The Mediating Effect of Disclosure Quality on the Relationship Between Financial Performance and Firm Value in Iraqi Stock Exchange

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Abstract: This study aims to analyze the impact of financial performance and the firm value with the mediating effect of disclosure quality in the Iraq Stock Exchange using a sample of 122 observations in the time period 2015-2017. The study results revealed that a significant positive relationship between liquidity and leverage and disclosure level and a significant negative relationship between size and disclosure level and a significant negative relationship between disclosure level and leverage and Roe (in the presence of disclosure quality as a predictor in the model) and firm value. For the indirect effects of size and liquidity and leverage and Roe on firm value it was greater than its direct effect but in a positive relationship for size and in a negative relationship for liquidity and leverage and Roe. This means there is an indirect effect by disclosure quality on the effect of size and liquidity and leverage and Roe on firm value. In other words, disclosure quality mediates the effect of size and liquidity and leverage and Roe on firm value.

Key words: Disclosure quality, financial performance, firm value, information asymmetry, firm value, liquidity and leverage

INTRODUCTION

Disclosure has a key role in achieving market efficiency and the legal financial reports represent the main tool of disclosure including financial statements, notes, other legal reporting, management discussion and analysis. In addition, other voluntary disclosures have been made by some firms such as management forecasts and additional information about financial performance. Information asymmetry and agency problems may have caused an increase in the demand for financial reports and disclosure (Beretta and Bozzolan, 2008).

Disclosure quality (Disclosure quality in this research refers to the disclosure level as a measure for the quality, where the increase in the level of disclosure level means the increase in disclosure quality) increasing with the decrease in the level of information asymmetry between management and external users of financial statements which leads to reducing agency costs. Also, disclosure quality leads to reduce the cost of capital, the share output fluctuation and increasing the volume of exchanges. On contrary, low level of disclosure leads to misleading share holders and damage their capital (Karamancu and Vafeas, 2005).

Inefficient allocation of resources occurs because of agency problem and information asymmetry in the capital markets. Therefore, efficient contracts become the only solution for these problems and encourage managers for increasing the level of disclosure. This results in reducing the conflicting interests and the misvaluation of the firm. So, accounting disclosures are important mechanism under uncertainty for attaining investor’s trust (Haggard et al., 2008).

Accounting disclosures enables shareholders and creditors to evaluate future returns for their investments (ex-ante role of accounting information) and enables them to monitor the usage of the capital for the firm (ex-post role of accounting information) (Hope, 2003a, b). Accounting disclosure mitigating information asymmetry between management and investors through facilitating the safe transmission of information (Healy and Palepu, 2001).

In this regard, maximization profits are the primary goal of the company which leads to competition of investors to buy shares of the company, reflecting the share price and thus the market value of the company (Dhaliwal et al., 2012). So, the market value that we used in this study is a reflection of corporate value which is a function of the market value of the company (Mursalam et al., 2015). In the same time, the stock price is a good mechanism to predict future expectations of a company, so, low value of stock means poor financial performance (Saka and Oshika, 2014). In the other side, the financial performance is the final result of the managerial decisions and improving financial performance requires that the stock investor’s interest in permanently

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Consequently, we conclude that the stock price is the main determinant for both firm value and financial performance.

In another vein, signaling theory encourages companies to increase the level of disclosure about financial information to external parties. According to this theory, increasing level of disclosure helps to distinguish between good companies and bad companies which attract investors to buy stocks of good companies (Lambert et al., 2007). Consequently, we conclude that, the stock price is the main result of the interests of investors which are built on the level disclosure provided by the firms.

In this context, we conclude that disclosure quality is the major determinant of the relationship between financial performance and firm value. Because of the disclosure facilitate the information flow about the financial performance to investors and the investor decisions about stocks determine the firm value. So, we expect that the problem of this study is to find out the effect of mediating role of disclosure quality on the relationship between financial performance and firm value. Especially, the Iraq information environment has great asymmetric information among analysts.

**Literature review:** Stock markets requirements imposed a number of limitations on the disclosures of corporations resulting in the creation of relationship between financial performance and firm F-value, leading to attention a lot of researchers to analyze this relationship. Nistor et al. (2011) presented the results of a research on voluntary disclosure of performance indicators by listed companies in Romania. This study reached to first, the low degree of transparency of listed companies in Romania on the publication on own website of the financial ratios under IFRS. Second, the publication of financial indicators in annual reports presents in the set frame of financial statements of some performance indicators. Third, the presence of correlation between the information published, listing category and company size.

Momeni et al. (2015) studied the impact of social transparency on the firm value and performance of companies listed in Tehran Stock Exchange (TSE) based on data from 101 companies in year of 2015 and showed that social transparency is positively associated with firm value and performance.

Monika and Muhammad (2017) investigated the impact of financial performance to firm value, the impact of CSR disclosure as moderating variable in relationship between financial performance and firm value, the impact of good corporate governance as moderating variable in relationship between financial performance and firm value. The results of this study showed that the financial performance affects the value of the company. The interaction between financial performance and disclosure of CSR to the firm value has no effect. The interaction between ROE and managerial ownership on firm value has a positive significant effect. Managerial ownership is a variable that moderates the moderate relationship between ROA and Tobin's Q.

Garcia et al. (2018) investigated the moderating effect of corporate social performance disclosure on the relationship between corporate social performance and corporate financial performance. The findings indicated the existence of a positive moderating effect of disclosure on the relationship between the corporate social performance of primary stake holders and corporate financial performance besides presenting a positive corporate social performance in relation to the primary stakeholders.

Diantimala (2018) examined the effect of financial performance on sustainability disclosure and then to examine the effect of sustainability disclosure on firm value. The results presented that higher liquidity emboldens management to convey more sustainability disclosure. Higher sustainability disclosure increase firm value significantly. However, the effect of leverage, profitability and firm size is not significant. Regarding the indirect effect of financial performance on firm value, the results show that leverage and profitability have a positively indirect effect on firm value. However, size and liquidity have no indirect effect on firm value. This means that the increase of leverage and profitability will encourage management to publish more sustainability disclosure and it will increase firm value of companies listed on the Jakarta Islamic Index.

Based on these studies we conclude that the general trend is examining the impact of disclosure about social responsibility or sustainability on the financial performance by making the disclosure index as moderator variable in the relationship between financial performance and firm value, excepting (Diantimala, 2018) which uses the sustainability disclosure index as a mediator variable.

So, we conclude that the research gap is using disclosure quality index instead of disclosure about social responsibility or sustainability as mediating variable instead of moderator variable because of there is no available data about social responsibility or sustainability disclosure in Iraq Capital Market. Therefore, this study will contributes to the international accounting literature in 2 ways. First one, to our best knowledge it is the first study examining the impact of disclosure quality as a mediating variable on the relationship between financial
performance and firm value in Iraq. Second, this study is the first study to our best knowledge will use the mediating effect not a moderating effect of disclosure quality instead of social responsibility or sustainability disclosure on the relationship between financial performance and firm value in Iraq.

MATERIALS AND METHODS

Theory and hypothesis development: Stakeholder theory stems from organizational responsibility to stakeholders and we use it to explain the motivation of managers for disclosure quality. This theory suggests that the support of stakeholders have a great effect on the existence of an organization (Healy and Palepu, 2001). Stakeholders can use disclosure level to assess the extent of the company’s role in addressing financial issues. Firms can also improve their accountability and transparency by increasing their disclosure level (Ho and Taylor, 2007).

Investors are the major users of financial statements because they intensively use accounting information for estimating or forecasting the firm value (Barron et al., 2002). Increasing investor’s understanding and other stakeholder’s awareness of the firm’s performance and future outlook is the overall aim of a firm’s disclosure activity. Therefore, analysts process information arising from disclosure and then translate it for investors into earnings forecasts and investment recommendations (Dhaniwal et al., 2012).

Theoretically, information asymmetries reducing as increasing relevant and reliable information where the more comprehensive information lead to better future estimates of analysts and more accurate earnings forecasts (Lambert et al., 2007). The indicators which represent the measure tool of financial performance are the drivers for management to increase the level of disclosure thus the disclosure quality (Dienes et al., 2016). These indicators are firm size, profitability, liquidity and leverage. Firm size is total assets, profitability indicator is ROE, liquidity indicator is the solvency: Ratio = (After tax net profit+depreciation)/total liabilities and leverage indicator is the book value of debt to total assets ratio (Diantimala, 2018; Garcia et al., 2018; Talab et al., 2017, 2018).

The disclosure level more likely to increase with increasing the firm size and decreasing leverage where numerous of researchers (Dilling, 2016; Ho and Taylor, 2007) found a positive relationship b between disclosure level and firm size and also found a negative relationship between disclosure level and leverage. On the contrary Wang (2017) and Li et al. (2013) showed a positive relationship between disclosure level and leverage. On the other side, higher liquidity ratio refers to a strong financial position and indicator of their credibility. With regard to the relationship between profitability and disclosure level there are a positive relationship, the higher profitability indicates the higher desire to adopt more voluntary reporting (Dienes et al., 2016). This leads to our first hypothesis as follow:

H1: the indicators represented in firm size, liquidity and profitability are positively affecting the disclosure quality (disclosure level) and the leverage negatively affecting the disclosure quality

The firm value closely related to disclosure level with a positive relationship (Fazzini and Dal-Maso, 2016; De Klerk et al., 2015; Saka and Oshika, 2014; De Klerk and De Villiers, 2012; Haggard et al., 2008). On the contrary, Gunawan and Mayangsari (2015) haven’t found any relationship between firm value and disclosure level. This leads to our second hypothesis as follow:

H2: there is no effect of disclosure quality on the firm value

Signaling theory encourages companies to increase the level of disclosure about financial information to external parties. According to this theory increasing level of disclosure helps to distinguish between good companies and bad companies which attract investors to buy stocks of good companies (Lambert et al., 2007). Consequently, the investors use this information for making the financial ratios and the ratio value reflect the value of the company. In other words, good financial performance indicators mean a potential big profit in the future which means attractive stock price to investors reflecting the value of the company. This leads to our third hypothesis as follow:

H3: financial performance has a positive effect on the firm value (indirect)

Research model: In this study, this research aim to show the measurement of variables and empirical models that can be used for testing hypothesis as follow.

The independent variable
Financial performance: The most important measures of financial performance are firm size, profitability, liquidity and leverage. Firm size is total assets, profitability indicator is ROE, liquidity indicator is the solvency: Ratio = (After tax net profit+depreciation)/total liabilities and leverage indicator is the book value of debt to total assets ratio (Diantimala, 2018; Garcia et al., 2018; Talab et al., 2018a, b).
The dependent variable

**Firm value:** Firm value can be measured using Tobin’s Q, through this formula as follows (Monika and Muhammad, 2017):

\[
\text{Tobin’s Q} = \text{Market value of equity/total assets at book value}
\]

The mediator variable: disclosure level: Numerous studies have developed scoring models for measuring disclosure level (e.g., Botosan, 1997; Vanstraelen et al., 2003 and Lapointe-Antunes et al., 2006). Other researchers (Beretta and Bozzolan, 2008) developed a measuring tool for disclosure level that can differentiate between the quantity and the quality of disclosure, the quality refers to the depth of covered topics in the measure tool. On the other side, numerous studies use analyst’s assessments and the CIFAR assessments of international enterprises and the FAF assessments of US company’s financial reporting (Wellker, 1995; Sengupta, 1998 and Hope, 2003a, b). And we will follow the CIFAR assessments of international enterprises it is a good measure for disclosure level in Iraq information environment and its data available in Iraq stock exchange and the details of CIFAR disclosure index are presented list of CIFAR annual report variables.

General information:
- Address/telephone/fax/telex
- Product segment
- Geographic segment
- Management information
- Subsidiaries information
- Future plans/chair man or CEO’s statement
- Number of employees
- Fiscal year end

Income statement:
- Consolidated income statement
- Cost of goods sold
- Complete income statement
- Sales
- Selling, general and administrative expenses
- Operating income
- Foreign exchange gains/losses
- Extraordinary gains/losses
- Income tax expense
- Minority interest
- Net income reported

Balance sheet:
- Complete balance sheet
- Current assets separated from fixed assets
- Current liabilities separated from LT liabilities
- Owner’s equity separated from liability
- Separation of non-equity reserves and retained earnings
- Cash and cash equivalents
- Accounts receivable
- Inventories
- Current assets
- Fixed assets on asset side
- Good will and other intangibles
- Total assets can be derived
- Shareholder’s equity changes
- Appropriation of retained earnings

Funds flow/cash flow:
- Funds flow statement
- Complete funds flow statement
- Funds from operations
- Funds definition
- Cash flow statement

Accounting policies:
- Accounting standards
- Financial statements cost basis
- 50% long term investments
- Starting point for funds statement
- Research and development costs
- Pension costs
- Reasons for extraordinary items
- Inventory costing method
- 20% long term investments
- 21-50% long term investments
- Acquisition method
- Accounting for goodwill
- Deferred taxes
- Outside of manager of pension funds
- Long term financial leases
- Foreign currency translation method
- Foreign currency translation gains/losses
- Discretionary reserves
- Minority interest
- Contingent liabilities

Stockholder’s information:
- Dividends/share
- Earnings/share
- Number of shares outstanding
- Multiple shares
- Par value
- Total dividends
- Stock split/dividend/right issues
- Stock price
- Stock exchange listing
- Volume traded
RESULTS AND DISCUSSION

Data collection and results: Our sample period will cover 2016-2017. The sample period starts in 2016 because the increasing firm’s disclosure level according to the new laws published in Iraq Stock Market. Our primary data source is the Iraq Stock Market. From the 153 firm-year observations available in the Iraq Stock Market we exclude, 31 observations that have missing values for variables used in the multivariate regression analysis. After imposing this screen our final sample consists of 122 firm-year observations.

The observations concentrated in the recent 2 years because of the recommendations of Iraq Stock Market with the necessity of increasing the level of disclosure for achieving the credibility and transparency in the Iraq stock exchange. As shown in Table 1, the mean of disclosure level is relatively low (44.8%) for the companies listed in Iraq Stock Exchange because it <50%. This indicates the decrease of disclosure level in the Iraq information environment.

In addition, the mean of firm value relatively high (3.987) compared to 2.270 found by Momeni et al. (2015) and 1.27 found by Monika and Muhammad (2017) and 1.862 found by Diamentala (2018). This result indicates to the existence of a gap between the market value of Iraq companies and its book value and proves that the investors in the Iraq Stock Exchange neglect the disclosure level only depend on the financial performance of the company to invest in the capital stock market which creates the value of stocks in the capital market.

Based on this result, we conclude that the companies in Iraq Stock Exchange intentionally decrease the disclosure level for deception the investors about the real financial position of the company. Hence, the investor tries to depend on the financial performance only to make the decision about investing in the stocks.

As shown in Table 2 above in panel a the coefficients of liquidity and lev and Roe have a positive signal and it’s significantly at the level of confidence 95% which means a significant positive relationship between liquidity and lev and Roe disclosure level, i.e., the increase in liquidity and lev and Roe lead to the increase in the disclosure level on the Iraq Stock Market Exchange. This result means that the companies listed in the Iraq

<table>
<thead>
<tr>
<th>Table 1: Descriptive statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables</td>
</tr>
<tr>
<td>DL</td>
</tr>
<tr>
<td>Tobin's Q</td>
</tr>
<tr>
<td>Size</td>
</tr>
<tr>
<td>Liq</td>
</tr>
<tr>
<td>Lev</td>
</tr>
<tr>
<td>Roe</td>
</tr>
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</table>

All of these variables are shown above.
Table 2: Results of regression analysis (direct effect)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coef.</th>
<th>t-stat</th>
<th>p-values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-2.193</td>
<td>-5.62</td>
<td>0.000</td>
</tr>
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<td>DL</td>
<td></td>
<td>-</td>
<td></td>
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<tr>
<td>Size</td>
<td>-3.220</td>
<td>-10.62</td>
<td>0.000</td>
</tr>
<tr>
<td>Liq</td>
<td>0.02915</td>
<td>8.20</td>
<td>0.000</td>
</tr>
<tr>
<td>Lev</td>
<td>0.00148</td>
<td>4.38</td>
<td>0.000</td>
</tr>
<tr>
<td>Roe</td>
<td>0.04043</td>
<td>21.76</td>
<td>0.000</td>
</tr>
<tr>
<td>N</td>
<td>122</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Adj R²</td>
<td>0.2627</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Dependent variable: Disclosure level (A)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coef.</th>
<th>t-stat</th>
<th>p-values</th>
</tr>
</thead>
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<tr>
<td>DL</td>
<td>2.065923</td>
<td>1.46</td>
<td>0.146</td>
</tr>
<tr>
<td>Size</td>
<td>-5.77697</td>
<td>-2.05</td>
<td>0.009</td>
</tr>
<tr>
<td>Liq</td>
<td>8.63</td>
<td>6.33</td>
<td>0.000</td>
</tr>
<tr>
<td>Lev</td>
<td>3.19866</td>
<td>22.33</td>
<td>0.000</td>
</tr>
<tr>
<td>Roe</td>
<td>-0.35499</td>
<td>-3.03</td>
<td>0.003</td>
</tr>
<tr>
<td>N</td>
<td>-3.58589</td>
<td>-2.67</td>
<td>0.009</td>
</tr>
<tr>
<td>Adj R²</td>
<td>0.8434</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Dependent variable: Firm value (Tobin's Q) (B)

In stock exchanges which have a high level of liquidity and leverage and high return on equity doesn't be afraid from showing the real financial position of the company by increasing the level of disclosure level.

In another vein in panel a the coefficients of size has a negative signal and it's significantly at the level of confidence 95% which means a significant negative relationship between size and disclosure level, i.e., the increase in size lead to the decrease in the disclosure level on the Iraq Stock Market Exchange. These results lead to accept the first hypothesis of this study but with the exception of size and leverage from the relationship because we revealed that both variables have a negative significant relationship with a disclosure level in Iraq Stock Exchange.

As shown in the Table 2, in panel b the coefficients of size and liq have a positive signal and it's significantly at the level of confidence 95% which means a significant positive relationship (in the presence of disclosure quality as a predictor in the model) between size and liq and firm value, i.e., the increase in size and liq lead to the increase in the firm value on the Iraq Stock Market Exchange.

In addition in panel b the coefficients of disclosure level and leverage and Roe have a negative signal and it's significantly at the level of confidence 95% which means a significant negative relationship (in the presence of disclosure quality as a predictor in the model) between disclosure level and leverage and Roe and firm value, i.e., the increase in disclosure level and leverage and Roe lead to the decrease in the firm value on the Iraq stock market exchange.

These results support the first conclusion based on the descriptive statistics which says that the companies in Iraq stock exchange intentionally decrease the disclosure level for deception the investors about the real financial position of the company. Hence, the investor tries to depend on the financial performance only to make the decision about investing in the stocks.

Based on these results we can refuse the second null hypothesis of this study and accept the alternative hypothesis where there are a significant negative relationship between disclosure level and firm value and accept the third hypothesis of this study. Now we turn to show the results related to the indirect effect of financial performance on the firm value through this table as follow. As shown in the Table 3 above, the indirect effects of size and liquidity and leverage and Roe have become 18.6, -0.168, -0.0085 and -0.2335, respectively, rather than -3.22, 0.029, 0.00148 and 0.04043, respectively which means the indirect effects of size and liquidity and leverage and Roe greater than its direct effect but in a positive relationship for size and in a negative relationship for liquidity and leverage and Roe. This means there is an indirect effect by disclosure quality on the effect of size and liquidity and leverage and Roe on firm value. In other words, disclosure quality mediates the effect of size and liquidity and leverage and Roe on firm value.

Table 3: Indirect and total effects of financial performance on firm value

<table>
<thead>
<tr>
<th>Variables</th>
<th>Direct</th>
<th>Indirect</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>DL</td>
<td>-5.77697</td>
<td>-5.77697</td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>3.22</td>
<td>3.22</td>
<td></td>
</tr>
<tr>
<td>Liq</td>
<td>0.02915</td>
<td>0.02915</td>
<td></td>
</tr>
<tr>
<td>Lev</td>
<td>0.00148</td>
<td>0.00148</td>
<td></td>
</tr>
<tr>
<td>Roe</td>
<td>0.04043</td>
<td>0.04043</td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>18.6018434</td>
<td>18.6018434</td>
<td></td>
</tr>
<tr>
<td>Liq</td>
<td>-0.168398676</td>
<td>-0.168398676</td>
<td></td>
</tr>
<tr>
<td>Lev</td>
<td>-0.008549916</td>
<td>-0.008549916</td>
<td></td>
</tr>
<tr>
<td>Roe</td>
<td>-0.233562997</td>
<td>-0.233562997</td>
<td></td>
</tr>
</tbody>
</table>

CONCLUSION

This study aims to analyze the impact of financial performance and the firm value with the mediating effect of disclosure quality in the Iraq Stock Exchange using a sample of 122 observations in the time period 2016-2017. This study tries to show reciprocal relations among financial performance and disclosure level and firm value and showing its reflections on the stakeholders. The study results revealed that the companies in Iraq Stock Exchange intentionally decrease the disclosure level for deception the investors about the real financial position of the company. Hence, the investor tries to depend on the financial performance only to make the decision about investing in the stocks.
In addition, the study results revealed that a significant positive relationship between liquidity and leverage and profitability and disclosure level, i.e., the increase in liquidity and leverage and profitability lead to the increase in the disclosure level on the Iraq Stock Market Exchange. This result means that the companies listed in the Iraq Stock Exchanges which have a higher level of liquidity and leverage and high return on equity won’t be afraid from showing the real financial position of the company by increasing the level of disclosure level. And a significant negative relationship between size and disclosure level, i.e., the increase in size lead to the decrease in the disclosure level on the Iraq stock market exchange. And a significant negative relationship between disclosure level and leverage and Roe (in the presence of disclosure quality as a predictor in the model) and firm value, i.e., the increase in disclosure level and leverage and Roe lead to the decrease in the firm value on the Iraq Stock Market Exchange.

For the indirect effects of size and liquidity and leverage and Roe on firm value it was greater than its direct effect but in a positive relationship for size and in a negative relationship for liquidity and leverage and Roe. This means there is an indirect effect by disclosure quality on the effect of size and liquidity and leverage and Roe on firm value. In other words, disclosure quality mediates the effect of size and liquidity and leverage and Roe on firm value.

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