The Analysis of Financial Reporting Quality and Firm Value

Keywords: accrual quality, earnings management, financial reporting quality, firm value.

JEL Classification: M41.

Abstract: The objective of this research is to obtain empirical evidence about the effect of financial reporting quality on firm value. Financial reporting quality is measured using two proxies, accrual quality through Ball-Shivakumar Model (AQ) and earnings management through Modified Jones Model (EM). Firm value is measured using share price, Price to Book Value, Tobin’s Q, and Market Value-Added. Control variables used are leverage (Debt to Equity Ratio), profitability (Return on Asset), and firm size (ln total assets). This study focuses on manufacturing businesses that were listed on the Indonesia Stock Exchange during the years 2018 and 2021. The sample was chosen through a purposive sampling technique, specifically targeting companies listed on the Indonesia Stock Exchange that operate in the manufacturing sector and provide audited financial statements. Analyzed the secondary data utilizing descriptive statistics, normality test, classical assumption tests, and hypothesis testing. The findings of this investigation are (1) AQ has no effect on share price, PBV, Tobin’s Q and MVA (2) EM has positive and significant effect on all proxies of firm value, except MVA. The quality of financial reporting, the level of leverage, the size of the firm, and its profitability all have a simultaneous and considerable impact on the value of the firm.
**INTRODUCTION**

The manufacturing industry is an industry that plays a major role in the Indonesian economy. This can be seen from the data on the large contribution of the manufacturing sector to Gross Domestic Product according to the Central Statistics Agency during the 2018-2021 period which always occupies the first position, with an average contribution of 19% to GDP. Manufacturing companies listed on the Indonesia Stock Exchange are required to submit audited financial statements no later than the end of the third month after closing the books. With the financial statements, interested parties such as investors and creditors can use them as consideration for making decisions. In preparing financial statements, issuers are required to comply with the Statement of Financial Accounting Standards (PSAK) prepared by the Indonesian Institute of Accountants (IAI). Since 2012, Indonesia has agreed to converge with the International Financial Reporting Standard (IFRS), which means the rules in PSAK will be in accordance with IFRS standards. Adoption of IFRS is significantly associated with an increase in measured reporting quality (Isidro, Nanada & Wysocki, 2020). High-quality financial reporting is crucial in user’s decision-making process (Herath & Albarqi, 2017). In the last 10 years, standards for preparing financial statements in Indonesia have been continuously updated, with the aim of improving the quality of financial reports. IFRS convergence in Indonesia often leads to an increase in financial reporting quality, a decrease in information asymmetry, a sharing of risk, and a reduction in the cost of capital (Wahyuni, Puspitasari & Puspitasari, 2020). However, implementing international accounting standard isn’t without limitations and challenges, such as corporate governance and environmental concerns, need for training, and difference with national accounting standard or other law and regulation (Uzma, 2016). Therefore, this research was carried out to obtain scientific evidence about the benefit of the quality of financial statements for investors, which will be illustrated by the investor’s assessment of the value of the company. This research will be among the first that specifically examine the relationship between financial reporting quality and firm value.

Financial reporting is believed to narrow information asymmetry and market uncertainty for external users and investors (Lin, Jiang, Tang & He, 2014). Financial reporting quality include not only financial information but also other pertinent non-financial information that aids in decision-making. Financial
reporting quality, as defined by the International Accounting Standards Board (IASB), Financial Accounting Standards Board (FASB), the Australia Accounting Standard Board (AASB), and the Accounting Standard Board in the United Kingdom (ASB) [UK] refers to the provision of precise and unbiased information in financial statements regarding the underlying financial position and economic performance of an entity (Herath & Albarqi, 2017). (Ball & Shivakumar, 2005) defined financial reporting quality as “the usefulness of financial statements to investors, creditors, managers and all other parties contracting with the firm”. Accounting information can impact investment decisions by mitigating information asymmetry between managers and shareholders and modifying moral hazard costs resulting from agency conflicts among different stakeholders in the company (Roychowdhury, Shroff & Verdi, 2019). Previous research used multiple proxies in measuring financial reporting quality such as accruals quality, accounting conservatism, the likelihood of misstatements, the likelihood of material weaknesses in internal control, or audit fees. In this paper, two proxies of financial reporting quality are used, quality of accruals through the Ball-Shivakumar model and earnings management through Modified Jones model.

The Ball-Shivakumar model proposes that nonlinear accrual models, which include the prompt identification of losses, outperform linear ones. Thus, this model incorporated a dummy variable representing the cash flow of the current year and its interaction with the magnitude of cash flows (Martínez-Ferrerero, Garcia-Sanchez & Cuadrado-Ballesteros, 2015). Ball-Shivakumar model measures timeliness in financial statement recognition of economic losses. “Loss recognition timeliness is a summary indicator of the speed with which adverse economic events are reflected in the both income statements and balance sheets, and thus is an important attribute of earnings quality” (Ball & Shivakumar, 2005).

Earnings management refers to deliberate actions undertaken by firm managers, driven by opportunistic motives and/or the need for information, to provide financial outcomes that do not accurately reflect the actual performance. The discretionary element of accruals adjustment can serve as an indicator of managerial discretion, and hence of accounting fraud. Not all accruals are optional; therefore, it is important to distinguish between the optional and non-optional parts in order to assess the occurrence and degree of earnings manipulation. The calculation of the discretionary accruals adjustment (DAA) involves deducting the non-discretionary accruals adjustment (NDAA) from
the total accruals adjustment (TAA). The DAA represents the atypical accruals that make up the variable used to measure earnings management (Martínez-Ferrero et al., 2015). Discretionary accruals represent managerial interventions into financial reporting process (Islam, Ali & Ahmad, 2011).

The signal theory approach highlights that organizations can enhance their corporate value by transmitting signals to investors through the disclosure of information pertaining to company performance, thereby offering a glimpse into future business potential (Antonius & Harjanto, 2022). Signal theory elucidates how corporations might utilize information to convey favorable or unfavorable signals to users (Regina & Harjanto, 2022). Financial statements are important tools for investors in making investing decisions. Investors use data in financial statements to analyze firm’s value. In this research, four proxies are used for firm value. The first proxy is share price. (Husna & Satria, 2019) stated that the firm value is defined as the price at which a company is deemed viable for potential investors. The primary goal of the company’s management is to maximize stockholder wealth by increasing the company’s stock price. To optimize the company’s stock price, one must enhance the enterprise value or firm worth. The second proxy is Price to Book Value (PBV). (Radja & Artini, 2020) stated that PBV shows how much value company can create relative to the amount of invested capital. Manufacturing companies’ PBV during 2018-2021 keeps declining, from 2.94 in 2018, 2.84 in 2019, 2.36 in 2020, and 1.82 in 2021. This data shows that investors interests in buying manufacturing companies’ shares also deteriorating during this period. The third proxy is Tobin’s Q. (Cahan, Villiers, Jeter, Naiker & Van Staden, 2016) stated that Tobin’s Q quantified the anticipated long-term worth of a company rather than its present economic performance. Tobin’s Q incorporates the market’s evaluation of a company’s prospective cash flows and the level of risk associated with those cash flows. The fourth proxy is market value added (MVA). Young and O’Byrne (2001) mentioned that “MVA is the difference between the market value of the firm and the total capital invested in the firm. If MVA is positive, it shows that a company is a value creator, because market value exceeds invested capital.”

Based on the theory above, the hypotheses tested in this research are:

Ha₁: Financial reporting quality (AQ) is positively associated with firm value (share price).

Ha₂: Financial reporting quality (EM) is positively associated with firm value (share price).
Ha₃: Financial reporting quality (AQ) is positively associated with firm value (PBV).
Ha₄: Financial reporting quality (EM) is positively associated with firm value (PBV).
Ha₅: Financial reporting quality (AQ) is positively associated with firm value (Tobin's Q).
Ha₆: Financial reporting quality (EM) is positively associated with firm value (Tobin's Q).
Ha₇: Financial reporting quality (AQ) is positively associated with firm value (MVA).
Ha₈: Financial reporting quality (EM) is positively associated with firm value (MVA).

Figure 1. Research Model

Source: own study.

Research methodology

Research object

The object utilized in this study comprises the manufacturing firms that are listed on the Indonesia Stock Exchange (IDX) within the period of 2018-2021. The research methodology employed in this work is a causal study. The study utilizes secondary data, specifically the financial statements of selected firms. The research sample will be chosen by a purposive sampling technique.
Dependent Variable

Firm value refers to the evaluation or appraisal made by investors regarding the company’s proficiency in effectively utilizing its resources. In this study, firm value is measured using four proxies. The first proxy is share price. According to (Regina & Harjanto, 2022), share price is calculated as the average of daily closing price of a company in a year.

The second proxy is Price to Book Value (PBV). According to Hery (2016) PBV can be formulated as follows:

$$\text{Price to Book Value} = \frac{\text{Share price}}{\text{Book value per share}} \quad (1)$$

Share price: the average of daily closing price of a company in a year
Book value per share: total shareholders’ equity divided by number of outstanding shares.

The third proxy is Tobin’s Q. Following (Latif, Bhatti & Raheman, 2017), Tobin’s Q is measured as follows:

$$\text{Tobin’s Q} = \frac{\text{Market value of equity} + \text{book value of liabilities}}{\text{book value of assets}} \quad (2)$$

Market value of equity: the average of daily closing price times number of outstanding shares
Book value of liabilities: total liabilities
Book value of assets: total assets

The fourth proxy is market value added. Following (Young & O’Byrne, 2001), MVA is calculated as follows:

$$\text{MVA} = \text{Market value of capital} - \text{invested capital} \quad (3)$$

Market value of capital: the average of daily closing price times number of outstanding shares
Invested capital: total equity
**Independent Variable**

Financial Reporting Quality is measured using two proxies. The first proxy is quality of accruals through the Ball-Shivakumar Model (AQ) (Martínez-Ferrero et al., 2015):

\[
\Delta WC_{it} = \beta_0 + \beta_1 OCF_{i,t-1} + \beta_2 OCF_{i,t} + \beta_3 OCF_{i,t+1} + \beta_4 \Delta REV_{i,t} + \beta_5 PPE_{i,t} \\
+ \beta_6 DOCF_{i,t} + \beta_7 OCF_{i,t} \times DOCF_{i,t} + \epsilon
\]

(4)

\(\Delta WC_{it}\): \(\Delta\) Account Receivable + \(\Delta\) Inventory - \(\Delta\) Account Payable - \(\Delta\) Taxes Payable + \(\Delta\) Other Assets  
CFO: Operating cash flows  
\(\Delta\)Revenue: Changes in revenue  
PPE: Property, Plant, and Equipment  
DOCF: indicator variable for negative cash flows  
\(i\) indicates the company and \(t\) refers to the time period.

All variable in equation is scaled with total assets, except for DDCF. The absolute value of residuals from this model is used as proxy for AQ. The lower degree of this proxy, the higher degree of AQ, which means higher FRQ.

The second proxy is earnings management through accruals (EM). Low values of EM represents low level of earnings management activities that is associated with higher FRQ. Modified Jones model is used in calculating EM (Dechow, Sloan & Sweeney, 1995):

\[
DA_{it} = \frac{TAC_{i,t}}{TA_{i,t-1}} - NDA_{it}
\]

(5)

\(DA_{it}\): Discretionary accrual company \(i\) at year \(t\)  
\(TAC_{it}\): Total accrual company \(i\) at year \(t\)  
\(TA_{it-1}\): Total asset company \(i\) at year \(t-1\)  
\(NDA_{it}\): Non discretionary accrual company \(i\) at year \(t\)
Control Variables

There are three control variables used, namely firm size (natural logarithm of total assets), Profitability (Return on Assets), and leverage (Debt to Equity).

Data analysis

This research employs multiple regression analysis to examine the data. The formulae for multiple regression are as follows:

\[
\text{PRICE} = \beta_0 + \beta_1 \text{AQ} + \beta_2 \text{EM} + \beta_3 \text{FS} + \beta_4 \text{ROA} - \beta_5 \text{DER} + e \tag{6}
\]

\[
\text{PBV} = \beta_0 + \beta_1 \text{AQ} + \beta_2 \text{EM} + \beta_3 \text{FS} + \beta_4 \text{ROA} - \beta_5 \text{DER} + e \tag{7}
\]

\[
\text{TBQ} = \beta_0 + \beta_1 \text{AQ} + \beta_2 \text{EM} + \beta_3 \text{FS} + \beta_4 \text{ROA} - \beta_5 \text{DER} + e \tag{8}
\]

\[
\text{MVA} = \beta_0 + \beta_1 \text{AQ} + \beta_2 \text{EM} + \beta_3 \text{FS} + \beta_4 \text{ROA} - \beta_5 \text{DER} + e \tag{9}
\]

Results and Discussion

The data utilized in this study include secondary data obtained from manufacturing companies that were listed on the IDX (Indonesia Stock Exchange) during the years 2018 and 2021. The sample is chosen using the purposive sampling technique in the following manner:
Table 1. Sample Selection

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing companies listed in IDX during 2018-2021</td>
<td>153</td>
</tr>
<tr>
<td>Less: Companies that did not publish audited financial statements, closed their books at the end of the year, used rupiah currency for the period January 1, 2018 to December 31, 2021</td>
<td>34</td>
</tr>
<tr>
<td>Less: Companies that did stock splits, reverse stock splits, rights issues, or buybacks during the period January 1, 2018 to December 31, 2021</td>
<td>12</td>
</tr>
<tr>
<td>Less: Companies that are suspended during the period January 1, 2018 to December 31, 2021</td>
<td>14</td>
</tr>
<tr>
<td>Less: Companies that did not have positive net income during the period January 1, 2018 to December 31, 2021</td>
<td>38</td>
</tr>
<tr>
<td>Companies selected as sample</td>
<td>55</td>
</tr>
</tbody>
</table>

Source: data analyzed.

The final data used in this research is 220 firm-years observations. Statistic descriptive shows that average manufacturing companies’ share price is Rp3,259. PBV has a mean of 1.99 which means investors are willing to pay 1.99 times of company’s book value for sample companies in this study. Average Tobin’s Q is 1.56 which shows that companies are able to manage its assets to increase funding through investors and creditors, while average MVA is Rp11,409 billion. Positive MVA indicates that companies are able to create value for its shareholders. Average EM is 0.29 which shows that the companies did earnings management by earnings maximization. Average AQ is 0.04. The low score of AQ shows that financial reporting quality is actually high. Average DER is 0.71, which means companies used more internal funding that external debt. Average size is 28.91, which means all sample companies are categorized as big companies. Average ROA is 8.44%, which means companies is capable to generate 8.44% net profit by using its assets. The data utilized in this study has successfully undergone testing to confirm its adherence to normality and classic assumptions.
Table 2. Coefficient of Determination Test

<table>
<thead>
<tr>
<th>Equations</th>
<th>R</th>
<th>R square</th>
<th>Adjusted R square</th>
<th>Std. Error of the Estimate</th>
<th>F</th>
<th>Sig. F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.715</td>
<td>0.511</td>
<td>0.498</td>
<td>0.42937</td>
<td>40.695</td>
<td>0.000</td>
</tr>
<tr>
<td>2</td>
<td>0.694</td>
<td>0.481</td>
<td>0.451</td>
<td>0.35329</td>
<td>16.143</td>
<td>0.000</td>
</tr>
<tr>
<td>3</td>
<td>0.644</td>
<td>0.415</td>
<td>0.381</td>
<td>0.21742</td>
<td>12.072</td>
<td>0.000</td>
</tr>
<tr>
<td>4</td>
<td>0.879</td>
<td>0.773</td>
<td>0.745</td>
<td>0.33615</td>
<td>27.915</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Source: data analyzed.

The coefficient of determination ($R^2$) test aims to measure how far the model's ability to explain dependent variation (Ghozali, 2012). Based on the equations in Table 2, equation 4 has the highest adjusted R square of 74.5%, which means EM, AQ, DER, FS, and ROA can explain 74.5% of MVA. It also shows that the equation 4 is the most able to explain variances in firm value as measured by MVA. All equations also have F significance value of 0.0000 (less than 0.05) which indicates that the independent variables, namely EM, AQ, DER, FS, and ROA simultaneously have a significant influence on firm value measured by share price, PBV, TBQ, and MVA.

Table 3. T-test Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Equation 1 (PRICE)</th>
<th>Equation 2 (PBV)</th>
<th>Equation 3 (TBQ)</th>
<th>Equation 4 (MVA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AQ</td>
<td>0.064</td>
<td>-0.028</td>
<td>0.025</td>
<td>0.021</td>
</tr>
<tr>
<td>EM</td>
<td>-0.154**</td>
<td>-0.304**</td>
<td>-0.243**</td>
<td>-0.118</td>
</tr>
<tr>
<td>DER</td>
<td>-0.093</td>
<td>-0.261*</td>
<td>-0.139</td>
<td>-0.053</td>
</tr>
<tr>
<td>SIZE</td>
<td>0.628**</td>
<td>0.325**</td>
<td>0.338**</td>
<td>0.775**</td>
</tr>
<tr>
<td>ROA</td>
<td>0.246**</td>
<td>0.352**</td>
<td>0.372**</td>
<td>0.216*</td>
</tr>
</tbody>
</table>

** Significant at 1% level
* Significant at 5% level

Source: data analyzed.
AQ has positive but insignificant effect on PRICE, TBQ, and MVA, and negative but insignificant effect on PBV. It shows that Ha$_1$, Ha$_3$, Ha$_5$, and Ha$_7$ are rejected, so that FRQ measured with accrual quality through Ball-Shivakumar Model does not have any impact on the firm’s value, which is represented by share price, PBV, Tobin’s Q, and MVA. From 220 data in this study, 164 has AQ lower than average, which suggest high FRQ. However, out of 164, 107 reported poor financial performance, identified by low ROA with average of 3.86%. 62 observation from 107 reported a decrease of 13% in revenue and 8% in net income. 55 out of 107 observations reporting decrease in operating cash flows with average 130%. High FRQ is observed in AQ score, which means companies are reporting reduction in revenue and net income timely. Even though, the quality of financial reporting is high, investors immediately reacted to the negative signal of lower revenue, net income, and operating cash flows. This poor financial performance caused investors to sell their investment, indicated by decreasing in share price of 4%. In turn, PBV also decline by 2.5% with average PBV only 1.11, and Tobin’s Q average only 1.06, which shows that companies barely able to use assets to raise funding from creditors and investors. This result is in line with (Fambudi & Fitriani, 2020), but differ from the result of (Latif et al., 2017) that stated accrual quality improves firm value on Pakistan companies. The results in Table 3 shows that AQ consistently has no effect on multiple proxies of firm value. This result is in accordance with (Ball et al., 2003) who suggested that financial reporting in Hong Kong, Malaysia, Singapore, and Thailand does not include the identification of economic income, especially economic losses, in a timely manner.

Based on table 4, EM shows negative significant effect on share price, PBV, and Tobin’s Q. Low EM values associated with high financial reporting quality (FRQ), therefore FRQ has positive and significant effect on firm value, so Ha$_2$, Ha$_4$, and Ha$_6$ are accepted. This result is in line with (Leung, 2016), whose research on Canadian firms found that accounting quality and firm value has increased after IFRS adoption, and (Fernandes & Ferreira, 2011) who found negative relation between earnings management and firm valuation based on data from 43 countries. DER consistently show negative effect on firm value on all equation, with significant negative effect only on PBV. On the other hand, both SIZE and ROA consistently have positive and significant effect on all proxies of firm value, which shows that higher firm value is caused by company’s assets and net income.
The regression equation was derived based on the results of the t-statistical test presented in Table 3:

\[
PRICE = 0.064 \text{AQ} - 0.154 \text{EM} - 0.093 \text{DER} + 0.628 \text{SIZE} + 0.246 \text{ROA} \quad (10)
\]

\[
PBV = -0.028 \text{AQ} - 0.304 \text{EM} - 0.261 \text{DER} + 0.325 \text{SIZE} + 0.352 \text{ROA} \quad (11)
\]

\[
TBQ = 0.025 \text{AQ} - 0.243 \text{EM} - 0.139 \text{DER} + 0.338 \text{SIZE} + 0.372 \text{ROA} \quad (12)
\]

\[
MVA = 0.021 \text{AQ} - 0.118 \text{EM} - 0.053 \text{DER} + 0.775 \text{SIZE} + 0.216 \text{ROA} \quad (13)
\]

**Table 4. Bivariate Analysis**

<table>
<thead>
<tr>
<th></th>
<th>PRICE</th>
<th>PBV</th>
<th>TBQ</th>
<th>MVA</th>
<th>AQ</th>
<th>EM</th>
<th>SIZE</th>
<th>DER</th>
<th>ROA</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRICE</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PBV</td>
<td>0.220**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TBQ</td>
<td>0.224**</td>
<td>0.962**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MVA</td>
<td>0.266**</td>
<td>0.388**</td>
<td>0.536**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AQ</td>
<td>-0.026</td>
<td>0.178*</td>
<td>0.167*</td>
<td>0.069</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EM</td>
<td>0.617**</td>
<td>-0.018</td>
<td>-0.005</td>
<td>0.132</td>
<td>-0.066</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIZE</td>
<td>0.457**</td>
<td>0.165*</td>
<td>0.243**</td>
<td>0.483**</td>
<td>-0.122</td>
<td>0.161*</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DER</td>
<td>-0.036</td>
<td>0.097</td>
<td>0.032</td>
<td>-0.057</td>
<td>0.324**</td>
<td>-0.084</td>
<td>0.035</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td>0.141*</td>
<td>0.473**</td>
<td>0.489**</td>
<td>0.278**</td>
<td>0.324*</td>
<td>0.031</td>
<td>0.075</td>
<td>-0.084</td>
<td>1</td>
</tr>
</tbody>
</table>

** Correlation is significant at 1% level (2-tailed)
* Correlation is significant at 5% level (2-tailed)

Source: data analyzed.

Based on table 4, all four proxies of firm value have positive and significant correlations with each other. This implies that any of the four proxies can be used interchangeably in measuring firm value. AQ has positive significant correlation with PBV and Tobin’s Q, positive but insignificant correlation with MVA, and negative insignificant correlation with share price. Meanwhile, EM has
negative and insignificant relationship with PBV and Tobin's Q, positive and insignificant relationship with MVA, and only positive significant correlation with share price.

**Conclusion**

In this study, financial reporting quality (FRQ) is measured using two proxies, accrual quality (AQ) through Ball-Shivakumar Model and earnings management (EM) through Modified Jones Model. AQ measured FRQ based on timeliness in reporting loss, which can affect management investing decisions and debt agreement. EM measured FRQ based on discretionary component of accruals which indicated accounting manipulation. Based on the results, only EM has negative and significant effect on firm value. Low EM indicated high FRQ, or suggest that companies didn’t do accounting manipulation, and investors reacted positively to it. On the other hand, data in this study shows that majority of companies reported low AQ, which mean most companies recognized loss timely. However, this causes a reduction in net income and negative reaction from investors, which lead to reduction in firm value. The results from this research shows that a different proxy in measuring FRQ will lead to a different conclusion whether FRQ affects firm value. Sample companies in this study reported increasing AQ from 2018-2021, indicating lower FRQ, while EM actually decreasing from 2018-2021, indicating higher FRQ. It shows that the development of Statement of Financial Accounting Standards (PSAK) actually lowers the earnings management practices done by managers, but have no impact in timeliness of loss recognition. However, the average share price, PBV, Tobin's Q, and market value-added of sample companies show decreasing trend from 2018 to 2021, with sharp drop in 2020 data mainly due to the effect of Covid-19. (Joshi, 2022) report similar negative return of Indian stock returns during Covid-19 period. The main reason for this negative trend is that companies’ financial performance measure by ROA also showing negative trend, from 10.46% in 2018 to 8.08% in 2020.

This study has multiple constraints. Initially, this study solely employs two indicators of FRQ, while FRQ encompasses a wide-ranging notion that may be assessed using other elements. Furthermore, equation 4 exhibits the highest adjusted R2 value of 74.5%, while equation 3 has the lowest value of 38.1%. This indicates that at least 25.5% of the variation in firm value is attributed to
elements that were not investigated in this study. It is recommended that future research expands to include other sectors such as services, mining, and property in many nations and employs more proxies to measure FRQ.

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