

THE EFFECT OF TAX PLANNING ON FIRM VALUE: A MODERATION ROLE OF BOARD GENDER DIVERSITY

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Abstract

This study aims to explore how tax planning practices impact firm value, with a specific focus on gender diversity as a moderating factor shaping the relationship between tax planning and firm value. Data collection involved purposive sampling, resulting in 121 samples drawn from manufacturing companies listed on the Indonesia Stock Exchange between 2018 and 2022. Employing panel data analysis supplemented by moderated regression analysis, the research uncovered several key insights. Tax planning and inflation rates exert a negative influence on firm value, whereas dividend policy and profitability have a positive impact. Interestingly, board gender diversity was found to weaken the effect of tax planning on firm value, implying that board gender diversity can significantly affect the efficacy of tax planning strategies in enhancing company value. These findings offer valuable insights for refining tax planning strategies within the manufacturing sector, considering various factors that influence firm value. Moreover, this study contributes to the existing literature on tax planning and corporate governance, laying a groundwork for further exploration and aiding in the evolution of more robust theories and frameworks in this scope.

Keywords: Tax planning; firm value; board gender diversity

JEL Classification: G34, H26, L25

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INTRODUCTION

The tax system in Indonesia operates on a self-assessment basis, granting taxpayers full authority in calculating, paying, and reporting their tax liabilities. This approach allows companies and individuals to potentially reduce their tax burdens. However, under Law Number 2 of 2020, 2022 marks a critical year, being the final year where the state budget (APBN) deficit is permitted to exceed 3% of Gross Domestic Product (GDP). In 2023, the deficit must be reduced to fall below this

threshold. Given the ongoing uncertainty surrounding the Covid-19 pandemic, the state is increasingly reliant on revenues, particularly from taxes collected in 2021, to play a more substantial role in covering the budget deficit. This presents an opportune moment to bolster the state budget, particularly in terms of revenue, with tax income being the most significant contributor for 2022 and beyond. As illustrated in Figure 1, tax revenues account for nearly 100% of total state income.

Businesses not only faces operational challenges but also complexities in tax planning. Effective tax planning is crucial for ensuring the financial sustainability of a company. According to a recent survey conducted by Grant Thornton, almost 50% of tax executives have adjusted their planning in response to regulatory changes or reevaluated their tax strategies in light of recent events. Taxation significantly impacts business operations, leading managers to perceive tax payments as diminishing the net profit received by the company. Consequently, companies often strive to minimize the overall costs associated with tax obligations (Ftouhi & Ghardallou, 2020).

Tax planning often involves navigating a hefty tax burden on companies, with owners benefiting from reduced tax rates, and certain business activities subject to final income tax at specific rates (Donohoe et al., 2024). Ambiguities in tax regulations regarding tax avoidance are frequently exploited by companies seeking more advantageous tax outcomes (Kovermann & Velte, 2019). The Director General of Tax (DJP) at the Ministry of Finance, Suryo Utomo, disclosed findings estimating that tax avoidance costs the state up to IDR 68.7 trillion annually. These findings, unveiled by the Tax Justice Network, suggest Indonesia could be losing up to US\$ 4.86 billion annually, equivalent to

IDR 68.7 trillion. This assertion is bolstered by documented cases of tax evasion involving several companies, such as PT Indofood CBP Sukses Makmur Tbk which carries out tax avoidance by moving assets, capital, debts and instant noodle factories to branch companies so that it can reduce its tax burden. PT Unilever Indonesia Tbk (Nestle) in 2015 who engage in tax avoidance through transfer pricing, thereby reducing their tax burden, PT Astra Internasional Tbk in 2016 by selling a thousand cars made by Toyota in Indonesia to a Toyota subsidiary in Singapore and reducing the tax burden, PT Adaro Energy Tbk from 2017 to 2019, utilizing tax evasion (Ramdhani et al., 2021). Figure 2 illustrates fluctuations in tax revenues from 2013 to 2020, indicating suboptimal tax revenue compared to targets. Notably, significant shortfalls occurred in 2015, 2016, and 2019, with tax realizations at 83.28%, 83.50%, and 86.56% of targets, respectively, resulting in diminished state revenue realization. Oats & Tuck (2019) contend that management's pursuit of tax avoidance can undermine company transparency, heightening opportunities for managers to divert resources for personal gain. Consequently, caution must be exercised in executing tax avoidance strategies to avoid classification as tax evasion and prevent violations of fiscal laws.

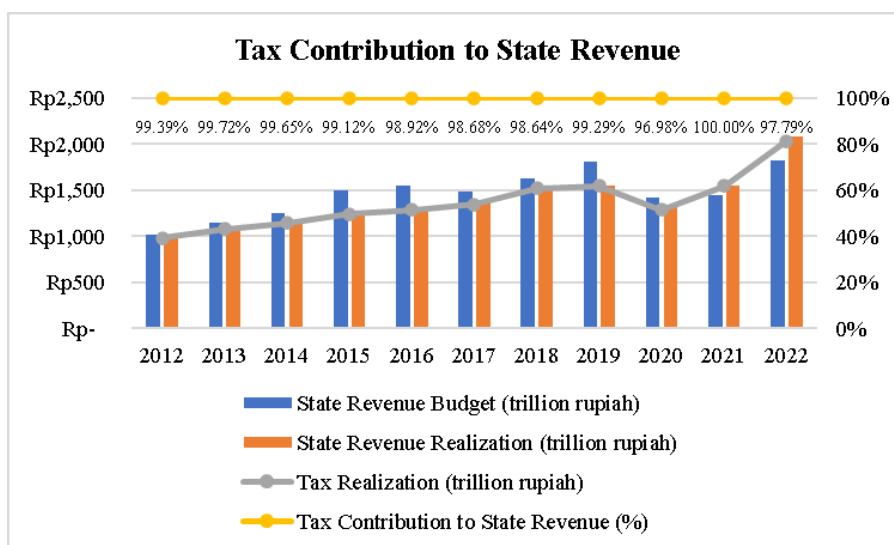


Figure 1. Tax Contribution in 2012-2022

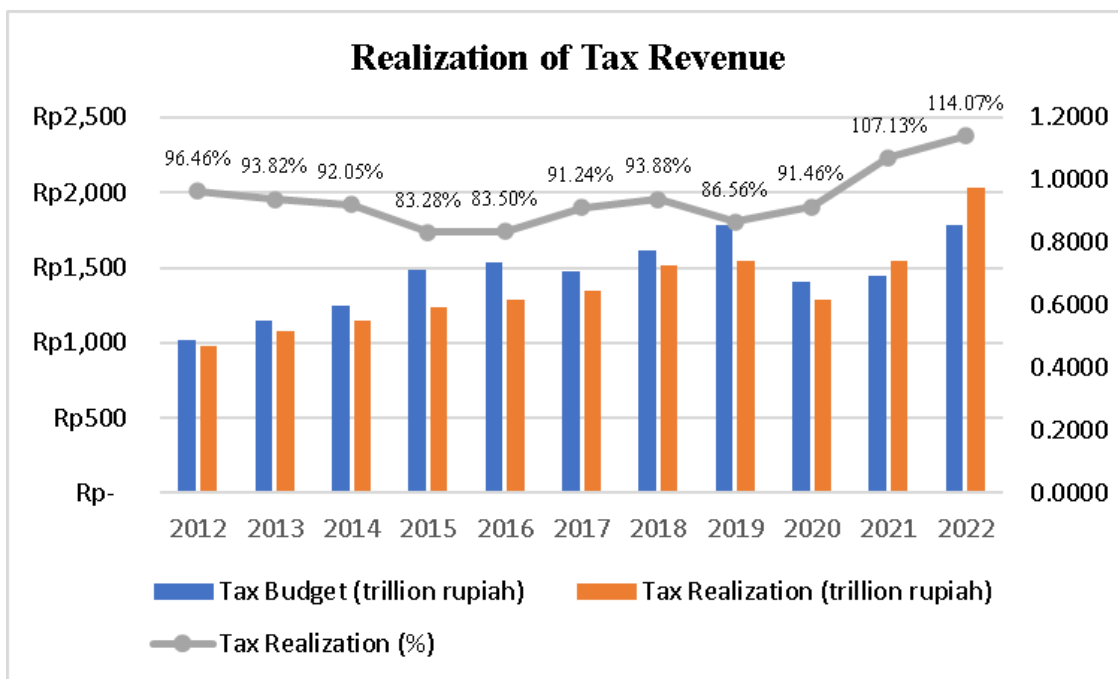


Figure 2. Tax Realization in 2012-2022

Against this backdrop, the role of the board of directors becomes essential in helping to develop appropriate tax planning strategies in an environment where regulatory scrutiny is increasing, and tax policies are being altered (Vacca et al., 2020). This influence is significant for organizations that wish to undertake business in a taxingly complex environment efficiently and within the realms of the law. Thus, the effect of the board on tax planning is essential for business development and compliance with current regulations. Board characteristics seem to respond to the changed corporate environment. The study of the effect of the board's characteristics on tax planning remains attractive due to divergent results. Chytis et al. (2020) discovered that board characteristics do not significantly influence the tax planning of listed companies in Greece, while Bhagiawan (2020) demonstrated that board size, board independence, and audit quality do not affect the nexus between tax planning and firm value. On the contrary, Vacca et al. (2020) and Deslandes et al. (2020) found that while board characteristics such as size, gender diversity, and a CEO holding dual roles as chairperson of the board and

CEO may be factors and auditor features such as external audit quality may raise corporate tax aggressiveness, other such board features may not. These reveal that while some of those board characteristics can affect tax planning, others may not have a significant impact.

This complexity underlines the importance of understanding the broader context in which tax planning operates. Naturally, companies would want to increase their value over time, which should be translated into their share price on the stock market. As the company increases its value, so does the welfare of its shareholders (Wahyudi, 2020). This increasing return tends to draw in investors, pushing up not only the company's valuation but also the share prices of the company in the market. Stakeholders play a very crucial role in assisting companies in realizing their goals since one significant measure of welfare to shareholders is the continued rise in the value of the company, a goal that is characteristic between the firm and the shareholders who both have long-term interests (Sheikh, 2020). However, even with all this, managers can neglect or have managers' interests against the welfare of

shareholders.

Addressing agency problems is critical in corporate governance, where managers may prioritize their own interests over those of shareholders, potentially affecting the company's value through financial decisions such as tax planning. Thus, it's imperative for managers to exercise prudent decision-making in this regard. The effectiveness of internal governance mechanisms, particularly that of the board of directors, is critical in the robust monitoring and guidance of managerial action to good strategies to promote the company's interests (Soesetio et al., 2023). The prime importance of gender diversity on boards is the reason behind the understanding from the social role theory that diversified boards can facilitate tax planning and company valuation decisions. Notwithstanding the consistent challenges in achieving board gender diversity, evidence points out that better economic results or performance are associated with firms that have diverse boards, thereby underlying the significance of understanding the influence of gender diversity on firm or business performance (Ali et al., 2020; Hosny & Elgharbawy, 2022; Juniarti & Jie, 2024). The study thus provides the pertinent aspects to be considered for integrating gender in tax planning strategies to ensure informed and prudent decision-making and resource management in line with attaining enhanced company performance.

The tax planning and its impacts on company value in regard to manufacturing firms listed on the IDX have been relatively less explained by the existing literature. Meanwhile, Suriawinata & Almurni (2023) focus on this relationship within non-financial sector companies; however, this study extends it to a broader range of manufacturing companies in Indonesia. Consequently, this study tests the moderating effect of board gender diversity on the relationship between tax planning and the value of companies in the male-dominated manufacturing sector.

Prior work used board diversity as a moderator to establish an understanding of the relationship (Bhagiawan, 2020; Khaoula & Moez, 2019). Board gender diversity has been one of the most critical topics for discussion in corporate governance (Khaoula & Moez, 2019). Consequently, the questions researchers want to delve into include how men and women differ in reaching decisions, particularly in respect of finances. Moreover, they will add more experience and value through divergent views. A board-diversity viewpoint argues that having more diverse boards of directors could help better monitor managers, thus decreasing agency expenses for a firm, especially in areas of potentially sizeable strategic importance, such as tax planning. Indeed, women are perceived to be more risk-averse in some aspects of economics and to have a lower tendency toward the unethical behavior of doing business compared to men. In this regard, the presence of women within the board can enable the latter to achieve its goals and strategic aims and enrich the experience of the board, hence increasing firm value (Khaoula & Moez, 2019). According to research findings by Kastlunger et al. (2010) it was found that women's values significantly helped in tax matters. The present study, therefore, tries to bring forward new findings with supportive arguments that would pave the way for further revelations into this realm of research.

LITERATURE REVIEW

Agency Theory

Agency theory attempts to explain the nature of the connection dynamics between principals and agents, who are supposed to pursue the interests of the owner by whom decision-making authority is delegated (Cherian et al., 2020; Jensen & Meckling, 1976; Kovermann & Velte, 2019; Marashdeh et al., 2021; Panda & Leepsa,

2017). Conflicts of interest may exist between the owners of companies and the management, arising from information imbalances or asymmetries (Guping et al., 2020). Consequently, managers may be inclined to manipulate financial information to align with the preferences of company owners. As controllers of the company, managers possess superior information compared to owners (Khaoula & Moez, 2019), and the difficulty in verification renders agents' actions challenging to monitor, providing opportunities for them to pursue actions maximizing personal gain opportunistically. Agency theory underscores the significance of delineating company management from ownership to foster efficiency and effectiveness through the employment of professional agents. In the context of this research, agency theory elucidates the potential for information asymmetry and conflicts of interest during tax planning and/or capital structure practices. Mitigation of such risks requires sound and effective corporate governance practices, which include transparent information disclosure in the organization (Herbert & Agwor, 2021), to address possible agency problems and enhance accountability.

Social Role Theory

Eagly's (1987) social role theory posits that gender stereotypes emerge from societal divisions of gender roles. In Western societies, men are typically perceived as strong, while women are often associated with caregiving roles. Additionally, disparities in skills between genders are influenced by these role divisions (Mistry et al., 2024). When gender diversity is present within a group or when there's a cultural emphasis on a particular gender, group members' expectations about each other's behavior are shaped by these stereotypes. However, in contexts where individuals assume social roles such as managers or employees, these roles tend to have a more significant influence on regulating beha-

avior compared to gender stereotypes. Although gender stereotypes may not dictate behavior universally, differences in gender-related skills can lead to subtle variations in the actions of men and women in certain situations.

The social role theory offers a comprehensive framework encompassing interactions across various contexts, addressing behaviors associated with power dynamics as well as those supporting socioemotional aspects. However, the theory's explanation lacks specificity and depth. It generally suggests that women, particularly in environments where gender roles are heavily emphasized, tend to exhibit communal behavior and focus more on intrapersonal leadership compared to men (Eagly & Wood, 2012). Yet, gender disparities diminish or disappear altogether when individuals assume formal institutional roles. Female leaders, in particular, may leverage feminine traits to their advantage in leadership contexts characterized by participative and democratic organizational styles, leading to heightened leader effectiveness (Zhou & Charoensukmongkol, 2022).

Tax Planning and Firm Value

Effective tax planning empowers companies to enhance their financial position. Through strategic optimization of their tax structure, companies can mitigate their tax liabilities, freeing up cash flow for operational activities, investments, and expansion. The Agency Theory underscores the significance of transparent information disclosure between owners and managers. In the realm of tax planning, transparency in the planning process and comprehensive disclosure of potential outcomes and benefits can foster realistic expectations and perceptions from both stakeholders regarding its impact on firm value.

Le et al. (2022) found that the effective tax rate, a measure of tax planning, negatively impacts company value. They explained that the more firms save on tax

expenses, the higher their firm value becomes. This aligns with the conclusions drawn by Chukwudi et al. (2020) and Vu & Le (2021), who also observed a negative connection among tax planning and company worth. This means that firms with effective tax planning tend to perform better, as it enhances their overall value. This aligns with the company's goal of increasing its value over time, partly through effective tax planning efforts. However, it's important to highlight that effective tax planning strategies, designed to alleviate the tax burden, possess the potential to enhance company value.

H1: Tax planning negatively affects firm value.

Board Gender Diversity Moderates Tax Planning on Firm Value

Board gender diversity would contribute to the board's effectiveness in monitoring and evaluating tax planning decisions, increasing long-term shareholder value and added corporate value. Gender diversity ensures different perspectives and problem-solving approaches that can improve creativity and innovativeness. A social role theory is propounded by suggesting that gender-diverse boards are better poised to face challenges and chart possible solutions. Bringing in gender diversity at the board level will be able to balance interests and, as such, will spur inclusivity toward improved quality tax planning decisions that will lead to the attainment of company objectives.

Dakhli (2021) found that the presence of women on the boards was associated with a negative tendency for tax avoidance. This finding supports the case that gender diversity on boards mitigates tax avoidance because feminine features are commonly linked to a lower level of risk-taking and to making more ethically founded decisions about choices in decision-making (Duhoon & Singh, 2023). Bhagiawan (2020) established that gender diversity reduces the relationship between tax planning and firm value. He expounded that the presence

of women on the board makes tax planning activities more effective, increasing firm value through enhanced supervision. Ethical standards will be raised with women on boards, thus reducing agency problems associated with tax planning risks, as women prefer to avoid risk (Hoseini et al., 2019).

H2: Board gender diversity moderate the effect of tax planning on firm value.

Dividend Policy and Firm Value

Dividend policy significantly impacts firm value. The Bird in the Hand theory posits that a company's dividend policy directly affects market value by influencing share prices. When a company announces or boosts dividends, investors often interpret it as a favorable signal regarding the company's quality and financial health. Consequently, this can alleviate uncertainty and bolster investor confidence in the company.

Research indicates a positive correlation between dividend policy and firm value, suggesting that an increase in the value of dividend policy corresponds to an increase in firm value (Abdullah, 2023). Kusumawati et al. (2021); Rahmawati & Garad (2023) also assert that dividend policy has a substantial positive impact on firm value. Companies that distribute large dividends attract more attention from investors and potential investors, leading to an increase in company value as measured by market value.

H3: Dividend policy positively affects firm value.

Profitability and Firm Value

Profitability, as indicated by Return on Assets (ROA), serves as an indicator of efficiency in management's utilization of assets. The greater a company's profitability, the stronger its financial performance. Within the framework of managerial efficiency profit theory, companies capable of generating high profits signal to investors that their management is adept at running business operations efficiently and yielding

significant returns. This enhances the attractiveness of the company's shares to investors seeking lucrative opportunities. With rising share prices, the company's overall value increases.

Research conducted by Handayani et al. (2022); Sihombing et al. (2023); Wijayaningsih & Yulianto (2022), confirms that profitability exerts a positive influence on firm value. This indicates that a company's ability to generate profits from its assets has a beneficial impact on its overall value. Thus, profitability stands as a pivotal factor in determining company worth.

H4: Profitability positively affects firm value.

Inflation Rate and Firm Value

In inflationary conditions, prices typically rise, presenting challenges and opportunities for companies. Those capable of adjusting their product or service prices in line with inflation rates may sustain higher revenues and profit margins, thereby bolstering firm value. Within the framework of managerial efficiency profit theory, the inflation rate can affect a company's operational costs, profits, and investment decisions. Consequently, company management must monitor and mitigate the impact of high inflation to safeguard firm value.

Olalere et al. (2020) and Pangestuti & Tindangen (2020) noted in their studies that inflation has a negative and insignificant impact on firm value. Meanwhile, Chiang & Chen (2023) discover a negative connection among inflation risk and stock returns in aggregate US data. Therefore, higher inflation rates may decrease firm value.

H5: Inflation rate negatively affects firm value.

Based on the hypothesis development, the proposed research framework is as Figure 3.

RESEARCH METHODS

Sample Construction

This study employs quantitative methodologies aimed at validating theories through numerical data gathering and subsequent statistical analysis. Data collection utilized research instruments, while data analysis involved employing statistical techniques to evaluate predetermined hypotheses. Secondary data sources were used, encompassing variable data sourced from annual financial reports, world bank, and empirical data of manufacturing companies listed on the Indonesia stock exchange (IDX) between 2018 and 2022. These datasets were sourced from <https://www.idx.co.id/>, <https://data.worldbank.org/>, company websites, and relevant literature including scientific journals, reference books, and other credible sources. The population under scrutiny consists of manufacturing companies listed on the IDX during the aforementioned period.

The sampling technique adopted was purposive sampling. Table 1 outlines the population selection process into samples based on several criteria, resulting in a final sample of 121 companies with a total of 605 observations.

Model Specification

This research employs panel data regression analysis as the analytical method to examine the impact of independent on dependent variables in Table 2, given the nature of the data collected, which includes both time series and cross-sectional data. Statistical Descriptive, Moderated Regression Analysis (MRA) via Microsoft Office Excel and STATA 17 are utilized.

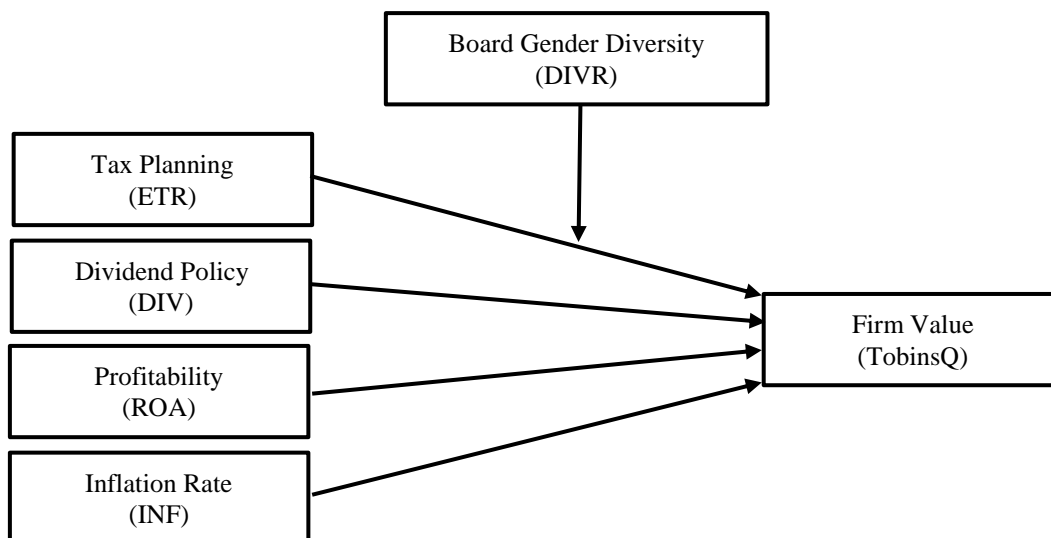


Figure 3. Research Framework

Table 1. Sample Selection

Population and Sample	Total
“Manufacturing companies listed on the Indonesia Stock Exchange from 2018 to 2022”	141
“Manufacturing companies that were delisted during 2018-2022”	(13)
“Manufacturing companies whose financial reports do not end on December 31 during 2018-2022”	(1)
“Manufacturing companies that do not have complete data related to the variables in the research”	(6)
Number of sample companies	121
Research period	5 years
Number of data used	605

Table 2. Variable Definition

Variables	Definition	Measurement
Dependent Variable		
Firm Value (TobinsQ)	“Financial ratios measure the comparison between a company's market value and the book value of its total assets” (Aydoğmuş et al., 2022; Giannopoulos et al., 2022; Suriawinata & Almurni, 2023)	Equity market value+ liabilities market value/ equity book value+ liabilities book value
Independent Variables		
Tax Planning (ETR)	“The tax rate is calculated to ascertain the extent of the tax obligation borne by the company, derived by dividing the income tax burden by the company's profit before tax” (Chukwudi et al., 2020; Vu & Le, 2021)	Income tax expense/profit before taxes
Dividend Policy (DIV)	“Distribution of company profits to shareholders” (Abdul Wahab & Holland, 2012; Kusumawati et al., 2021)	Dividend per share/earnings per share
Profitability (ROA)	“The ratio is utilized to evaluate a company's capacity to generate net profits from its owned and utilized assets” (Handayani et al., 2022)	Net income after tax/total assets

Table 2. Continue

Variables	Definition	Measurement
Inflation Rate (INF)	“Macroeconomic factors that may lead to a depreciation in currency value or an increase in consumer goods prices, thereby impacting people's consumption habits” (Chiang & Chen, 2023)	Annual inflation rate
Moderating Variable		
Board Gender Diversity (DIVR)	“Representation of board characteristics in management and company leadership roles, specifically in gender” (Ali et al., 2020; Khaoula & Moez, 2019)	Proportion of women on the board of directors

Table 3. Lagrange, Chow, and Hausman Test

Model	Prob. Lagrange	Prob. Chow	Prob. Hausman	Conclusion
1	0.0000	0.0000	0.0000	FE
2	0.0000	0.0000	0.0000	FE
3	0.0000	0.0000	0.0000	FE

According to Table 3, the best estimation was fixed effect model, but common effect model (CEM) is employed in this research. The choice of a common effects model over a fixed effects model can be justified by its simplicity, efficiency, and ability to handle time-invariant variables, particularly when dealing with homogenous units or conducting preliminary analyses (Lin et al., 2020). The first model is presented as follows:

$$TobinsQ_{it} = \alpha + \beta_1 ETR_{it} + \beta_2 DIV_{it} + \beta_3 ROA_{it} + \beta_4 INF_{it} + \varepsilon_{it} \dots \dots \dots (1)$$

$$TobinsQ_{it} = \alpha + \beta_1 ETR_{it} + \beta_2 DIVR_{it} + \beta_3 DIV_{it} + \beta_4 ROA_{it} + \beta_5 INF_{it} + \varepsilon_{it} \dots \dots \dots (2)$$

To explore the moderating impact of board gender diversity on the connection among tax planning and firm value, this model incorporates the moderation term ETR*DIVR. The second model aimed at testing the moderation effect is presented as follows:

$$TobinsQ_{it} = \alpha + \beta_1 ETR_{it} + \beta_2 DIVR_{it} + \beta_3 ETR_{it} * DIVR_{it} + \beta_4 DIV_{it} + \beta_5 ROA_{it} + \beta_6 INF_{it} + \varepsilon_{it} \dots \dots \dots (3)$$

Information:

- α : Constant parameter
- $\beta_1 - \beta_6$: Coefficients
- ETR : Effective tax rate
- DIVR : Board gender diversity
- ETR_{it}*DIVR : Interaction between effective tax rate and board gender diversity
- DIV : Dividend
- ROA : Return on asset
- INF : Inflation rate
- ε : Error term

RESULT AND DISCUSSION

Result Descriptive Statistic

Descriptive statistical analysis serves to elucidate research data, particularly highlighting key metrics such as minimum (min), maximum (max), mean (average), and standard deviation (std dev) for each research variable. Based on Table 4, the results of the descriptive statistical analysis show the minimum, maximum, mean, and standard deviation values computed from a 605 samples. The proxy for firm value, represented by TobinsQ, exhibits an average value of 1.6807. The minimum TobinsQ value, obtained from Prasadha

Aneka Niaga Tbk in 2018, stands at 0.1048, while the maximum value, sourced from Arwana Citramulia Tbk in 2022, is 22.3856. With a standard deviation of 2.3203, higher than the mean, it indicates significant variability within the data, with data points dispersed widely from the average. Moreover, the average Effective Tax Rate (ETR) is computed at 0.1861. The lowest ETR value, recorded at -16.2541, is attributed to Surya Toto Indonesia Tbk in 2020, while the highest, at 8.0317, is associated with Prima Alloy Steel Universal Tbk in the same year. This suggests a broad range of ETR values for manufacturing companies listed on the IDX between 2018 and 2022, spanning from -16.2541 to 8.0317.

Board gender diversity (DIVR), exhibits an average of 0.0956 and a standard deviation of 0.1559. The minimum DIVR value is 0.0000, while the maximum is 0.7500, sourced from Nippon Indosari Corpindo Tbk in 2020. Although the average level of diversity is significant, there remains substantial variation among the companies in the sample. Some companies demonstrate very low levels of diversity, while others exhibit high levels, reflecting a wide spectrum of diversity representation. The dividend policy (DIV), exhibits an average of 0.2038 and a standard deviation of 0.5507. The minimum DIV value, recorded at -5.3462, is attributed to Astra Otoparts Tbk in 2020, while the maximum value, 5.6145, is associated with Lion Metal Works Tbk in 2020. This suggests a broad range of dividend policy variations within the sample. The average value of 0.2038 indicates that approximately 20.38% of the companies in the sample have distributed dividends annually to investors.

Return on Assets (ROA), a proxy for profitability, showcases an average value of 0.0504. The lowest ROA value, at -1.0498, is reported by Tirta Mahakam Resources Tbk in 2020, while the highest, 1.3632, is achieved by Champion Pacific Indonesia Tbk in 2018. The ROA value range spans from -1.0498 to 1.3632. A

negative ROA value signifies that the company is operating at a loss or generating profits insufficient to cover its asset value. Conversely, a positive ROA value indicates that the company's profits exceed its asset value. The standard deviation of the inflation rate (INF) is 0.0348, smaller than the average value of 0.0412. The minimum inflation rate value, recorded at -0.0040 in 2020, contrasts with the maximum value of 0.0960, also observed in 2020. With a smaller standard deviation compared to the average, the data tends to be more concentrated around the mean, indicating narrower variations.

Classical Assumption Test

Classical assumption tests encompass a series of statistical evaluations conducted to verify whether data conforms to the fundamental assumptions of commonly employed statistical methods. These include normality, multicollinearity, heteroscedasticity, and autocorrelation. The normality test was conducted using the skewness and kurtosis tests, yielding a probability value of model 1, 2, and 3 are 0.2196, 0.3519, and 0.3605 respectively, indicating that the data follows a normal distribution ($p > 0.05$). To assess multicollinearity among variables, pairwise correlations were examined. As shown in Table 5, the correlation coefficients for each variable do not exceed 0.8 or fall below -0.8, suggesting the absence of multicollinearity. Subsequently, a heteroscedasticity test was performed utilizing the Breusch-Pagan/Cook-Weisberg test, resulting in a probability value of model 1, 2, and 3 are 0.000, indicating the presence of heteroscedasticity. Furthermore, the autocorrelation test was conducted using the Wooldridge test, yielding a probability value of model 1, 2, and 3 are 0.0000, 0.0001, and 0.0004 respectively, indicating the existence of autocorrelation. However, to address the issues of heteroscedasticity and autocorrelation, robust standard errors can be employed as a viable solution.

Table 4. Descriptive Statistic

Variable	Obs	Mean	Std. dev.	Min	Max
Tobins	605	1.6807	2.3203	0.1048	22.3856
ETR	605	0.1861	1.1029	-16.2541	8.0317
DIVR	605	0.0956	0.1559	0.0000	0.7500
DIV	605	0.2038	0.5507	-5.3462	5.6145
ROA	605	0.0504	0.1767	-1.0498	1.3632
INF	605	0.0412	0.0348	-0.0040	0.0960

Table 5. Correlation Result

	ETR	DIVR	ROA	DIV	INF
ETR	1.0000				
DIVR	0.0428	1.0000			
ROA	0.0337	0.0601	1.0000		
DIV	0.0896	0.0387	0.1504	1.0000	
INF	-0.0239	0.0264	0.0078	0.0126	1.0000

Moderated Regression Analysis

The research findings regarding the first hypothesis (H1) according to Table 6 reveal a significant negative correlation between tax planning and firm value, indicated by a coefficient of -0.027 and a probability <0.01 , thereby confirming the acceptance of H1. This suggests that as the level of tax planning, as proxied by the Effective Tax Rate (ETR), decreases, the company's value tends to increase. These findings indicate that companies in the sample engage in tax planning, evidenced by the average tax burden of 0.1861 or 18.61%, which is below the statutory corporate tax rate of 25% stipulated in Law No. 36 of 2008, Article 17.

The moderated analysis regression presented in Table 6 regarding the second hypothesis (H2), indicating a moderating influence of board gender diversity on the connection among effective tax rate (ETR) and firm value. With a coefficient of -0.664 and a probability <0.01 , the findings signify a notable impact of board gender diversity on attenuating the connection between tax planning and firm value. The negative coefficient suggests that greater board gender diversity tends to mitigate the

effect of tax planning strategies on firm value.

Referring to the findings presented in Table 6, the research supports the third hypothesis (H3), which posits a positive influence of dividend policy on firm value. With a coefficient of 0.437 and a probability <0.01 , the evidence confirms the acceptance of H3. This suggests that as dividends increase, there is a corresponding enhancement in the company's value.

The research findings pertaining to the fourth hypothesis (H4) indicate a positive influence of profitability on firm value, as elucidated by a coefficient of 2.002 and a probability <0.01 in Table 6, affirming the acceptance of H4. This suggests that higher levels of profitability correspond to increased firm value, emphasizing the pivotal role of financial performance in shaping market perceptions and investor sentiment.

The fifth hypothesis (H5) findings reveal a negative effect of inflation rate on firm value, underscored by a coefficient of -1.360 and a probability <0.05 are presented in the following Table 6, confirming the acceptance of H5. As the inflation rate rises, firm value tends to decrease.

Table 6. Moderated Regression Analysis

VARIABLES	Tobins	Tobins	Tobins
ETR	-0.027*** (0.010)	-0.027*** (0.010)	-0.020** (0.010)
DIVR		0.062 (0.163)	0.211 (0.177)
ETRxDIVR			-0.664*** (0.198)
DIV	0.437*** (0.092)	0.400*** (0.090)	0.378*** (0.090)
ROA	2.002*** (0.380)	2.001*** (0.382)	2.045*** (0.383)
INF	-1.235* (0.677)	-1.251* (0.674)	-1.360** (0.678)
Constant	1.008*** (0.035)	1.007*** (0.037)	1.009*** (0.038)
Observations	508	509	508
R-squared	0.188	0.178	0.183

Note: Robust standard errors are shown in parentheses. *, **, and *** represent 10%, 5%, and 1% levels respectively.

The Impact of Tax Planning on Firm value

The result indicate that ETR can hurt the value of manufacturing companies. Those firms that excel in tax planning seem to have an ETR in most cases. This reflects agency theory and further strengthens the manufacturing company's taxable income through distinct practices, such as negative fiscal adjustments. This adept handling of tax loads is indicative of managerial efficiency in obtaining expected returns, as well as ensuring the liquidity of the firms, which is likely to increase share prices and attract outside investors. More importantly, considering tax planning within a firm's manufacturing activities provides an insight into the complexity of the interactions involved. For example, investments by firms in sophisticated or other types of machinery or technology not only enhance production but also provide tax advantages associated with investment tax credits or depreciation allowances. Additionally, incentives or exemptions allowed on the taxes charged on production could also impact the overall tax burden.

However, overdependence on tax planning at the expense of a balanced long-

term approach to sustainability and value creation may, therefore, expose manufacturing firms to loss of competitiveness and lack of resilience in the global market. This is in line with previous studies by Le et al. (2022), Vu & Le (2021), and Chukwudi et al. (2020) which argued that a drop in the ETR represents the strategic tax planning effort of companies in reach desired levels of profitability and liquidity, leading to firm value enhancement.

Board Gender Diversity Moderates the Impact of Tax Planning on Firm Value

Board gender diversity moderates the effect of tax planning on the value of the manufacturing company. A high ETR means poor tax planning. It indicates a heavy tax burden, which exerts immense pressure on the firm compared to the profits before tax, and this is worse for the case of the manufacturing firms because the profit margins realized are always low due to high operational expenses. A more diversified board of directors, especially with more women, will lead to a decrease in ineffective tax planning because it inculcates more conservative and accurate tax planning attempts that are better able to

control the tax burden on the company. This is important for the manufacturing sector since careful financial planning lies at the heart of the competitive ability and operational efficiency needed to boost firm value.

Social role theory posits that firms led by female board members will be characterized by higher altruistic and pro-social activities (Dewi et al., 2023; Rao & Tilt, 2016). The distinct perception of individuals in society from the social role theory is a factor: prudence, regulatory compliance, and lower risk-taking are more associated with women than men. Female board members can, therefore, support the implementation of accurate tax policies under accounting standards and taxation laws. Focusing on detail is essential in the manufacturing sector, where business realities such as staying in production and out of trouble are highly contingent on regulatory compliance and financial accuracy. This is consistent with Bhagiawan (2020), Dakhli (2021), and Duhoon & Singh (2023), who reveal that board gender diversity weakens the nexus between tax planning and firm value. They further posited that women on the board increase the efficiency of the tax planning engagement, thus increasing the firm value through their monitoring role. In manufacturing firms, this supervisory role can lead to better resource allocation and more strategic financial decisions, contributing to the overall stability and growth of the company.

The Impact of Dividend Policy on Firm Value

This will be proof that dividend policy has a positive effect on the value of the firm. Most investors consider a return on their investment, and a reasonable dividend payout is always a positive indicator. The manufacturing sector, in particular, faces capital expenditures and substantial operating costs. In such an industry, cash dividend paid over the period indicates the company's stability in terms of finance and

proper management to ensure cash flow. This condition makes the companies more attractive to investors. Investors prefer cash dividends over possible future returns. It aligns with the bird-in-the-hand theory: that investors like the expected income from dividends over anticipated income from capital gains. Manufacturing companies take advantage of paying high dividends by causing the company to have high value and price in the market because the dividend payment is usually more consistent and valued by investors.

This is consistent with Rahmawati & Garad (2023), Abdullah (2023), and Kusumawati et al. (2021), that confirm the positive influence of dividend policy on firm value. For manufacturing industries, where a lot of asset-heavy investment and long-term capital projects are usually involved, a policy of high dividend payouts can be seen as a testament to operational success and financial prudence within a firm. This means that dividend payment increases firm value; therefore, dividend policy is a powerful strategic financial tool. Assurance of dividends in capital-intensive industries gives the shareholders confidence in generating and distributing earnings in a firm, hence increasing the overall firm value.

The Impact of Profitability on Firm Value

Profitability, expressed by Return on Assets (ROA), on the other hand plays a decisive role in firm value especially for manufacturing companies. In this relationship, manufacturing assets like machinery & equipment and production technology are pivotal. Increased profits essentially mean an increase in the value of one's firm, this could be because they are using these assets effectively. Any profit margin expansion indicates a combination of efficiency on its production processes, with an adequate utilization of resources and long-term return potential. These results are consistent with the managerial efficiency profit theory, which high

profitability boosts investor optimism that adds-value of firms.

Additionally, it is in accordance with the works of Handayani et al. (2022); Sihombing et al. (2023); Wijayaningsih & Yulianto (2022), states that profitability has a significant positive effect on firm value. These studies have a direct implication in the manufacturing context, where they suggest enterprises should optimize their inventory (stock holding) supply chain logistics and quality control systems to improve profitability. Improving its ROA means that manufacturing companies can create an increase in the value of their firms. Consensus about this relationship across different researches proves the importance of manufacturing efficiency in increasing profitability and therefore firm value.

The Impact of Inflation Rate on Firm Value

The results reveal that inflation has a negative impact on business value. According to the managerial efficiency profit hypothesis, excessive inflation is associated with a large negative impact on company value. Elevated inflation frequently causes economic uncertainty, which can disrupt general economic activity, potentially reducing profitability and business value. This finding is consistent with prior research indicating that the inflation rate negatively affects firm value (Chiang & Chen, 2023; Olalere et al., 2020; Pangestuti & Tindangen, 2020). High inflation rates can escalate production costs, including raw material expenses, labor wages, and other operational costs, thereby reducing a company's profit margin and overall profitability.

High inflation has a huge impact on industrial businesses. When the prices of raw materials such as metals, polymers, and chemical rise, so do the costs of manufacturing items. Furthermore, workers' pay frequently grow with inflation, driving operating expenses even

higher. Energy expenses, which are important for running manufacturing activities, climb during these periods, adding to financial burden. These combines pressures restrict profit margins, so management must find measures to mitigate the impact of inflation. Managing these problems is crucial to ensuring the company's value, since sustained high inflation may weaken business competitiveness and long-term profits.

CONCLUSION AND RECOMMENDATION

The present research investigates at how gender equality on boards impacts tax planning and business value in Indonesian manufacturing firms listed on the Indonesia Stock Exchange during 2018 to 2022. Moderated Regression Analysis (MRA) results show that tax planning has a negative impact on business value. Proper "tax planning," demonstrated by lower Effective Tax Rate (ETR) values, improves firm value and demonstrates the company's ability to defend the interests of shareholders. Furthermore, board gender diversity effectively mitigates the relationship between "tax planning" and business value. Enhanced board gender diversity restricts efforts to increase the company's tax expense, causing the board to focus on tax planning measures to improve its worth. Additionally, dividend policy positively impacts firm value, with higher dividend payouts signaling investor confidence and potentially boosting company worth. Similarly, higher profitability, represented by Return on Assets (ROA), correlates positively with firm value, signifying strong performance and future prospects to investors. Conversely, the inflation rate negatively affects firm value, reflecting its adverse impact on economic activity and profitability. Higher inflation undermines company profitability, thereby reducing overall company worth.

The findings of this study carry significant implications for companies

aiming to enhance tax efficiency and maximize company value. Additionally, this findings offer valuable insights for policymakers seeking to promote board gender diversity as a means to bolster both company worth and tax transparency. Theoretically, this research contributes to our understanding of the interconnectedness among tax planning, dividend policy, profitability, inflation rate, and company value, particularly within the manufacturing sector, thereby stimulating further inquiry in this scope. However, certain limitations, such as the duration of the study, the scope of the sample, and the specific characteristics of the boards examined, emphasize the necessity for future research to explore additional board attributes, such as duality, work experience, educational background, and income levels, as potential moderating variables in the connection among tax planning and firm value. Furthermore, comparative sectoral analyses or cross-country studies could enhance the generalizability of findings and enrich the depth of insights garnered from research in this area.

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