FACTORS AFFECTING FIRM VALUE WITH DIVIDEND POLICY AS MODERATING VARIABLE

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ABSTRACT
The goal of this research is to gather empirical evidence on the impact of profitability, liquidity, leverage, firm growth, firm size, and total assets turnover on firm value in manufacturing companies listed on the Indonesia Stock Exchange between 2017 and 2020, using dividend policy as a moderating variable. The purposive sampling method was utilized and a sample of 40 companies that met the criteria was collected. Secondary data is used in this study, which is subsequently analyzed using Eviews 12 with the Moderated Regression Analysis (MRA). The study's findings show that firm size (SIZE) affected firm value (Tobin’s Q). Firm value (Tobin’s Q) is unaffected by profitability (ROE), liquidity (CR), leverage (DER), firm growth (TAG), and total asset turnover (TATO). The relationship between profitability (ROE) and leverage (DER) on firm value (Tobin’s Q) can be moderated by dividend policy (DPR). The relationship between liquidity (CR) and firm growth (TAG) on firm value (Tobin’s Q) cannot be moderated by dividend policy (DPR).

Keywords: Firm value, firm size, profitability, leverage, dividend policy

1. INTRODUCTION
Managing business finances properly and efficiently is the demand of every leader and manager. Management believes that consistent profits make investors interested and persist in investing their capital so that it can increase firm value. According to Astakoni et al. [1] maximizing firm value also means maximizing the company's main objectives which are very important for the whole company. This is reflected in the stock price and dividends which are the point of assessment and the rate at which shareholders receive a return on their investment.

The more dividends the company pays out, the more value it will add and encourage potential investors to invest. An increase in stock market prices will increase shareholder wealth. Dividend can improve a business's performance in generating high profits so that it can meet all current and non current liabilities, assisting companies in deciding how much debt and capital proportions are appropriate, and increasing the efficiency of the company's asset productivity.

One of the indicators in investor's assessment of the condition of a company is a high firm value Amelinda and Darmawan [2]. Company value is one of the measuring tools to assess the success of leaders and managers in managing company finances. According to Aldi et al. [3] and [4] shareholders want a high firm value because it reflects a high share price thereby increasing prosperity for shareholders. Firm value also reflects the potential and prospects of company to maintain and increase business in the future which is an attraction for investors.

Tobin’s Q ratio which takes into account all aspects of debt, share capital ordinary, and firm assets Fajaria and Isnalita [5]. A company with a high Tobin’s Q ratio indicates that the
company has succeeded in creating value for its owners, as seen by its high stock value. In contrast, a low Tobin's Q ratio reflects a low stock value.

Signaling theory is a theory that explains that the sending party (company) gives a signal in the form of information that represents a company's state that is beneficial to the recipient (investor). Investors will respond to positive signals and negative signals that affect market conditions in a variety of ways, such as buying shares or observing stock developments.

The agency relationship is explained by agency theory as a contract between the principle (owner) and the agent (manager), where the agent is the party that regulates all company activities, while the principal is the party who deposits funds to the company, this entails the agent being given some decision-making authority [6]. Agency relationship aims to separate the functions between ownership on the part of investors and control on the part of management. According to Aldi et al. [3] if there is an information asymmetry between shareholders and managers, agency difficulties emerge. Investors evaluate a corporation’s performance by comparing its performance to that of other companies by evaluating financial statement ratios Aldi et al. [3] and [4]. The value of these financial ratios can send a positive signal to investors, resulting in an increase in stock market value and company value.

This study tries to answer two problems: (1) How do profitability, liquidity, leverage, firm growth, firm size, and total asset turnover affect the value of a company? (2) Can the dividend policy moderate the impact of profitability, liquidity, leverage, and firm growth on the value of the company? This research is expected to serve as a source of reference, add insight, and knowledge for further researchers, then can provide additional information as consideration for companies in applying research variables to increase firm value and as consideration for issuers to evaluate and improve management performance in the future.

**Related Work**

**Profitability**

Profitability has a positive effect on company value Kanta et al. [7], Rohmah and Ahalik [8], and Annisa et al. [9], while Astakoni et al. [1] and Nafisah et al. [10] concluded that profitability had no impact on company value. Profitability had a negative influence on company value Wahyuningsih and Widowati [11], however profitability did not have a negative effect on firm value Jumiari and Julianto [12], and Kelana and Amanah [13].

**Liquidity**

Liquidity has a positive effect on firm value Jumiari and Julianto [12] and Kahfi et al. [14], but it does not have a positive effect on firm value Ulfah and Abbas [15] and Riska et al. [16]. Liquidity had a negative influence on firm value Hidayah and Rahmawati [17], while it had no negative impact on firm value Anggraini and Widhiastuti [18] and Chasanah [19].

**Leverage**

Aprilyani et al. [20], Aldi et al. [3], and Ervina et al. [21] found that leverage increased firm value, whereas Hidayah and Rahmawati [17] and Chasanah [19] found that leverage did not increase company value. Hasfadillah et al. [22] and Kahfi et al. [14] concluded that leverage
reduces firm value, but Kanta et al. [7], Rohmah and Ahalik [8], and Rahayu and Riharjo [23] concluded that leverage did not reduce company value.

**Firm Growth**

Firm growth has a positive influence on firm value Merzyna and Dermawan [24], however firm growth did not have a positive effect on firm value Ulfah and Abbas [15] and Rahayu and Riharjo [23]. Firm growth has a negative influence on firm value Kelana and Amanah [13], however firm growth did not have a negative effect on firm value Wulanningsih and Agustin [25] and Andri and Wijaya [26].

**Firm Size**

Ervina et al. [21], Aldi et al. [3], and Rajagukguk et al. [27] state that company size increased firm value, while Anggeriani et al. [28] and [29] found that company size did not increase company value. Halfiyyah and Suriawinata [30] and Rahayu and Riharjo [23] claimed that company size reduces firm value, but Aprilyani et al. [20] and [31] concluded that firm size did not reduce company value.

**Total Assets Turnover**

Total asset turnover was found to have a positive influence on firm value Noviyanti and Ruslim [32] and Riyanto et al. [33], however total asset turnover was found to have no positive effect on firm value Jumiari and Julianto [12]. Total asset turnover had a negative influence on firm value according to Augusta et al. [34], whereas total asset turnover did not have a negative effect on firm value Anggraini and Widhiastuti [18].

**Dividend Policy**

Dividend policy can moderate the effect of profitability on firm value Hasfadillah et al. [22] and Astakoni et al. [1], whereas dividend policy cannot moderate the effect of profitability on firm value Kanta et al. [7], Annisa et al. [9], and Tahu and Susilo [35]. Dividend policy may moderate the effect of liquidity on company value Riska et al. [16] and Aldi et al. [3], however Setiawan et al., [36], dividend policy could not moderate the effect of liquidity on firm value. Dividend policy can moderate the effect of leverage on company value Hasfadillah et al. [22] and Kanta et al. [7], but dividend policy cannot moderate the effect of leverage on firm value Setiawan et al. [36], Aldi et al. [3], and Tahu and Susilo [35]. According to Fajaria and Isnalita [5] dividend policy cannot moderate the impact of company growth on firm value.

**Our Contribution**

This study presents several contributions based on the effect of profitability, liquidity, leverage and firm growth on firm value with dividend policy as a moderating variable proposed in Fajaria and Isnalita [5]. The researcher adds the contribution variable to total asset turnover Riyanto et al. [33] and company size Aprilyani et al [20]. A large company size is a positive signal because financial performance is getting more stable so that the company has more profitable prospects. This positive signal will increase the demand for shares and stock prices in the capital market, resulting in a high company value. Meanwhile, investors are less concerned with total asset turnover since they are more concerned with

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management’s capacity to properly manage productivity in order to produce added value for the company.

**Paper Structure**

The following is how the rest of the paper is structured: Firm value, argument why dividends as a moderating variable, Tobin’s q ratio, signaling theory, and agency theory are all discussed in Section 2 of this work. Section 3 presents results of previous research. Then, the development of hypotheses, a framework, and research methodologies in Section 4. The outcomes of the estimate model test, multicollinearity test, and regression test are discussed in Section 5. Finally, Section 6 summarizes the findings, discusses their limits, and offers recommendations for future researchers.

**2. HYPOTHESIS DEVELOPMENT**

Not all companies distribute the profits earned to shareholders. Managers will focus on using the increase in net income to develop the business and expand rather than distributing profits to shareholders. This causes investor distrust of the company's rate of return. As a result, there is less demand for corporate shares on the stock exchange, and a reduction in firm value [23].

Ha$_1$: Profitability has a negative effect on firm value.

Because of the high degree of liquidity, management can easily borrow external funds in the form of debt to fund the company’s operations and investments. With high cash flow, management can reduce dependence on external funding, thereby ignoring the interests of investors. Investors become less confident in the rate of return on capital invested in the company so that the demand for shares in the market is low which causes firm value to also decrease [24].

Ha$_2$: Liquidity has a negative effect on firm value.

Companies with excessive debt levels may find it difficult to pay off outstanding loans and interest in the future, increasing the risk of default, and investors will be less interested in investing their capital in the company, according to Fajaria and Isnalita [5].

Ha$_3$: Leverage has a negative effect on firm value.

Companies that are developing businesses or have high productivity will have high growth. Large-scale production may usually provide significant benefits as well. [25] This sends a signal to investors that they should invest in the company, thereby increasing the demand for shares in the capital market. Indirectly, the increase in market capitalization causes the firm value to be higher.

Ha$_4$: Firm growth has a positive effect on firm value.

Larger corporations tend to have more stable financial situations, which attracts more investors interested in investing and raising the company’s share price on the capital market. The value of market capitalization rises when the number of stock issues rises in the capital market, resulting in an increase in firm value [13] [25].

Ha$_5$: Firm size has a positive effect on firm value.

The greater the total asset turnover, the more efficient the organization is at generating sales by utilizing all of its assets. This will be appreciated by investors with the higher share prices.
in the capital market. High stock prices raise the value of the market capitalization so that firm value increases [26].

Ha6: Total asset turnover has a positive effect on firm value.

High dividend payments to shareholders occur because the company's profits increase. The stock price on the stock exchange will rise as a result and the firm’s worth will rise indirectly [7].

Ha7: Dividend policy can moderate the effect of profitability on firm value.

The corporation's free cash flow decreases when the company makes dividend payments to shareholders [27]. A high level of dividend payout ratio provides benefits for investors and weakens the firm's internal finances by reducing the amount of retained earnings. The company’s capacity to repay its debts is harmed as a result [28].

Ha8: Dividend policy can moderate the effect of liquidity on firm value.

High leverage shows that external sources of funding to pay dividends are becoming more plentiful, implying that increasing debt will boost dividend payment certainty. This causes investors to have confidence in the rate of return obtained from the company thereby increasing firm value [7].

Ha9: Dividend policy can moderate the effect of leverage on firm value.

Companies that have good financial conditions and financial turnover indicate high firm growth prospects. Good financial turnover indicates a higher dividend payout ratio [29].

Ha10: Dividend policy can moderate the effect of firm growth on firm value.

Based on the described hypothesis, the framework can be developed as follow:

![Research Framework](https://doi.org/10.24912/ijaeb.v1.i2.150-161)

**Figure 1 Research Framework**
3. METHODS

During the period 2017-2020, there are 134 manufacturing companies that are constantly listed on the Indonesia Stock Exchange. The sample was selected using a purposive sampling technique, with the following criteria: (1) the company presented financial statements as of December 31, (2) did not experience a loss during the 2016-2020 period, (3) distributed dividends during the 2017-2020 period. A total of 160 data were acquired from 40 samples of companies throughout four research periods. Data is collected and processed using Microsoft Excel 2013 and EViews 12 software from the company’s financial statements for the 2017-2020 period, which may be viewed on the website www.idx.co.id or linked corporate websites.

Variable Operationalization. The dependent variable in this research is firm value as measured by Tobin’s Q, with six independent variables: profitability as measured by Return on Equity (ROE) [5], liquidity as measured by Current Ratio (CR) [5], leverage as measured by Debt to Total Equity (DER) [5], firm growth as measured by Total Asset Growth (TAG) [5], company size as measured by SIZE [21], and total asset turnover as measured by Total Asset Turnover (TATO) [22], and the moderating variable is dividend policy as measured by Dividend Payout Ratio (DPR) [5].

4. FINDINGS AND DISCUSSIONS

<table>
<thead>
<tr>
<th>Test</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chow Test (See Cross-section Chi-square)</td>
<td>0.0000 FEM</td>
</tr>
<tr>
<td>Hausman Test (See Cross-section random)</td>
<td>0.8597 REM</td>
</tr>
<tr>
<td>Lagrange Multiplier Test (See Breusch-Pagan, Both)</td>
<td>0.0000 REM</td>
</tr>
</tbody>
</table>

Source: Data Processed Using EViews Version 12

The first test performed in selecting the estimation model is the Chow test. The Chow test shows that the probability value of the chi-square cross-section of model 2 is 0.0000 < 0.05, indicating that the fixed effect model (FEM) is the most acceptable model to utilize. If the fixed effect model (FEM) is chosen, the Hausman test is the following step. According to the findings of the Hausman test model 2, the probability value of a random cross-section is 0.8597 > 0.05, indicating that the random effect model (REM) is the most acceptable model to apply. The Lagrange Multiplier test was performed with the results of the Breusch-Pagan (both) probability of 0.00000 < 0.5 to reinforce the results of model 2, indicating that the random effect model (REM) is the most appropriate model to adopt. The random effect model (REM) is the best estimating model for model 2 based on the test results above.
earity 3, the results show that profitability does not have a negative effect on

company's firm value. This is because profitability is not the main consideration in determining firm value, there are other aspects that are considered, such as investment decisions and so on. If the company's net profit increases, managers will use net income to develop their business and expand rather than distributing profits to shareholders.

### Table 2 Multicollinearity test results

<table>
<thead>
<tr>
<th></th>
<th>ROE</th>
<th>CR</th>
<th>DER</th>
<th>TAG</th>
<th>SIZE</th>
<th>TATO</th>
<th>DPR</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROE</td>
<td>1.0000</td>
<td>-0.0729</td>
<td>0.4469</td>
<td>-5.18E-1</td>
<td>0.1554</td>
<td>0.4666</td>
<td>0.4069</td>
</tr>
<tr>
<td>CR</td>
<td>-0.0729</td>
<td>1.0000</td>
<td>-0.1547</td>
<td>-0.0625</td>
<td>-0.2101</td>
<td>-0.1079</td>
<td>-0.0460</td>
</tr>
<tr>
<td>DER</td>
<td>0.4469</td>
<td>-0.1547</td>
<td>1.0000</td>
<td>0.1679</td>
<td>0.4365</td>
<td>-0.0036</td>
<td>-0.1388</td>
</tr>
<tr>
<td>TAG</td>
<td>-5.18E-1</td>
<td>-0.0625</td>
<td>0.1679</td>
<td>1.0000</td>
<td>0.1911</td>
<td>-0.1379</td>
<td>-0.0942</td>
</tr>
<tr>
<td>SIZE</td>
<td>0.1554</td>
<td>-0.2101</td>
<td>0.4365</td>
<td>0.1911</td>
<td>1.0000</td>
<td>-0.1205</td>
<td>0.0883</td>
</tr>
<tr>
<td>TATO</td>
<td>0.4666</td>
<td>-0.1079</td>
<td>-0.0036</td>
<td>-0.1379</td>
<td>1.0000</td>
<td>0.1954</td>
<td>1.0000</td>
</tr>
<tr>
<td>DPR</td>
<td>0.4069</td>
<td>-0.0460</td>
<td>-0.1388</td>
<td>-0.0942</td>
<td>0.0883</td>
<td>0.1954</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

Source: Data Processed Using EViews Version 12

There is no multicollinearity problem in this study, because the correlation coefficients between all independent variables are less than 0.8.

### Table 3 Panel Data Regression Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistics</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-7.4192</td>
<td>3.2078</td>
<td>-2.3128</td>
<td>0.0221</td>
</tr>
<tr>
<td>ROE</td>
<td>-4.0337</td>
<td>3.6183</td>
<td>-1.1148</td>
<td>0.2667</td>
</tr>
<tr>
<td>CR</td>
<td>-0.0215</td>
<td>0.0585</td>
<td>-0.3671</td>
<td>0.7141</td>
</tr>
<tr>
<td>DER</td>
<td>-0.4243</td>
<td>0.4978</td>
<td>-0.8524</td>
<td>0.3953</td>
</tr>
<tr>
<td>TAG</td>
<td>0.5482</td>
<td>1.2710</td>
<td>0.4313</td>
<td>0.6669</td>
</tr>
<tr>
<td>SIZE</td>
<td>0.3246</td>
<td>0.1130</td>
<td>2.8734</td>
<td>0.0047</td>
</tr>
<tr>
<td>TATO</td>
<td>0.2897</td>
<td>0.3409</td>
<td>0.8498</td>
<td>0.3968</td>
</tr>
<tr>
<td>DPR</td>
<td>-1.1876</td>
<td>1.1457</td>
<td>-1.0366</td>
<td>0.3016</td>
</tr>
<tr>
<td>ROE*DPR</td>
<td>20.4529</td>
<td>3.8623</td>
<td>5.2955</td>
<td>0.0000</td>
</tr>
<tr>
<td>CR*DPR</td>
<td>0.0800</td>
<td>0.2295</td>
<td>0.3484</td>
<td>0.7280</td>
</tr>
<tr>
<td>DER*DPR</td>
<td>-2.1277</td>
<td>0.8980</td>
<td>-2.3694</td>
<td>0.0191</td>
</tr>
<tr>
<td>TAG*DPR</td>
<td>-1.3057</td>
<td>2.8132</td>
<td>-0.4641</td>
<td>0.6432</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.6873</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.6641</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prob (F-statistics)</td>
<td>0.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

At 95% confidence-level with 5% Alpha or Prob value. < = 0.05

Source: Data Processed Using EViews Version 12

As shown in Table 3, the results show that profitability does not have a negative effect on firm value. Companies with declining net income do not necessarily have low firm values.
Liquidity has no negative effect on firm value. High liquidity is considered not too good for the company. Companies that have a large liquidity ratio indicate that the number of current assets is large, thereby increasing the risk of current assets owned by many companies being idle (idle). This shows that the manager’s work is ineffective and inefficient in managing corporate finances, and it has the potential to reduce profits, lowering the rate of return investors receive as cash dividends.

Leverage has no negative effect on firm value. Investors are interested in how management manages debt properly to increase the company’s added value. When companies borrow funds from external parties or creditors, creditors usually will be very careful and selective in providing loans to prospective debtors. Companies that have received loans from creditors are usually considered to meet the criteria given and are considered capable of optimally managing funds and producing a high level of business development. Psychological factors are thought to move the stock price of the Indonesian capital market and create added value for the company's market.

Firm growth does not have a positive effect on firm value. Before selecting to invest, investors frequently pay less attention to and analyze the rise and fall of business growth. Investors are more focused on other factors that are thought to be influential, such as conditions or issues that are currently happening and the firm's ability to handle issues that occur as well as global economic conditions compared to looking at the development of company assets from year to year. The greater the firm's growth rate, the higher the costs required to manage the company's operational activities. The corporation focuses more of its funds on firm growth than on the welfare of shareholders.

Firm size has a positive effect on firm value. Before investing, investors assess company size because huge firm are thought to have developed and performed well. Companies with a huge scale tend to have more stable conditions, attracting potential investors who want to buy shares because of the high rate of return on investment provided by outstanding performance. Therefore, large companies tend to have higher stock prices than small companies. High stock prices will increase firm value's market capitalization, as a result the company's value has increased.

Total asset turnover has no positive effect on firm value. Manufacturing industry tends to sell inventory as quickly as possible so that the company has high sales. An increase in sales causes an increase in the number of receivables and makes the risk of bad debts getting bigger. This causes investors in making investment decisions not only to look at the total asset turnover ratio, the receivables turnover ratio also needs to be taken into consideration by potential investors whose results are unbiased and reflect the company's overall financial condition.

Dividend policy can moderate the effect of profitability on firm value. If a company has a high dividend policy and great profitability, investors will be interested in investing their money. This causes an increase in the demand for shares in the capital market so that the share price becomes high and and the firm’s worth rises.

Dividend policy cannot moderate the effect of liquidity on firm value. Firms having a high liquidity level likely to have big internal funds, thus they will use those funds first to pay current liabilities with assets such as existing cash, rather than paying dividends to
shareholders. This is because the payment of cash dividends to all shareholders causes the company to issue large amounts of cash.

Dividend policy can moderate the effect of leverage on firm value. High-leverage companies have a lot of debt, which makes them vulnerable to bad credit and possibly bankruptcy. Excessive leverage can be mitigated by a dividend strategy that increases investor confidence that the company can pay continuous dividends without fear of going bankrupt due to debt, resulting in increased company value.

Dividend policy cannot moderate the effect of firm growth on firm value. This happened because of a high number of samples that did not pay dividends consistently during 2017-2020. The firm’s growth is strongly linked to its income, yet most companies with strong asset growth utilize their earnings to fund their operations, reducing dividend income.

5. CONCLUSIONS

This study concludes that: (1) Profitability, liquidity, and leverage have no negative impact on company value. (2) Firm growth and total asset turnover do not have a positive impact on company value. (3) Company size has a positive impact on company value. (4) The impact of profitability and leverage on company value can be moderated by dividend policy. (5) The impact of liquidity and company growth on company value cannot be moderated by dividend policy.

The limitations of this study include: (1) The study only used an observation period of four years, namely 2017-2020. A relatively short period can cause research results to be irrelevant because they only describe the conditions that occurred during that time so that there is information and other conditions that cannot be explained in the research results. Further researchers can increase the observation period so that the research result can describe conditions that occur over a long period of time so that the results of the study can explain information and other conditions that cannot be explained. (2) The research results indicate that the variation in firm value of 33.59% cannot be explained by the research variables. Further researchers can add other exogenous variables, such as corporate social responsibility.

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REFERENCES


