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Does Earnings Quality Affect Companies' Performance? New Evidence from the Jordanian Market

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Abstract

This study aims to investigate the importance of earnings quality as a determinant of companies' performance. It provides some empirical evidences from an emerging market, specifically from the Jordanian market. This study developed an econometric model for the effect of earnings quality on the companies' performance using empirical evidence. The study employs a panel data analysis method by using a sample of all Jordanian industrial public shareholding companies listed on Amman Stock Exchange (ASE) during 2010-2018. The results reveal that Return on Assets (ROA), Return on Equity (ROE), and Earnings Per Share (EPS) as proxies of company's performance are affected by the earnings quality. This provides the importance of positive earnings quality that eventually influences the companies' performance. The results of this study suggest that the higher control level on the managers' behavior and its outcome will have an effect on earnings quality, and thus the company's performance increases. As well as, high relevance of accounting information will improve earnings quality, and thus earnings quality with the interaction factors of the company's environment work on improving performance. As a conclusion, this study can work as a reference to assist standard setters, security analysts, regulators and other accounting-information users in appraising relation between the earnings quality and companies' performance.

Keywords: Earnings Quality, Earnings Management, Information Asymmetry, Financial Performance, Emerging Market

JEL Classification Code: G30, O16, M21, M41, M42

1. Introduction

The reliability of financial information has become more important for decision making, especially with the environmental uncertainty that affects business environment. Recent literature (e.g. Dempster & Oliver, 2019) discussed that earnings quality is an important indicator for the reliability of financial information that used by interest parties, such as investors, lenders, creditors and others. It contributes in providing great benefits for these decision makers (Schipper

& Vincent, 2003; Abdelghany, 2005; Das et al., 2009; Lambert et al., 2007; Li, 2014; Dempster & Oliver, 2019). Bellovary et al., (2005, p.32) defined the earnings quality as an "ability of reported earnings to reflect the company's true earnings, as well as the usefulness of reported earnings to predict future earnings". Thus, in order to take a true decision, the decision makers require more sensitive information that is characterized by high quality. For example, Francis et al. (2005) confirmed that the information of earnings quality is an important indicator that used by creditors, where the cost of capital is negatively associated with earnings quality (Easley & O'Hara, 2004). The companies with high earnings quality enjoy discounts in their costs of equity and costs of debt (Ecker et al., 2006; Easley & O'Hara, 2004; Dechow & Dichev, 2002).

Prior studies, such as by Cheng et al. (2019) and Chan et al. (2015) confirmed that earnings quality provides information about financial misstatements, and it contributes in increasing investors' confidence about earnings information. Apart from this, they noted that it is used to predict future companies' returns. Beyer et al. (2019) and Perotti and Wagenhofer (2014) documented that earnings quality contributes in

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managing the magnitude of investors' uncertainty, where earnings quality provides information about the company assets in place and future earnings. Mitra (2016) added that earnings quality is highly negatively associated with company-specific return volatility. The managerial discretionary behavior and economic fundamentals have an effect on company-specific return volatility, and the current earnings provide useful information to predict future earnings and future dividend-paying ability (Dempster & Oliver, 2019; Schipper & Vincent, 2003). Thereby, we can note that users consider earnings quality as one of the reliable and most important indicators in preparing financial forecasts about the returns, as well as it provides indicator about information asymmetry.

Based on the contingency theory, the company performance is affected by managerial behavior and internal environmental contexts (Bloom & Reenen, 2007; Lucas, 1978). Dempster and Oliver (2019) discussed that earnings quality represents an expensive and important aspect of managerial behavior, and it's an ethical issue in the companies. In fact, managerial behavior is affected by accounting methods, estimates made, judgments, and decisions by standard setters (Teets, 2002). In addition, Healy and Whalen (1999) added that earnings quality is affected by managerial behavior and may affect the companies' performance. Abdelghany (2005) and Huynh (2020) also mentioned that a company that manages earnings provides a message that bending the truth is an acceptable price. In other words, earnings management provides an ethical environment in which suspicious activities may occur (Huynh, 2020).

The current study develops an econometric model for the effect of earnings quality on companies' performance using empirical evidence from Jordanian market as an emerging market. In Jordan, a panel data analysis indicates that the companies' performance until recent years was at a very low level because the economic conditions and environmental uncertainty affected it. For example, the earnings per share of Jordanian industrial public shareholding companies listed on Amman Stock Exchange (ASE) was 10 percent, 7 percent, and 1 percent for the year 2012, 2014, and 2017, respectively.

Therefore, our study makes several important contributions. First contribution, we study the impact of earnings quality on the performance based on the organizational theory and the contingency theory. As most empirical literature extend their works based on information asymmetry and agency theory, therefore, this study adds to literature on the determinants of performance in a company and the contingency framework. In addition, the authors also highlighted earnings quality and control framework could be used to improve companies' performance in Jordanian industrial sector. Second, our results also add to the recent literature on the relation between companies' performance and earnings quality and then provide some evidence about

it. Finally, this study can be a reference to assist standard setters, security analysts, regulators and other accounting-information users in appraising relation between the earnings quality and companies' performance.

The rest of this paper is organized as follows: First, in the next section we review the related literature and develop three main hypotheses of the study. Then, we proceed in section 3 to describe the sample selection, the measurements of variables and the methodologies that were employed for the analysis. After that, in section 4 we discuss and analyze the results. The last section details the conclusions.

2. Literature Review and Hypothesis

The current study is based on the organizational theory and the contingency theory. The organizational theory studies companies as a whole, and it concerns with determinants of control strategy as well as distinction between two types of performance evaluation control, namely outcome based and behaviour based (Jones, 1995). The companies' performance in the organizational theory comprises the actual output of a company (Upadhaya et al., 2014). Apart from this, the contingency theory also discusses that managerial practices and managerial human capital are production factors, and also the companies should select them optimally given the business environment it faces (Bloom & Reenen, 2007; Ichniowski et al., 1997; Lucas, 1978).

With that, the earnings quality means consistent cash flow in the company, and high earnings quality indicates that consistency of the cash flow is more than the consistency of the accruals (Hamdan et al., 2013). In other words, the lower uncommon accruals in accounting profits refer to high earnings quality. Kamarudin and Ismail (2014) confirmed that earnings quality is the earnings ability to provide users, such as financing suppliers, creditors, investors and other users with relevance and credibility information about cash flow sources. They also noted that cash flow is highly positively associated with earnings quality, and this means that more cash flow refers to high earnings quality.

Ball and Shivakumar (2005) indicated that earnings quality gives the ability to forecast and identify the fair valuation of a company and it provides accurate information on operating and future performance. Persakisa and Iatridis (2015) documented that earnings quality are the earnings that credibly and genuinely represent real earnings and not fraudulent earnings. In addition, Hamdan et al. (2013) added that earnings quality will be high in the company, if it is conservative and accountable, and there is no earnings management practice.

However, several studies discussed the relationship between earnings quality and performance, such as Ball and Shivakumar (2005), Dechow (1994), Dichev et al. (2013), Burgstahler et al. (2006), Dechow et al. (2010), Davis-Friday

et al. (2006), and Martowidjojo et al. (2019). They noted that earnings quality and the performance are important issues with environmental uncertainty that affects the business environment. Martowidjojo et al. (2019) discussed that high-earnings quality decreases rather than increasing the market values of equity, but companies that pay out dividends are valued significantly higher, at the same time the companies that issue equity are valued lower. Machdar et al. (2017) also discussed that high accounting reservation will increase the relevance of accounting information, and this will improve earnings quality. They found that operating performance is positively affected by earnings quality, and negatively affected by real earnings management.

Dang et al. (2020), Agugum et al. (2019) and Agugum and Salawu (2018) documented that earnings quality is highly positively associated with companies' book value, and this refers to the relevance of information disclosure which enhances earnings quality, as well as credibility of reported book value. Chan et al. (2006) discussed that stock returns are positively and negatively affected by earnings quality and earnings management, respectively. This means that high earnings quality and low-earnings management will improve stock returns, and thus earnings quality is negatively associated with earnings management. Their results showed that high earnings quality reduces the conflict of interest practices in the companies and thus the stock returns improve. Additionally, Lee (2019) added that non-operating earnings quality affects the market returns of Taiwan's companies. However, Wijesinghea and Kehelwalatennab (2017) found no effect of earnings quality on the shares returns of manufacturing companies.

On the other side, Machdar et al. (2017) noted that the companies' performance is positively and negatively associated with earnings quality and real earnings management, respectively. This is because high earnings quality and low-earnings management refer to sound management practices in the company that affect the performance. Challen and Siregar (2012) discussed that real earnings management is negatively associated with the company value. The real earnings management refers to low earnings quality, and thus the company value decreases. At the same time, Fatemi et al. (2018) and Sardo and Serrasqueiro (2017) found that the value of a company is positively associated with its performance strengths. The good performance strength indicates high company value, about which Latif et al. (2017) concluded that earnings quality works on maximizing the value of companies, specifically the value of non-financial companies. In other words, earnings quality is a strength indicator for the company that can be used by the interested parties to take good decisions.

Prior studies, such as by Alsufy et al. (2020), Huynh and Nguyen (2019), Ma (2017) and Lambert et al. (2007) discussed that high earnings quality of public companies

decreases a company's systematic market risk, and thus performance will increase. Al Deeb (2018) provided evidence from an emerging market in the role of earnings quality as a mediating factor in the relationship between earnings management, returns variability, and corporate governance, with shares performance. He confirmed that earnings quality mediates the relationship between earnings management, returns variability, and corporate governance, with shares performance, where earnings quality supports other factors in order to improve the shares performance, and this also supported by the work of Nam (2019).

Kormendi and Lipe (1987) discussed that earnings association depends on earnings persistence, and it measures the extent to which current earnings are associated with the future earnings. Their results presented that there is a relationship between earnings and earnings quality. Likewise, earnings quality contributes to users' protection (such as financing suppliers, creditors, investors and other users) through helping them to predict future returns and thus making the right decisions (Cahan & Sun, 2009).

Finally, it is clear that there has been relatively little research done until recent years in the effect of earnings quality on companies' performance, specifically in emerging markets (such as Jordanian market), while there has been an abundance of research into the prevalence of earnings management, specifically in developed markets. Also, previous studies disagree about the effect of earnings quality on companies' performance. In other words, there is variation in the effect of earnings quality, as well as it has been under-explored in the studies. Therefore, the current study investigates the effect of earnings quality on companies' performance using empirical evidence from Jordanian market as an emerging market. As a conclusion, we can present the hypotheses of the current study as follow:

H1: *Given the Jordanian industrial public shareholding companies, earnings quality positively affects return on assets (ROA).*

H2: *Given the Jordanian industrial public shareholding companies, earnings quality positively affects return on equity (ROE).*

H3: *Given the Jordanian industrial public shareholding companies, earnings quality positively affects earnings per share (EPS).*

3. Research Methodology

3.1. Population and Study Sample

The current study is an empirical study used for all Jordanian industrial public shareholding companies listed on Amman Stock Exchange (ASE) between the years 2010 to 2018. This means that the study sample consists

of all Jordanian industrial public shareholding companies, with a total number of 52 industrial companies listed on ASE during the period of study. Official disclosers from government entities (such as Central Bank of Jordan) recently documented that the industrial sector is an important sector in Jordanian economic environment, where it contributed about 25.2% of the gross domestic product (GDP) at the end of the year 2019, and the value of this sector until the year 2019 was about JD 3.25 billion. Besides, this study aims to look at the industrial sector by investigating the effect of earnings quality on the companies' performance of Jordanian industrial public shareholding companies.

3.2. Study Data and Analysis Method

In order to measure the study variables, this study uses the financial disclosures of Jordanian industrial public shareholding companies during the period of study. It means that the current study uses a panel data analysis method, which is the unit of analysis is an organization. However, the current study covered nine years (from 2010 to 2018) after the global financial crisis (Aug/2008).

3.3. Study Model

The current model of study used the companies' performance (OP) from a financial aspect as a dependent variable, and earnings quality (EQ) as an independent variable. Besides, the model of this study include three controlled variables, namely company size (Size), total equity to total assets ratio (TEtoTA), and working capital ratio (WC).

3.4. Measurements of the Study Variables

Regarding the measurement of earnings quality as an independent variable, the prior studies disagree about the measurement of earnings quality (Srinidhi et al., 2011; Beyer et al., 2019; Wasan & Mulchandani, 2020). Srinidhi et al. (2011) measured EQ by current discretionary accruals which are related to financial statements. Kent et al. (2016) measured EQ by capturing earnings manipulation and the uncertainty of accruals, and this measurement is supported by Dechow and Dichev (2002), Francis et al. (2005), Jones et al. (2008), and Dechow et al. (2010). Beyer et al. (2019) measured EQ by predicting about the time-series properties of financial information and reporting bias (Wasan & Mulchandani, 2020). Mehrani et al. (2017) discussed that we can measure the EQ by earnings response coefficient, discretionary accruals, predictive value of earnings, conservatism, and real earnings management. Ali et al. (2011), Jafari (2016), Alsufy et al. (2020) and Afifa et al. (2020) suggested that the cash approach uses EQ as a measurement. They documented

that the closeness of the accounting profits and cash reflects a high quality, and this measurement was adopted in the current study. It is concerned with measuring the predictive power of EQ. We can present the EQ measurement by the following equation:

$$OCFtoTA_{i,t} = \frac{Operating\ Cash\ Flow_{i,t}}{Total\ Assets_{i,t}} \quad (1)$$

$$NItoTA_{i,t} = \frac{Net\ Income_{i,t}}{Total\ Assets_{i,t}} \quad (2)$$

$$EQ_{i,t} = \frac{OCFtoTA_{i,t}}{NItoTA_{i,t}} \quad (3)$$

where: OCFtoTA_{i,t} is the ratio of dividing the operating cash flow by total assets of the company *i* for the year *t*; NItoTA_{i,t} is the ratio of dividing the net income by total assets for the company *i* for the year *t*; and then EQ_{i,t} is the result of dividing OCFtoTA_{i,t} for the company *i* for the year *t* by NItoTA_{i,t} for the same company and for the same year.

Besides, OP in the current study measures three indicators, namely Return On Assets (ROA), Return On Equity (ROE), and Earnings Per Share (EPS). Nassar (2018) and Obuobi et al. (2020) documented that these indicators are proxies for the measurement of companies' performance. The equations of these present indicators are as follow:

$$ROA_{i,t} = \frac{Net\ Income_{i,t}}{Total\ Assets_{i,t}} \quad (4)$$

where ROA_{i,t} = ROA for company *i* for the year *t*; Net Income_{i,t} = net income for company *i* for the year *t*; and Total Assets_{i,t} = total assets for company *i* for the year *t*.

$$ROE_{i,t} = \frac{Net\ Income_{i,t}}{Total\ Equity_{i,t}} \quad (5)$$

where ROE_{i,t} = ROE for company *i* for the year *t*; Net Income_{i,t} = net income for company *i* for the year *t*; and Total Equity_{i,t} = total equity for company *i* for the year *t*.

$$EPS_{i,t} = \frac{Net\ Income_{i,t} - Dividend\ on\ Preferred\ Stock_{i,t}}{Average\ outstanding\ shares_{i,t}} \quad (6)$$

where EPS_{i,t} = EPS for company *i* for the year *t*; Net Income_{i,t} – Dividend on Preferred Stock_{i,t} = net income for company *i* for the year *t* less dividend on preferred stock for the same company *i* in the same year *t*; and Average Outstanding Shares_{i,t} = (beginning outstanding shares plus ending outstanding shares) for company *i* for the year *t* divided by 2.

The controlled variables in the current study is calculated by the following equations:

$$\text{Size } i.t = \text{Ln} (\text{Total Assets}) \quad (7)$$

where company size $i.t$ is calculated by natural logarithm (ln) of total assets for the company i for the year t (Devin et al., 2019).

$$\text{TE to TA } i.t = \frac{\text{Total Equity } i.t}{\text{Total Assets } i.t} \quad (8)$$

where TEtoTA $i.t$ is calculated by dividing the total equity for the company i for the year t by total assets for the same company i for the same year t (Fanning & Cogger, 1998; Devin et al., 2019).

$$\text{WC } i.t = \frac{\text{Total Current Assets } i.t}{\text{Total Current Liabilities } i.t} \quad (9)$$

where WC $i.t$ is calculated by dividing the total current assets for the company i for the year t by total current liabilities for the same company i for the same year t (Al Qaisi et al., 2016).

4. Data Analysis and Results

4.1. Diagnostic Analysis

Initially, the anomaly values was deleted from a panel data in order to increase the reliability and validity of the findings. Then, the normality distribution test for the panel study data is tested through defining the data curve and it shows that the panel study data is under the normal curve. After that, the study uses the multicollinearity tests through Pearson correlation coefficients, as well as the Variance Inflation Factor (VIF) and the inverse VIF (tolerance (TOL, 1/VIF)). These tests aim to determine if the panel study data suffer from any econometric problems (Gujarati & Porter, 2009; Baltagi et al., 2010; Baltagi, 2008). Gujarati and Porter (2009) confirmed that the multicollinearity problem appears when the correlation coefficient (Beta) result between two variables is more than 0.80, and VIF values for

all variables are more than ten and the inverse VIF (tolerance (TOL, 1/VIF) values for all variables are less than 10 percent. Findings show that Pearson correlations (Beta) between the variables are less than 0.80. Also, the VIF and the inverse VIF values are less than ten and more than 10 percent, respectively. Thereby the regression models of the current study do not suffer (is a fit) from the multicollinearity problem.

4.2. Descriptive Analysis

The current study uses many descriptive tests (i.e. Means, Standard Deviation (SD), Maximum and Minimum value) to describe a panel data during the period. Table (1) reports that the maximum value of EQ was (13.250) and the minimum value was (-14.140). The mean of EQ was (0.861) with SD (2.891). The mean value means that it is closer to one and thereby the EQ in Jordanian industrial public shareholding companies is under a high level. At the same time, SD value indicates that there are statistical differences in EQ values in the Jordanian industrial public shareholding companies.

The mean of ROA was (1.374%) with SD (7.909%), as well as the mean of ROE was (1.423%) with SD (15.075%). It is clear that the earnings of Jordanian industrial public shareholding companies were under a low level. This may be due to the difficult economic conditions during the study period that have significantly affected the returns of these companies. Besides, the mean of EPS was (0.057) with SD (0.334), and we can note that the mean of EPS is under a good level compared to the risk-free return in Jordan during the study period.

Then, the mean of the company size was (16.706) with SD (1.461). In other words, the mean of total assets of Jordanian industrial public shareholding companies was (JD 64,678,633) and there was no statistical differences in the total assets of these companies during the study period. The mean of TEtoTA was (0.636) with SD (0.234), and this indicates that Jordanian industrial public shareholding companies focus on the internal financing for their investments in order to decrease the cost of funding. The mean of WC was (2.511) with SD (2.394), and this also indicates that WC of the targeted companies is under a very good level, and thus these companies are able to fulfill their current liabilities (See Table 1).

Table 1: Descriptive analysis

Variables	Minimum	Maximum	Mean	SD
EQ	-14.140	13.250	0.861	2.891
ROA (%)	-35.820	27.670	1.374	7.909
ROE (%)	-62.033	66.036	1.423	15.075
EPS	-1.172	2.386	0.057	0.334
Size	12.677	20.915	16.706	1.461
TEtoTA	0.001	0.996	0.636	0.234
WC	0.021	16.227	2.511	2.394

4.3. Regression Models Analysis

The study also uses the correcting Regression with Driscoll-Kraay standard errors method to test the hypotheses. The current study includes three hypotheses, and the following paragraphs present the results of the hypotheses test.

H1: Given the Jordanian industrial public shareholding companies, EQ positively affects ROA.

Table (2) presents the results of the above hypothesis. Results indicate that the model of the above hypothesis is a fit at a significant level of the F-statistic (19.307***). The consistent term ($_Cons$) of the first hypothesis model is positively significant (Beta=45.7 percent) at p-value < 0.01. This means that EQ positively affects ROA of the Jordanian industrial public shareholding companies, and thereby the first hypothesis is accepted. Furthermore, the hypothesis model explains (19.8 percent - Adjusted R Square -) in the variations of ROA (See Table 2).

H2: Given the Jordanian industrial public shareholding companies, EQ positively affects ROE.

The regression results of the second hypothesis in the model present in Table (3). Regression results indicate that the model of the second hypothesis is a fit at a significant level of the F-statistic (16.401***). Thereby, the second hypothesis is accepted. In other words, the EQ positively affects ROE of the Jordanian industrial public shareholding companies. The consistent term ($_Cons$) of the above hypothesis model is positively significant (Beta=42.9 percent) at p-value < 0.01. Adjusted R Square was (17.3 percent), and this means that the hypothesis model explains (17.3 percent) in the variations of ROE of Jordanian industrial public shareholding companies (See Table 3).

H3: Given the Jordanian industrial public shareholding companies, EQ positively affects EPS.

Table (4) shows the result that the model of the third hypothesis is a fit at a significant level of the F-statistic (23.837***), and the consistent term ($_Cons$) of the hypothesis model is positively significant (Beta=48.1 percent) at p-value < 0.01. The model of the third hypothesis explains (22.2 percent - Adjusted R Square -) in the variations of EPS of the targeted companies. As a conclusion, the third hypothesis is accepted, and thereby the EQ positively affects EPS of the Jordanian industrial public shareholding companies (See Table 4).

Table 2: Regression results of the first hypothesis

Variables	ROAi.t= $\alpha + \beta_1 Size_i.t + \beta_2 TEtoTA_i.t + \beta_3 WC_i.t + \beta_4 EQ_i.t + (\epsilon_i + v_i.t)$		
	Coefficients	(t-static)	Sig.
Con-	-31.040	-6.013	0.000***
Size	1.457	5.034	0.000***
TEtoTA	13.063	5.584	0.000***
WC	0.022	0.106	0.916
Con-	-30.540	-5.955	0.000***
Size	1.423	4.947	0.000***
TEtoTA	12.626	5.419	0.000***
WC	0.052	0.252	0.801
EQ	0.309	2.326	0.021**
R (Beta)	0.457		
R Square	0.209		
Adjusted R Square	0.198		
(F-value)	19.307***		

Note: *, **, ***= p-value < .10, .05, .01.

Table 3: Regression results of the second hypothesis

Variables	ROE _{i,t} = $\alpha + \beta_1 \text{Size}_{i,t} + \beta_2 \text{TEtoTA}_{i,t} + \beta_3 \text{WC}_{i,t} + \beta_4 \text{EQ}_{i,t} + (\epsilon_i + v_{i,t})$		
	Coefficients	(t-static)	Sig.
Con-	-55.282	-5.220	0.000***
Size	2.231	3.803	0.000***
TEtoTA	30.785	6.141	0.000***
WC	-0.369	-0.880	0.379
Con-	-54.206	-5.145	0.000***
Size	2.164	3.707	0.000***
TEtoTA	29.762	5.948	0.000***
WC	-0.299	-0.717	0.474
EQ	0.584	2.170	0.031**
R (Beta)	0.429		
R Square	0.184		
Adjusted R Square	0.173		
(F-value)	16.401***		

Note: *, **, *** = p-value < .10, .05, .01.

Table 4: Regression results of the third hypothesis

Variables	EPS _{i,t} = $\alpha + \beta_1 \text{Size}_{i,t} + \beta_2 \text{TEtoTA}_{i,t} + \beta_3 \text{WC}_{i,t} + \beta_4 \text{EQ}_{i,t} + (\epsilon_i + v_{i,t})$		
	Coefficients	(t-static)	Sig.
Con-	-1.714	-8.172	0.000***
Size	0.087	7.344	0.000***
TEtoTA	0.503	5.190	0.000***
WC	0.003	0.350	0.725
Con-	-1.700	-8.108	0.000***
Size	0.086	7.270	0.000***
TEtoTA	0.489	5.021	0.000***
WC	0.004	0.461	0.645
EQ	0.008	1.428	0.154
R (Beta)	0.481		
R Square	0.231		
Adjusted R Square	0.222		
(F-value)	23.837***		

Note: *, **, *** = p-value < .10, .05, .01.

5. Discussion

The results show that high EQ increases the companies' performance of Jordanian industrial public shareholding companies, where ROA, ROE, and EPS indicates the companies' performance. The findings of the current study are supported through the organizational theory and contingency theory. The organizational theory discusses that control strategy is an important factor that affects the company's

performance and it mentions that the higher control level on the managers' behavior and outcome, will improve the company's performance (Al-Absy et al., 2020; Upadhaya et al., 2014; Jones, 1995). As well, the contingency framework discusses that managerial practices or behavior and managerial human capital as production factors affect the company's performance (Bloom & Reenen, 2007; Ichniowski et al., 1997; Lucas, 1978). This means that the sound managerial practices or behavior will lead to increase the company's performance.

From the back drop, these findings are following empirical studies, such as Latif et al. (2017), DeFond et al. (2007), Wysocki (2005), Larson and Resuttek (2011), Leuz et al. (2003), Dechow et al. (2010), Antonio et al. (2019) and Afifa et al. (2020). These studies indicated that market return is positively affected by EQ, and it plays a vital role by increasing the market value of share prices. Larson and Resuttek (2011) documented that EQ contributes in minimizing the magnitude of earnings forecast errors, and this may improve the companies' performance. Additionally, high EQ will lead to high decision makers protection (Antonio et al. 2019; Cahan & Sun, 2009), where information with high EQ is less opaque because EQ helps decision makers to capture useful and real accounting information (Cahan & Sun, 2009).

Machdar et al. (2017) confirmed that high relevance of accounting information will improve EQ. They also confirmed that EQ positively affects the operating performance where real earnings management has a negative impact on the operating performance. Chan-K et al. (2006) and Lee (2019) found that EQ affects the share return positively, because sound management practices in the company positively affects the company performance, and thereby improves share returns (Manurung & Murwaningsari, 2017; Ma, 2017).

In contrast, Wijesinghea and Kehelwalatennab (2017) indicated that the share return in manufacturing companies is not affected by EQ, and therefore it does not support their performance. Martowidjojo et al. (2019) found that high EQ decreases the market values of equity. They argued that there are many factors, such as economic environment factors and company's environment factors which may be affecting this relationship. Al Deeb (2018) discussed EQ with other factors (internal environmental factors) to improve the shares performance. In other words, EQ with the interaction factors of the company's environment complement each other to improve the performance.

Moreover, high EQ may reduce information uncertainty and asymmetry (Beaupain & Joliet, 2011; Qi et al., 2010; Dechow & Dichev, 2002), and this is attributed to timing and matching problems associated with realized performance (Dechow, 1994). For example, accruals quality can be used to enmesh the ability of earnings and signal private information to measure the company performance (Dechow, 1994). Sayari and Omri (2017) showed that low EQ will result in higher liquidity costs because real earnings management reflects low accounting information quality. On the one hand, Dechow (1994) discussed that managers in public shareholding companies were able to opportunistically manipulate return, and this affects the company's performance.

6. Conclusion

The performance of Jordanian industrial public shareholding companies is positively affected by EQ. In

other words, high EQ positively affects ROA, ROE, and EPS of Jordanian industrial public shareholding companies. The previous findings of the current study indicate that the Jordanian market as an emerging market (related to Jordanian industrial public shareholding companies) controlling of EQ under a good level. This is because the study models explain 19.8 percent, 17.3 percent, and 22.2 percent of ROA, ROE, and EPS, respectively.

7. Study Recommendations and Future Research

The current study is recommended for the necessity of limiting earnings management practices in Jordanian industrial companies to improve levels of earnings quality, and by doing so, increase their financial performance. There is a need to increase managers' awareness in Jordanian industrial companies for achieving fair disclosure of financial information, because earnings management and earnings quality are ethical issues in the companies. Also, the study recommended the future researchers to investigate the effect of economic environment factors and internal environment factors on earnings quality, in order to enhance the companies' performance.

8. Study Limitations

The current study focuses on the period from the year 2010 to the year 2018. When data is available for more years, future studies may re-investigate the issue.

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