Ownership Structure and its Endogeneity Effect on the Quality of Financial Reporting

Ahnaf Ali Alsmady

To Link this Article: http://dx.doi.org/10.6007/IJARBSS/v8-i3/3946

Received: 01 Feb 2018, Revised: 20 Mar 2018, Accepted: 29 Mar 2018

Published Online: 31 Mar 2018

In-Text Citation: (Alsmady, 2018)


Copyright: © 2018 The Author(s)
Published by Human Resource Management Academic Research Society (www.hrmars.com)
This article is published under the Creative Commons Attribution (CC BY 4.0) license. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this license may be seen at: http://creativecommons.org/licenses/by/4.0/legalcode

Vol. 8, No. 3, March 2018, Pg. 527 - 542

http://hrmars.com/index.php/pages/detail/IJARBSS

JOURNAL HOMEPAGE

Full Terms & Conditions of access and use can be found at
http://hrmars.com/index.php/pages/detail/publication-ethics
Ownership Structure and its Endogeneity Effect on the Quality of Financial Reporting

Ahnaf Ali Alsmady
Applied Science Private University, Amman, Jordan
Email: a_alsmady@asu.edu.jo

Abstract
The study aims to examine the effect of ownership structure on the quality of financial reporting (QFRs). It examines ownership concentration and individual investors both foreign and local. Ownership concentration endogeneity, company age, a log of total sales and industry affiliation are controlled for in the models. The date of the study consists of 68 annual reports collected from Jordanian companies that are listed on Amman Stock Exchange (ASE) for the period 2005 to 2015. The Hausman test of ownership concentration endogeneity was performed for both models. The first model results show that ownership concentration variable has no significant effect on QFRs. While, individual foreign ownership, company age, a log of total sales and industry affiliation have a positive effect on QFRs. Also, the second model showed a consistent result of the ownership concentration effect on QFRs. While, individual local ownership, company age, a log of total sales and industry affiliation have a positive effect on the QFRs. The results support the agency theory in the Jordanian context that higher ownership concentration reduces the QFRs. Moreover, the study contributes to existing literature by highlighting the endogeneity problem of ownership concentration. The results are useful to policymaker, shareholders and accountants in local and global market to improve the reliability and QFRs.

Keywords: Ownership Structure, Endogeneity Problem and QFRs.

Introduction
The main objective of for the companies around the world is to attract potential investors through having a high QFRs. In this context, McGee and Igoe (2008) states the timeliness of accounting and other information in the annual report is a good measure of the QFRs. Therefore, Shareholders and other stakeholders are highly concerned with the timeliness of accounting and financial information. On the one hand, long periods between the end of the year and the accounting information disclosure date leads to lower quality and validity of financial information to make effective decisions. On the other hand, timely publishing of financial reports means that they are of higher quality.
The convergent argument of information quality and financial disclosure is the agency theory conflict argued by Shleifer and Robert (1997) and Shleifer and Vishny (1986). The agency theory establishes a conflict between the owners and managers. The owners appoint managers to manage the business and achieve the owners’ interests. On the other hand, managers have sharking behaviour and take advantage of their position for their benefit. The managers may delay the financial statement to show higher performance and increase their commission. Therefore, the timeliness of the financial reporting and higher quality is not in the manager’s interest.

Agency theory argues that companies with a higher quality of governance structure will positively affect their financial information disclosure (Beekes and Brown, 2006). Therefore, QFRs in companies is an important phenomenon to study. Further, the previous literature in the field shows incompatible results. In this regard, many researchers investigated the governance mechanisms (GM) effect QFRs (Healy et al., 1999). On the one hand, appositive effect of governance and QFRs was found by researcher such as BOD, audit committee Karamanou and Vafeas (2005), non-executive directors Leung and Horwitz (2004), and outside directors and board independence (Ajinkya et al., 2005). On the other hand, other study confirm opposite effect of outside directors and disclosure level (Eng and Mak, 2003). Finally, others found weak effect of GM on QFRs (Myring and Shortridge, 2010).

In summary, the literature has mixed results concerning the effect of GM on the QFRs, while Jensen and Meckling (1976) and Fama and Jensen (1983) confirm the effect of GM in improving QFRs and timeliness. Diamond (1996) finds that discloser quality reduces the agency cost of monitoring the managers. Outside investors are concerned with quality disclosure as it plays an important role in mitigating the agency conflict and positively effects the QFRs.

Jensen and Meckling (1976) argue that where there is higher ownership concentration, a higher agency cost is required and reduced quality of financial reporting is expected. While companies with widely dispersed ownership have less agency cost and a higher quality of financial reporting is expected (Myring and Shortridge, 2010). Healy et al. (1999) argue the substantial shareholders may strengthen the quality of governance and improv the monitoring which will affect the GFRs. Furthermore, they argue when the disclosure policies change, the present shareholders will reduce the informativeness of disclosure.

This study tests the validity of Jensen and Meckling’s (1976) argument that ownership concentration and outside investors (Diamond, 1996) may affect the QFRs. The previous researchers have been found mixed results. Thus, the motivation of this study is to investigate the reason behind mixed results in literature when they investigate of ownership on the QFRs. This problem comes due to misspecification of the models and unobserved determinants of the QFRs. This statistical issue has known the endogeneity problem which needs to be investigated. Thus, the present study contributes to literature in the filed by controlling the endogeneity problem by using the companies’ characteristics such as age and growth in the models. Furthermore, the study will examine the other instruments that may effect on QFRs in the Jordanian market. The Jordanian market has 248 companies in 2016. These companies include 23 banks, 43 insurance companies, 69 industrial companies, and 113 services companies.

Thus, the current study will expand the body of literature in Arab and Middle Eastern countries specifically in weak investment market such as Jordan. Emerging and weak market economies need to establish good GM which will affect on the QFRs and convince investors to
invest their resources. Moreover, as mentioned above the previous literature provides mixed evidence because they concentrated on more than one pattern of governance to resolve the agency problem. In this regards, the present study is concerned on ownership pattern and its effect on QFRs in Jordanian market.

The rest of this paper includes the hypotheses development under the study. It then introduces the research design and models. Thereafter, the findings and the results of hypotheses testing are discussed. Finally, the study draws conclusions and offers for suggested research.

Hypotheses Development
Several studies have tested the effect of GM on accounting and non-accounting information disclosure. The results found some positive effect Brown et al., (2010), Coulton et al., (2001), Karamanou and Vafeas (2005) and Leung and Horwitz (2004). In addition, other researchers found weak relationship between GM and QFRs (Myring and Shortridge, 2010). While, other concluded a negative effect of GM on QFRs Ben-Amar and Boujenoui (2007), Han (2004) and Myring and Shortridge (2010).

The first stream of a positive effect Karamanou and Vafeas (2005) examines the BOD and audit committees’ effect on voluntary financial disclosure. They found that companies with more effective board have more earnings forecast. Also, Leung & Horwitz (2004) conclude that non-executive directors have a positive association with the voluntary disclosure. Furthermore, Ajinkya et al. (2005) found a positive effect of outside directors and institutional ownership on accuracy of managers’ earnings forecasts. Finally, Brown et al. (2010) found a strong association between auditor independence and the QFRs. Moreover, Coulton et al. (2001) found a strong relationship between GM and the level of disclosure.

The second stream of a negative effect, Ben-Amar and Boujenoui (2007) found a negative influence of inside ownership, CEO duality and the QFRs. While, Myring and Shortridge (2010) found the opposite evidence between the number of outside directors and the information disclosure. Moreover, Han (2004) examines the effect of different patterns of ownership and QFRs, which they found a negative effect of the managers’ ownership and QFRs. In addition, the study confirms outside investors (institutional stock holdings) will lead to better information quality. Myring and Shortridge (2010) examine the relationship between GM and the QFRs. The study assumes that strong GM will improve the QFRs, but the study concludes that there is weak relationship between the independent and dependent variable in the model developed. Moreover, the study confirmed that the dispersion of ownership has a positive influence on the QFRs.

In Jordan, several researchers focused on the QFRs. Al-Sufy et al., (2013) studied the effect of GM on the quality of accounting information disclosure. The study used a questionnaire to collect data from industrial companies. The study found that effective implementation of GM will have a strong effect on the predicted variable. The study recommended for future research to cover all industries in Jordanian companies. Furthermore, Al-Tahat (2015) found no significant effect of companies' size, leverage, and audit firms size on the timeliness of annual reports. They suggested investigating the variables that may affect the QFRs. Also, Al-Shwiyat (2013) studied the effect of several factors on the timing of annual reports in Jordan at 2012. The study found a significant association between companies' size and age and timeliness of annual reports. The
study concluded ownership structures and other control variables that are considered to be the most relevant on Jordanian market that may affect the QFRs.

**Quality of Financial Reporting**

The QFRs has an essential in emerging and developed markets. According to the Accounting Standards Board (ASB), the main characteristic of the annual reports at the companies is the information quality. Its importance relates to several reasons such as helping outside users to make decisions when evaluating a company’s performance. Also, evaluating the companies' ability to pay debt when resources are provided. While, low quality of financial and accounting information is a threat facing companies.

The agency contract leads to information asymmetry between agents and shareholders, because both sides have access to different level of information (Fama and Jensen, 1983). Furthermore, managers take advantage to activate their sharking behaviour, because they can use the information for their benefit and distort the real picture of the companies' performance (Jensen and Meckling, 1976). To mitigate the problem, QFRs minimize the uncertainty of information. Moreover, the quality of accounting and financial information helps users to make better decisions. Martinez-Ferrero (2014) and Jonas and Blanchet (2000) argue that a company’s performance is not the main issue of financial disclosure. Moreover, McGee and Igoe (2008) state that shareholders and stakeholders need timely information to be relevant and to help them make decisions.

Quality of information increases when there is less time between the end accounting period and information issuance (Atiase et al., 1989, Lawrence (1998). McGee and Igoe (2008) state that one of the important measurements of the QFRs is timeliness. A lower level of QFRs will increase the agency cost and affect the market and resource allocations. Therefore, companies should establish a good governance system that helps them mitigate the agency problem in term of information uncertainty which leads to improve the QFRs.

Many researchers rely on the agency theory to identify the factors affecting QFRs. The agency theory helps to resolve information asymmetries by ownership concentration that effect positively on QFRs (Basuony and Mohamed (2014), Kabara and Danyaro (2016) La Porta et al., (2000), Rouf and Abdullah-Al Harun (2011). In addition, both foreign institutional investor Alsmady et al., (2013) and local institutional investor Omari et al., (2014) effect on the QFRs. Those variables in addition to other mechanisms are chosen based on the Jordanian governance guide.

**2.2 Ownership Concentration**

Another argument of agency problem is that a higher concentration of ownership leads to a conflict between the majority and minority shareholders (La Porta et al., 2000). The problem arises when the controlling shareholders affect the policy direction which will effect on QFRs. Moreover, increasing the rights of minority shareholders will leads a higher QFRs. In this regard, Basuony and Mohamed (2014) found a negative effect of ownership concentration and voluntary internet disclosure. Furthermore, their study concludes that more diffused ownership among shareholders leads to better disclosure. Furthermore, Nakhodchari and Garkaz (2014) examined the relationship between concentration of ownership and voluntary disclosure Tehran market. The study found that a higher concentration of ownership leads to more information asymmetry.
This result was also found by Omari et al. (2014) which confirms the consequence of ownership concentration on information asymmetry and QFRs.

Furthermore, Juhmani (2013) found blockholder ownership negatively affects voluntary disclosure at Bahrain market. Also, Kabara and Danyaro (2016) studied the influence of ownership concentration on disclosure in the Nigerian. They argue that in oil marketing, the ownership concentration positively affects the voluntary information disclosure. In addition, Rouf and Abdullah-Al Harun (2011) found institutional ownership positively affects a company’s disclosure. In this regard, Alsmady et al., (2014) argue that concentration of ownership is an important factor in Jordanian market to mitigate the agency problem. Based on the previous argument, the study suggested the following hypothesis:

\[ H_1: \text{Ownership concentration negatively affects the FRQ.} \]

2.3 Institutional Ownership

Omari et al. (2014) argue that institutional investors have important roles in information disclosure and they found institutional ownership positively affects voluntary disclosure. Furthermore, Dulacha (2007) argues that the institutional investors have strong incentive to disclose a higher information quality and the study concluded that institutional investors positively effect on QFRs.

In addition, El-Diftar et al., (2016) argue that improving the QFRs enhances the communication between the manager and outside investors. The study tested the institutional shareholders impact the QFRs in Egyptian market. They concluded that there is a positive impact of level institutional shareholders on the QFRs. Therefore, institutional shareholders play important roles in the information environment (Boone and White, 2015). In addition, they confirmed that institutional investors lead to less information asymmetry and affect the quality of information production.

Moreover, Barako (2007) found that ownership structure, particularly foreign ownership, positively affects corporate financial reporting. Also, institutional ownership and firm size affect all types of information such as financial and general strategy. Alsmady et al. (2013) argue that foreign and local investors in the Jordanian market have different orientations on the quality of financial information. Thus, different institutional ownership may affect differently on the QFRs. Based on the previous argument, the study suggested the following hypothesis:

\[ H_{2a}: \text{Foreign ownership positively affects the FRQ.} \]
\[ H_{2b}: \text{Local ownership positively affects the FRQ.} \]

Company Age

The learning curve theory suggests that the QFRs increase when more annual reports are produced by (Owusu-Ansah, 2000). Furthermore, the theory argues that increasing the accountants’ knowledge through gathering more accounting information will increase the QFRs. In addition, older firms have higher levels of internal control which lead to less mistakes and delays of the financial reports (Iyoha, 2012). While, younger firms with less knowledge and experience have lower QFRs (Hope and Langli, 2008; Iyoha, 2012). Also, Iyoha (2012) conclude that company age has an impact on accounting procedures and annual reports timeliness. The study used the ordinary least square to support the importance of company age on the QFRs, which is supported by Owusu-Ansah (2000).
Furthermore, older companies comply better with quality disclosure for many reasons. First, such companies have a more defined market image and stronger communication with outside investors which leads to more concern with the information quality. In addition, older companies have longer operating information which positively affects the QFRs (Owusu-Ansah, 2005; Iyoha, 2012). Agboola and Salawu (2012) support the argument that younger companies do not have higher expenditures and are less motivated to make a higher disclosure which affects their competitive advantage. In Jordanian context, Al-Tahat (2015) and Han (2004) confirmed the positive effect of companies age on QFRs. Based on the previous argument, the study suggested the following hypothesis:

**H₃**: Company age positively affects on the FRQ.

**Company Growth**

Agency theory argues that companies with higher disclosure record higher growth. Juhmani (2013) and Ahmed and Nicholls (1994) argue that institutional investors focus on short and long-run growth and will disclose higher QFRs. Cao et al., (2012) studied the influence of a firms reputation on the QFRs. The authors use 2SLS modelling which has control variables such as company sales. The study found that firms' growth measured by the volume of sales positively affects the QFRs.

In addition, Mehrpisheh and Vakilifard (2016) confirmed that the company growth effects on the QFRs in Tehran which then affects the investment decisions and the same result found by Hamidzadeh and Zeinali (2015). Al-Tahat (2015) found that companies growth have positive influences on the timeliness of annual reports. Thus, growth opportunities should be controlled in the models when studying the factors affect on QFRs (Rafiee and Heidarpoor, 2014; Evans, 2017). Based on the previous argument, the study suggested the following hypothesis:

**H₄**: Company growth positively affects on the FRQ.

**Industry Affiliation**

Ashton, Graul, and Newton (1989) stated that industry affiliation is important factor that affect timeliness of annual reports. In this regard, Cao et al. (2012) investigated the influence of the firms reputation on the QFRs. The study controls the industry type factor which they confirm its effects on the QFRs. Furthermore, Martinez-Ferrero (2014) studied the magnitudes of QFRs on a companies performance at the international level. They argued that the industry affiliation is an important variable that should be considered when setting the models.

In addition, Rafiee and Heidarpoor (2014) argued that when a company’s production is high, the disclosure quality is also high. Companies need higher resources from providers which requires more valuable competitive information. Thus, when the study examines the effect of ownership structure on the QFRs, it needs to control the industry of the firms. Moreover, Ibrahim et al., (2004) examined the effect of the ownership structure on the timeliness of the annual reports, which they control the industry affiliation, and found it is effects positively on the QFRs. Also, Ika and Regina (2011) confirmed that the type of industry highly affected on the QFRs. Based on the previous argument, the study suggested the following hypothesis:

**H₅**: Industry affiliation positively affect on the FRQ.
Research Design
The study uses secondary data from annual reports of Jordanian companies listed on the Amman Stock Exchange as shown in Table (1). The sample consists of 68 companies from 2005 to 2015. The sample has insurance, manufacturing and services companies which represent 30% of the population. The sample is selected from listed companies due to compliance with the Jordanian corporate governance guide. Banks were excluded because they have special disclosure standards. The data has 11 years for 68 companies that includes 30% of the total population of 225 which means the results can be generalised for the sample period (Babyak, 2004). The expected total number of observations is 748.

<table>
<thead>
<tr>
<th>Industry</th>
<th>Population</th>
<th>Sample size</th>
<th>Expected number of observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insurance</td>
<td>43</td>
<td>13</td>
<td>143</td>
</tr>
<tr>
<td>Industrial</td>
<td>69</td>
<td>21</td>
<td>231</td>
</tr>
<tr>
<td>Services</td>
<td>113</td>
<td>34</td>
<td>374</td>
</tr>
<tr>
<td>Total</td>
<td>225</td>
<td>68</td>
<td>748</td>
</tr>
</tbody>
</table>

Note: As listed in Amman Stock Exchange (ASE) at 2016

The study has one dependent variable and six independent variables that have been collected from the Jordanian companies’ annual reports as summarised in Table (2). The QFRs models used in the study developed from the previous studies and the theoretical framework discussed above which are built on the agency and the learning curve theory. The following models will be used to test the study hypotheses:

\[
FRQ_{it} = \alpha + \beta_1 \text{CONC}_{it} + \beta_2 \text{FOR-OW}_{it} + \beta_3 \text{AGE}_{it} + \beta_4 \text{INT}_{it} + \beta_5 \text{G}_{it} + \varepsilon_{it}, \quad \text{(1)}
\]

\[
FRQ_{it} = \alpha + \beta_1 \text{CONC}_{it} + \beta_2 \text{LOCAL-OW}_{it} + \beta_3 \text{AGE}_{it} + \beta_4 \text{INT}_{it} + \beta_5 \text{G}_{it} + \varepsilon_{it}, \quad \text{(2)}
\]

Where \((FRQ_{it})\) the quality of financial reporting for the company \((i)\) at year-end \((t)\) is measured by the difference between the fiscal year and the annual reports issuance and \((\alpha)\) the intercept. The ownership concentration \((\text{CONC})\) measured by the percentage of the highest three shareholders, \((\text{FOR-OW})\) is ownership held by foreign shareholders and \((\text{LOCAL})\) is ownership held by local shareholders. The company’s age \((\text{AGE})\) is measured by the time between the date of its establishment and the current date. The \((\text{INT})\) is the industry affiliation and \((\text{G})\) the company growth, \(\beta_1 \text{ to } \beta_5\) the parameters of the models, \(\varepsilon\) the random error term.
**Variables name** | **Definitions**
--- | ---
**Dependent Variables**

*FRQ*  
Time between the fiscal year and date of annual reports issuance

**Independent Variables**

*AGE*  
Time between the date of companies establishment and the current date

*INT*  
Affiliation of industry

*G*  
Loge of sales

*CONC*  
Percentage of the highest 3 shareholders

*For-ow*  
Shares held by the foreign shareholders

*local-ow*  
Shares held by the local shareholders

**Findings**

**Descriptive Analysis**

Table (3) indicates the descriptive analysis of the continuous explanatory and predicted variables. The descriptive statistics shed light on the data. The table shows that the mean of the dependent variable (FRQs) is (50) days with minimum day of (0) and maximum day of (254). The result shows high variation among the companies. Furthermore, the mean shows that the Jordanian companies have a good quality of financial reports. The quality improves in terms of the relevancy of accounting and non-accounting information and its timeliness in the annual reports to be available when decisions need to be made. In contrast, Al Daoud et al., (2014) found the mean, minimum and maximum days of 68, 13 and 271, respectively during 2011 and 2012.

Furthermore, company age has a mean of 29 with a maximum years of (30) and minimum years of (8) years. Concerning the companies’ growth, it is measured by total sales which recorded a mean of 6 million JD and maximum and minimum (9) and (2) million respectively. Ownership concentration has a mean of (50%) and maximum and minimum (95%) and (0.00), respectively. The results show that Jordanian companies have high ownership concentration which is consistent with Alsmady et al. (2013).

Furthermore, foreign ownership has a mean of (20%) with maximum percentage of (95%) and minimum percentage of (0.00), which also consistent with Alsmady et al. (2014). While, the local investors have ownership ranging between a minimum and maximum of 4% and 100%, respectively. This indicates that high variation in ownership type.

**Table (3): Descriptive Statistics**

<table>
<thead>
<tr>
<th>Variables</th>
<th>N(Missing)</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGE</td>
<td>744(4)</td>
<td>8.00</td>
<td>30.00</td>
<td>29.35</td>
<td>14.96</td>
<td>0.73</td>
<td>0.19</td>
</tr>
<tr>
<td>G</td>
<td>720(28)</td>
<td>2.20</td>
<td>9.67</td>
<td>6.75</td>
<td>0.95</td>
<td>-0.26</td>
<td>1.33</td>
</tr>
<tr>
<td>CONC</td>
<td>745(3)</td>
<td>0.00</td>
<td>95.59</td>
<td>50.46</td>
<td>19.93</td>
<td>-0.14</td>
<td>-0.26</td>
</tr>
<tr>
<td>local ow</td>
<td>264(484)</td>
<td>4.49</td>
<td>100.00</td>
<td>79.56</td>
<td>21.75</td>
<td>-1.52</td>
<td>1.81</td>
</tr>
<tr>
<td>For-ow</td>
<td>263(485)</td>
<td>0.00</td>
<td>95.51</td>
<td>20.46</td>
<td>21.78</td>
<td>1.51</td>
<td>1.79</td>
</tr>
<tr>
<td>FRQ</td>
<td>720(28)</td>
<td>0.00</td>
<td>254.00</td>
<td>50.13</td>
<td>35.51</td>
<td>0.88</td>
<td>3.81</td>
</tr>
</tbody>
</table>
Correlation
The correlation coefficient matrix analysis identifies the multicollinearity statistical problem between the independent variables, which gives wrong direction within the models employed in the study and the regression analysis results. The Table (4) shows the highest association between companies growth and companies age, which is less than the critical value of 70% (Hair et al., 2010). However, that means running regression models will have no problem. Moreover, the correlation between the companies age and growth is expected as older companies are more established and expected to have a higher volume of sales.

<table>
<thead>
<tr>
<th></th>
<th>AGE</th>
<th>INT</th>
<th>G</th>
<th>CONC</th>
<th>local ow</th>
<th>for-ow</th>
<th>FRQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGE</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INT</td>
<td>-.286***</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>.505***</td>
<td>-.189***</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONC</td>
<td>.184***</td>
<td>-.149***</td>
<td>.307***</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>local ow</td>
<td>-.214***</td>
<td>.028</td>
<td>-.240***</td>
<td>-.425***</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>for-ow</td>
<td>.214***</td>
<td>-.029</td>
<td>.239***</td>
<td>.425***</td>
<td>-1.000</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>FRQ</td>
<td>.125***</td>
<td>-.127***</td>
<td>-.008</td>
<td>-.035</td>
<td>.110*</td>
<td>-.110*</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: The correlation matrix between the variables. Where $FRQ_{it}$ is the FRQ for company $i$ at year $t$, $\alpha$ the intercept, $CONC$ percentage of the highest 3 shareholders, $FOR-OW$ Ownership held by the foreign shareholders, $AGE$ the company age, $INT$ the affiliation of industry, $G$ is the Bod Diversity which measured by Number of female to the total number of board, $NED$ Loge of sales, $LOCAL-OW$ is Ownership held by the local shareholders, $\beta_1$ to $\beta_5$ the parameters of the models. *,**, and *** denote a significant level of 10%, 5% and 1%, respectively.

Regression Analysis
The results for the ownership structure and its endogeneity effect on quality of financial reporting are presented in Table (5). The models used multiple regression analysis to examine the hypotheses. The Hausman test was employed before running the multiple regression to test the endogeneity problem, which arises due to the correlation between the endogenous variable and the error terms. Thus, the misspecification leads to the bias results of the multiple regression. Therefore, the Hausman test was employed to meet the assumption that ownership concentration should not be associated with the error term. The t-statistic result for the coefficient on the residual from the two models is 0.00 respectively. Thus, the p-value of this test is not significant to any level. Therefore, the results cannot reject the null hypothesis of no correlation between the endogenous variable and the error term. The results lead to performing multiple regression analysis because there is no endogeneity problem.

The multiple regression shows that $R^2$ for the two models is 0.11 respectively which is consistent with Alsmady et al. (2013). In addition, the independent variables in the models describe the QFRs by 11%. Thus, the results supported H2a, H2b, H3, H4 and H5. According to Table (5), the five independent variables are significant at different levels. The two models have
consistent results such as the company age shows high significance at the 0.00 level. This result of this study is in line with Agboola and Salawu (2012) and Al-Tahat (2015) which found a significant positive effect of company age on the QFRs.

Moreover, the industry affiliation recorded a value of 0.04 in the two models respectively. The result were found by other research conducted on the QFRs by (Ika and Regina, 2011) and its effect on the quality of financial reports (Martinez-Ferrero, 2014). Concerning the third variable, company growth in the first and second model show high significance level of (0.05) and (0.06), respectively. The results are consistent with other researchers in the Jordanian market (Al-Tahat, 2015) as well as other markets (Evans, 2017).

The ownership pattern is consistent with the agency theory predictions. Firstly, the ownership dispersion owned by local and foreign investors has a significant effect on the QFRs in Jordan. The result supports the argument that foreign investors improve the QFRs and do not prefer delay. In addition, foreign investors are more concerned with disclosing the financial reports in a timely manner, which is consistent with Alsmady et al. (2013). In addition, the local institutional investors do not show improvements in the QFRs. This may be due to less experience and knowledge of the quality standards. This result is also found by other research conducted in privatised Jordanian companies (Alsmady et al., 2013).

Finally, the agency theory expects negative affect of ownership concentration on QFRs. The result shows no significant effect, but the relationship between the predictor and the predicted variables have negative direction. The same result found by (Afify, 2009), which mean that the result partially supports the study’s expectations.

**Table (5): The Ownership Structure and Its Endogeneity Effect on Quality of Financial Reporting**

<table>
<thead>
<tr>
<th></th>
<th>Model (1)</th>
<th>Model (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FRQ</td>
<td>FRQ</td>
</tr>
<tr>
<td><strong>B</strong></td>
<td><strong>T</strong></td>
<td><strong>Sig</strong></td>
</tr>
<tr>
<td>Constant</td>
<td>3.38</td>
<td>0.00***</td>
</tr>
<tr>
<td>AGE</td>
<td>-0.35</td>
<td>-4.87</td>
</tr>
<tr>
<td>INT</td>
<td>-0.13</td>
<td>-2.08</td>
</tr>
<tr>
<td>G</td>
<td>-0.14</td>
<td>-1.94</td>
</tr>
<tr>
<td>CONC</td>
<td>-0.05</td>
<td>-0.74</td>
</tr>
<tr>
<td>for-ow</td>
<td>-0.16</td>
<td>-2.34</td>
</tr>
<tr>
<td>local ow</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hausman</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>R²=</td>
<td>0.13</td>
<td></td>
</tr>
<tr>
<td>Adj. R²=</td>
<td>0.11</td>
<td></td>
</tr>
<tr>
<td>F=</td>
<td>7.40</td>
<td></td>
</tr>
<tr>
<td>Sig=</td>
<td>0.00***</td>
<td></td>
</tr>
</tbody>
</table>

*Note:* This table reports the multiple regression analysis and Hausman test. Where \( FRQ_{it} \) is the FRQ for company \( i \) at year \( t \), \( \alpha \) the intercept, \( CONC \) percentage of the highest 3 shareholders, \( FOR -OW \) ownership held by the foreign shareholders, \( AGE \) the company age, \( INF \) the affiliation of industry, \( G \) is the log of sales, \( LOCAL -OW \) is ownership held by the local shareholders, \( \beta_1 \) to \( \beta_5 \) the parameters of the models, \( \varepsilon \) the random error term. *, ** and *** denote a significant level of 10%, 5% and 1%, respectively.
Conclusion and Future Research Suggestion

The present study highlights an important issue which is the ownership endogeneity problem that may affect the models' results under the study. The variables under the study drawn from the previous literature and related theory such as agency and learning curve theory. In addition, the study test the endogeneity problem and controlled the misspecification of unobserved determinants. Therefore, the study examined the correlation between the endogenous variable that identified based on the literature and the error term. The result of the Hausman test can't reject the null hypotheses of there is no correlation between the ownership concentration and the error term. The results show that data for Jordanian companies do not suffer from such a problem. The \( t \)-statistics is \( (.00) \) which means there is no association to at any level. On the other hand, Alsmady et al., (2013) reject the null hypotheses and used the 2SLS system to solve the problem in privatized companies in Jordanian market.

Then, after the study specified the models control variables such as companies age, industry affiliation and growth are taken. In addition, independent variable is the ownership pattern namely its concentration, local and foreign are examined their effect on the dependent variable which is the QFRs. It offers new insights into the effect of ownership concentration on the QFRs in the Jordanian market. Furthermore, the effect of institutional ownership type such as foreign and non-foreign investors has not been examined for its effect on the QFRs in Jordan.

Therefore, the study examines the effect of the independent variables on the QFRs at Jordanian market. The results support the agency theory that ownership concentration is not a good mechanism to enhance the QFRs. Ownership concentration leads to higher agency cost and less disclosure which do not record significant results for the Jordanian market. While, the dispersion of ownership on shareholders could have a positive effect. The study investigates the dispersion ownership by foreign and local holding ownership on the QFRs. The study found that the dispersion of ownership has a positive effect on the QFRs whether foreign or local shareholding. Furthermore, the study found that the other control variables namely companies age, size and industry affiliation have highly significant effects on all models.

The study implicates good governance practices in the Jordanian market to expand the QFRs. Moreover, the study concludes that ownership concentration is not a good practice to improve the QFRs, which is an essential indicator for external investors. Furthermore, ownership dispersion is a good mechanism for better quality disclosure. Moreover, the endogeneity statistical problem gives a good implication for other researcher that study internal and external governance on the QFRs which not highlighted previously.

Finally, the study finding add new knowledge to the body of literature, particularly on the QFRs, nevertheless this study has some limitations. The sample comprises 68 companies over 11 years until 2015. A broader sample and longer period could offer more generalisable results. Finally, the study focuses on the ownership structure which is part of the corporate governance practices in Jordan. Therefore, future research could include other Internal and external governance and examine their effect on the QFRs in Jordan.
References


