Indonesian Journal of Sustainability Accounting and Management
ISSN 2597–6214 | e–ISSN 2597–6222
DOI: 10.28992/ijsam.v8i1.892

Green Banking Universe and Sustainability Banking Industry in Indonesia: The Influence of Information Technology Governance

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Abstract: This study aims to explores the role of green accounting, green innovation, and green technology and the process of accelerating information technology governance in achieving corporate sustainability. As one of the vital sectors, banking has a large share of Indonesia's economy. The empirical gap regarding green accounting practices in Indonesia, especially in the banking sector, will contribute to this research. The processing method used is a regression of top panel data of banking companies listed on the Indonesia Stock Exchange from 2015-2021. The results shows that green technology has a positive effect on banking sustainability in Indonesia. Furthermore, green accounting does not influence the level of banking sustainability, and green innovation negatively influences the level of banking sustainability in Indonesia. The results of this research data analysis are significant findings, considering that the concept and practice of green accounting are increasingly discussed today. This finding can help regulator to more detailed policy derivatives and targeted practice directions in green and sustainability banking are needed. This research provides a new insight about information technology governance to improving implementation green banking to pursue future sustainability banking.

Keywords: green banking, performance, sustainable growth rate, technology governance.

Article info: Received 20 November 2023 | revised 26 January 2024 | accepted 4 March 2024

Recommended citation: Putri, J. K., Putri, R. N., Christanti, R., & Nugroho, H. L. N. (2024). Green Banking Universe and Sustainability Banking Industry in Indonesia: The Influence of Information Technology Governance. *Indonesian Journal of Sustainability Accounting and Management, 8*(1), 165–177. https://doi.org/10.28992/ijsam.v8i1.892

INTRODUCTION

This study aims to explores the role of green accounting, green innovation, and green technology and the process of accelerating information technology governance in achieving corporate sustainability. Patel et al. (2020) states that it is the company's main goal to apply concerned accounting principles. Previous research states that it is assessed based on interconnected pillars – environmental, social, and economic – which

are interconnected, especially in the banking sector (Ismail et al., 2018). Furthermore, Deb et al. (2020), Zhou et al. (2022), R. Guo et al. (2020) and Tolliver et al. (2021) have encouraged the implementation of green banking in banking business processes to achieve company desires. However, the need to achieve corporate integration that covers environmental, social, and economic pillars requires additional encouragement. Pradhan et al. (2021) and De Haes et al. (2013) states that the implementation of ICT governance encourages organizational and managerial implementation at the level of integrated policies that are effective and efficient in achieving goals. Therefore, this research provides a new perspective on achieving company desires through the application of ICT Governance in accelerating the achievement of banking companies' desires.

In the principle of sustainability, the environment has long been considered an important part (Amalia & Triwacananingrum, 2022; Dikau & Volz, 2021). Ismail et al. (2018) and Islam & Hossain (2022) explains that increasing global environmental awareness in the context of building a sustainable economy can shift companies to be sensitive to the surrounding environment. Companies need to change routines to achieve sustainable development goals by managing the environment around them. Sustainability development is important for the welfare of humans and the environment (Silva, 2021). Take the case of deforestation as an example; most of the damage is caused by converting forest land into oil palm plantations, where Indonesia accounts for 53% of oil palm cultivation in the world (BPS, 2019). The estate industrial sector can operate because financial institutions' funding supports indirectly contribute to environmental destruction (Makan & Kabra, 2021; Rehman et al., 2023). Thus, financial institutions must prioritize environmentally friendly investments while reducing potential reputation risks by implementing business ethics and adhering to sustainable finance principles. This can attract the interest of environmental observers, companies and national governments who prioritize the harmony of economic, environmental, and social aspects to contribute to Indonesia's economic development efforts.

It is imperative for companies to adopt environmentally friendly strategies in order to promote environmental awareness and ensure sustainability. Embracing a green economy can serve as a significant step towards achieving these objectives. In this article, we will delve into three green economic movements that can be implemented by banking companies. The first is green accounting (Deb et al., 2020; Egbunike & Emudainohwo, 2017), the second is green innovation (Tolliver et al., 2021), and the last is green technology (M. Guo et al., 2020). To help companies manage their economic and environmental goals, many companies develop environmentally friendly strategies, one of which is green accounting (Egbunike & Emudainohwo, 2017; Maama & Appiah, 2019). Appropriate disclosure of environmental accounting information is important for accountability (Amalia & Triwacananingrum, 2022; Mahmudah et al., 2023; Pondaag & Ekawati, 2020). Environmental accounting reporting, sustainability reporting, and sustainability practices improve the company's image in the market and among stakeholders, encouraging top management to improve environmental conditions (Amalia & Triwacananingrum, 2022; Dikau & Volz, 2021; Islam & Hossain, 2022; Rehman et al., 2023). Therefore, through this environmental accounting perspective, it is hoped that companies will have an environmental responsibility to encourage sustainability. Information technology governance can also help organizations make the right strategies and decisions with an accountability framework in providing direction for the company's future sustainability. Governance also strengthens security and privacy posture, which helps in making good risk management (Muriana & Vizzini, 2017; Romero et al., 2017).

Patel et al. (2020) explain that sustainable growth is crucial for a company's survival in today's competitive business market. Patel et al. (2020) also explain that SGRs are where a company can maintain its financial ratios and achieve maximum sustainable growth. Furthermore, Mamilla (2019) explain that SGR allows investors and managers to assess whether the company's plans for future growth are realistic and ethical. In addition,

Al-Slehat & Altameemi (2021) argue that SGR provides a holistic view of performance so that investors and managers are more exposed to factors that influence maintaining the company's continuity in the long term. By calculating SGR, companies can plan their growth targets based on their financial capabilities and balance non-financial performance, which is closely related to the company's reputation (Ashta, 2008; Makan & Kabra, 2021).

Dhar et al. (2022) analyzes aspects that influence the sustainability of environmentally polluting companies in Bangladesh. It is predicted that appropriate accounting practices and policies will greatly support the achievement of sustainable growth. Therefore, this research will analyze the factors that influence the sustainability of financial sector companies in Indonesia through a green banking perspective. The financial sector was chosen considering its vital contribution to the national economy (Dikau & Volz, 2021). This research fills the gap in empirical studies, which are still limited to green accounting practices in the banking sector. Previous research has been conducted on companies with a significant environmental impact in mining, oil, and gas (Islam & Hossain, 2022; Maama & Appiah, 2019). The proposed research is intended to shed light on the green initiatives undertaken by the banking sector. The primary objective of this study is to demonstrate how these activities can contribute towards attaining sustainable growth by implementing effective information technology governance.

Freeman (1984) and Bosse et al. (2023) state that companies must balance and fulfil stakeholder expectations to achieve their goals. Of course, establishing a company does not solely focus on gaining wealth for shareholders but also takes stakeholders into account. From another perspective, stakeholders connect company ethics and strategy, especially to mitigate risk with long-term company goals (Muriana & Vizzini, 2017). This means that companies that diligently strive to serve the interests of a broad group of stakeholders will create more value (Campbell, 1997; Freeman, 1984; Freeman et al., 2007; Mahmudah et al., 2023). Bosse et al. (2023) state that the relationship between organizations and stakeholders is especially crucial to balance environmental, social, and economic aspects that can influence the company's sustainability. Thus, stakeholders play a significant role in the company's running process, especially to ensure that the company's journey follows ethics and can reach all parties in the context of sustainability.

Looking from another context, companies must ensure that the business they run follows the norms upheld by society and that the business they run is accepted by outside parties or legitimized (Bosse et al., 2023; Mahmudah et al., 2023; Silva, 2021). Dowling & Pfeffer (1975) divide legitimacy into two dimensions in the environmental context: action, which means the company's activities must follow social values in society and presentation, which presents activities following social values. Legitimacy theory is one of the theories related to green accounting and is very appropriate to use in environmental accounting, such as green accounting (Deb et al., 2020; Deegan, 2013; Dhar et al., 2022; Islam & Hossain, 2022). Therefore, a company's concern for the environment is a key factor in the sustainability of a company.

This research argues that corporate sustainability can be encouraged by applying environmental accounting. More specifically, the principle of environmental accounting accountability can create sustainability through transparency and supervision carried out by stakeholders. Deegan (2013) states that green accounting is a field related to using resources and measuring the costs of a company's effects on the environment. This means green accounting practices are related to internal managerial accounting activities in finding appropriate methods for allocating environmental costs. Green accounting can also be used as a strategy to improve a company's image through environmentally beneficial accounting methods, which have an impact on market performance and stakeholder litigation processes (Deb et al., 2020; Deegan, 2013; Dhar et al., 2022; Lai et al., 2022). Researchers suspect that companies are trying to use various methods to achieve sustainability following societal norms.

Researchers argue that green innovation and technology are ways companies can use to achieve sustainability. Rubino & Vitolla (2014) and Silva (2021) state that companies will always adapt to societal norms, which can increase the company's legitimacy. Looking more deeply, companies try to understand that the sustainability process cannot be separated from the perspective of the environment and society, so companies will be encouraged to implement environmental and community-based strategies. Green innovation can become a company's strategic management to increase stakeholder trust and then improve the company's financial performance (Campbell, 1997; Freeman, 1984; Freeman et al., 2007; Lin, 2022). The company's process balances economic, social, and environmental benefits. Companies need to develop new innovations so that the product invention and production process can minimize losses felt by society and the environment (Zhou et al., 2022). Thus, company innovation is encouraged to make things easier for society and support environmental sustainability.

The technological development of a company can be one of the keys to improving the quality of company performance based on society and the environment (Lin, 2022). Mobile and internet banking technology can fundamentally change banking companies' business processes. Huang & Zhao (2022) state that technology can replace manual banking activities, such as reducing paper printing via ATMs and help support environmentally friendly movement approaches that can maintain the sustainability of a banking company. This is conducted following regulations governing the implementation of environmentally based banking to provide legitimacy to the community regarding the company's sustainability commitment (Muriana & Vizzini, 2017; Silva, 2021). So, using technology can encourage the creation of community convenience and environmental sustainability. Based on the arguments above, the hypothesis proposed in this research is as follows: **(*H1*)** *Green accounting positively affects the company's sustainable growth rate.* **(*H2*)** *Green innovation positively affects the company's sustainable growth rate.* **(*H3*)** *Green technology positively affects the company's sustainable growth rate.*

Information technology governance can play a role in determining the governance needed to create innovation appropriate to existing conditions (R. Guo et al., 2020; M. Guo et al., 2020). Information technology or IT governance can positively influence the development of various kinds of innovation and support it in various forms regarding cost-effectiveness, production, legal compliance, and agreed policies (Chen, 2018; Pradhan et al., 2021; Rubino & Vitolla, 2014; Tolliver et al., 2021). De Haes et al. (2013) and Rubino & Vitolla (2014) state that implementing information technology governance aims to achieve business processes and company sustainability. Furthermore, this achievement was due to guaranteed service, reduced costs, and increased control over the company to achieve efficiency and acceleration in achieving sustainability. Researchers argue that applying information technology governance can encourage accelerated corporate sustainability to achieve stakeholder trust and legitimacy of societal norms through the efficiency and effectiveness of green accounting, innovation, and technology. Based on the arguments above, the hypothesis proposed in this research is as follows: **(*H4*)** *The role of information technology governance strengthens the relationship between green accounting and the company's sustainable growth.* **(*H5*)** *The role of information technology governance strengthens the relationship between green innovation and the sustainable growth of companies.* **(*H6*)** *The role of information technology governance strengthens the relationship between green technology and the company's sustainable growth.*

METHODS

This research uses secondary data from the banking industry in Indonesia, which is listed on the Indonesia Stock Exchange (IDX). Researchers applied the purposive sampling method in sampling with the following criteria:

(1) Companies engaged in the banking industry in the 2015–2021 period, (2) Companies that report annual reports and sustainability reports, and (3) Companies that have complete data criteria following research variables. Data collection on sustainability, green accounting, green innovation, green technology, and information technology governance was carried out by conducting comprehensive analysis content through published annual reports. Based on the sampling, there were a total of 231 panel data observations.

This research measures sustainability variables using the sustainable growth rate (SGR). Ashta (2008) and Rehman et al. (2023) state that SGR is a financial indicator that companies use to overcome obstacles to growth to ensure the company's long-term success. The Sustainable Growth Rate proxy is shown in equation (1), with the notation $NPR_{i,t}$ is Net Profit Ratio, $ATR_{i,t}$ is Asset Turnover Ratio, $EM_{i,t}$ is Equity Multiplier, and $RR_{i,t}$ is Retention Rate.

$$SGR_{i,t} = NPR_{i,t} + ATR_{i,t} + EM_{i,t} + RR_{i,t} \quad \text{..... (1)}$$

This research considers green accounting, innovation, and technology-independent variables. Then, Information technology governance is a moderating variable. Fulfilment of proxies for independent and moderating variables refers to Deb et al. (2020) and Tseng et al. (2013). More specifically, proxy analysis emphasizes several criteria that can describe each variable in the company's annual report and sustainability report. Furthermore, content analysis is used carefully to measure variables accurately (Tseng et al., 2013). Table 1 presents the proxy criteria for research variables.

Table 1 Research Variables

Variable	Criteria	Reference
Green Accounting ($GA_{i,t}$)	Green Investment: The natural logarithm of each bank's total investment in green projects. Higher green investment indicates better green accounting practices as well. Green Initiatives: The natural logarithm of the total number of environmental initiatives undertaken by each bank. The greater the environmental initiatives, the higher the green accounting practices.	Deb et al. (2020)
Green Innovation ($GI_{i,t}$)	Redesign and improve products or services to improve environmental preservation. Energy savings include carbon, water, electricity, gas, and gasoline during production/use/disposal. Management held environmental awareness seminars and training for stakeholders. Design and innovation processes and improve Research and Development.	Tseng et al. (2013)
Green Technology ($GT_{i,t}$)	Investment in environmentally friendly equipment and technology. Technology-based surveillance system. Green production technology. Technology-based documentation and information management.	Tseng et al. (2013)
Information Technology Governance ($ITG_{i,t}$)	Consider all stakeholders in the company when making decisions. Corporate governance has been consolidated with TI enterprise. The company provide general governance frameworks and IT activities. Strategies that support the implementation of inclusive IT governance and management. Governance guidelines and management guidelines are separate.	De Haes et al. (2013)

This research uses GLS regression and separates explanations related to testing the main model and testing moderation effects. First, this research explores hypotheses H1, H2, and H3 using equation (2). Equation (2) is used to explain the relationship between the independent and dependent variables in the research. In more

detail, this research explains green accounting ($GA_{i,t}$), green innovation ($GI_{i,t}$) and green technology ($GT_{i,t}$) in combination, which influences business sustainability ($SGR_{i,t}$). Second, this research explains the moderating relationship of Information Technology Governance ($ITG_{i,t}$) using equation (3). Finally, equation (3) will test the moderation effect on hypothesis H4. H5, and H6. Researchers developed equations (2) and (3) as follows.

$$SGR_{i,t} = a_1 + b_1GA_{i,t} + b_2GI_{i,t} + b_3GT_{i,t} + b_4BOPO_{i,t} + b_5ROA_{i,t} + b_6LDR_{i,t} + b_7NIM_{i,t} + b_8NPL_{i,t} + e \quad \text{..... (2)}$$

$$SGR_{i,t} = a_1 + b_1GA_{i,t} + b_2GI_{i,t} + b_3GT_{i,t} + b_4GA_{i,t} * ITG_{i,t} + b_5GI_{i,t} + * ITG_{i,t} + b_6GT_{i,t} * ITG_{i,t} + b_7BOPO_{i,t} + b_8ROA_{i,t} + b_9LDR_{i,t} + b_{10}NIM_{i,t} + b_{11}NPL_{i,t} + e \quad \text{..... (3)}$$

This research argues that the relationship between the independent and dependent variables is direct. This means that the notation "i" represents each company being observed, and "t" represents the year of observation in the same year. This research positions the notation "t" as the same year of observation for all research variables. Finally, this study adds five control variables shown for the same year of observation. These control variables include the ratio of operational costs and operating income ($BOPO_{i,t}$), Return on Asset ($ROA_{i,t}$), Loan to Deposit Ratio ($LDR_{i,t}$), Net Interest Margin ($NIM_{i,t}$), and Non-Performing Loan ($NPL_{i,t}$).

RESULTS AND DISCUSSION

This study identified 41 banking companies listed on the Bursa Efek Indonesia (IDX) with a total initial observation of 287 company observations a year. Furthermore, this study eliminated some companies that did not have completeness in using research variables. Finally, the final sample in the study included 231 company observations for years.

Table 2 shows descriptive statistical calculations. The results of descriptive statistical testing show that the value of deviation standards in green accounting, green innovation, green technology, and information technology governance variables is lower than the mean value. This shows that the distribution of data on the variable is even. However, there are differences in the Business Sustainability variable, which has a standard deviation value higher than the mean value. This shows that the distribution of data from business sustainability variables is uneven. The minimum value in descriptive statistical testing shows a 0 in the green accounting variable ($GA_{i,t}$), which reflects banks that do not apply green accounting each year. Different things are shown in the variables of green accounting, green innovation, green technology, and information technology governance, which are still carried out by companies every year.

Table 3-part A, is the regression test result of the independent and dependent variables. This study used Random Effect GLS regression to test the data. The regression test results showed an R-squared of 0.2424, which means that the variables of green accounting, green innovation, and technology can only explain the SGR variable of 24 per cent; other variables outside this study can explain the rest.

This research investigates the role of Green Accounting (H1), Green Innovation (H2), and Green Technology (H3) in increasing the sustainability growth of banking companies in Indonesia. The results showed that the $GA_{i,t}$ variable did not significantly influence the $SGR_{i,t}$ variable. Therefore, the application of Green Accounting has not been able to increase the sustainability growth rate, so H1 and H4 in this study are not supported. In the $GI_{i,t}$ variable to the variable $SGR_{i,t}$ shows a significant level value of 1%, which means that the $GI_{i,t}$ variable significantly influences the $SGR_{i,t}$ variable. However, this green innovation variable negatively affects the $SGR_{i,t}$ variable. This can be seen in the coefficient, which shows a value of –272.8804, which means that an increase in

Green Innovation can cause a decrease in the rate of continuous growth. So, H2 in this study is not supported. Furthermore, $GT_{i,t}$ has a coefficient value of 209.0326 and a significant level value of 5% against $SGR_{i,t}$. This means that the green technology variable has a significant and positive influence on the $SGR_{i,t}$ variable. For this reason, H3 is supported in this study.

Table 3-part B shows statistical testing of moderation variables. This research hypothesizes that Technology Governance can strengthen the relationship between Green Accounting (H4), Green Innovation (H5), and Green Technology (H6) in increasing sustainable growth. When the characteristics of the moderation model were included, the $GA_{i,t}$ variable showed a lower coefficient value than before it was included in the moderation model, but the result was still the same: GA had no significant effect on the $SGR_{i,t}$ variable. In the $GI_{i,t}$ variable, the coefficient value increases to 1618.312 and significantly influences the $SGR_{i,t}$ variable with a significant level value of 5%. Then, for the $GT_{i,t}$ variable, the coefficient value decreased to –2091,886 and significantly influenced the $SGR_{i,t}$ variable with a significance value of 5%. Furthermore, the moderation results of $GI_{i,t}$ and $ITG_{i,t}$ variables have a significant level value of 5% and a coefficient value of –424.7344. This indicates that $ITG_{i,t}$ significantly and negatively affects $GI_{i,t}$ to $SGR_{i,t}$, so H5 in this study is not supported because improvements in Green Innovation moderated by governance cannot increase sustainability. The results of the $GT_{i,t}$ and $ITG_{i,t}$ variable moderation tests have a significant influence with a significant level value of 1% and a coefficient value of 498.364. This means that $ITG_{i,t}$ has a significant and positive influence on $GT_{i,t}$ and on $SGR_{i,t}$ so that H6 in this study is supported.

The study findings suggest that the introduction of green accounting has not had any significant impact on the sustainability of banking in Indonesia. This is attributed to the irregularity in the reporting of green accounting activities either sequentially or consecutively. Green accounting practices are ideally reflected in disclosures of environmental costs and methods of measuring and recording them (Dhar et al., 2022; Egbunike & Emudainohwo, 2017; Mahmudah et al., 2023). The results of this research align with a study conducted by Ismail et al. (2018), which states that some companies are still reluctant to focus on high nominal environmental costs. The results of this research data analysis are also in line with a study conducted by Mahmudah et al. (2023) which reflects that companies often still ignore environmental issues in their operational activities and assume that environmental costs increase company expenses, reducing company profits. This view makes it reluctant to allocate costs to record environmental costs reliably. This contradicts the role of banks as funding institutions that should already have operational standards based on environmental concerns. This opinion is supported by a study conducted in Serbia where previous researchers explained the importance of environmental accounting, which does not align with managers' goals of maximizing profits (Islam & Hossain, 2022; Lai et al., 2022; Lin, 2022).

Furthermore, according to research findings, there is a growing concern that companies may not be adequately prepared to manage the risks associated with investing in resources, employees, materials, and other key areas that support a balanced approach towards social and environmental governance. It is crucial for organizations to be aware of these potential risks and develop strategies to mitigate them in a timely and effective manner. (Mamilla, 2019). The test results for the green innovation variable, while statistically insignificant, could be indicative of banks continuing to prioritize their focus on infrastructure and primary banking business lines. (Pradhan et al., 2021). There exists a disconnection between research and development efforts and environmental considerations. In addition, financial institutions have not placed a premium on sustainable business practices in their strategic development blueprints. This is further buttressed by the government's economic vision, which continues to prioritize foreign investments over domestic economic expansion.

Table 2 Descriptive Statistic

Variables	Mean	Std.Dev	Min	Max
$SGR_{i,t}$	110,619	722,026	–1628,483	8033,160
$GA_{i,t}$	8,397	7,534	0,000	23,530
$GI_{i,t}$	3,476	0,784	1,000	4,000
$GT_{i,t}$	3,220	0,817	2,000	4,000
$IGT_{i,t}$	4,380	0,860	2,000	5,000
$BOPO_{i,t}$	88,819	21,083	51,700	287,860
$ROA_{i,t}$	1,100	2,178	–14,750	8,38
$LDR_{i,t}$	89,073	19,671	29,670	168,220
$NIM_{i,t}$	4,688	1,987	–3,520	12,000
$NPL_{i,t}$	2,450	1,461	0,000	8,800
Obs	231			

Table 3 Regression Result

Variables	Pred	A	B
$GA_{i,t}$	+	7,659 [1,00]	6,907 [0,91]
$GI_{i,t}$	+	–272,880 [-326]***	1618,312 [2,41]**
$GT_{i,t}$	+	209,032 [2,50]**	–2091,886 [-2,28]**
$GA_{i,t}$ * $ITG_{i,t}$	+	-	-
$GI_{i,t}$* $ITG_{i,t}$	+	-	–424,734 [-2,84]**
$GTi_{i,t}$* $ITG_{i,t}$	+	-	498,364 [2,61]***
$BOPO_{i,t}$	-	0,359 [0,07]	1,181 [0,24]
$ROA_{i,t}$	+	–35,483 [-0,70]	–25,249 [-0,50]
$LDR_{i,t}$	-	0,143 [0,06]	–0,152 [-0,06]
$NIM_{i,t}$	+	34,168 [1,18]	29,909 [1,05]
$NPL_{i,t}$	-	–30,922 [0,35]	–28,577 [-0,84]
Const	?	231,577 [0,35]	364,766 [0,63]
Obs:n		231	231
Wald-Chi2		15,82**	24,41**

Note: ***,**,* in represented of significant 1%, 5%, and 10%

In a time of rapid development in information and communication technology, investing in technology aligns with environmental concerns. Referring to research conducted by R. Guo et al. (2020) that green technology encourages sustainable development, the existence of green technology is closely related to the growth of environmentally friendly industries. Besides increasingly effective and efficient services, banks are implementing green technology development (R. Guo et al., 2020; M. Guo et al., 2020). Information technology

can accelerate the development of environmentally based products and services. Thus, apart from protecting the environment, implementing green technology can impact energy savings, which can help with cost efficiency. Therefore, Indonesian banks can continue to improve their sustainable growth performance by investing in environmentally friendly equipment and technology, technology-based supervision systems, green production technology, and technology-based documentation and information management systems. As an emerging market, adopting information technology and innovations in Indonesia and ASEAN countries tends to be a fast and intensive (González & Massieu, 2021). This aligns with previous research, which found that green technology transfer is very important for developing countries' environmental protection and economic development because they cannot access the latest green technologies (Chen, 2018; Islam & Hossain, 2022). To improve the efficiency of international green technology transfer, it is important to establish a common framework for various stakeholders, such as technology providers, users, and investors (R. Guo et al., 2020). Therefore, this framework is needed for stakeholders as a reference in implementing green technology in daily banking operational activities.

According to the findings of green innovation moderation testing, the implementation of information technology governance has an adverse impact on green innovation. Specifically, it has been observed that the indicators regulated in information technology governance may not be aligned with the direction of green innovation. In this regard, it is imperative to examine the general information technology governance framework designed by professional institutions, such as ISACA, ISO, COSO, and others. Regrettably, these organizations have not incorporated any green components in the content of their framework. Therefore, it is highly recommended that such institutions take proactive measures to improve the publicly available frameworks by integrating social and environmental topics.

The results of the moderation analysis between green technology and information technology governance prove that if banks can manage their information technology well, it will also have a good impact on the application of their green technology, which can increase the level of banking sustainability. The application of green technology has an important role in minimizing negative environmental impacts. IT governance holds importance in implementing green technology. This is because IT governance can be a company guide in managing and implementing green technology that aligns with organizational values and strategic goals. Green technology is a new field, and every organization implements it according to its criteria, so it is very important to develop a basis or best practices of governance and management that enable organizations to implement green technology practices correctly and standardize them (Romero et al., 2017). Therefore, uniform rules can be something that banks need to pay attention to, considering that green technology is still a new thing today.

Thus, the novelty of the research that was successfully explored in this study is proof that green banking practices in Indonesia still need to be optimal. In fact, banking is a heavily regulated sector and should have a tendency towards environmentally friendly operational strategies and governance that elaborates on sustainability aspects. The banking sector's commitment to internalizing sustainability values is only manifested in tangible and practical aspects. Meanwhile, at the strategy and initiative level, sustainability values have yet to reach the institutionalization stage.

This research has both practical and theoretical implications. Firstly, the practical implications indicate that this research can drive the implementation of green accounting, green innovation, and green technology in existing banks in Indonesia. To achieve this, the research encourages the establishment of special regulations related to applying green accounting in Indonesia's banking sector. Additionally, the implementation of ICT governance should be considered as it has implications for managerial decision-making, especially in the banking

industry. Banking plays a crucial role in providing funding for various sectors that intersect with the environment and society, thereby reducing the economic risks of the country. This study uses stakeholder perspectives and legitimacy to explore the practical implications of implementing green accounting, green innovation, and green technology in companies. The study found that companies need to be realistic about the limitations of such implementations, even as they work towards accelerating sustainability goals via ICT governance. The research suggests that companies should gradually implement a corporate sustainability framework rather than a limited approach to maximize positive impacts on society and stakeholders.

CONCLUSION

This research explores the application of green accounting, green innovation, and green technology in the framework of business sustainability. This research uses the banking industry as a renewal with uniqueness and regulations that differ from other industries. The results of this study show that the green aspect of the banking industry in Indonesia has not become a top priority in achieving corporate sustainability. This is suspected from the hypothesis testing results, which show that only green technology influences the company's sustainability. Researchers argue that this can happen because of limited resources that can understand the application of green accounting to improve sustainability. In line with these findings, information technology governance has not been able to play a role in becoming the main supporting factor to achieve sustainability. However, the findings of this study show that information technology governance can be the main supporting factor for the influence of green technology and sustainability. This makes technology a key component that companies can use to achieve sustainability. The present research provides a novel perspective on the development of green accounting. However, it is important to note that the research has some limitations. Firstly, our data is restricted due to the absence of green accounting implementation in some banks, which resulted in a small number of samples of green accounting variables in this study. We anticipate that future studies will witness an increase in the number of banks that adopt green accounting, leading to a more comprehensive sample size and more extensive observations. Future research can also incorporate additional variables that have the potential to impact sustainable growth rates. This can make research related to green accounting, green innovation, green technology, and sustainability more diverse and beneficial. Thirdly, we acknowledge that our study was limited to one country, and, therefore, further research is necessary to expand the sample's scope to observe heterogeneity in the sample country's area.

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