model

Based on previous studies (Ashton et al., 1987, 1989; Bamber et al., 1993; Knechel and Payne, 2001; Ettredge et al., 2006; Lee et al., 2009; Habib and Bhuiyan, 2011; AL- Shwiyat., 2013; Dao and Pham, 2014; Whitworth and Lambert; 2014), this study will use the following regression model to examine the relationship between audit firm tenure and ARL, and the moderating effect of auditor specialization on the association between ARL and audit tenure:

$$\text{ARL} = \alpha_0 + \alpha_1 * \text{STEN} + \alpha_2 * \text{LTEN9} + \alpha_3 * \text{SPEC} + \alpha_4 * \text{SPEC} * \text{STEN} + \alpha_5 * \text{SPEC} * \text{LTEN9} + \alpha_6 * \text{ROA} + \alpha_7 * \text{LEVERAGE} + \alpha_8 * \text{SEGNUM} + \alpha_9 * \text{LOSS} + \alpha_{10} * \text{GC} + \alpha_{11} * \text{AUOP} + \alpha_{12} * \text{BIG4} + \alpha_{13} * \text{SIZE} + \alpha_{14} * \text{AFEE} + \alpha_{15} * \text{AUDCHG} + \alpha_{16} * \text{Industry Dummies} + \alpha_{17} * \text{Year Dummies} + \epsilon$$

Where,

ARL = number of calendar days from the fiscal year-end until the reporting date by the auditor;

STEN = 1, if the length of the auditor– client relationship is three years or less, and 0 otherwise;

LTEN9 = 1, if the length of the auditor– client relationship is nine years or longer, and 0 otherwise;

SPEC = auditor industry-specialization which is measured using the two measures applied in Habib and Bhuiyan (2011) study and Dao and Pham (2014);

SPEC\*STEN = interaction term between audit firm industry specialization measures and short audit tenure;

SPEC\*LTEN9 = interaction term between audit firm industry specialization measures and long audit firm tenure;

ROA = net earnings divided by total asset;

LEVERAGE = total debt divided by total assets;

SEGNUM = reportable segments of a client;

LOSS = 1, if a firm reports negative earnings and 0 otherwise;

GC = 1, if the firm received a going concern opinion and 0 otherwise;

AUOP = 1 if firm has received modified audit opinion and 0 if otherwise

BIG4 = 1, if the auditor is one of the Big 4 auditing firms and 0 otherwise;

SIZE = natural log of total assets;

AFEE = total audit fees divided by total assets;

AUDCHG = 1, if the client firm changed auditor during the current year and 0 otherwise;

Industry Dummies = industry dummies;

Year Dummies = year dummies.

### Dependent Variable

The dependent variable in this study is Audit report lag (ARL), which refers to the number of days between the client's fiscal year-end and the audit report

date (Ashton et al., 1987, 1989; Knechel and Payne, 2001; Krishnan and Yang, 2009; Habib and Bhuiyan, 2011; Whitworth and Lambert, 2014; Dao and Pham, 2014).

### Independent Variables

Auditor tenure is the independent variable used in this study, which is represented by the number of successive years through which the company has been audited by a single audit firm (this variable will be used to test H1).

Changing auditors, whether mandatory or not, will apply additional costs on clients as it causes a delay in information delivery and increasing the informational inefficiencies (Lee et al., 2009), short audit tenure firms 3 years or less (STEN) may result in longer ARL because auditors of these corporations have to spend much more effort and time obtaining knowledge about their client's process and operations, specially within the earlier years of audit-client relationship (Lee et al., 2009; Habib and Bhuiyan, 2011; Dao and Pham, 2014). In contrast, auditors with long audit tenure (9 years or more) (LTEN9) will have shorter ARL because they will be able to manage their clients more efficiently (Lee et al., 2009).

Thus, it's expected to find a negative relation between (LTEN9) and ARL and a positive relation between (STEN) and ARL (Lee et al., 2009; Habib and Bhuiyan, 2011; Dao and Pham, 2014).

This study uses a dummy variable coded 1 if the length of the auditor– client relationship is three years or less and 0 otherwise (STEN). Long auditor tenure (LTEN9) is coded 1 when a company is audited by the same audit firm for nine years or more, and 0 otherwise (Lee et al., 2009; Habib and Bhuiyan, 2011; Dao and Pham, 2014).

### Moderating Variables

Following Habib and Bhuiyan (2011) and Dao and Pham(2014), this study will employ two different measures of audit firm industry-specialization. The first measure classifies an auditor as industry specialist (SPEC1), if:

1. The auditor has the largest market share in respective industries; and
2. If the audit firm's market share is at least ten percent higher than the second largest industry leader (Reichelt and Wang, 2010; Habib and Bhuiyan, 2011; Dao and Pham, 2014).

According to the first measure (SPEC1), an audit firm's industry expertise is reflected by the auditor's dominance. Dominant auditors develop and maintain their industry expertise by meeting industry-specific needs, like personnel, training, and technology; which gives them prominence to others of the same industry (Reichelt and Wang, 2010).

However, according to the second measure, an auditor is classified as industry-specialized auditor (SPEC2), "*if the auditor has a market share of more than 30 percent in respective industries*" (Reichelt and Wang, 2010; Habib and Bhuiyan, 2011; Dao and Pham, 2014). SPEC2 measures industry expertise, assumes that such expertise increases in relation to industry market share(Reichelt and Wang, 2010).

According this study, Industry market share refers to the percentage of total audit fees of all clients of an audit firm in industry to the total audit fees of all audit firms' clients within same industry (Dao and Pham, 2014). Therefore, the following equation will be used:

$$MS_{ik} = \frac{\sum_{j=1}^{Jik} AF_{ijk}}{\sum_{i=1}^{Ik} \sum_{j=1}^{Jik} AF_{ijk}}$$

Where:

MS= Market Share

I = Audit firm

K= industry

J = client

The interaction terms between auditor industry specialization and each of STEN(SPEC\*STEN) and LTEN9 (SPEC\*LTEN9), is considered the moderating effect in auditor industry specialization regarding the relation between auditor tenure and ARL (these variables will be used to test H2).

Some previous researches have tested auditor's specialization at city level. These studies highlighted the importance of the city industry-specialization in terms of geographical dispersion. In regions that enjoy high level of geographic dispersion among cities, as in Australia and USA; transferring national expertise between cities is considered difficult for those jurisdictions (Habib and Bhuiyan, 2011). While other countries like Jordan; which are characterized by a low degree of geographic dispersion, audit firms may enjoy relatively easy transferability of national-level expertise to the city level. Therefore, this study will focus only on industry specialization of audit firms at the national level within the Jordanian environment context.

### Control variables

This study will provide a brief explanation of the control variables as below.

#### - Return on Assets (ROA)

ROA is considered as an important reflection of financial condition and performance; it's also an indicator for profitability strength (Blankley et al., 2014).

Companies with higher levels of ROA are expected to result in lower ARL. To calculate ROA, as in previous studies (Ettredge et al., 2006; Munsif et al., 2012; Blankley et al., 2014; Dao and Pham, 2014), the

following equation will be used:

$$ROA = \frac{\text{Net earnings}}{\text{Total assets}}$$

**- Level of Leverage (LEVERAGE)**

Dao and Pham (2014) showed that if the company delivers a poor financial performance that is a higher level of leverage, it will present a higher ARL.

Therefore, companies with higher levels of leverage, ARL are expected to be higher. Following previous studies (Ettredge et al., 2006; Munsif et al., 2012; AL-Shwiyat., 2013; Dao and Pham, 2014) Leverage will be calculated as:

$$LEVERAGE = \frac{\text{Total debt}}{\text{Total assets}}$$

**- Reportable Segment of Client (SEGNUM)**

Bamber et al, (1993) showed that audit complexity is reflected by SEGNUM, greater diversity and complication in client's operations, may produce higher possibility of material error occurrences; causing a need for more audit work.

Therefore, a positive relation is expected between ARL and SEGNUM. Following previous studies (Lee et al, 2009; Dao and Pham, 2014) SEGNUM represents the number of reportable segments of a client.

**- Loss**

Net income is a fundamental indicator of a company's good news or bad news resulting from the overall year's activities (Ashton et al., 1989), losses increase risk and concerns about existence of a client's problems and material misstatement. Therefore, more effort will be made because the auditor will be more cautious during the engagement in response to greater risk prediction (Bamber et al., 1993; Habib and Bhuiyan, 2011).

Therefore, when the firm reports negative earnings,

ARL is expected to be higher. Losses will be measured using an indicator variable which equals 1 if the firm reported negative earnings and 0 otherwise (Ashton et al., 1987; Ettredge et al., 2006; Lee et al, 2009; Habib and Bhuiyan, 2011; Dao and Pham, 2014).

**- Going Concern Opinion (GC)**

It's expected to have a positive relationship between ARL and GC. In this study a dummy variable will be used to represent GC, as value 1 indicates that the firm has received a going concern opinion and 0 otherwise (Ettredge et al., 2006; Lee et al., 2009; Munsif V et al., 2012).

**- Auditor Opinion (AUOP)**

Qualified opinions, whether due to problems satisfying GAAP or GAAS, are not likely to be issued until after the auditor has spent considerable time and effort pursuing additional audit procedures and other reporting alternatives in an effort to avoid qualification (Bamber et al., 1993).

It's expected to have a positive relationship between ARL and AUOP. In this study, a dummy variable will be used to represent AUOP, where a value of 1 indicates that the firm has received modified audit opinion and 0 otherwise (Bamber et al., 1993; Lee et al., 2009).

**- Big Four Auditing Firms (BIG4)**

The Big 4 have prominence to other auditing firms in terms of having greater access to advanced specialist staff and technologies. Literature indicated that variation in well-programmed audit procedures and technologies among two groups of auditors will result in a different ARL.

A negative association between ARL and being audited by Big 4 auditing firm, is expected (BIG4). Through this study, a dummy variable will be used to

classify auditors as those who belong to the Big 4 (equal 1) and those of non-Big4 (equal 0) (lee et al., 2009; Dao and Pham, 2014).

AL Thuneibat et al. (2011) stated that “*The selection of Big4 and non-Big4 in particular coincides with the adoption of this scale globally*”.

#### - **Company Size (SIZE)**

Large firms are able to exert more pressure on auditors for timely reporting; in fact big firms could be largely monitored by regulatory agencies, investor. Therefore, they have more incentive to reduce ARL (Ashton et al., 1987; Habib and Bhuiyan, 2011). In addition, big firms could have strong internal control, which, in turn, will result in less audit work needed at the end of fiscal year (Ashton et al., 1989; Bamber et al., 1993; Habib and Bhuiyan, 2011).

Accordingly, ARL is expected to be shorter in larger firms (Ashton et al., 1989; Bamber et al., 1993; Habib and Bhuiyan, 2011; Dao and Pham, 2014).

Ashton et al. (1989) showed that “*data on both assets and revenues were collected as possible surrogates for size, but analyses indicated that assets provided greater explanatory power*”. Therefore, this study will measure company size as the natural log of total assets (Habib and Bhuiyan, 2011; Dao and Pham, 2014).

#### - **Audit fees (AFEE)**

Audit fees reflect the level of complexity of the audit work (Ettredge et al., 2006), Knechel and Payne (2001) showed that an incremental audit effort increases the needed time to complete field work. Therefore, a positive relation between ARL and AFEE is expected. According to previous studies (Ettredge et al., 2006; Munsif et al., 2012; Dao and Pham, 2014) AFEE will be

measured using the equation:

$$AFEE = \frac{\text{Total audit fees}}{\text{Total assets}}$$

#### - **Auditor Change During the Year (AUDCHG)**

When a company changes its auditor, the new auditor is expected to need time between communicating the preceding auditor and achieving comprehensive understanding of the company’s business. Auditors likely view initial engagements as inherently riskier, and require extra care regarding the audit work (Ettredge et al., 2006). Means a positive relationship between ARL and (AUDCHG) is expected. Using a dummy variable that equals 1 if the client firm changed auditor during the current year and 0 otherwise (Munsif et al., 2012; Dao and Pham, 2014).

- **Finally**, ARLs are foreseeable to vary across industries and years. Therefore. This study will include dummy variables to control industries and years (Dao and Pham, 2014).

## RESULTS

### Descriptive Statistics:

Tables (2) and (3) below provide descriptive statistics of the study variables. Table (2) reports audit industry specialization by industry. Among 20 industries, Deloitte was ranked first as specialized in industry No. 1 (Banking); industry No. 2 (Insurance), and industry No.19 (Utilities and energy). Arab Professionals was ranked the first in industry No. 3 (Diversified Financial); industry No. 5 (Chemical), and industry No. 16 (Health care). Ghosheh & Co. provided the audit service in industry No. 4 (Real State) and industry No. 13 (Other industrial).

**Table 2. Descriptive statistics: Audit Industry Specialization by Industry**

No.	Industry (SICs)	First ranked	SPEC1	SPEC2
1	Banks	Deloitte	YES	YES
2	Insurance	Deloitte	YES	YES
3	Diversified Financial	Arab Professionals	YES	YES
4	Real state	Ghosheh & Co	NO	YES
5	Chemical	Arab Professionals	NO	NO
6	Electrical	EY	YES	YES
7	Engineering and construction	KPMG	NO	NO
8	Food and beverage	EY	YES	YES
9	Mining and extracting	EY	YES	YES
10	Pharmaceutical and medical	EY	YES	YES
11	Textiles, leather and clothing	EY	NO	YES
12	Paper and cardboard	SABA ***	YES	YES
13	Other industries*	Ghosheh & Co	YES	YES
14	Commercial service	KPMG	NO	NO
15	Educational service	Ibrahim Alabasy	YES	YES
16	Health care	Arab Professionals	YES	YES
17	Hotel and tourism	EY	YES	YES
18	Transportation	EY	YES	YES
19	Utilities and energy	Deloitte	YES	YES
20	Other services**	EY	YES	YES

\* Other industries include (Glass and ceramic industries, Printing and packaging, Tobacco and cigarettes).

\*\* Other services include (Media, Technology and communications).

\*\*\* According this study SABA and Deloitte separated because they are two legal entities in Jordan

In addition, Ernst&Young (EY) was ranked the first audit specialized firm in industry No. 6 (Electrical); industry No. 8 (Food and beverage); industry No. 9 (Mining and extracting); industry No. 10 (Pharmaceutical and medical); industry No. 11 (Textiles, leather and clothing); industry No. 17 (Hotel and tourism); industry No. 18 (Transportation); and industry No. 20 (Other services). For Paper and cardboard (Industry No. 12), SABA was ranked the first.

It's worth noting that KPMG was ranked first in industry 7 (Engineering and construction) and industry 14 (Commercial service), however it doesn't meet the criteria of this study to be considered an audit industry specialist in any of these industries.

As for table (3), it provides a number of parameters for variables including the minimum, maximum, mean and standard deviation which provides a clear overview of the population on which the study is based.

**Table 3. Descriptive Statistics for the Study Variables**

Variables	No.	Minimum	Maximum	Mean	Std. deviation
ARL	691	4	254	58.42	31.020
STEN	691	0	1	.22	.415
LTEN9	691	0	1	.49	.500
SPEC1	691	0	1	.30	.458
SPEC2	691	0	1	.49	.500
ROA	691	-.969	.360	.003	.097
LEVERAGE	691	.0044	2.275	.420	.273
SEGNUM	691	1	20	2.70	2.023
LOSS	691	0	1	.33	.473
GC	691	0	1	.08	.266
AUOP	691	0	1	.10	.298
BIG 4	691	0	1	.47	.499
SIZE	691	.309	10.390	7.561	.829
AFEE	691	.000019	.008744	.000598	.000753
AUDCHG	691	0	1	.08	.266
<i>Valid N (list Wise)</i>	691				

The sample of the study has included 691 firm- year observations during the period 2009-2013. The table (3) illustrates several findings; the dependent variable audit report lag (ARL), it's shown that the average audit report delay is about 58.42 days, which is consistent with the results of recent studies on ARL (Lee et al., 2009; Habib and Bhuiyan,2011; Dao and Pham, 2014).

As for the variable audit tenure in this study, about (22%) of the sample firms are audited by short-tenured auditors (STEN) these findings are consistent with Habib and Bhuiyan (2011), while about (49%) are audited by long-tenured auditors (LTEN9) these findings are consistent with Dao and Pham, (2014) where a mean of LTEN9 among the study was (51%). Under the first measure of auditor industry specialization (SPEC1), (30%) of the firms are audited by industry specialists. While according the second measurement (SPEC2), (49%) of the firms are audited by industry specialists.

The mean value of return on assets (ROA) is (0.003). The average level of leverage is (42%). On average, each firm has at least (2.7) business segments (SEGNUM). About (33%) of the sampled firms

experienced negative earnings during the study years. (8%) and (10%) of the sampled firms received a going concern opinion (GC) and modified opinion (AUOP) and almost the half of the sampled firms (47%) are audited by one of the Big 4 accounting firms.

In addition, among the targeted firms, the resulting mean value of the ratios of audit fees (AFEE)is (.000598). Finally, about (8%) of these firms changed their auditors during the fiscal year (AUDCHG).

Following are tables (4) and table (5), both which provide Pearson pair-wise correlations between the study variables, Pearson coefficients results show that there is insignificant positive relationship between ARL SPEC1 and insignificant negative relation between ARL and SPEC2.

Both tables also show a significant positive association between ARL and STEN. The results suggest that short audit firm tenure is associated with a longer ARL, which is consistent with the results of recent studies on audit tenure (Lee et al., 2009; Habib and Bhuiyan,2011; Dao and Pham, 2014).

Additionally, the study findings show a significant

negative association between ARL and ROA and a significant positive association to each of: LEVERAGE,

LOSS, GC, AUOP, BIG 4 and AUDCHG.

**Table 4. Correlation Matrix (N. 691): Correlation Table for Variables from ARL to SEGNUM**

	ARL	SPEC1	SPEC2	STEN	LTEN9	ROA	LEVERAGE	SEGNUM
ARL	1							
SPEC1	.019	1						
SPEC2	-.018	.672**	1					
STEN	.135**	-.088*	-.195**	1				
LTEN9	-.043	.034	.105**	-.521**	1			
ROA	-.248**	.000	-.035	-.106**	.061	1		
LEVERAGE	.196**	.077*	.123**	.058	-.025	-.230**	1	
SEGNUM	-.006	.075	.161**	.032	-.100**	.058	.329**	1
LOSS	.256**	-.068	-.027	.150**	-.094*	-.625**	.031	-.146**
GC	.266**	.013	-.063	.188**	-.098*	-.383**	.233**	-.081*
AUOP	.271**	-.089*	-.088*	.118**	-.091*	-.228**	.102**	-.026
BIG 4	.101**	.360**	.403**	.124**	-.145**	.066	.261**	.243**
SIZE	-.011	.285**	.409**	-.146**	.058	.170**	.458**	.361**
AFEE	.049	-.153**	-.200**	.223**	-.109**	-.240**	-.178**	-.219**
AUDCHG	.143**	-.117**	-.172**	.516**	-.272**	-.077*	.063	.032

\*\* . Correlation is significant at the 0.01 level (2-tailed).  
 \* . Correlation is significant at the 0.05 level (2-tailed)

**Table 5. Correlation Matrix (N.691): Correlation Table for Variables from LOSS to AUDCHG**

	LOSS	GC	AUOP	BIG 4	SIZE	AFEE	AUDCHG
ARI							
SPEC1							
SPEC2							
STEN							
LTEN9							
ROA							
LEVERAGE							
SEGNUM							
LOSS	1						
GC	.315**	1					
AUOP	.198**	.306**	1				
BIG 4	-.106**	-.020	-.135**	1			
SIZE	-.245**	-.131**	-.041	.446**	1		
AFEE	.236**	.244**	.036	-.100**	-.553**	1	
AUDCHG	.084*	.203**	.069	.056	-.080*	.114**	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).  
 \* . Correlation is significant at the 0.05 level (2-tailed)

**The Multicollinearity between Independent Variables**

Including the whole sample, we examine whether

audit firm tenure is associated with ARL and whether this relation is influenced by auditor industry

specialization. Following Dao and Pham (2014) each level of audit firm industry specialization was examined separately. Results in table (9) show the multicollinearity test between independent variables. It can be seen that Variance Inflation Factor (VIF) scores for all variables

used in all models, are less than (10), which means that the collinearity is not a problem in this research's models (Habib and Bhuiyan, 2011; Dao and Pham, 2014).

**Table 6. Multicollinearity between Independent Variables**

Variables	Collinearity Statistics	
	Tolerance	VIF
STEN	.334	2.995
LTEN9	.342	2.926
SPEC1	.175	5.698
SPEC2	.176	5.689
LTEN9*NLLLeader1	.172	5.822
STEN*NLLLeader1	.197	5.089
LTEN9*NLLLeader2	.151	6.612
STEN*NLLLeader2	.182	5.503
ROA	.513	1.950
LEVERAGE	.560	1.785
SEGNUM	.777	1.287
LOSS	.562	1.780
GC	.691	1.447
AUDIT OPINION	.830	1.204
BIG 4	.628	1.591
SIZE	.398	2.516
AFEE	.598	1.674
AUDCHG	.693	1.443

### **Multiple Regression Results**

The multiple regression results of the two measurements of auditor industry specialization that was used by (Reichelt and Wang, 2010; Habib and Bhuiyan, 2011; Dao and Pham, 2014), are reported in Table (7) and (8). As shown in these tables all of the two

models are significant (F-statistics 9.179 and 8.615 for Models 1 and 2 respectively;  $p < 0.000$ ) and the variables used in these analyses explain about .199 and .188 per cent of the cross-sectional variations in firms' ARLs in the Models 1 and 2, respectively.

**Table 7. Regression Results–Full Sample: SPEC1 Measures Industry Specialization**

<b>Model</b>	<b>Variables</b>	<b>Expected Sign</b>	<b>B</b>	<b>t</b>	<b>Sig.</b>	
<b>1</b>	<b>(Constant)</b>		<b>65.302</b>	<b>4.389</b>	<b>.000</b>	
	STEN	+	-1.698	-.418	.676	
	LTEN9	-	-4.970	-1.590	.112	
	SPEC1	-	-12.882	-2.921	.004	
	LTEN9*SPEC1	-	22.823	4.110	.000	
	STEN*SPEC1	-	11.123	1.569	.117	
	ROA	-	-16.238	-1.053	.293	
	LEVERAGE	+	19.945	3.846	.000	
	SEGNUM	+	-.275	-.452	.651	
	LOSS	+	10.792	3.604	.000	
	GC	+	7.519	1.557	.120	
	AUOP	+	19.008	4.876	.000	
	BIG 4	-	9.641	3.653	.000	
	SIZE	-	-2.984	-1.496	.135	
	AFEE	+	-2246.799	-1.249	.212	
	AUDCHG	+	9.742	2.042	.042	
	Financial	Controlled				
	Industrial	Controlled				
	Year09	Controlled				
	Year10	Controlled				
Year12	Controlled					
Year13	Controlled					
<b>Adjusted R<sup>2</sup></b>		<b>.199</b>				
<b>F-statistic</b>		<b>9.179</b>				
<b>Sig</b>		<b>&lt; .000</b>				

**Table 8. Regression results–full sample: SPEC2 is industry specialization measures**

Model	variables	Expected Sign	B	t	Sig.
<b>2</b>	<b>(Constant)</b>		<b>63.598</b>	<b>4.181</b>	<b>.000</b>
	STEN	+	-2.248	-.507	.612
	LTEN9	-	-4.346	-1.196	.232
	SPEC2	-	-9.392	-2.270	.024
	LTEN9*SPEC2	-	13.327	2.710	.007
	STEN*SPEC2	-	7.637	1.193	.233
	ROA	-	-18.980	-1.222	.222
	LEVERAGE	+	16.483	3.181	.002
	SEGNUM	+	-.190	-.309	.757
	LOSS	+	10.643	3.533	.000
	GC	+	7.945	1.638	.102
	AUOP	+	20.263	5.192	.000
	BIG 4	-	10.349	3.861	.000
	SIZE	-	-2.487	-1.221	.222
	AFEE	+	-2196.517	-1.215	.225
	AUDCHG	+	9.678	2.022	.044
	Financial	Controlled			
	Industrial	Controlled			
	Year09	Controlled			
	Year10	Controlled			
	Year12	Controlled			
	Year13	Controlled			
	<b>Adjusted R<sup>2</sup></b>	<b>.188</b>			
	<b>F-statistic</b>	<b>8.615</b>			
	<b>Sig</b>	<b>&lt; .000</b>			

Table (7) and (8) show the beta coefficients on STEN are (-1.698) and (-2.248), respectively, which are considered negative and insignificant at level (0.05), which means shorter audit tenure will not result in longer ARL as expected suggesting that auditors within Jordanian market don't need more time within the initial years of engagement. This finding is inconsistent with prior studies (lee et al., 2009; Habib and Bhuiyan, 2011; Dao and

Pham, 2014).

The above-mentioned findings were found improve discussions whether auditor rotation must be mandated or not, as short audit tenure will not result in longer ARL, then making auditor rotation mandatory within Jordanian market will not impose additional costs in form of delay in delivering required information to the markets this finding is inconsistent with (lee et al., 2009).

Although an expected negative relationship exists between ARL and LTEN9, but it's insignificant at level (0.05), suggests that longer auditor tenure does not shorten ARL it could be because audit efficiency and effectiveness will not increase as audit tenure increase in Jordan. This finding is consistent with prior studies (Lee and Jahng, 2008; Habib and Bhuiyan, 2011; Dao and Pham, 2014) but inconsistent with other studies (Lee et al., 2009). The results support hypothesis one (H1); therefore the researcher accepts null H1, which means there is no significant relationship between ARL and audit tenure in Jordan.

Table (7) and (8) also show that beta coefficients of the measures of auditor industry specialization are (-12.882) and (-9.392) for SPEC1 and SPEC2 respectively which are negative and significant at level (0.05), indicating that existence of an auditor industry specialist will result in shorter ARL this result is consistent with (Habib and Bhuiyan, 2011). However, the beta coefficient of interaction relationship between SPEC1 and short audit tenure (STEN\*SPEC1) is (11.123) it's positive and insignificant at level (0.05) and the beta coefficient of interaction relationship between SPEC2 and short audit tenure (STEN\*SPEC2) is (7.637) it's also positive and insignificant at level (0.05), which means that existence of auditor industry specialist will not weaken the relationship between short audit tenure and ARL. In addition, the beta coefficient of interaction relationship between SPEC1 and long audit tenure (LTEN9\*SPEC1) is (22.823), it's positive and significant at level (0.05) and the beta coefficient of interaction relationship between SPEC2 and long audit tenure (LTEN9\*SPEC2) is (13.327), it's also positive and significant at level (0.05), although these variables are significant but the sign of these variables are not as expected therefore existence of an auditor industry specialist will not enhance ARL in long audit tenure, the results contradict with study of (Dao and Pham, 2014). This leads to the acceptance of null H2, which is there is no

statistical significant effect of audit specialization on the relationship between ARL and audit tenure.

The signs of the beta coefficients for the control variables are generally consistent with findings of prior studies, which are shown in table (7) and (8) that a higher level of leverage will result in longer ARL, and this is consistent with prior studies (Ettredge et al., 2006; AL-Shwiyat, 2013; Dao and Pham, 2014) while this result inconsistent with (Alkhatib and Marji, 2012). Moreover, a positive relation is shown between LOSS and ARL, indicating that it will take longer time to issue audited financial statements when a firm has negative earnings, this results confirmed prior studies (Ashton et al, 1989; Bamber, et al, 1993; Lee et al., 2009; Dao and Pham, 2014). In addition, existence of modified audit opinion (AUOP) will result in longer ARL and this is consistent with each of (Bamber et al., 1993, Ettredge et al., 2006, Lee et al., 2009; Al Daoud et al., 2014), Furthermore, results that ARL will be longer when firms change their auditors (AUDCHG) (Ettredge et al., 2006; Dao and Pham, 2014).

The study results didn't consistent with previous studies (Lee et al., 2009; Abidin and Zaluki, 2012; and Whitworth and Lambert, 2014) in respect of showing a positive relationship between ARL and BIG4.

### **Additional analyses and sensitivity tests**

#### **Outlier Test**

There are 41 firm-year-observations which had an ARL for more than three months, the researcher has followed previous studies' methods of running a sensitivity analysis excluding observations those ARLs of more than three months period in order to ensure that the results are not driven by these outliers, however, the results remain unchanged.

#### **Industry Differences**

Although the basic regression SPEC1 and SPEC2

controls for the industry are affected by including a dummy variable for Finance and Industrial industries, this may not entirely capture the significant variation that exists among sub industries (as shown in table 5) within the Jordanian environment context.

Therefore, the researcher runs a sensitivity analysis including dummy variables for almost all sub industries as this study considered specialization for each sub industries. The results remain unchanged.

### **Discussions and conclusions**

This study aimed at examining the relationship between ARL and audit tenure and whether hiring an industry-specialized auditor would effect this relationship. The study is driven by the recent focus on the impact of ARL on the timeliness of financial information.

The study sample consisted of 691 Jordanian firm-year observations that are listed in ASE from 2009 to 2013. Results of this study revealed that there is no significant relationship between ARL and short audit tenure which inconsistent with prior expected that auditors will need more time through their starting years in auditing. This result is inconsistent with prior studies (Lee et al., 2009; Habib and Bhuiyan, 2011; Dao and Pham, 2014). That inconsistent could be because this study used different overall control variables from other studies, without control variables there is significant negative relationship between ARL and audit tenure.

The above-mentioned findings were found improve discussions whether auditor rotation must be mandated or not, as short audit tenure will not result in longer ARL, then making auditor rotation mandatory within Jordanian market will not impose additional costs in form of delay in delivering required information to the markets.

Results of this study also showed that there is no significant relationship between ARL and long audit tenure suggesting that longer audit tenure will not result in shorter

ARL. This result is consistent with prior studies (Lee and jahng, 2008; Habib and Bhuiyan, 2011; Dao and Pham, 2014) but inconsistent with (Lee et al., 2009).

The beta coefficient of the first measure of auditor industry specialization (SPEC1) is negative and significant at level (0.05), indicating that existence of an auditor industry specialist will result in shorter ARL within the Jordanian environment. Moreover, the beta coefficient for second measurement of auditor industry specialization (SPEC2) is negative and significant at level (0.05), meaning that specialist auditor will lead to lower ARL within the Jordanian environment.

However, the beta coefficient of the interaction terms between long audit tenure and audit firm industry specialization is positive and significant at level (0.05) means audit industry specialization will not enhance the relationship between ARL and long audit tenure, In respect of the interaction terms between short audit tenure and audit firm industry specialization it's positive and insignificant which means audit industry specialization will not moderate the relationship between ARL and short audit tenure. That finding are inconsistent with prior expectation, audit firm industry specialization can shorten the ARL resulting from short-tenured auditors with no experience in auditing clients and that long-tenured auditors with industry specialization can conduct the audit more quickly.

It's important to noting that specialist auditor will lead to lower ARL, however, it will not effect on the relationship between ARL and audit tenure, this could be because the relationship between ARL and audit tenure according this study not significant at all.

The signs of the beta coefficients for the control variables were generally conforming to findings of prior studies, it indicated through the tables of this study that a positive relation between leverage and ARL, as firms with higher level of leverage will present a higher ARL. Results of this study also showed a positive relation

between LOSS and ARL, as firms which reported negative earnings took longer time to issue audited financial statements. Moreover, a positive relationship between ARL and audit opinion were found, as audit reports were more delayed when a firm received modified audit opinion (AUOP). Results of this study revealed that a positive relationship between ARL and auditor change during the year, meaning that when a company changes its auditor, the new auditor will need time between communicating the preceding auditor and achieving comprehensive understanding of the company's business. Auditors likely view initial engagements as inherently riskier, and require extra care regarding the audit work.

### Recommendations

Although auditor industry specialization didn't not affect on the relation between ARL and audit tenure, auditor industry specialization as mentioned previously has significant affect on ARL. Accordingly, the researcher suggests based on the conclusions of the study the following:

1. Findings of this study are related to globally discussions whether auditor rotation must be mandated in order to reduce the extent of the client-auditor economic bonding. According to our study's findings, making auditor rotation mandatory within Jordanian market wouldn't impose additional costs in form of delay in

delivering required information to the markets. Therefore, policy makers and regulators are encouraged to take into consideration the importance of auditor rotation in Jordan as doing so will not result in longer ARL, and according to prior study it could increase investor's confidence in the auditing industry and bring 'new eyes' to the engagement.

2. Jordanian companies are recommended to hire industry-specialized auditors if they seek to decline their ARL as existence of auditor industry specialization does result in shorter ARL.
3. As it is difficult to collect observations of auditors' actual industry specialization, measuring industry specialization through this study was based on market share approach and it's measured based on audit fees, actually it will not necessarily be accurate. Therefore, farther researches are needed with different approaches (such as weighted market approach) or measurements (such as sales revenue)1 of auditor industry specialization.
4. The adjusted R2 is relatively low suggesting that audit delay depends on factors outside our model. Therefore, farther researches are needed on the determinant of ARL with new variables that were not included in this study, neither in other studies on the Jordanian environment such as material weakness in internal control, ratio of non audit fees to total fees and restated financial reports.

### REFERENCES

- Abidin, S., and Zaluki, A. 2012. "Auditor Industry Specialism and Reporting Timeliness", *International Congress on Interdisciplinary Business and Social Science*, 65: 873-878.
- Al Daoud, K., Ismail, K., and Lode, N. 2014. "The Timeliness of Financial Reporting among Jordanian Companies: Do Company and Board Characteristics, and Audit Opinion Matter", *Asian Social Science*, 10 (13).
- Alkhatib, K., and Marji, Q. 2012. "Audit reports timeliness: Empirical evidence from Jordan", *Social and Behavioral Sciences*, 62: 1342-1349.
- AL-Shwiyat, Z. 2013. "Affecting factors on the timing of the issuance of annual financial reports, empirical study on the Jordanian public shareholding companies",

- European Scientific Journal*, 9 (22).
- Al-Thuneibat, A., Al Issa, R., and Baker, R. 2011. "Do audit tenure and firm size contribute to audit quality? Empirical evidence from Jordan", *Managerial Auditing Journal*, 26 (4): 317-334.
- Ashton, H. Graul, R. and Newton, D. 1989. "Audit Delay and the Timeliness of Corporate Reporting", *Contemporary Accounting Research*, 5 (2): 657-673.
- Ashton, H., Willingham, J. and Elliott, K. 1987. "An Empirical Analysis of Audit Delay", *Journal of Accounting Research*, 25 (2): 275-292.
- Bamber, M. Bamber, S. and Schoderbek, P. 1993. "Audit Structure and Other Determinants of Audit Report Lag: An Empirical Analysis". *Auditing: A Journal of Practice and Theory*, 12 (1): 1-23
- Blankley, A. Hurtt, D. and MacGregor, J. 2014. "the Relationship between Audits Report Lags and Future Restatements". *Auditing: A Journal of Practice and Theory*, 33 (2): 27-57.
- Chambers, E. and Penman, H. 1984. "Timeliness of Reporting and the Stock Price Reaction to Earnings Announcements", *Journal of Accounting Research*, 22 (1): 21-47.
- Dao, M. and Pham, T. 2014. "Audit Tenure, Auditor Specialization and Audit Report Lag", *Managerial Auditing Journal*, 29 (6): 490-512.
- Ettredge, L. Li, C. and Sun, L. 2006. "The Impact of Sox Section 404 Internal Control Quality Assessment on Audit Delays in the Sox Era", *Auditing: A Journal of Practice and Theory*, 25 (2): 1-23.
- Financial Accounting Standard Board (FASB). 2010. **Conceptual Framework for Financial Reporting**. Statement of Financial Accounting Concepts No. 8.
- General Accounting Office (GAO). 2003. *Public accounting firms: Required Study on the Potential Effect of Mandatory Audit Firm Rotation*. GAO-04-216.
- Givoly, D. and Palmon, D. 1982. "Timeliness of Annual Earnings Announcements: Some Empirical Evidence", *the Accounting Review*, 57 (3): 486-508.
- Habib, A. and Bhuiyan, U. 2011. "Audit Firm Industry Specialization and the Audit Report Lag", *Journal of International Accounting, Auditing and Taxation*, 20 (1): 32-44.
- Johnson, V., Khurana, I. and Reynolds, J. 2002. "Audit-Firm Tenure and the Quality of Financial Reports", *Contemporary Accounting Research*, 19 (4): 637-660.
- Knechel, R. and Payne, L. 2001. "Additional Evidence on Audit Report Lag", *Auditing: A Journal of Practice and Theory*, 20 (1): 137-146.
- Kwon, Y. Lim, Y. and Tan, S. 2007. "Legal Systems and Earnings Quality: the Role of Auditor Industry Specialization", *Auditing: A Journal of Practice and Theory*, 26 (2): 25-55.
- Lee, Y. and Jahng, J. 2008. "Determinants of Audit Report Lag: Evidence From Korea - An Examination of Auditor-Related Factors", *The Journal of Applied Business Research*, 24 (2).
- Lee, Y. Mande, V. and Son, M. 2009. "Do Lengthy Auditor Tenure and the Provision of Non-Audit Services by the External Auditor Reduce Audit Report Lags?", *International Journal of Auditing*, 13 (2): 87-104.
- Lim, Y. and Tan, T. 2010. "Does Auditor Tenure Improve Audit Quality? Moderating Effects of Industry Specialization and Fee Dependence", *Contemporary Accounting Research*, 27 (3): 923-957.
- Munsif, V. Raghunandan, K. and Dasaratha, R. 2012. "Internal Control Reporting and Audit Report Lags: Further Evidence", *A Journal of Practice & Theory*, 31 (3): 203-218.
- Reichelt, J. and Wang, D. 2010. "National and Office-Specific Measures of Auditor Industry Expertise and Effects on Audit Quality", *Journal of Accounting Research*, 48 (3): 647-686.
- Whitworth, J. and Lambert, T. 2014. "Office-Level Characteristics of the Big 4 and Audit Report Timeliness", *Auditing: A Journal of Practice and Theory*, 33 (3): 129-152.

## فترة إصدار تقرير مدقق الحسابات، فترة الاحتفاظ بالمدقق ووجود التخصص في التدقيق: دليل تجريبي من الأردن

عبد الرحمن يوسف البحور<sup>1</sup>، بشير أحمد خميس<sup>2</sup>

### ملخص

هدفت هذه الدراسة إلى اختبار العلاقة بين فترة إصدار تقرير مدقق الحسابات وفترة الاحتفاظ بالمدقق ومدى تأثير هذه العلاقة بوجود مدقق حسابات مختص، تم استخدام طريقتين لقياس مدى وجود التخصص في التدقيق، وشملت عينة الدراسة 691 مشاهدة للشركات الأردنية المدرجة في سوق عمان المالي خلال الفترة (2009-2013). وقد تم تحليل البيانات المجمعة باستخدام مجموعة من الأساليب الإحصائية المتمثلة في الأسلوب الإحصائي الوصفي، واختبار معامل ارتباط، واختبار الانحدار المتعدد. أظهرت نتائج هذه الدراسة عدم وجود علاقة بين فترة إصدار تقرير مدقق الحسابات وبين فترة الاحتفاظ بالمدقق. بالإضافة إلى ذلك فإن وجود مدقق مختص لن يكون قادراً على إضعاف العلاقة بين فترة إصدار تقرير مدقق الحسابات وبين فترة الاحتفاظ بالمدقق. توصي هذه الدراسة كلا من صانعي القرار والمنظمين إلى ضرورة الأخذ بعين الاعتبار أن تدوير مدقق الحسابات في الأردن قد لا يؤدي إلى تأخير فترة إصدار تقرير مدقق الحسابات. على الرغم من عدم مقدرة المدقق المختص على إضعاف العلاقة بين فترة إصدار تقرير مدقق الحسابات وبين فترة الاحتفاظ بالمدقق إلى أن المدقق المختص قادر على تقليل فترة إصدار تقرير مدقق الحسابات لذلك يوصي الباحثان الشركات المالية وغير المالية الأردنية بضرورة توظيف مدققين مختصين. كما يوصي الباحثان بإجراء دراسات جديدة بطرق مختلفة لقياس وجود التخصص في التدقيق.

**الكلمات الدالة:** الأردن، فترة إصدار تقرير مدقق الحسابات، فترة الاحتفاظ بالمدقق، وجود التخصص في التدقيق.

1 جامعة القدس المفتوحة، كلية الأعمال، قسم المحاسبة.

2 الجامعة الأردنية، كلية الأعمال، قسم المحاسبة.

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