Accounting Conservatism as a Mechanism to Mitigate Underinvestment through Cash Flow Volatility with the Moderating Role of Earnings Management: An Empirical Study on Family Firms in Indonesia

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Abstract. This study investigates the impact of accounting conservatism in reducing underinvestment via cash flow volatility, with earnings management serving as a moderating variable, in Indonesian family enterprises listed on the Kompas 100 Index between 2021 and 2024. The study emphasizes the perspective of agency theory in arguing that the information asymmetry problem, as well as agency conflicts that arise, can be reduced through the adoption of more conservative financial reporting, thus ultimately increasing the efficiency of reporting outcomes. The author utilizes path analysis, mediational analysis via the variance accounted for (VAF) model, and MRA (mediated regression analysis) in their study of secondary data. The author determined that, overall, accounting conservatism reduces the problem of underinvestment and reduces cash flow volatility, reporting will, therefore, lead to greater financial stability. The author also advocates that financial volatility (in this case cash flow volatility) does create a problem of underinvestment, thus increasing, at least, the conservatism of management and focusing on not reducing the firm's value. The author's analysis suggests that accounting conservatism affects underinvestment in two positive ways: directly and through a reduction in cash flow volatility, or, more generally, cash flow. The author notes that, while earnings management has an important and negative direct effect, or influence, on the degree of underinvestment, it does not work to explain the influence of cash flow volatility on underinvestment. The net effect of this, in conjunction with the author's other findings, suggests that the use of conservative reporting methods will strengthen the influence of reporting on investment efficiency for family-owned firms in the developing markets..

Keywords: Accounting Conservatism, Underinvestment, Cash Flow Volatility, Earnings Management, Family Firms.

1 Introduction

Every business and company would like to grow. Investment decisions drive the growth of an organization. Unfortunately, in many cases, businesses do not reach optimal levels of investment due to underinvestment. This involves a situation in

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which businesses have potential investment opportunities, but do not actualize the investments due to certain barriers. These barriers could be uncertain information and various financial constraints. Previous studies show that enhanced credibility of financial reporting can be linked to accounting conservatism and the reduced levels of underinvestment [1], [2]. According to [3] and [4] conservatism spells out identification of losses before gains, and this greatly minimizes the risks of moral hazard and streamlines the agency problem.

The Incremental Capital Output Ratio (ICOR) is one of the most prominent examples of the inefficiency of investment in Indonesia. Indonesia's ICOR was 8 in 2021 and improved to 6.2 in 2022, but this figure is still considerably higher than the majority of its ASEAN counterparts [5]. A higher ICOR indicates that for each unit of capital invested, the economy is not producing the desired level of output. The high inefficiency for businesses is typically attributed to financial friction and poor transparency of information, which is why the problem of underinvestment has become so prominent among practitioners and students of finance.

In the context of underinvestment, creditors and investors find it difficult to assess the value of the company's projects due to information asymmetry. This leads to high agency costs and risk premiums. Consequently, this causes managers to lose out on highly profitable projects because of their inability to access outside funding that is more affordable, or because they become overly defensive to protect their positions amidst the uncertainty.

The problem of the agency is the reason of business failure to reach an ideal level of investment (Agency Theory). It is when thedisquilibrium between ownership (principal) and control (agent)initiates, stated Jensen and Meckling, 1976. As managers possess more inside information than shareholders, information asymmetry becomes most important in this relationship. Managers may act opportunistically to the detriment of shareholders or suffer from moral hazard as a result of this situation.

In addition to directly affecting investment efficiency, conservatism also affects cash flow volatility. A company's ability to finance investments is affected by high cash flow fluctuations, which also raise the possibility that positive net present value projects will be neglected [6]. Empirical evidence [1], [7] conservatism can lessen the perceived risk associated with cash flow volatility by offering more reliable information, which makes financing more accessible and reduces underinvestment. However, this research is rarely applied in Indonesia, especially in family-owned companies. Therefore, this topic is still interesting to be studied again in developing countries with different situations and conditions.

But cash flow volatility means greater agency costs and more information asymmetry, causing managers' defensive behavior to be intensified and making underinvestment easier. Real activities manipulation, the opportunistic behavior of management to smooth short-term performance evaluations by leaving real economic activity, also reinforce the interactive effect between them by distorting real operating conditions of companies and impede external finance. As a result, cash flow volatility has more of an influence on managers' resistance to take positive NPV projects at high levels of earnings management; in contrast, the transparency in financial reporting at low levels of earnings management may mitigates this information

distortion and reduce the effect of cash flow volatility on their propensity to undervest.

Since most of the listed companies in Indonesia are owned by founding family or family members, this study will also assess how the relationship between family ownership and accounting conservatism. According to PricewaterhouseCoopers (PwC), for publicly listed companies, founders or acquirers (or their families) typically hold around 25% of the company's shares and there is at least one family member in management (board). More than 95% of businesses in Indonesia are family-owned, indicating that ownership structure significantly affects investment decisions, internal monitoring, and the practice of accounting conservatism.

Family businesses deal with a variety of agency issues, according to a prior study [8]. The misunderstanding of interests between majority and minority shareholders is one of the primary problems that occurs. Accordingly, the data on Indonesian family enterprises shows that the risk of agency conflict inside Indonesian family businesses increases with their number.

Therefore, up to now very little multidimensional research has been conducted at developing countries, in particular Indonesia as a country with high percentage of family owned businesses which make this research more interesting to be studied further. Other sample and environment Thai studies with that in Indonesia generally only analyzed conservatism, cash flows or earnings management individually, and have not combined all three either on the basis of investment decision.

Based on this research gap, the present study aims to examine the influence of accounting conservatism on underinvestment through cash flow volatility, with earnings management as a moderating variable in Kompas 100 companies during the 2021–2024 period. The findings are expected to contribute academically by expanding the understanding of accounting conservatism, corporate governance, and investment decision-making in the context of family-owned firms in developing countries.

2 Literature Review

2.1 Accounting Conservatism on Underinvestment

Decisions concerning investments are crucial for figuring out an organization's value, but in reality, agency conflicts and information asymmetries sometimes make them difficult. Agency Theory (Jensen & Meckling, 1976) states that when internal financing is restricted, risk-averse managers with greater information prefer to reject positive net present value initiatives. Resulting in [9], [10] Accounting conservatism encourages more cautious reporting methods, improves transparency, and lessens information asymmetry between management and owners by recognizing losses before profits [3], [4], promotes more prudent reporting practices, enhances transparency, and reduces information asymmetry between managers and owners.

Accounting conservatism reduces the issue of underinvestment by assisting businesses, particularly those with opaque information, in obtaining capital and increasing investment [11]. Investors expect less risk when financial reporting is more dependable, which enhances access to source from the market. Not only does this

reduction in opportunistic management behaviour constrain opportunities for mismanagement, but also boosts the effectiveness of investment decisions due to higher quality information. Accordingly, a firm's underinvestment tendency decreases with the rise of accounting conservatism.

H1: Accounting conservatism has a negative and significant effect on underinvestment.

2.2 Accounting Conservatism on Cash Flow Volatility

Accounting conservatism, which places a strong emphasis on accurate reporting and early loss recognition, helps to improve company control by decreasing opportunistic managerial conduct and increasing investor oversight. Previous research [1] demonstrate how greater transparency and less financial uncertainty brought on by conservatism may minimize cash flow volatility. This finding is consistent with [7], who state that conservatism lessens the detrimental effects of cash flow changes on investments in addition to lowering cash flow volatility. The ensuing cash flow volatility decreases when a company prepares its financial statements more conservatively.

H2: Accounting conservatism has a negative effect on cash flow volatility.

2.3 Cash Flow Volatility on Underinvestment

A company's unstable cash receipts and growing concern about its future cash generation are reflected in high cash flow volatility. This volatility shows that the business's cash flow is unpredictable and could not be enough to meet continuing investments and operating requirements. This makes the financial climate in which decisions are made unclear for both management and outside financing sources. Underinvestment may be driven with a causal mechanism created by high cash flow volatility.

Cash flow volatility increases funding circumstances, raises agency costs and information asymmetry, and pushes managers to make overly careful investment choices. Because of growing financial uncertainty, financing limitations, and agency conflicts, managers are more likely to delay investment when a firm experiences higher levels of cash flow volatility. But based on [7] showing that conservatism can reduce underinvestment, especially when cash flow volatility is high, because more conservative reporting strengthens financial stability and investor confidence.

H3: Cash flow volatility has a positive and significant effect on underinvestment.

2.4 Cash flow Volatility Mediates Accounting Conservatism on Underinvestment

Through earlier loss recognition and more dependable profits presentation, accounting conservatism reduces cash flow volatility by increasing prudence and reporting quality. On the other hand, significant cash flow volatility raises financial risk, intensifies internal financing uncertainty, and causes management to postpone

investments, which leads to underinvestment. Therefore, by reducing cash flow volatility, accounting conservatism indirectly lowers underinvestment. In [1] verify this relationship, highlighting how conservatism might reduce underinvestment, particularly in times of significant cash flow volatility, as more cautious reporting boosts investor trust and financial stability.

H4: Cash flow volatility mediates accounting conservatism on underinvestment.

2.5 Cash Flow Volatility on Underinvestment Moderated by Earnings Management

Corporate investment decisions are influenced by conflicts of interest between managers as agents and shareholders as principals. Managers do not always act to maximize company value but also consider personal interests, such as performance stability, position security, and short-term compensation. This conflict becomes even more relevant when companies face high cash flow uncertainty. Shareholder and creditor worries about possible management opportunism are heightened by high cash flow volatility, which also raises financial risk and information asymmetry. In the end, this circumstance makes managers more cautious when making investment decisions since it raises agency costs and restricts financial flexibility.

The participation of managers in earnings management is indicative of a greater risk aversion and short-term focus. In these circumstances, managers are more likely to put short-term performance stability and accounting profits ahead of long-term investment project realization. Because of increased information asymmetry, financial limitations, and managerial short-termism, cash flow volatility has a greater effect on the tendency to underinvest at high levels of earnings management. On the other hand, the impact of cash flow volatility on underinvestment is less pronounced at low levels of earnings management as financial data is comparatively more indicative of the company's economic circumstances.

H5: Cash flow volatility affects underinvestment as moderated by earnings management

3 Methodology

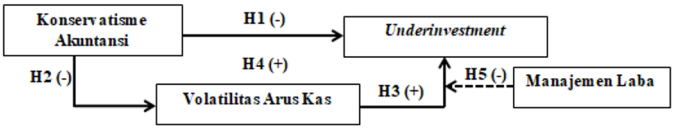


Fig. 1. Research Model

The secondary quantitative data used in this study was obtained from the 2021–2024 annual reports of family-owned businesses included in the Kompas 100 Index. Purposive sampling was used to choose this data, resulting in 57 data sets. Each variable is explicitly operationalized, and underinvestment is measured using the investment-to-capital-expenditure ratio [7]. The accrual model is used for calculating

accounting conservatism [12], cash flow volatility are used to determine cash flow volatility [13] and the Modified Jones Model is used to predict earnings management. Every variable can be measured consistently and objectively thanks to its operationalization.

Secondary data from company annual reports on the Indonesia Stock Exchange's official website and each firm's official website were utilized. Documentary approach was used to gather data in order to provide numerical data that could be statistically analyzed.

SmartPLS and SPSS were used for data analysis. Earnings management was measured using SPSS, while path analysis, hypothesis testing, and descriptive analysis were conducted using SmartPLS. Variance Accounted For (VAF) values were used in mediation tests to assess the degree of the mediating variable's influence, while Moderated Regression Analysis (MRA) was used in moderation tests. Additionally, to determine if the link between the variables was statistically significant, significance testing was performed using the p-value at the 5% level.

4 Research Result

Underinvestment is negatively impacted by accounting conservatism, according to the coefficient value of –0.294. This implies that the firm's ability to underinvest declines as the level of conservatism rises. This relationship aligns with existing theory and prior research [1], [7] logic conservatism enhances transparency, reduces information. Conservatism helps businesses avoid concealing positive-NPV ideas by increasing openness, decreasing information asymmetry, boosting investor confidence, and facilitating better access to outside funding. This association is statistically significant, indicating that the impact is not the result of chance, as indicated by the p-value of $0.041 < 0.05$. H1 is therefore approved.

In line with other research that emphasizes the importance of conservatism in boosting transparency and lowering investment-related risks, this result bolsters the claim that conservatism serves as a monitoring mechanism that lessens management opportunism and increases investment efficiency.

Higher levels of accounting conservatism result in less volatility in cash flows, according to the coefficient of –0.743, which shows that accounting conservatism has a significant negative impact on cash flow volatility. This outcome is in line with the theoretical prediction that conservatism promotes cautious recognition of earnings, speeds up the recognition of losses, and enhances the credibility of information for creditors and investors, encouraging managers to use cash more responsibly and ultimately stabilizing cash flows. H2 is approved because the statistical significance (p-value $0.000 < 0.05$) supports the actual data showing that conservatism consistently lowers cash flow instability.

Underinvestment is positively and significantly impacted by cash flow volatility, according to the coefficient value of 0.364 and p-value of $0.012 < 0.05$. According to this research, increased cash flow volatility rises the cost of capital, increases investor and creditor perceptions of risk, and increases uncertainty about internal finance. In

these circumstances, managers frequently postpone or reject projects that have real value, which makes businesses more hesitant about making investments and eventually leads to underinvestment. H3, which claims that cash flow volatility raises the possibility of underinvestment, is thus supported by the empirical findings.

The association between accounting conservatism and underinvestment is partially mediated by cash flow volatility, as indicated by the VAF value of 47.91%. The impact of conservatism on cash flow volatility accounts for around half of its overall effect on underinvestment, with the remaining portion coming from its direct effect. Cautious financial reporting is encouraged by conservatism, which has an impact on cash-flow stability and, eventually, company investment choices. The mediation hypothesis (H4), which concludes that the mediation is partial, is accepted since both the direct and indirect effects are statistically significant.

According to the regression results, underinvestment is positively and significantly impacted by cash flow volatility; that is, underinvestment tends to rise as cash flow volatility increases ($p = 0.012$). Additionally, profits management has a negative and substantial direct impact on underinvestment, according to Moderated Regression Analysis (MRA) ($p = 0.037$). Earnings management does not, however, mitigate the association between cash flow volatility and underinvestment since the interaction between cash flow volatility and earnings management is negative but not significant ($p = 0.065$). Earnings management is therefore categorized as a moderator predictor that functions as a direct predictor rather than an effective moderating variable, and the moderation hypothesis (H5) is rejected.

Earnings management is not necessarily opportunistic, but it may be used as an adaptive technique to reduce agency demands by showing more predictable results, so preserving financing flexibility and reducing underinvestment. However, earnings management's inability to mitigate the consequences of cash flow volatility implies that short-term accounting methods are insufficient to resolve agency issues caused by basic economic conditions, notwithstanding their direct influence on investment choices.

5 Conclusion

This study offers empirical data on how cash flow volatility, earnings management, and accounting conservatism contribute to underinvestment in Indonesian family businesses. The results demonstrate that accounting conservatism considerably lowers underinvestment and cash flow volatility, suggesting that conservative reporting improves financial stability and lessens agency conflicts. Financial instability increases management caution and restricts organizations' investment potential, as evidenced by the finding that cash flow volatility increases underinvestment.

Cash flow volatility is found to increase underinvestment significantly. Greater volatility heightens uncertainty regarding internal funding capacity and raises perceived risk among investors and creditors, which in turn increases financing costs. Under such conditions, managers tend to delay or abandon positive–NPV projects, leading to a higher likelihood of underinvestment. This result highlights cash flow

volatility as a key channel through which financial uncertainty constrains corporate investment.

This study finds that cash flow volatility partially mediates the association between accounting conservatism and underinvestment, implying that conservatism effects investment decisions both directly and indirectly via cash flow stability. Although earnings management has a considerable direct effect on minimizing underinvestment, it does not mitigate the effects of cash flow volatility. This implies that short-term accounting techniques cannot compensate for basic economic uncertainty represented in changing cash flows, emphasizing the significance of careful reporting in addressing agency issues and enhancing long-term investment efficiency. Overall, the study highlights the importance of conservative financial reporting in enhancing investment efficiency in family-controlled firms, where information asymmetry and managerial discretion are more pronounced.

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