



# The Role of Government Environmental Policy and Industrial Factors on Corporate Financial Performance Mediated by Environmental Accounting Management

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## ABSTRACT

This study aims to investigate the interrelationships among government environmental policy (GEP), Industry Factors, and environmental accounting management (EAM) with corporate financial performance (CFP), examining both direct and indirect effects through mediating variables. A quantitative methodology is employed, wherein GEP, Industry Factors, and EAM are assessed using questionnaires, while CFP data is sourced from the company's financial reports over the past 5 years. To harmonize the scale between quantitative and qualitative data, computer analysis and interval range methods are applied to financial ratio values. Data analysis is conducted using structural equation modeling (SEM) via Smart PLS software. The results of the study reveal that the relationships between GEP, Industry Factors, and EAM with CFP, whether directly or through mediating variables, are positive and significant. The findings of this research support the hypothesis that environmental practices influenced by government environmental policies and industrial factors affect corporate financial performance. This study makes both theoretical and practical contributions to the understanding of the connections between environmental policies, industrial practices, environmental accounting management, and corporate financial performance. It is essential to note that this study has significant implications for the development of more effective environmental policies and sustainable corporate management strategies. These conclusions highlight the importance of considering environmental factors in business decision-making and underscore the need to integrate environmental strategies into long-term business plans.

**Keywords:** Government Environmental Policy, Industry Factors, Environmental Accounting Management, Corporate Financial Performance

**JEL Classifications:** Q58, M41, Q56, L25

## 1. INTRODUCTION

In today's interconnected world, environmental sustainability has emerged as a crucial concern across various sectors (Turner et al., 2007; Oliva et al., 2022). Government decisions regarding environmental regulations and industry-specific elements have a significant impact on the financial outcomes of businesses (Salam et al., 2021; Chang et al., 2015). This research aims to investigate the influence of governmental environmental policies and industry-specific factors on corporate financial performance, with a particular emphasis on environmental accounting management as a key mediating variable. The current

business landscape is experiencing mounting pressure from diverse stakeholders to prioritize environmental sustainability. As primary regulators, governments play a vital role in addressing this issue by implementing more stringent environmental policies (Campiglio et al., 2018). Simultaneously, companies are being encouraged to adopt eco-friendly business practices as industry dynamics evolve. Although previous studies have examined the impact of environmental policies and industry factors on company performance, significant gaps in understanding persist (Qi et al., 2010). To our knowledge, few studies have thoroughly explored the interplay between government environmental policies, industry factors, and environmental accounting management as a mediating

## 2. LITERATURE REVIEW

variable. Therefore, this study seeks to bridge this gap by providing a comprehensive analysis of how these variables interact and ultimately affect a firm's financial performance. The uniqueness of this study lies in its approach, offering a broad and innovative perspective. This research not only examines the direct effects of environmental policies and industry factors on corporate financial performance but also underscores the importance of environmental accounting management as a connecting factor that could lead to more precise and comprehensive findings. Consequently, the contribution of this research is expected to offer new insights and establish a robust theoretical framework for addressing the complex dynamics between environmental sustainability, government regulation, and corporate financial sustainability.

Environmental sustainability has emerged as a central concern due to the detrimental effects of human activities on the planet and the recognition of the finite nature of natural resources (Flammer, 2021; Köseoglu et al., 2021; Ren and Jackson, 2020; Yagi and Kokubu, 2020). Governments worldwide have recognized the pressing need to address these issues and have implemented environmental policies to promote sustainability. These policies aim to reduce carbon emissions, improve resource efficiency, and encourage eco-friendly practices (Le, 2022). They encompass a variety of strategies, including regulations, taxes, and subsidies, among others. These policies create a framework that guides company operations and influences their financial outcomes.

On the other hand, industrial factors relate to the specific dynamics and characteristics of individual sectors. These include technological advancements (Austin and Rahman, 2022), market demand (Teece et al., 1997), the competitive landscape (Jiang et al., 2022), consumer preferences (Alam et al., 2019), and other key elements. The evolving nature of industries, shaped by globalization and technological progress, presents both challenges and opportunities for businesses. Companies must understand the interplay between governmental environmental policies and industry-specific factors to successfully navigate the complex business landscape. Environmental accounting management acts as a key intermediary in linking the objectives of environmental sustainability with financial outcomes. This management involves systems and processes that enable companies to assess, monitor, and control their environmental impacts. By incorporating environmental accounting into their strategic and operational decisions, businesses can mitigate risks associated with environmental regulations and identify opportunities for cost savings and revenue growth (Mori Junior and Best, 2017; Yagi and Kokubu, 2020). This research aims to explore the interaction between governmental environmental policies, industry dynamics, and environmental accounting management, with the goal of illuminating the relationships and dependencies among these components. It seeks to provide a comprehensive understanding of how these factors collectively influence a company's financial performance. Furthermore, this study aims to elucidate the intricate mechanisms by which companies can effectively align their environmental sustainability goals with financial performance, despite the challenges of the modern business environment.

### 2.1. The Relationship between Government Environmental Policy and Financial Performance

The interplay between economic growth targets and environmental regulation has garnered significant attention in environmental economics. This literature review aims to investigate the various factors that influence the intensity of environmental regulation, particularly in the context of local governments seeking economic growth. A crucial element in this dynamic is the dual role of local governments as both the architects of economic growth targets and the enforcers of environmental regulations. According to Yu et al. (2023), in their pursuit of economic growth targets, local governments often prioritize competition over resource endowments when setting these goals. This suggests that economic growth becomes a primary focus for local governments, prompting them to favor short-term gains over long-term environmental sustainability. The pressure to meet immediate economic growth targets further intensifies the disregard for environmental protection by local governments (Baldoni et al., 2021; Moldaliev, 2021). Edwards (2015) argues that when faced with growth pressures, local governments are more likely to prioritize rapid short-term economic growth over investing in environmental protection and other less tangible public goods. This neglect is frequently accompanied by relaxed environmental regulations, which permit increased pollution and environmental degradation in the pursuit of economic growth (Edwards, 2015). Moreover, regions with more stringent environmental regulations often witness a migration of polluting industries to areas with less stringent regulations (Cai et al., 2021). This phenomenon suggests that local governments may engage in regulatory arbitrage, attracting resource-intensive and polluting industries by offering lenient environmental regulations. This highlights the potential for environmental regulatory tools to be misused to foster economic growth.

The interplay between government regulation and corporate green technology innovation (GTI) is a critical area of focus. Luo et al. (2021) highlight the pivotal role of government environmental regulation in fostering GTI within corporate practices. However, when governments face both growth and financial pressures, they may opt for limited financial resources as a regulatory strategy (Mahul and Stutley, 2010; Luo et al., 2021). This approach can restrict the availability of green financing for enterprises, thereby impeding their investment in environmentally sustainable practices (Nikitina et al., 2022). Furthermore, the level of financial development in a region can significantly impact the availability of credit financing for enterprises, influencing their investment decisions and overall business strategies. Anderson (2017) argues that a low level of financial development can complicate credit financing for enterprises, leading to inadequate investment. This indicates that the availability and accessibility of financial resources, such as credit and fiscal expenditures, are highly complementary to the pursuit of economic growth and environmental regulation (Honig, 2001; Solé-Ollé, 2006; Baldoni et al., 2021). To fully leverage financial resources, governments might implement favorable financial policies to attract foreign investment and stimulate local economic development (Yu et al., 2023). The financial system plays a crucial role in gathering and

analyzing information, dispersing risks, and allocating credit, thereby facilitating economic growth and potentially supporting environmental regulatory efforts (Yu et al., 2023). Based on this study, the hypothesis is:

H<sub>1</sub>: Government environmental policy significantly impacts corporate financial performance.

## 2.2. Industrial Factors on Financial Performance

Competition within an industry is a crucial factor that significantly influences the financial performance of companies (Covin and Slevin, 1989). The degree of market concentration, which indicates the percentage of the market controlled by leading firms, plays a crucial role in determining the profitability of these companies (Dickel and Moura, 2016). Research consistently shows that companies with a dominant market share possess a competitive edge in setting prices and controlling resources (Bashir et al., 2022; Handoyo et al., 2023; Rocha et al., 2022). This advantage enables them to maximize profits and maintain robust financial performance. When companies control resources such as energy, water, or raw materials, it not only boosts their operational efficiency but also reflects their environmental responsibility (Agarwal and Goodstadt, 1997; Mishra and Yadav, 2021). Efficient resource utilization has been shown to reduce production costs, ultimately leading to increased profitability. This underscores the importance of sustainable practices within industries, as they can positively impact both the financial performance of companies and their environmental footprint. Besides market concentration and resource consumption, external factors like climate change and regulation also significantly influence overall industry performance (Fan et al., 2021; Iqbal et al., 2020). Industries more vulnerable to environmental changes, either due to their operations or the nature of their products, face a higher risk of shifts in government regulations or climate-related impacts (Iqbal et al., 2020). These changes can directly affect the profitability and solvency of companies within the industry. The connections between these industry variables and corporate financial performance extend to various dimensions, including profitability, activity, solvency, and growth (Malikah, 2021; Sapiri et al., 2022). Profitability is directly impacted by market concentration, allowing companies with significant market share to dictate prices, control resources, and ultimately generate higher profits. Efficient resource utilization also contributes to lowering production costs, positively affecting profitability (Lu and Chen, 2021). Activities such as research and development, innovation, and marketing are crucial for maintaining a competitive edge within industries (van Lieshout et al., 2021). An industry's ability to adapt quickly to market or environmental changes reflects its level of flexibility and innovation. Industries that can swiftly adjust to these changes have the potential to create significant growth opportunities for companies within them. Thus, industry adaptability plays a crucial role in determining firms' growth dimension. Moreover, a firm's financial health is not solely determined by internal factors but is also influenced by external industry factors (Kapoor et al., 2021). A comprehensive analysis of how industry variables impact corporate financial performance is essential for gaining a better understanding of the overall dynamics. By recognizing the interplay between market concentration, resource consumption, environmental changes, and regulation, companies can devise

effective strategies to enhance their financial performance (Haga et al., 2022; N̄ikitina et al., 2022; Venugopal et al., 2020). Based on this study, the hypothesis is:

H<sub>2</sub>: Industry factors have a significant impact on company financial performance.

## 2.3. Environmental Management Accounting of Financial Performance

In recent years, environmental management accounting (EMA) has garnered considerable attention as organizations increasingly recognize the need to manage both financial and non-financial information to evaluate the impact of their decisions on environmental performance (Solovida and Latan, 2017). EMA enables organizations to assess the consequences of their actions and make informed decisions that enhance environmental sustainability while preserving financial health (Milne, 1996; Butler et al., 2011). Numerous studies have highlighted the critical role of EMA in achieving environmental sustainability (Burritt et al., 2002; Jasch, 2003; Ferreira et al., 2010; Schaltegger et al., 2013). By effectively implementing EMA, organizations can improve their environmental performance and secure a competitive edge in the market (Merida, 2021). This indicates that organizations prioritizing environmental management and employing EMA tools are more likely to attract environmentally conscious consumers and investors. Moreover, implementing EMA can yield financial, economic, and ecological benefits for organizations. Zorpas (2010) argues that organizations can actively contribute to environmental improvement while simultaneously reaping financial and economic rewards by adopting EMA. By disclosing environmental concerns in their financial statements, organizations demonstrate their commitment to addressing environmental issues, which can attract investors and enhance their financial performance (Yang et al., 2011; Bresciani et al., 2023) (Wang et al., 2008).

Empirical evidence highlights the crucial role of EMA in improving environmental performance and generating financial benefits. Saeidi et al. (2018) conducted a study exploring the link between EMA implementation and a firm's financial performance. Their findings reveal a positive correlation between EMA usage and profitability, indicating that organizations adopting EMA practices are more likely to achieve superior financial outcomes. Deb et al. (2022) conducted a comprehensive literature review on EMA, concluding that organizations effectively implementing EMA not only experience improved environmental performance but also increased profitability. This suggests that EMA extends beyond environmental advantages, directly influencing an organization's financial bottom line. However, it is crucial to recognize that the implementation and effectiveness of EMA can vary across organizations. Different industries, sizes, and geographical locations may present unique challenges and opportunities for EMA adoption. Furthermore, the level of commitment and managerial support within an organization can significantly impact the successful integration of EMA into business processes (Hung, 2006). Based on this study, the hypothesis in this study is:

H<sub>3</sub>: Environmental accounting management plays a mediating role in the relationship between Government Environmental Policy and Corporate Financial Performance. Specifically, the impact

of Government Environmental Policy on Corporate Financial Performance is more pronounced when environmental accounting management is robust.

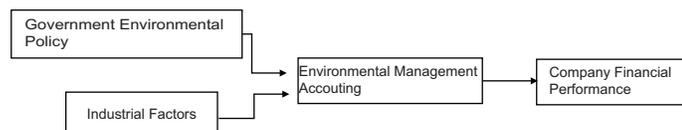
The overall flow of the study conceptual framework is illustrated in Figure 1.

### 3. RESEARCH METHODS

This section provides an overview of the methodological approach employed in this study to examine the influence of government environmental policies and industry factors on corporate financial performance, with environmental accounting management considered a key intervening variable. The research design, data collection methods, sample selection, and data analysis techniques are detailed. The study adopts a cross-sectional, quantitative research design, which is suitable for exploring relationships between variables at a specific point in time. The sample will be selected using a systematic random sampling technique, targeting companies from various industrial sectors in countries with varying levels of environmental regulations. A minimum sample size of seven companies in the banking sector will be considered to ensure statistical robustness and representativeness of the findings. The inclusion criteria for the sample are companies with available financial data and information on environmental accounting practices. This study focuses on analyzing the financial performance of the seven largest banking companies in Indonesia, namely PT. Bank BNI, PT. Mandiri, PT. Bank Danamon, PT. Bank BRI, PT. Bank BTN, PT. Bank Bukopin, and PT. Bank BCA, all of which are listed on the Indonesia Stock Exchange. Thus, the total sample analyzed in this study comprises seven companies. Data collection is conducted through secondary data sources, particularly the financial statements of each company under study. The data collection spans a 3-year period, from 2019 to 2023, to ensure a comprehensive and relevant analysis of the companies' financial conditions over a significant timeframe. The selection of companies from the banking sector aims to capture variations that reflect diverse market conditions. The data collected and analyzed in this study is expected to provide deep insights into the financial performance, influencing factors, and potential challenges faced by these companies.

The following Table 1 the operationalization of the research variables used to examine the influence of Government Environmental Policy, Industrial Factors, and Environmental Accounting Management on Company Financial Performance. Each variable is broken down into measurable dimensions and indicators to ensure conceptual clarity and accurate measurement. Government Environmental Policy is assessed through regulatory frameworks, environmental incentives, monitoring and audit mechanisms, and community empowerment,

**Figure 1:** Responses to vision problems as a subsection of quality of life in patients



capturing the effectiveness of policy design and implementation. Industrial Factors include industry competition, environmental characteristics of industrial operations, and industrial resilience in adopting environmentally friendly practices and technological innovation. Environmental Accounting Management focuses on environmental disclosure and environmental performance measurement within organizations. Meanwhile, Company Financial Performance is measured using objective financial indicators derived from financial statements, both short-term (TTM) and five-year averages (5YA), including profitability, margins, sales growth, earnings per share (EPS), and cash flow. This structure enables a systematic and comprehensive analysis of the relationships between environmental policy, industrial dynamics, environmental accounting practices, and corporate financial outcomes.

The data collected will be analyzed using a blend of descriptive and inferential statistical techniques. Descriptive statistics, such as mean, standard deviation, and frequencies, will summarize the sample's characteristics. Inferential statistics, including correlation and multiple regression analyses, will be employed to explore the relationships between variables and assess the impact of government environmental policies, industry factors, and environmental accounting management on corporate financial performance. After equalizing the distribution values among variables, the subsequent stage of data analysis employs smart-PLS, which progresses through stages to test the hypothesis via the bootstrapping step. The validity and reliability testing steps are omitted because the data is derived from secondary sources. In the bootstrapping step, the criterion for determining whether the hypothesis is accepted ( $H_0/H_a$ ) is the P-value significance approach with a threshold of  $<0.05$  (Chin, 1998).

### 4. RESULT AND DISCUSSION

#### 4.1. Data Result

Table 2 displays the measurement data collected from 183 respondents across various categories, offering a detailed breakdown of respondent distribution based on several key factors. Regarding banking affiliation, Bank BCA has the highest representation among respondents at 21.3%, followed closely by Bank Bukopin and Bank Danamon at 19.7% and 14.2%, respectively. This distribution highlights a diverse involvement of respondents across multiple banking institutions, albeit with varying levels of participation. In terms of job positions, the data reveals a wide range of roles within the banking sector. Account Officers represent the largest group, making up 31.1% of the respondents. Other significant roles include Staff (13.7%), Credit Analysts (9.3%), and Managers (6.0%). This diverse distribution reflects the multifaceted nature of responsibilities and expertise within the banking industry. Concerning gender demographics, male respondents form the majority at 63.4%, while females account for 36.6%. This gender distribution suggests a notable but not extreme disparity, indicating a somewhat balanced participation of both genders in the survey. Age-wise segmentation reveals a varied distribution across different age groups. The largest segment is within the 31-

**Table 1: Dimensions and measurement of variables**

| Variables                           | Dimensions                                | Items   |
|-------------------------------------|---|---|
| Government environmental policy     | • Environmental regulation                | <ul style="list-style-type: none"> <li>• Do you feel that existing regulations provide enough incentives for companies or individuals to implement environmentally friendly practices</li> <li>• To what extent do you feel that law enforcement against environmental violations is strong and consistent.</li> </ul>  |
|                                     | • Environmental incentives                | <ul style="list-style-type: none"> <li>• Do you think these incentives are attractive enough to drive environmental behavior change?</li> <li>• What is the level of accessibility or ease of utilizing these environmental incentives?.</li> </ul>   |
|                                     | • Environmental monitoring and assessment | <ul style="list-style-type: none"> <li>• Environmental audit: The frequency and accuracy of environmental audits of companies.</li> <li>• Environmental monitoring: The effectiveness of environmental monitoring systems to monitor pollution and other impacts.</li> </ul>  |
|                                     | • Dimensions of community empowerment     | <ul style="list-style-type: none"> <li>• Do you think community participation in decision-making related to environmental or development activities has improved recently?</li> <li>• Do you think there are enough opportunities for skills development or capacity building for communities in managing local resources?</li> <li>• What is the role and accessibility of open information related to community empowerment programs or activities in your neighborhood?.</li> </ul>  |
| Industrial factors                  | • Industry competition level              | <ul style="list-style-type: none"> <li>• How intense do you think competition is in the industry you or your company operates in?</li> </ul>  |
|                                     | • Industrial environmental properties     | <ul style="list-style-type: none"> <li>• How important do you think environmental responsibility is in industrial operations?</li> <li>• How would you rate the waste management efforts made by industries in your area?</li> <li>• How well do you think industries around you comply with applicable environmental regulations?</li> </ul>   |
|                                     | • Industrial resilience                   | <ul style="list-style-type: none"> <li>• What is the level of industry awareness towards the use of renewable and environmentally friendly natural resources?</li> <li>• To what extent are technological innovations used in industry to reduce negative impacts on the environment?.</li> </ul>   |
| Environmental accounting management | • Environmental accounting disclosures    | <ul style="list-style-type: none"> <li>• How often do companies or organizations in your industry provide information on the environmental impacts of their operations?</li> <li>• What is the level of detail or disclosure provided on waste management, emissions or natural resource use in their reports?.</li> </ul>  |
|                                     | • Environmental performance measurement   | <ul style="list-style-type: none"> <li>• What is the level of suitability or relevance of the environmental performance indicators used to the needs of the company or industry?</li> <li>• Do you think environmental performance measurement provides a comprehensive understanding of the level of sustainability of the company's operations?</li> </ul>  |
| Company financial performance       |   | <ul style="list-style-type: none"> <li>• RoE TTM</li> <li>• RoE 5YA</li> <li>• RoA TTM</li> <li>• RoA 5YA</li> <li>• RoI TTM</li> <li>• RoI 5YA</li> <li>• TTM gross margin</li> <li>• 5YA gross margin</li> <li>• TTM operating margin</li> <li>• 5YA operating margin</li> <li>• TTM pre-tax margin</li> <li>• 5YA pre-tax margin</li> <li>• Net profit margin TTM</li> <li>• 5YA Net profit margin</li> <li>• Earnings/share TTM</li> <li>• ANN ordinary EPS</li> <li>• ANN diluted EPS</li> <li>• MRQ asset value/share</li> <li>• Fixed asset value/share MRQ</li> <li>• Cash/MRQ shares</li> <li>• Cash flow/share TTM</li> <li>• EPS (MRQ) versus 1<sup>st</sup> Quarter last year MRQ</li> <li>• EPS (TTM) versus TTM 1 year ago TTM</li> <li>• 5-year EPS growth 5YA</li> <li>• Sales (MRQ) versus last 1Q MRQ</li> <li>• Sales (TTM) versus TTM 1 year ago TTM</li> <li>• 5-year 5YA sales growth</li> <li>• 5-year capital expenditure growth 5YA</li> </ul> |

40 years bracket, comprising 48.6% of respondents, followed by those under 30 years old at 22.4%. The distribution decreases notably in the older brackets, with relatively smaller participation

from individuals aged 41-50 years (25.1%) and those above 50 years (3.8%). Lastly, the education levels of the respondents reveal a considerable majority with a Bachelor's 59.6% (59.6%),

**Table 2: Respondent measurement (n=183)**

| Bank                    | Total | Percentage |
|-------------------------|-------|------------|
| Bank Bukopin            | 36    | 19.7       |
| Bank BRI                | 25    | 13.7       |
| Bank BCA                | 39    | 21.3       |
| Bank Mandiri            | 20    | 10.9       |
| Bank Danamon            | 26    | 14.2       |
| Bank BNI                | 13    | 7.1        |
| Bank BTN                | 24    | 13.1       |
| Job position            |       |            |
| Investment banker       | 9     | 4.9        |
| Back office             | 11    | 6.0        |
| Staff                   | 25    | 13.7       |
| Credit analyst          | 17    | 9.3        |
| Teller                  | 6     | 3.3        |
| Customer service        | 13    | 7.1        |
| Sales officer           | 11    | 6.0        |
| Junior account officer  | 6     | 3.3        |
| Account officer         | 57    | 31.1       |
| Manager                 | 11    | 6.0        |
| Supervisor              | 7     | 3.8        |
| General account officer | 10    | 5.5        |
| Gender                  |       |            |
| Man                     | 116   | 63.4       |
| Woman                   | 67    | 36.6       |
| Age (years)             |       |            |
| <30                     | 41    | 22.4       |
| 31-40                   | 89    | 48.6       |
| 41-50                   | 46    | 25.1       |
| >50                     | 7     | 3.8        |
| Education level         |       |            |
| Bachelor                | 109   | 59.6       |
| Magister                | 51    | 27.9       |
| Diploma                 | 23    | 12.6       |

**Table 3: Financial performance bank BNI**

| BNI  | TTM       | 5YA      |
|--|-----------|----------|
| RoE TTM  | 14.95     | 18.14    |
| RoE 5YA  | 11        | 14.11    |
| RoA TTM  | 2.11      | 2.88     |
| RoA 5YA  | 1.49      | 2.27     |
| RoI TTM  | 9.26      | 13.44    |
| RoI 5YA  | 6.78      | 10.78    |
| TTM gross margin                                       | -         | 1.35     |
| 5YA gross margin                                       | 0         | 1.35     |
| TTM operating margin                                   | 47.32     | 49.17    |
| 5YA operating margin                                   | 37.39     | 38.89    |
| TTM pre-tax margin                                     | 51.69     | 51.68    |
| 5YA pre-tax margin                                     | 40.61     | 42.02    |
| Net profit margin TTM                                  | 41.66     | 40.49    |
| 5YA Net profit margin                                  | 32.3      | 24.43    |
| Earnings/share TTM                                     | 1.311.28  | 926.19   |
| ANN ordinary EPS                                       | 491.25    | 348.69   |
| ANN diluted EPS  | 491.25    | 348.49   |
| MRQ asset value/share                                  | 3.828.2   | 2.174.55 |
| Fixed asset value/share MRQ                            | 3.808.19  | 2.152.59 |
| Cash/MRQ shares  | 1.400.88  | 695.11   |
| Cash flow/share TTM                                    | -1.873.02 | -680.44  |
| EPS (MRQ) versus 1 <sup>st</sup> quarter last year MRQ | 11.48     | 45.6     |
| EPS (TTM) versus TTM 1 year ago TTM                    | 20.84     | 32.89    |
| 5-year EPS growth 5YA                                  | 6.12      | 10.85    |
| Sales (MRQ) versus last 1Q MRQ                         | 3.34      | 16.74    |
| Sales (TTM) versus TTM 1 year ago TTM                  | 15.52     | 23.26    |
| 5-year 5YA sales growth                                | 5.17      | 12.48    |
| 5-year capital expenditure growth 5YA                  | 4.94      | 23.52    |

**Table 4: Financial performance bank MANDIRI**

| MANDIRI  | TTM       | 5YA      |
|--|-----------|----------|
| RoE TTM  | 14.95     | 18.14    |
| RoE 5YA  | 11        | 14.11    |
| RoA TTM  | 2.11      | 2.88     |
| RoA 5YA  | 1.49      | 2.27     |
| RoI TTM  | 9.26      | 13.44    |
| RoI 5YA  | 6.78      | 10.78    |
| TTM gross margin                                       | -         | 1.35     |
| 5YA gross margin                                       | 0         | 1.35     |
| TTM operating margin                                   | 47.32     | 49.17    |
| 5YA operating margin                                   | 37.39     | 38.89    |
| TTM pre-tax margin                                     | 51.69     | 51.68    |
| 5YA pre-tax margin                                     | 40.61     | 42.02    |
| Net profit margin TTM                                  | 41.66     | 40.49    |
| 5YA Net profit margin                                  | 32.3      | 24.43    |
| Earnings/share TTM                                     | 1.311.28  | 926.19   |
| ANN ordinary EPS                                       | 491.25    | 348.69   |
| ANN diluted EPS  | 491.25    | 348.49   |
| MRQ asset value/share                                  | 3.828.2   | 2.174.55 |
| Fixed asset value/share MRQ                            | 3.808.19  | 2.152.59 |
| Cash/MRQ shares  | 1.400.88  | 695.11   |
| Cash flow/share TTM                                    | -1.873.02 | -680.44  |
| EPS (MRQ) versus 1 <sup>st</sup> quarter last year MRQ | 11.48     | 45.6     |
| EPS (TTM) versus TTM 1 year ago TTM                    | 20.84     | 32.89    |
| 5-year EPS growth 5YA                                  | 6.12      | 10.85    |
| Sales (MRQ) versus last 1Q MRQ                         | 3.34      | 16.74    |
| Sales (TTM) versus TTM 1 year ago TTM                  | 15.52     | 23.26    |
| 5-year 5YA sales growth                                | 5.17      | 12.48    |
| 5-year capital expenditure growth 5YA                  | 4.94      | 23.52    |

followed by individuals with a Master’s 27.9ree (27.9%) and those holding a 12.6oma (12.6%). This distribution underscores the prevalence of higher education qualifications among the respondents, highlighting the importance of academic credentials within the banking sector.

Table 3 outlines the financial performance metrics of Bank BNI over two distinct periods: the Trailing 12 months (TTM) and the past 5 years (5YA). These metrics cover various dimensions, reflecting the bank’s profitability, margins, earnings per share (EPS), asset values, cash flow, and growth rates. Regarding return on equity (RoE), return on assets (RoA), and return on investment (RoI), the bank exhibits a mixed trend. The TTM RoE, RoA, and RoI are 14.95%, 2.11%, and 9.26%, respectively, marking a significant increase compared to the 5YA figures. However, when examining the longer-term trend (5YA), these metrics show a decline, though they remain at relatively healthy levels. Analyzing gross margin, operating margin, pre-tax margin, and net profit margin, the TTM figures generally surpass the 5YA counterparts, indicating improved efficiency and profitability in the most recent period compared to the average of the past 5 years. In terms of earnings per share, both the TTM and 5YA figures demonstrate an upward trend. The TTM earnings per share are notably higher than the 5YA, reflecting enhanced profitability on a per-share basis over the short term. Asset values, including asset value per share and fixed asset value per share, show a significant increase in the most recent quarter (MRQ) compared to the previous year’s figures,

indicating substantial growth in the bank’s assets. Cash-related metrics, such as cash per share and cash flow per share, exhibit fluctuations between the TTM and 5YA periods. The most recent

quarter reveals a higher cash per share and improved cash flow per share compared to the averages of the past 5 years. Regarding growth rates, there is a mix of higher and lower percentages between the TTM and 5YA periods across metrics like EPS growth, sales growth, and capital expenditure growth. The TTM generally presents lower growth rates compared to the longer-term averages, suggesting a potential slowdown or stabilization in certain aspects of the bank's growth.

Table 4 presents the financial performance metrics of Bank Mandiri over two distinct periods: The trailing 12 months (TTM) and the past 5 years (5YA). These metrics encompass various aspects, reflecting the bank's profitability, margins, earnings per share (EPS), asset values, cash flow, and growth rates. When analyzing return on equity (RoE), return on assets (RoA), and Return on Investment (RoI), a pattern emerges that is similar to Bank BNI's performance. The TTM values for RoE, RoA, and RoI show a 5-year average (no table increase) compared to the 5-year average figures, indicating an improvement in the bank's profitability and returns on investment in the short term. However, akin to the trend observed in Bank BNI, the longer-term averages reveal a decline in these metrics, though they remain at relatively healthy levels. In terms of gross margin, operating margin, pre-tax margin, and net margin, the TTM values generally surpass those of the 5YA counterparts. This suggests that Bank Mandiri has demonstrated an improvement in operational efficiency and profitability in the recent period compared to the average of the past 5 years. Examining earnings per share (EPS), both TTM and 5YA figures exhibit an upward trajectory, indicating a positive trend in the bank's profitability on a per-share basis. The TTM EPS notably exceeds the 5YA average, suggesting enhanced profitability in the short term. Asset values, including asset value per share and fixed asset value per share, show a significant increase in the most recent quarter (MRQ) compared to the figures from the prior year, reflecting substantial growth in the bank's assets. Cash-related metrics, such as cash per share and cash flow per share, display fluctuations between the TTM and 5YA periods. The most recent quarter indicates higher cash per share and improved cash flow per share compared to the averages of the past 5 years. Regarding growth rates, there is a mix of higher and lower percentages across TTM and 5YA periods, such as in metrics like EPS growth, sales growth, and capital expenditure growth. The TTM generally indicates lower growth rates compared to the longer-term averages, suggesting a potential slowdown or stabilization in certain aspects of the bank's growth.

Table 5 offers a detailed overview of Bank BRI's financial performance metrics over two distinct periods: The Trailing 12 months (TTM) and the past 5 years (5YA). These metrics cover key indicators such as profitability, margins, earnings per share (EPS), asset values, cash flow, and growth rates. An analysis of return on equity (RoE), return on assets (RoA), and return on investment (RoI) reveals an upward trend in TTM figures compared to 5YA averages, indicating improved profitability, asset utilization efficiency, and investment returns in the short term. While the 5YA figures reflect solid performance, the recent TTM values show further enhancement. In terms of gross margin, operating margin, pre-tax margin, and net profit margin, the TTM metrics generally present lower values than

**Table 5: Financial performance bank BRI**

| BRI  | TTM      | 5YA      |
|--|----------|----------|
| RoE TTM  | 18.57    | 18.14    |
| RoE 5YA  | 15.79    | 14.11    |
| RoA TTM  | 3.18     | 2.88     |
| RoA 5YA  | 2.4      | 2.27     |
| RoI TTM  | 9.66     | 13.44    |
| RoI 5YA  | 8.44     | 10.78    |
| TTM gross margin                                       | -        | 1.35     |
| 5YA gross margin                                       | 0        | 1.35     |
| TTM operating margin                                   | 40.36    | 49.17    |
| 5YA operating margin                                   | 36.31    | 38.89    |
| TTM pre-tax margin                                     | 49.53    | 51.68    |
| 5YA pre-tax margin                                     | 44.44    | 42.02    |
| Net profit margin TTM                                  | 39.02    | 40.49    |
| 5YA net profit margin                                  | 34.4     | 24.43    |
| Earnings/share TTM                                     | 951.05   | 926.19   |
| ANN ordinary EPS                                       | 338.01   | 348.69   |
| ANN diluted EPS  | 338      | 348.49   |
| MRQ asset value/share                                  | 2.031.78 | 2.174.55 |
| Fixed asset value/share MRQ                            | 2.032.43 | 2.152.59 |
| Cash/MRQ shares  | 414.36   | 695.11   |
| Cash flow/share TTM                                    | -838.42  | -680.44  |
| EPS (MRQ) versus 1 <sup>st</sup> quarter last year MRQ | 1.69     | 45.6     |
| EPS (TTM) versus TTM 1 year ago TTM                    | 9.64     | 32.89    |
| 5-year EPS growth 5YA                                  | 7.36     | 10.85    |
| Sales (MRQ) versus last 1Q MRQ                         | 9.5      | 16.74    |
| Sales (TTM) versus TTM 1 year ago TTM                  | 16.32    | 23.26    |
| 5-year 5YA sales growth                                | 13.72    | 12.48    |
| 5-year capital expenditure growth 5YA                  | 39.34    | 23.52    |

**Table 6: Financial performance bank BTN**

| BTN  | TTM      | 5YA      |
|--|----------|----------|
| RoE TTM  | 12.35    | 18.14    |
| RoE 5YA  | 9.3      | 14.11    |
| RoA TTM  | 0.78     | 2.88     |
| RoA 5YA  | 0.6      | 2.27     |
| RoI TTM  | 6.57     | 13.44    |
| RoI 5YA  | 4.38     | 10.78    |
| TTM gross margin                                       | -        | 1.35     |
| 5YA gross margin                                       | 0        | 1.35     |
| TTM operating margin                                   | 50.77    | 49.17    |
| 5YA operating margin                                   | 36.07    | 38.89    |
| TTM pre-tax margin                                     | 30.77    | 51.68    |
| 5YA pre-tax margin                                     | 23.89    | 42.02    |
| Net profit margin TTM                                  | 24.53    | 40.49    |
| 5YA net profit margin                                  | 18.08    | 24.43    |
| Earnings/share TTM                                     | 885.68   | 926.19   |
| ANN ordinary EPS                                       | 287.54   | 348.69   |
| ANN diluted EPS  | 279      | 348.49   |
| MRQ asset value/share                                  | 2.023.22 | 2.174.55 |
| Fixed asset value/share MRQ                            | 2.023.22 | 2.152.59 |
| Cash/MRQ shares  | 1.202.28 | 695.11   |
| Cash flow/share TTM                                    | -654.81  | -680.44  |
| EPS (MRQ) versus 1 <sup>st</sup> quarter last year MRQ | -26.78   | 45.6     |
| EPS (TTM) versus TTM 1 year ago TTM                    | -10.33   | 32.89    |
| 5-year EPS growth 5YA                                  | 0.12     | 10.85    |
| Sales (MRQ) versus last 1Q MRQ                         | -8.26    | 16.74    |
| Sales (TTM) versus TTM 1 year ago TTM                  | -2.48    | 23.26    |
| 5-year 5YA sales growth                                | 4.75     | 12.48    |
| 5-year capital expenditure growth 5YA                  | 21.32    | 23.52    |

their 5YA counterparts, suggesting a potential decline in operational efficiency and profitability in the recent period compared to the past 5-year average. However, it's noteworthy that the 5YA figures

were already strong, and the TTM values remain robust despite the slight dip. Regarding earnings per share (EPS), both TTM and 5YA figures exhibit an upward trend, indicating growth in profitability on a per-share basis. The TTM EPS notably exceeds the 5YA average, highlighting an improvement in short-term profitability. Asset values, including asset value per share and fixed asset value per share, show a slight decrease in the most recent quarter (MRQ) compared to the previous year, suggesting potential stabilization or a minor decline in asset growth. Cash-related metrics, such as cash per share and cash flow per share, fluctuate between the TTM and 5YA periods. The recent quarter shows lower cash per share and reduced cash flow per share compared to the past 5-year averages, indicating a potential decrease in cash reserves and cash flow generation in the short term. Regarding growth rates, there is a mixed pattern between TTM and 5YA periods across metrics like EPS growth, sales growth, and capital expenditure growth. Generally, the TTM indicates lower growth rates compared to the longer-term averages, suggesting a potential slowdown or stabilization in certain growth aspects of the bank.

Table 6 offers a detailed overview of Bank BTN’s financial performance metrics over two distinct periods: The Trailing 12 months (TTM) and the past 5 years (5YA). These metrics encompass various aspects that reflect the bank’s profitability, margins, earnings per share (EPS), asset values, cash flow, and growth rates. Analyzing return on equity (RoE), return on assets (RoA), and return on investment (RoI), Bank BTN shows a decline in TTM figures compared to the 5YA averages, indicating a decrease in profitability, asset utilization efficiency, and investment returns in the short term. The 5YA figures were notably stronger, highlighting a decline in recent performance. When examining gross margin, operating margin, pre-tax margin, and net profit margin, the TTM metrics generally exhibit higher values than their 5YA counterparts, suggesting improved operational efficiency and profitability in the recent period compared to the past 5 years’ average. Despite declines in other metrics, the recent TTM margins reflect some positive aspects of the bank’s performance. Regarding earnings per share (EPS), both TTM and 5YA figures show a downward trend, indicating reduced profitability on a per-share basis. The TTM EPS notably falls below the 5YA average, pointing to decreased short-term profitability. Asset values, including asset value per share and fixed asset value per share, remain relatively stable between the most recent quarter (MRQ) and the previous year’s figures, suggesting potential stability or minor changes in asset growth. Cash-related metrics, such as cash per share and cash flow per share, show fluctuations between the TTM and 5YA periods. The recent quarter indicates higher cash per share but slightly reduced cash flow per share compared to the past 5 years’ averages, suggesting potential fluctuations in cash reserves and cash flow generation in the short term. Regarding growth rates, there is a mix of positive and negative percentages between TTM and 5YA periods across metrics like EPS growth, sales growth, and capital expenditure growth. The TTM generally shows a decline or lower growth rates compared to the longer-term averages, indicating a potential slowdown or stabilization in certain aspects of the bank’s growth.

Table 7 illustrates the financial performance metrics of Bank Danamon over two distinct periods: The trailing 12 months

**Table 7: Financial performance bank DANAMON**

| DANAMON  | TTM       | 5YA      |
|--|-----------|----------|
| RoE TTM  | 7.09      | 18.14    |
| RoE 5YA  | 5.95      | 14.11    |
| RoA TTM  | 1.75      | 2.88     |
| RoA 5YA  | 1.47      | 2.27     |
| RoI TTM  | 5.32      | 13.44    |
| RoI 5YA  | 4.28      | 10.78    |
| TTM gross margin                                       | -         | 1.35     |
| 5YA gross margin                                       | 0         | 1.35     |
| TTM operating margin                                   | 30.23     | 49.17    |
| 5YA operating margin                                   | 27.24     | 38.89    |
| TTM pre-tax margin                                     | 28.86     | 51.68    |
| 5YA pre-tax margin                                     | 26.16     | 42.02    |
| Net profit margin TTM                                  | 21.62     | 40.49    |
| 5YA net profit margin                                  | 19.47     | 24.43    |
| Earnings/share TTM                                     | 1.579.32  | 926.19   |
| ANN ordinary EPS                                       | 337.88    | 348.69   |
| ANN diluted EPS  | 337.88    | 348.49   |
| MRQ asset value/share                                  | 4.940.74  | 2.174.55 |
| Fixed asset value/share MRQ                            | 4.762.95  | 2.152.59 |
| Cash/MRQ shares  | 1.049.84  | 695.11   |
| Cash flow/share TTM                                    | -1.867.54 | -680.44  |
| EPS (MRQ) versus 1 <sup>st</sup> quarter last year MRQ | 26.83%    | 45.6     |
| EPS (TTM) versus TTM 1 year ago TTM                    | 24.18%    | 32.89    |
| 5-year EPS growth 5YA                                  | -2.53%    | 10.85    |
| Sales (MRQ) versus last 1Q MRQ                         | 10.73     | 16.74    |
| Sales (TTM) versus TTM 1 year ago TTM                  | 11.9      | 23.26    |
| 5-year 5YA sales growth                                | 0.91      | 12.48    |
| 5-year capital expenditure growth 5YA                  | -4.41     | 23.52    |

(TTM) and the past 5 years (5YA). These metrics encompass key indicators such as profitability, margins, earnings per share (EPS), asset values, cash flow, and growth rates. An analysis of return on equity (RoE), return on assets (RoA), and return on investment (RoI) reveals a decline in TTM figures compared to the 5YA averages, indicating a short-term decrease in the bank’s profitability, asset efficiency, and investment returns. However, the 5YA figures were notably stronger, reflecting better performance over the previous 5 years. When examining gross margin, operating margin, pre-tax margin, and net profit margin, the TTM metrics generally show lower values than their 5YA counterparts, suggesting a potential decrease in operational efficiency and profitability in the recent period compared to the past 5-year average. Despite this decline, the bank maintains relatively healthy margins, with the 5YA figures serving as a benchmark. In terms of earnings per share (EPS), both TTM and 5YA figures show a notable increase, indicating a positive trend in profitability on a per-share basis. The TTM EPS significantly exceeds the 5YA average, highlighting an improvement in short-term profitability. Asset values, including asset value per share and fixed asset value per share, demonstrate substantial growth in the most recent quarter (MRQ) compared to the previous year, suggesting a positive trajectory in asset value. Cash-related metrics, such as cash per share and cash flow per share, fluctuate between the TTM and 5YA periods. The recent quarter shows higher cash per share and improved cash flow per share compared to the past 5-year averages, indicating potential improvements in cash reserves and cash flow generation in the short term. Regarding growth rates, there is a mix of positive and negative percentages between TTM and 5YA periods across metrics like EPS growth, sales growth, and capital expenditure growth. The TTM generally exhibits positive

**Table 8: Financial performance bank BUKOPIN**

| BUKOPIN  | TTM     | 5YA      |
|--|---------|----------|
| RoE TTM  | -42.29  | 18.14    |
| RoE 5YA  | -22.84  | 14.11    |
| RoA TTM  | -6.76   | 2.88     |
| RoA 5YA  | -2.77   | 2.027    |
| RoI TTM  | -13.31  | 13.44    |
| RoI 5YA  | -7.54   | 10.78    |
| TTM gross margin                                       | -       | 1.35     |
| 5YA gross margin                                       | 0       | 1.35     |
| TTM operating margin                                   | 157.63  | 49.17    |
| 5YA operating margin                                   | 312.68  | 38.89    |
| TTM pre-tax margin                                     | 163.21  | 51.68    |
| 5YA pre-tax margin                                     | 324.08  | 42.02    |
| Net profit margin TTM                                  | 154.4   | 40.49    |
| 5YA net profit margin                                  | -2.75   | 24.43    |
| Earnings/share TTM                                     | -19.89  | 926.19   |
| ANN ordinary EPS                                       | -74.06  | 348.69   |
| ANN diluted EPS  | -74.06  | 348.49   |
| MRQ asset value/share                                  | 89.28   | 2.174.55 |
| Fixed asset value/share MRQ                            | 87.41   | 2.152.59 |
| Cash/MRQ shares  | 24.38   | 695.11   |
| Cash flow/share TTM                                    | 13.86   | -680.44  |
| EPS (MRQ) versus 1 <sup>st</sup> quarter last year MRQ | -125.74 | 45.6     |
| EPS (TTM) versus TTM 1 year ago TTM                    | 24.32   | 32.89    |
| 5-year EPS growth 5YA                                  | 0       | 10.85    |
| Sales (MRQ) versus last 1Q MRQ                         | -109.29 | 16.74    |
| Sales (TTM) versus TTM 1 year ago TTM                  | -16.99  | 23.26    |
| 5-year 5YA sales growth                                | 0       | 12.48    |
| 5-year capital expenditure growth 5YA                  | -16.62  | 23.52    |

**Table 9: Financial performance bank BCA**

| BCA  | TTM      | 5YA      |
|--|----------|----------|
| RoE TTM  | 21.53    | 18.14    |
| RoE 5YA  | 17.92    | 14.11    |
| RoA TTM  | 3.61     | 2.88     |
| RoA 5YA  | 3.1      | 2.27     |
| RoI TTM  | 21.07    | 13.44    |
| RoI 5YA  | 17.53    | 10.78    |
| TTM gross margin                                       | -        | 1.35     |
| 5YA gross margin                                       | 0        | 1.35     |
| TTM operating margin                                   | 62.21    | 49.17    |
| 5YA operating margin                                   | 56.48    | 38.89    |
| TTM pre-tax margin                                     | 62.21    | 51.68    |
| 5YA pre-tax margin                                     | 56.44    | 42.02    |
| Net profit margin TTM                                  | 50.25    | 40.49    |
| 5YA net profit margin                                  | 45.27    | 24.43    |
| Earnings/share TTM                                     | 778.11   | 926.19   |
| ANN ordinary EPS                                       | 330.45   | 348.69   |
| ANN diluted EPS  | 330      | 348.49   |
| MRQ asset value/share                                  | 1.912.4  | 2.174.55 |
| Fixed asset value/share MRQ                            | 1.900.54 | 2.152.59 |
| Cash/MRQ shares  | 197.57   | 695.11   |
| Cash flow/share TTM                                    | 3.29     | -680.44  |
| EPS (MRQ) versus 1 <sup>st</sup> quarter last year MRQ | 12.15    | 45.6     |
| EPS (TTM) versus TTM 1 year ago TTM                    | 29.65    | 32.89    |
| 5-year EPS growth 5YA                                  | 11.81    | 10.85    |
| Sales (MRQ) versus last 1Q MRQ                         | 12.79    | 16.74    |
| Sales (TTM) versus TTM 1 year ago TTM                  | 22.8     | 23.26    |
| 5-year 5YA sales growth                                | 8.82     | 12.48    |
| 5-year capital expenditure growth 5YA                  | 8.66     | 23.52    |

growth rates compared to the longer-term averages, suggesting a potential increase or stabilization in certain aspects of the bank's growth following a period of decline.

Table 8 presents the financial performance metrics of Bank Bukopin over two distinct periods: The trailing 12 months (TTM) and the past 5 years (5YA). These metrics include key indicators that reflect the bank's profitability, margins, earnings per share (EPS), asset values, cash flow, and growth rates. Analyzing return on equity (RoE), return on assets (RoA), and return on investment (RoI), Bank Bukopin shows negative figures for both the TTM and 5YA periods. This indicates significant challenges in the bank's profitability, asset efficiency, and returns on investments over both short and long-term periods. The negative percentages suggest a substantial decline in performance, which might raise concerns about the bank's financial health. When examining gross margin, operating margin, pre-tax margin, and net profit margin, there are notable fluctuations between the TTM and 5YA periods. The TTM metrics display extreme variations, with high positive values in margins compared to the 5YA counterparts. These extraordinary figures in TTM margins might indicate anomalies or exceptional circumstances that significantly impacted the bank's recent financial performance. Considering earnings per share (EPS), both TTM and 5YA figures show negative values, reflecting substantial losses in the bank's profitability on a per-share basis. The figures for TTM and 5YA EPS display significant negative deviations, suggesting a severe decline in profitability and potential financial distress. Asset values, including asset value per share and fixed asset value per share, exhibit extremely low figures in the most recent quarter (MRQ) compared to the figures from the prior year. This

signifies a substantial decrease or depreciation in the bank's assets, indicating potential financial challenges or restructuring processes impacting asset valuations. Cash-related metrics, such as cash per share and cash flow per share, also demonstrate extreme fluctuations between the TTM and 5YA periods. The recent quarter indicates a relatively low cash per share and a negative cash flow per share compared to the averages of the past 5 years, indicating potential financial stress and liquidity issues. Regarding growth rates, there are significantly negative percentages between TTM and 5YA periods across metrics like EPS growth, sales growth, and capital expenditure growth. These figures indicate drastic declines in these growth rates, reflecting a severe downturn or potentially troubling financial circumstances impacting the bank's growth and stability.

Table 9 presents the financial performance metrics of Bank BCA over two distinct periods: the trailing 12 months (TTM) and the past 5 years (5YA). These metrics cover key indicators such as profitability, margins, earnings per share (EPS), asset values, cash flow, and growth rates. Analyzing return on equity (RoE), return on assets (RoA), and return on investment (RoI), Bank BCA shows an upward trend in both TTM and 5YA figures, indicating consistent improvements in profitability, asset utilization efficiency, and investment returns over both short and long-term periods. The positive percentages reflect steady growth and financial strength. When examining gross margin, operating margin, pre-tax margin, and net profit margin, the TTM metrics reveal higher values compared to the 5YA averages, suggesting enhanced operational efficiency and profitability in the recent period. The consistent increase in margins highlights the bank's effective cost and operational management, leading

to greater profitability. In terms of earnings per share (EPS), both TTM and 5YA figures show a positive trend, indicating increased profitability on a per-share basis. Although the TTM EPS is slightly lower than the 5YA average, it still points to a continuous positive trajectory in earnings. Asset values, including asset value per share and fixed asset value per share, show a slight decrease in the most recent quarter (MRQ) compared to the previous year, yet they remain relatively strong, reflecting stable and well-managed assets. Cash-related metrics, such as cash per share and cash flow per share, have decreased in the recent quarter compared to the past 5-year averages. Despite this decline, the bank maintains a reasonable cash position, ensuring liquidity to support its operations. Regarding growth rates, there is a consistent positive trend between TTM and 5YA periods across metrics like EPS growth, sales growth, and capital expenditure growth, indicating steady growth rates and suggesting the bank's successful long-term strategies and consistent performance.

#### 4.2. Statistical Result

Table 10 displays the outer loadings for variables associated with environmental management accounting (EAM), government environmental policy (GEP), and industrial factors (IF). Outer loadings indicate the strength of the relationship between observed indicators and their respective latent constructs in a statistical model, such as a structural equation model. In this context, the table highlights the correlation coefficients between the observed indicators (EAM1 through EAM4, GEP1 through GEP9, and IF1 through IF6) and their underlying constructs (environmental management accounting, government environmental policy, and industrial factors). For example, the values in the table illustrate the degree of association or contribution of each observed variable to its intended construct. Higher values closer to 1 suggest a stronger relationship between the observed variable and its respective latent construct, while values closer to 0 or negligible indicate a weaker relationship or lesser contribution of that observed variable to the construct. The EAM variables (EAM1 through EAM4) exhibit high outer loadings ranging from 0.783 to 0.921, signifying a strong association with the environmental management accounting construct. Similarly, the GEP variables (GEP1 through GEP9) show moderate to high outer loadings, ranging from 0.749 to 0.876, reflecting their substantial relationship with the Government Environmental Policy construct. The industrial factors (IF1 through IF6) also demonstrate moderate to high outer loadings, ranging from 0.722 to 0.852, indicating their significant association with the industrial factors construct.

Table 11 describes various measures used to assess the reliability and validity of constructs within a research or analytical model. These measures are crucial for ensuring the robustness and accuracy of the model's underlying factors. Firstly, Cronbach's Alpha is a measure of internal consistency reliability, evaluating how well the items within each construct correlate with one another. Higher Cronbach's Alpha values, closer to 1, indicate greater consistency among the items measuring the construct. In this table, Company Financial Performance boasts a very high Cronbach's Alpha of 0.960, suggesting strong internal consistency among the items measuring this construct. Environmental

Management Accounting, Government Environmental Policy, and Industrial Factors also exhibit strong internal consistency, with Cronbach's Alpha values ranging from 0.882 to 0.929. Secondly, rho\_A (rho coefficient) is another measure of internal consistency reliability. Like Cronbach's Alpha, it assesses the reliability of the constructs but may be less influenced by the number of items. The rho\_A values in this table range from 0.889 to 0.969, affirming the high internal consistency of the constructs. Composite Reliability evaluates the reliability of the measurement model by considering both the variance shared among the indicators and the measurement error. Higher values closer to 1 indicate greater reliability. In this table, all constructs, including company financial performance, environmental management accounting, government environmental policy, and industrial factors, demonstrate strong

**Table 10: Outer loadings**

| Items | Environmental management accounting | Government environmental policy | Industrial factors |
|-------|-------------------------------------|---------------------------------|--------------------|
| EAM1  | 0.783                               |                                 |                    |
| EAM2  | 0.921                               |                                 |                    |
| EAM3  | 0.897                               |                                 |                    |
| EAM4  | 0.869                               |                                 |                    |
| GEP1  |                                     | 0.783                           |                    |
| GEP2  |                                     | 0.783                           |                    |
| GEP3  |                                     | 0.799                           |                    |
| GEP4  |                                     | 0.799                           |                    |
| GEP5  |                                     | 0.798                           |                    |
| GEP6  |                                     | 0.809                           |                    |
| GEP7  |                                     | 0.876                           |                    |
| GEP8  |                                     | 0.798                           |                    |
| GEP9  |                                     | 0.749                           |                    |
| IF1   |                                     |                                 | 0.852              |
| IF2   |                                     |                                 | 0.722              |
| IF3   |                                     |                                 | 0.794              |
| IF4   |                                     |                                 | 0.822              |
| IF5   |                                     |                                 | 0.774              |
| IF6   |                                     |                                 | 0.794              |

**Table 11: Construct reliability and validity**

| Variables                           | Cronbach's alpha | rho_A | Composite reliability | Average variance extracted (AVE) |
|-------------------------------------|------------------|-------|-----------------------|----------------------------------|
| Company financial performance       | 0.960            | 0.969 | 0.964                 | 0.499                            |
| Environmental management accounting | 0.891            | 0.892 | 0.925                 | 0.755                            |
| Government environmental policy     | 0.929            | 0.931 | 0.941                 | 0.640                            |
| Industrial factors                  | 0.882            | 0.889 | 0.911                 | 0.630                            |

**Table 12: R-square**

| Variables                           | R square | R square adjusted |
|-------------------------------------|----------|-------------------|
| Company financial performance       | 0.789    | 0.788             |
| Environmental management accounting | 0.810    | 0.808             |

reliability with composite reliability values ranging from 0.911 to 0.964. Lastly, average variance extracted (AVE) measures the amount of variance captured by the construct in relation to the variance due to measurement error. Higher AVE values, ideally >0.5, indicate better convergent validity, implying that the construct explains a substantial amount of the variance in its indicators. In this table, environmental management accounting, government environmental policy, and Industrial Factors exhibit strong convergent validity, with AVE values ranging from 0.630 to 0.755. However, company financial performance, with an AVE of 0.499, although high, falls slightly below the threshold of 0.5, indicating it may explain a relatively smaller proportion of variance in its indicators compared to the other constructs.

Table 12 displays the R-square and Adjusted R-square values for specific constructs within a model. The R-square, or coefficient of determination, quantifies the proportion of variance in the dependent variable that the independent variables in a regression model explain. The Adjusted R-square accounts for the number of predictors in the model, adjusting the R-square to penalize the excessive inclusion of variables. For company financial performance, the R-square is 0.789, and the adjusted R-square is 0.788. These figures suggest that about 78.9% of the variance in company financial performance is explained by the model's independent variables. The close similarity between the Adjusted R-square and R-square indicates that adding predictors does not significantly alter the variance explanation. Environmental Management Accounting shows an R-square of 0.810 and an adjusted R-square of 0.808, indicating that approximately 81% of its variance is accounted for by the model's independent variables. The slightly lower Adjusted R-square suggests that including predictors might marginally reduce the variance explanation but still maintains high explanatory power. Both constructs, Company Financial Performance and Environmental Management Accounting, demonstrate substantial proportions of explained variance, highlighting the significant contribution of the selected independent variables in understanding and predicting these constructs' variability. The R-square and adjusted R-square values are crucial in regression analysis as they indicate the model's goodness of fit. Higher R-square values signify a better

fit between the observed data and the model, implying that the included predictors explain a larger portion of the variability in the dependent variable. The Adjusted R-square, which adjusts for model complexity, offers a more conservative estimate of the model's goodness of fit.

Table 13 displays the f-square values, which serve as indicators in structural equation modeling (SEM) or regression analysis to evaluate the significance of paths or relationships between constructs. These values help ascertain the strength and significance of the relationships among the constructs listed in the table. The diagonal elements of the table represent the f-square values associated with each construct when it functions as the independent variable predicting itself as the dependent variable. These values indicate the proportion of variance in the dependent construct explained by the independent construct. In the case of Company Financial Performance predicting itself, the f-square value is not provided (usually indicated as 1), as it is not applicable and remains undefined. For Environmental Management Accounting predicting itself, the f-square value is 3.735, suggesting a strong relationship, indicating that Environmental Management Accounting significantly predicts and explains its own variance. The off-diagonal elements show the f-square values when one construct predicts another. The value of 0.321 at the intersection of environmental management accounting predicting government environmental Policy indicates a moderate predictive relationship between these constructs. Similarly, the value of 0.085 at the intersection of environmental management accounting predicting industrial factors signifies a relatively weaker predictive relationship between these constructs. These f-square values help researchers understand the predictive power and significance of relationships between different constructs in a model. Higher f-square values indicate stronger and more influential relationships between constructs, while lower values imply comparatively weaker predictive relationships.

The Fornell-Larcker criterion, as shown in Table 14, is employed to evaluate the discriminant validity of constructs within a model. It involves comparing the square root of the average variance extracted (AVE) for each construct with the correlations between that construct and others in the model. The diagonal elements represent the square root of the AVE for each construct, indicating the variance explained by the construct's own indicators relative to measurement error. Off-diagonal elements display the correlations between different constructs. The criterion's purpose is to determine whether the square root of the AVE (diagonal elements) for each construct exceeds the correlations between that construct and others (off-diagonal elements). Additionally, the diagonal elements, representing the square root of the AVE, are 0.707 for Company Financial Performance, 0.869 for environmental management

**Table 13: f-square**

| Variables                           | Company financial performance | Environmental management accounting |
|-------------------------------------|-------------------------------|-------------------------------------|
| Company financial performance       |                               |                                     |
| Environmental management accounting | 3.735                         |                                     |
| Government environmental policy     |                               | 0.321                               |
| Industrial factors                  |                               | 0.085                               |

**Table 14: Fornell-Larcker criterion**

| Variables                           | Company financial performance | Environmental management accounting | Government environmental policy | Industrial factors |
|-------------------------------------|-------------------------------|-------------------------------------|---------------------------------|--------------------|
| Company financial performance       | 0.707                         |                                     |                                 |                    |
| Environmental management accounting | 0.888                         | 0.869                               |                                 |                    |
| Government environmental policy     | 0.936                         | 0.891                               | 0.800                           |                    |
| Industrial factors                  | 0.893                         | 0.866                               | 0.913                           | 0.794              |

accounting, 0.800 for Government Environmental Policy, and 0.794 for Industrial Factors. The off-diagonal elements show the correlations between constructs. For example, the correlation between Company Financial Performance and Environmental Management Accounting is 0.888, while the correlation between Company Financial Performance and Government Environmental Policy is 0.936. Similarly, correlations among other constructs are also provided in the Table 14. For discriminant validity, the square root of the AVE (diagonal elements) should ideally be greater than the correlations (off-diagonal elements) between the construct and others. This indicates that a construct shares more variance with its own indicators than with other constructs in the model. In Table 14, each construct's square root of the AVE is greater than the correlations with other constructs, satisfying the criterion for discriminant validity. For instance, the values on the diagonal (square root of AVE) for environmental management accounting, government environmental policy, and Industrial Factors are higher than the respective correlations with other constructs, confirming their discriminant validity.

Table 15 presents a comparison of various fit indices between a saturated model and an estimated model, offering insights into the goodness of fit for these models in structural equation modeling (SEM) or similar analyses. The SRMR (standardized root mean square residual) assesses the average of the standardized residuals between the observed and predicted correlations, with lower values indicating a better fit. In this comparison:

- The SRMR for the saturated model is 0.086, indicating a slightly better fit than the estimated model, which has an SRMR of 0.097. However, both values are generally considered acceptable if they fall below 0.08 or 0.10, depending on the specific analysis criteria.
- d\_ULS (unweighted least squares discrepancy) and d\_G (Bentler's Comparative Fit Index) are indices used to assess the difference between the implied and observed covariance matrices, with smaller values suggesting a better fit. The saturated model has lower values for both d\_ULS (8.249) and d\_G (5.123) compared to the estimated model, which

reports higher values of 10.566 for d\_ULS and 5.391 for d\_G. Lower values generally indicate a closer match between the model-implied and observed covariance matrices, suggesting a better fit.

- Chi-Square is a statistical measure that assesses the discrepancy between the observed and expected covariance matrices, with larger P-values associated with the Chi-square statistic indicating a better fit. However, it is sensitive to sample size. In Table 15, the Chi-square values for both the saturated model (3916.523) and the estimated model (4031.499) are relatively high, which could suggest a lack of fit. However, Chi-square is sensitive to large sample sizes, and high values may not necessarily imply poor fit.
- NFI (normed fit index) evaluates the relative fit of a model by comparing the proposed model to a null model (independence model). Higher values signify better fit. In this context, both models report NFI values around 0.60. Although lower than desired (ideally >0.90 for a good fit), NFI values around 0.60 might indicate an acceptable fit but suggest room for improvement.

Table 16 and Figure 2 present the results of a study examining the relationships between environmental management accounting (EMA), government environmental policy (GEP), industrial factors, and company financial performance. The data includes sample means, standard deviations, T statistics, and corresponding P values for each relationship. The findings reveal strong associations among the variables. Firstly, there is a significant positive relationship between environmental management accounting and company financial performance. The sample mean of 0.888 for EMA indicates a high average impact on financial performance, supported by a low standard deviation of 0.033. The high T statistics value of 27.147 and an exceptionally low  $P < 0.01$  underscore the strength and significance of this relationship. Secondly, Government Environmental Policy also shows a noteworthy connection with company financial performance. Despite a lower sample mean of 0.525 and a slightly higher standard deviation of 0.171, the T statistics value of 3.149 and a significant  $P = 0.002$  suggest a positive impact on financial performance due to environmental policies. Furthermore, the study highlights the influence of Government Environmental Policy on Environmental Management Accounting. A sample mean of 0.586 with a standard deviation of 0.177 signifies a moderate average impact of GEP on EMA. The T statistics value of 3.416 and a low  $P < 0.01$  confirm a significant relationship

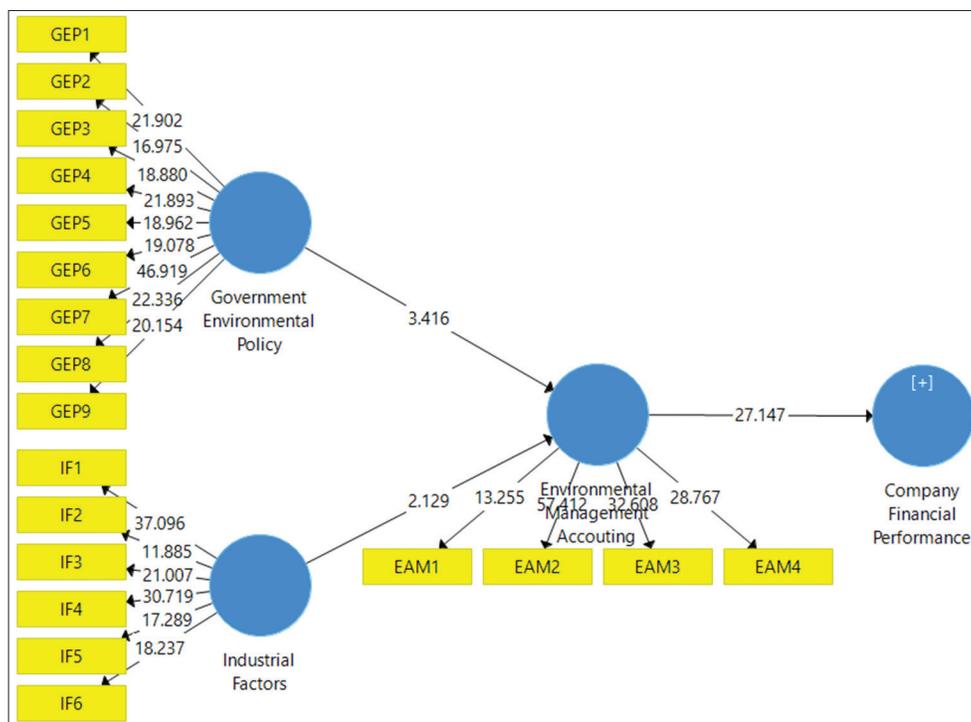
**Table 15: Model fit**

| Measurement | Saturated model | Estimated model |
|-------------|-----------------|-----------------|
| SRMR        | 0.086           | 0.097           |
| d_ULS       | 8.249           | 10.566          |
| d_G         | 5.123           | 5.391           |
| Chi-square  | 3916.523        | 4031.499        |
| NFI         | 0.609           | 0.597           |

**Table 16: Total effect and hypotheses test result**

| Hypotheses  | Sample mean | Standard deviation | T statistics | P-values |
|---|-------------|--------------------|--------------|----------|
| Environmental management accounting→company financial performance                                 | 0.888       | 0.033              | 27.147       | 0.000    |
| Government environmental policy→company financial performance                                     | 0.525       | 0.171              | 3.149        | 0.002    |
| Government environmental policy→environmental management accounting                               | 0.586       | 0.177              | 3.416        | 0.001    |
| Industrial factors→company financial performance  | 0.290       | 0.121              | 2.302        | 0.022    |
| Industrial factors→environmental management accounting  | 0.331       | 0.147              | 2.129        | 0.034    |
| Government environmental policy→environmental management accounting→company financial performance | 0.525       | 0.171              | 3.149        | 0.002    |
| Industrial factors→environmental management accounting→company financial performance              | 0.290       | 0.121              | 2.302        | 0.022    |

Figure 2: SEM PLS result



between these variables. Additionally, Industrial Factors exhibit a moderate relationship with both Company Financial Performance and Environmental Management Accounting. The sample mean for its impact on financial performance is 0.290 with a standard deviation of 0.121, while for EMA, it is 0.331 with a standard deviation of 0.147. The T statistics values of 2.302 and 2.129, along with  $P = 0.022$  and  $0.034$  respectively, suggest a moderate but significant impact of industrial factors on both financial performance and environmental management accounting.

### 4.3. Discussion

The interplay between government environmental policy, environmental accounting management, and corporate financial performance is a multifaceted aspect of sustainable development. This study explore why the influence of these elements can positively and significantly impact the relationship among these variables. Government environmental policies are crucial in shaping both corporate and individual behaviors toward eco-friendly practices. To begin with, existing environmental regulations are a significant factor. When these regulations offer sufficient incentives for firms or individuals to adopt environmentally friendly practices, they encourage behavioral change. Conversely, if the incentives are less appealing, the likelihood of adopting such practices diminishes. Moreover, the enforcement of laws against environmental violations is pivotal. Strong and consistent enforcement increases the likelihood that companies will comply with environmental regulations, prompting more positive behavioral changes toward improved environmental practices. Beyond regulation, environmental incentives also drive behavior change. When these incentives are attractive and offer substantial benefits to companies or individuals, they are more likely to implement these behavioral changes.

However, the accessibility and ease of using these incentives also influence the extent of behavior change. Additionally, effective environmental monitoring and assessment are vital. Regular and accurate environmental audits of companies raise awareness of the environmental impacts of their operations. An effective monitoring system also helps control pollution and other impacts, influencing companies to enhance their operations. Furthermore, the dimension of community empowerment plays a significant role in environmental protection. Community participation in decision-making regarding environmental activities can heighten awareness and support for improved environmental practices. Moreover, providing ample opportunities for communities to develop skills or capacities in managing local resources contributes to positive changes in environmental behavior. Looking at environmental accounting management, the transparency of information from companies about the environmental impacts of their operations has major implications. If companies routinely provide information on the environmental impacts of their operations in sufficient detail, this provides an opportunity for stakeholders to assess the environmental performance of the company. Furthermore, environmental performance measurement is also relevant to the needs of the company or industry. If the environmental performance indicators used match the needs of the company, this can provide a thorough understanding of the level of sustainability of the company's operations. Finally, when looking at a company's financial performance, there is a close link between environmental factors and financial performance. If companies implement better environmental practices through the implementation of government policies and environmental accounting management, this can positively affect their financial performance in the long run. For example, more environmentally friendly operations can reduce operational costs and legal risks, which can increase a company's profitability in the long run. Overall, the interaction

between government environmental policies, environmental accounting management, and corporate financial performance creates an environment where sustainable and environmentally friendly practices become more likely. This is not only beneficial for the environment, but also for the long-term viability of the company itself.

The interplay between industry factors, environmental accounting management, and corporate financial performance is crucial for understanding how these elements influence corporate environmental and financial outcomes. Let's delve into why this relationship can exert a positive and significant impact. Industry factors, such as the level of competition, the nature of the industry environment, and the industry's resilience, directly affect corporate environmental accounting management. Firstly, the intensity of competition within an industry is a key factor. Fierce competition may drive companies to focus more on environmental responsibility to uphold their reputation and maintain a competitive edge. This focus can lead companies to enhance the quality of their environmental accounting reports as part of a comprehensive business strategy. Additionally, the nature of the industrial environment and the waste management efforts of neighboring industries can shape environmental accounting practices. Industries with a heightened awareness of environmental responsibility may be more transparent in disclosing information about the environmental impact of their operations. This creates an environment where companies within those industries feel compelled to improve their environmental accounting reporting.

Moreover, the industry's awareness of using environmentally friendly natural resources and technological innovations to mitigate environmental impacts significantly influences environmental accounting practices. When industries demonstrate a high level of awareness regarding renewable resources and eco-friendly technologies, this is often reflected in their environmental accounting reports, offering more detailed insights into efforts to reduce environmental impacts. Examining the influence of these industry factors on corporate financial performance reveals a clear connection. Enhanced environmental accounting practices, shaped by industry factors such as competition level, industry environment nature, and resilience, can lead to improved long-term financial performance. For instance, companies' initiatives to enhance their environmental accounting reports can signal a commitment to sustainability, boosting investor and consumer confidence and, consequently, increasing firm value over time. Additionally, the awareness and use of eco-friendly natural resources can lower a company's operating costs in the long run, positively affecting profitability and overall financial performance. In summary, industry factors significantly impact firms' environmental accounting management and financial performance. Changes in these practices can indicate broader shifts in corporate sustainability efforts, influencing stakeholder perceptions and firm value in the long term.

## 5. CONCLUSION

In examining the interplay between industry factors, environmental accounting management, and corporate financial performance, it

becomes evident that a significant connection exists between the environmental practices adopted by industries and the quality of their environmental accounting reports, as well as their financial outcomes. Elements such as industry competition, environmental responsibility awareness, the use of eco-friendly resources, and technological innovation significantly influence how firms prioritize environmental considerations in their operations. Theoretically, these findings lay the groundwork for a deeper understanding of how industry factors interact with corporate environmental accounting practices within the sustainability context. They imply that external factors, like competition levels and the industry environment, can shape firms' internal environmental accounting practices, underscoring the importance of the external context in forming corporate environmental policies. These external factors should be considered when designing sustainability strategies. From a managerial perspective, these findings offer corporate managers valuable insights into the necessity of responding to industry factors when managing environmental accounting practices. Managers should factor in the external environment, such as industry competition and environmental responsibility, when making decisions about corporate environmental policies. Heightened awareness and responsiveness to these factors can enhance the transparency and quality of environmental accounting reports, thereby influencing stakeholder perceptions and long-term financial performance. Additionally, the managerial implications emphasize the significance of technological innovation in environmental management. Corporate managers should integrate eco-friendly technologies into their operational strategies. Employing innovative technologies can help firms minimize negative environmental impacts while maintaining efficiency and profitability. Consequently, these findings suggest that recognizing and adapting to industry external factors, along with adopting transparent and innovative environmental accounting practices, are crucial steps for firms aiming for long-term sustainability. Corporate managers play a vital role in incorporating these aspects into their strategic and operational decision-making, focusing on achieving financial objectives while considering the broader environmental impacts on the company and society at large.

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