

Implementation of Green Banking Policy at Indonesian Islamic Banks

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ABSTRACT. *Therefore, this study aims to determine the effect of knowledge and policies on the implementation of green banking at Bank Syariah Indonesia (BSI) Branch Offices (KC) Semarang. This research uses a quantitative research type with purposive sampling using a census technique. Researchers distributed a questionnaire (questionnaire) to collect data. This research method is a quantitative method. This research utilizes quantitative methods as a method for analyzing research questions. This study obtains primary data by interacting directly in the field and the results of distributing questionnaires to samples that will be distributed to respondents from Bank BSI employees. This questionnaire tool can be estimated using a Likert scale. Regression analysis method is a method of statistical science that shows the relationship or causal relationship between two or more variables. To prove the hypothesis in this study, researchers used statistical tests supported by econometric tests using the Simultaneous Test (F Test), Partial Test (T Test), and Coefficient of Determination Test (R^2). The results showed that knowledge have no significant effect on the application of green banking. This is indicated by the t value of 0.973 with a significance value of 0.334. Meanwhile, the policy has a positive and significant effect on the implementation of green banking.*

Keywords: *Green Banking; Islamic Banking; Knowledge; Policy*

INTRODUCTION

Indonesia is a country whose economy is the fourth largest in terms of population (Irfan et al. 2021). The most important factor in environmental problems is the increasing human population. Globally, the overpopulation situation is a serious problem, furthermore, the population has the potential for a large increase (Ehrlich 1968). The increasing human population will further

trigger development improvement, industrialization, and economic growth (Chusna 2013). Indonesia itself is a country with economic growth that still relies on the commodity and natural resource sectors (Dharmawan et al. 2019). One of the major impacts on the environment resulting from increased industrialization is climate change. If this continues to occur, it will result in poor welfare of sentient beings (Tambunan 2007).

Indonesia's environmental conditions are described through Environmental Quality Index. The average achievement of the National Environmental Quality Index for 2018-2019 is quite good, with a range of 66.55-71.67. Only in 2019, did the Environmental Quality Index value fall to 5.12. This condition indicates that environmental management in Indonesia is still experiencing utilization burdens that have not been able to exceed the carrying capacity of the environment (Kementerian Lingkungan Hidup dan Kehutanan 2020). The government has issued The 2009 Constitution of Protection and Management of the Environment number 32, as a form of encouraging environmentally sustainable development (Fadli, Mukhlis, and Lutfi 2016). Many countries have committed and are trying to realize the concept of sustainable development, including Indonesia (BSI 2020).

Global warming is happening even almost all over the world including Indonesia (Ulum and Agriyanto 2018). Indonesia is trying to start controlling the environment through a green economy (Zahari and Sudirman 2017). The green economy is a change of view towards economic development that pays attention to the balance of the three main pillars, that is- economic growth (*economy*), social justice (*society*), and protection of the environment (*nature*) (Bappenas 2013). This green economy concept is imitated by banks, and realized through the concept of green project financing or Green Banking. The green bank has a broader scope than just green or related to environmental development (Budiantoro 2014).

OJK stated that eight banks that have committed to green banking financing. The eight Banks are mentioned as “*First Mover on Sustainable Banking*”. This initiative is a form of real commitment from the banking industry to support green financing (OJK 2014). This commitment is voluntarily supported by eight banks: Bank Artha Graha Internasional, BJB, BRI Syariah, Bank Mandiri, Bank Muamalat, BCA, BRI, and BNI validated in “Signing of Green Banking Pilot Project” November 23 in Jakarta (IKBI 2018).

The development of the green banking concept also requires support from Islamic banking. However, in October 2020 there was a signing of CMA (*Conditional Merger Agreement*). This is the initial stage of the merger of three BUMN subsidiary Islamic banks (BNI Syariah, BRI Syariah, dan Bank Syariah Mandiri). Indonesian Sharia Bank (BSI) will continue to maintain its commitment to implementing green banking in carrying out operational activities (BSI 2020).

Increasing efforts to support the growing development of microfinance and environmentally friendly project financing is a key step in implementing green banking (BSI 2020). Bank Syariah Indonesia's annual

report for 2018-2020 is shown in the table:

Table 1. BSI Environmental Responsibility Report

Description	2018	2019	2020
Paper	137,147,500	135.096.500	146.996.850
Electricity	1.219.872.279	1.153.533.228	1.622.525.988
BBM	1.545,811,135	1.561,375,339	1.588.316.397
Water	78.462.482	70.196.875	89.661.367

Source: Annual Report of Bank Syariah Indonesia (2023)

Based on Table 1, the results of environmental responsibility reports at Bank BSI amount of paper use, electricity, and BBM increase in 2020. It can be seen that there are still increases and decreases which will have an impact on the environment and natural resources. The main target in realizing green banking from the Sharia Bank program is to carry out environmentally friendly operational activities and also provide environmentally friendly financing as a target for reducing Greenhouse Gases emissions. BSI is committed to actively participating in every effort to preserve the environment as a concrete manifestation and form of corporate social responsibility (BSI 2020). But, environmentally friendly operational activities such as water energy efficiency, electricity, and the use of paper seems to have not been maximally implemented.

Based on research Tonmoy explained that the competitive advantages of green banking offered by the banking industry can influence the introduction of green banking products and have a positive impact on the implementation of green banking so that it is expected to increase bank resources that are environmentally friendly (Choudhury, Islam, and Bashir 2013).

According to (Rahman and Barua (2016) all green banking policy guidelines and policies in all banks affect the implementation of green banking. Aligned with research (Bose et al. (2017) the publication of guidelines for green banking regulations by the central bank of Bangladesh in 2011 had a positive effect on the level of green banking implementation.

This research is based on previous research conducted by (Vijayakumar, Shashikumar, and Nagadeepa 2021) regarding the perceptions of customers and employees regarding the implementation of green banking, with the independent variable namely the perception of customers and employees and the dependent variable namely the application of green banking. This study has similarities related to employee variables and the application of green banking. The author uses different variables, namely green banking knowledge and policies. The author wants to discuss more specifically employee knowledge and bank policies in implementing green banking. Because bank employees are actors in bank operational activities who directly deal with customers and indirectly influence the implementation of green banking.

LITERATURE REVIEW

This research is research that was developed from previous research conducted by Ahmad, Zayed, Harun (2013) about Factors behind the Adoption of Green Banking by Bangladeshi Commercial Banks. The results of the decisions in this study indicate that there is a positive influence on the guidelines policies, loans, pressure from stakeholders, and legal factors on the implementation of green banking (Ahmad, Zayed, and Harun 2013).

The same research was conducted by SM Mahfuzur Rahman and Suborna Barua who conducted research with the title The Design and Adoption of Green Banking Framework for Environment Protection: Lesson from Bangladesh. The results of this study indicate that the effect of the weighted average level of progress by banks in all green banking policy guidelines and the level of progress according to policy in all banks affects on the implementation of green banking (Rahman and Barua 2016).

Another research conducted by Bose, Khan, Rashid, and Islam (2017) showed that the issuance of guidelines for green banking regulations and corporate governance mechanisms have a positive effect on the implementation of green banking. Research from Tu and Dung (2017) indicates that knowledge of the definition of green banking is the current activity of green banking, advantages in developing green banking, focus on the green banking business sector has a positive influence on the implementation of green banking. Meanwhile, obstacles to the implementation of green banking practices have a negative influence on the implementation of green banking.

Arumugam and Chirute's research (2018) showed that environmental factors, stakeholder pressure, policy guidelines, economic factors and loan demand are significant for the adoption of green banking. Research from Uddin and Ahmmmed (2018) is showed that there is a significant relationship between Islamic banking and green banking. There is a significant relationship between Islamic banking and sustainable development. There is a significant relationship between green banking and sustainable development.

Legitimacy Theory

Legitimacy theory was first put forward by Dowling and Pfeffer in 1975. Research conducted by Chariri explains that legitimacy theory, has the benefit of analyzing the behavior of a group or organization. Legitimacy theory is important for organizations because knowing the limits and pressing with norms, social values as well as community reactions, can encourage an analysis of organizational behavior by paying attention to the environment (Chariri 2008).

Dowling and Pfeffer (2008) put forward the argument about organizational legitimacy by saying:

“Organizations are part of the community system, organizations try to produce harmony between social values embedded in organizational activities and behavioral norms that exist in social patterns of society. As long as social values and behavioral norms are not in sync, it will cause a threat to the legitimacy of the company.”

This legitimacy theory wants to convey that companies must convince the public that their operational activities and company performance can be accepted in society. Companies or organizations can continue to run if the community accepts and realizes that the company operates according to the values contained in society (Chariri 2008).

The sustainability of the company depends on how the company can be responsible for the impacts that have arisen from its operational activities. Companies must be able to synergize social, economic and environmental aspects through a vision and mission with targets to be achieved. Company sustainability will guarantee the company's sustainability, improve legitimacy, increase company value and increase profitability for the company (Chariri 2008).

Legitimacy theory can be said to be a conceptual framework theory based on social existence and interchangeable relations between companies and society (Mousa and Hassan 2015). Green banking as an effort to gain legitimacy from regulators and the public, several banks report their ongoing activities in the hope of helping improve the bank's reputation. Legitimacy theory is used in this study because researchers want to know the final step of presenting environmental information by companies as a step towards corporate social openness. If the company has good environmental and social performance, a positive response will appear, and vice versa if the company has bad environmental and social performance, it will get a negative response (DA 2012).

Green Banking

The phenomenon of global climate change is increasingly discussed, and many people are aware of climate change and its impacts. Several suggestions regarding mitigation strategies for the short-term and long term began to emerge (Hidayat 2011).

Environmental problems in Indonesia are starting to receive attention from many sectors. Banking also contributes through activities called Green Banking (Suryaman 2016). According to (Nath, Nayak, and Goel 2014), The implementation of green banking means making technological improvements, improving operations, and changing customer habits in the banking sector to promote environmentally friendly practices and reduce the carbon footprint of banking.

According to (Panjaitan 2015), defines green banking as a financial institution that gives priority to sustainability in its business activities. Green banking is based on the four elements of life, namely economy, nature, well-being and society. The legal basis for seeing the implementation of green banking in Indonesia can now be seen in the Job Creation Law and Government Regulation Number 22 of 2021 concerning the Implementation of Environmental Protection and Management. This regulation is a form of change from several provisions in Law Number 32 of 2009 concerning Environmental Protection and Management (State Gazette of the Republic of Indonesia of 2009 Number 140, Supplement to the State Gazette of the

Republic of Indonesia Number 5059) (Kementerian Sekretariat Negara RI 2020).

Green banking is designed to be a long-term strategy that provides benefits to empowering and preserving the environment sustainably, in addition to aiming to gain business profits solely. (Hanif, Ningsih, and Iqbal 2018). As a business entity, increasing economic growth and social welfare is a banking goal (Hadad and Maftuchah 2015). Guthire (1998) in (Agriyanto 2018) mentions that the government is preoccupied with caring for the distribution of wealth, expanding infrastructure, protecting and preserving the environment, and so on. Islamic banks in Indonesia must be concerned with social goals, namely promoting Islamic values and contributing to social welfare; reducing poverty; promote projects and goals of sustainable development (Agriyanto 2015).

Based on research (Nath et al. 2014) there are 6 (six) indicators for green banking with the concept of Green Coin Rating (GCR). Those indicators are: carbon emission, green investment, reuse-recycle-refurbish, green rewards, green building, dan paper work.

Policy

According to Jones (2018), the term policy is used in our daily habits, although the word can be used to interpret different activities. The term policy or policy according to Graycar can be viewed from a philosophical, product, process, and framework perspective (Mahardhani 2018).

According to Carl Friedrich in Dwiyanto Indiahono's 2009 book, states that policy is a proposal to use or overcome obstacles and opportunities to achieve certain objectives or goals. Policies are directed by actions reserved by individuals, groups, or governments in a certain environment (Indiahono 2009). According to Werf (2005), the Basic policy is an effort to achieve a certain goal that has a target and in a certain order. Meanwhile, according to the government policy is a decision made systematically by the kingdom or government, with the aim and intention of providing benefits to the public interest (Subarsono 2005).

Public policy is created because of requests from a set of environmental influences which then turn into a political system. At the same time, there are limitations and natural constraints that affect policy makers. Environmental factors such as: natural resources, socio-economic characteristics, climate, culture, and so on. Therefore, the basic policy is made to overcome public problems (Purnaweni 2014).

Policies are required to provide opportunities that are interpreted according to existing conditions, because actually, policies have problem-solving properties that are expected to be general but do not eliminate the characteristics of a particular organization, institution, or group. According to Edwards III, there are four variables in the policy public Communication Disposition Bureaucratic Structure Implementation Resources: Edwards III Public Policy Implementation Model namely (1) Communication, (2) Resources, (3) dispositions or attitudes, and (4) bureaucratic structure.

After joining as part of BSI, BRI Syariah decided that it would always be committed to implementing sustainable finance. In realizing its commitment to a sustainable finance program that is in line with sustainable development goals (SDGs), the bank runs its operations by paying attention to aspects 3P (People, Profit, and Planet). After the merger to become Bank BSI, this commitment has been outlined in a sustainability report, namely by carrying out policies on efficiency or saving electricity, water, fuel, and paper consumption.

Knowledge

According to research, (Notoatmodjo 2012) Knowledge is the result of humans finding out, which comes from answering questions “what”. Knowledge can only answer “what” something. Notoatmodjo added, that knowledge is the result of knowing the individual to objects using the senses (hearing, sight, smell, and touch) (Notoatmodjo 2014).

According to (Hutapea and Thoha 2008) knowledge is information pocketed by an employee when carrying out obligations and responsibilities according to their respective fields. The knowledge possessed by employees can lead to success in carrying out the obligations that have been given to them. Employees who have high enough knowledge will help increase the efficiency of the company.

Knowledge is embedded and maintained in every aspect of the company including identity, corporate culture, policies, routines, documents, systems and employees (Lestari et al. 2013). There are various levels of employee insight, employees can get more reference information which makes their level of knowledge richer. If the level of knowledge is good or high, employees will also get maximum and better results. Indirectly, knowledge can change and influence changes in corporate culture (Andhara, Umara, and Tua Lubis 2018).

Educating employees can be a very effective initiative for green banking. Awareness development among employees and providing proper training will be important tasks of the bank under the public relations department. If employees become aware and trained then they can also contribute to green banking and that will make it easier for the bank to appear in environmentally responsible banking (Choudhury et al. 2013).

Knowledge describes the intellectual ability of a worker in the form of the ability to recognize, understand, realize, and carry out a task and work. Therefore, the knowledge of a worker may be developed with formal or non-formal education and experience. Education becomes a person's principle in knowing the principles of knowledge, theory, logic, general knowledge, analytical skills, and character or personality (Robbins and Judge 2008).

Measuring knowledge has a variable indicator basis as a reference. According to (Rosyid and Saidiah 2016), Knowledge indicators that can be used aim to determine the level of knowledge and awareness clustered to:

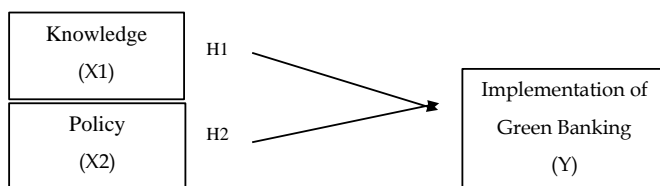
1. Knowledge of the characteristics
2. Knowledge of benefits

3. Knowledge of satisfaction
4. Knowledge of basic concepts.

Framework and Hypothesis

Based on the phenomenon that is currently happening, the implementation of green banking at Bank BSI is still not optimal. Several factors influence the internal factors and external factors. Internal factors are factors within the application of green banking. In this study, researchers will try to explain the influence of knowledge and policies on the implementation of green banking. Therefore the framework of thought in this study will be described as shown in Figure 1:

Picture 1. Research Framework



Source: Processed Data (2023)

H1: Employee Knowledge has a positive effect on the Implementation of Green Banking.

H2: Bank policies have a positive effect on the Implementation of Green Banking.

Based on this framework, employee knowledge variables and bank policies are thought to influence the implementation of green banking.

The Effect of Knowledge on The Implementation of Green Banking

Knowledge is “sui generis”, which is related to what is the simplest and most basic. Knowledge can also be called initial openness to various meanings in various ways (Hadi 2020). Meanwhile, the implementation of green banking is a bank's behavior to be responsible for the environment with an inclusive development strategy for sustainable development (Lymperopoulos, Chaniotakis, and Soureli 2012).

Knowledge affects employee performance which will indirectly affect service in the operational activities of implementing green banking. One focus is whether the practice of implementing green banking is in line with regulatory guidelines or not (Kurniawan 2021).

Research Tonmoy explained that the competitive advantages of green banking offered by the banking industry can have a positive impact on the implementation of green banking so that it can increase the resources of environmentally friendly banks (Tonmoy et al. 2013).

The Influence of Bank Policy on The Implementation of Green Banking

The policy is an academic subject for research and study. Policy is an important tool in building public trust following the needs of society (Blakemore and Griggs 2007). Policies are carried out to ensure a safe environment, namely by

conducting an Environmental Impact Analysis (AMDAL) which is carried out before carrying out business activities (Rizal 2016).

Banking policies influence the implementation of green banking. Banks with their financing are required to play a role in suppressing environmental damage. Some banks try to do the selection from the start, namely by selecting the financing proposed by their customers. If this is implemented, the policy can affect the achievement of bank performance (Budiantoro 2014).

Corporate social responsibility has become a major concern for contemporary business activities. Many organizations support and carry out social activities and environmental programs, develop codes of ethics and charters, and work in partnership (Maon, Lindgreen, and Swaen 2010).

RESEARCH METHODOLOGY

This research method is quantitative. This research uses a quantitative approach because it uses a number of research variable indicators that function to answer the questions in the research questionnaire. Therefore, this study utilizes quantitative methods as a method for analyzing research questions. This study obtains primary data by interacting directly in the field and the results of distributing questionnaires to samples that will be distributed to respondents from Bank BSI employees.

This questionnaire tool can be estimated using a Likert scale. The Likert scale is used to measure income, perceptions, and human attitudes both individually and in groups according to the object or phenomenon which is a Likert scale (Sugiyono 2013). Respondents will be asked to answer questions with alternative answer choices that are already available in the questionnaire column. Each answer to the question is associated with a numerical value.

Table 2. Questions/ Statement

<i>Variabel</i>	<i>Indicator</i>	<i>Questions/Statements</i>	<i>References</i>
X1	1. Knowledge of the characteristic s 2. Knowledge of benefits 3. Knowledge of satisfaction 4. Knowledge of basic concepts	1. I have sufficient knowledge about green banking 2. I am aware of the benefits of green bankin 3. In my opinion, green banking has a positive impact on bank operations 4. In my opinion, the paperless and e-banking programs at BSI bank have been implemented.	Soekidjo Notoatmodj o (2010)
X2	1. Water Usage Efficiency 2. Efficiency of electricity consumption 3. Fuel efficiency	1. At the bank where I work there is a sticker advising me to be frugal in using water 2. The bank where I work is concentrating on environmentally friendly activities through saving electricity	BRI Syariah, <i>Laporan Keberlanjutan</i> (Jakarta, 2020)

	4. Efficient use of paper	3. At the bank where I work there is a conservation of Bank vehicles (pool) into CNG 4. The bank where I work has management and utilization of paper waste/recycling.	
Y	1. Carbon Emission 2. Green Investment 3. Reuse, Recycle, Refurbish 4. Green Rewards 5. Green Building 6. Paper Work	1. I save electricity, water, fuel, and paper. 2. I always invest in waste management 3. I always choose waste with the intention of re-management that can still be used, for example cans, glass and others 4. I received green rewards/awards from the company as a result of implementing green banking 5. I make more use of sunlight to reduce electricity consumption and ensure good air circulation 6. I am efficient in the use of printer cartridges, copier toner, office stationery, etc	BRI Syariah, <i>Laporan Keberlanjutan</i> (Jakarta, 2020)

Source: Processed Data (2023)

The population in this study includes bankers at Bank Syariah Indonesia (BSI) KC MT Haryono Semarang. The basis of sampling with this method is that if the subjects are less than 100, it is better if all are taken so that the research is included in the total population study (Sugiyono 2013).

RESULTS AND DISCUSSION

Regression Analysis

Following are the results of regression tests of the Knowledge (X1) and Policy (X2) variables on the Implementation of Green Banking (Y) can be seen in the table below:

Table 3. Regression Analysis Test

Coefficients ^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	7.874	1.116		7.058	.000
Pengetahuan (X1)	.089	.092	.079	.973	.334
Kebijakan (X2)	.847	.087	.798	9.789	.000

a. Dependent Variable: Green Banking (Y)

Source: Processed Secondary Data (2023)

Based on the Table 3 of regression analysis test results above, it can be seen that the regression equation is as follows:

$$Y = 7,874 + 0,089X_1 + 0,847 X_2$$

Based on the regression equation, it can be explained that:

- a. Constant (α)
The constant value in this regression is 7.874 with a positive value, which means that the Knowledge and Wisdom variables do not change (X_1 and X_2 are 0), so the variable value in the Implementation of Green Banking is 7.874.
- b. Knowledge (X_1) of the Implementation of Green Banking (Y)
The regression coefficient on the Knowledge variable is 0.089 or 8.9%. This means that every increase in knowledge of one unit will increase the application of Green Banking by 0.089 or 8.9%, assuming that the other independent variables from the regression model are constant.
- c. Policy (X_2) on the Implementation of Green Banking (Y)
The regression coefficient on the policy variable is 0.847 or 84.7%. This means that every increase in the policy of one unit will increase the Implementation of Green Banking by 0.847 or 84.7%, assuming that the other independent variables from the regression model are constant.

The regression analysis method is a method of statistical science that shows the relationship or causal relationship between two or more variables. To prove the hypothesis in this study, researchers used statistical tests supported by econometric tests Simultaneous test (F -test), Partial test (T -test), and Coefisien Determination (R^2).

Descriptive Statistical Analysis

Table 4. Descriptive Statistical Test

Statistics		X1	X2	Y
N	Valid	72	72	72
	Missing	0	0	0
Mean		15.24	11.65	19.11
Median		16.00	13.00	20.00
Std. Deviation		2.953	3.136	3.330
Variance		8.718	9.835	11.086
Range		12	13	17
Minimum		8	5	10
Maximum		20	18	27

Source: Processed Data (2023)

The results of the descriptive analysis in Table 4 in this study can be

seen as the average value (mean), median, standard deviation, variance, range, minimum value, and maximum value, with the following explanation:

a. Knowledge (X1)

The results of the descriptive statistical analysis of the Knowledge variable show a median value of 16.00. The standard deviation value is 2.953. The variance value is 8.718. The range value is 12. The minimum value is 8. And the maximum value is 20. The average value (mean) is 15.24, which means that the level of knowledge of respondents is in the medium category.

b. Policy (X2)

The results of the descriptive statistical analysis of the policy variables show a median value of 13.00. The standard deviation value is 3.136. The variance value is 9.835. The range value is 13. The minimum value is 5. And the maximum value is 18. The average value (mean) is 11.65, which means that the level of implementation of the respondent's policy is low.

c. Implementation of Green Banking (Y)

The results of descriptive statistical data analysis on the variable implementation of green banking show a median value of 20.00. The standard deviation value is 3.330. The variance value is 11.086. The range value is 17. The minimum value is 10. And the maximum value is 27. The average value (mean) is 19.11, which means that the level of green banking implementation of the respondents is low.

Cross Tabulation

Table 5. Cross Tabulation Based on Last Education with Policy

Last education * Crosstabulation Policy

			Policy			Total
			Low	Currently	Tall	
Last Education	SMA/SMK	Count	4	1	0	5
		% of Total	5.6%	1.4%	0.0%	6.9%
	Diploma III	Count	1	1	2	4
		% of Total	1.4%	1.4%	2.8%	5.6%
	Diploma IV/ Bachelor (S1)	Count	15	21	27	63
		% of Total	20.8%	29.2%	37.5%	87.5%
Total	Count	20	23	29	72	
	% of Total	27.8%	31.9%	40.3%	100.0 %	

Source: Processed Data (2023)

The results of the cross-tabulation show that the last high school/vocational school education respondent showed a low level of policy

implementation 4 respondents or 5.6%, and the medium category was 1 respondent or 1.4%. Then the last education Diploma III was in the low and medium categories each 1 respondent, and in the high category, there were 2 respondents. From the data above it can be concluded that respondents with a high level of policy implementation were respondents with the last Diploma IV/Bachelor (S1) education, namely 27 respondents with a percentage of 37.5%.

F-Test

Table 6. F-Test
ANOVA ^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	569.152	2	284.576	90.089	.000 ^b
	Residual	217.960	69	3.159		
	Total	787.111	71			

- a. Dependent Variable: Green Banking (Y)
- b. Predictors: (Constant), Kebijakan (X2), Pengetahuan (X1)

Source: Processed Data (2023)

Based on the results of the F test in Table 6 above, the calculated F value of 90.089 is greater than the F table of 3.980, which indicates that there is an influence of the independent variables Knowledge (X₁) and Policy (X₂) together on the Implementation of Green Banking. And the significance value is 0.000, so the significance value is <0.05, which is 0.000 <0.005. This shows that the variables Knowledge (X₁) and Policy (X₂) together have a positive and significant effect on the Implementation of Green Banking.

T-Test

Table 7. T-Test
Coefficients ^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.874	1.116		7.058	.000
	Pengetahuan (X1)	.089	.092	.079	.973	.334
	Kebijakan (X2)	.847	.087	.798	9.789	.000

- a. Dependent Variable: Green Banking (Y)

Source: Processed Data (2023)

Based on Table 7 above, hypothesis testing is carried out for each independent variable as follows:

- a. Based on the results of the hypothesis testing of the first independent variable, namely knowledge, the t count is 0.973 which is smaller than

the t table value of 3.980 and the significant value is greater than 0.05, so H1 is rejected. So it can be concluded that knowledge has no significant effect on the implementation of green banking

- b. Based on the results of hypothesis testing of the independent variable Policy, it is obtained that the t count is 9.789 which is greater than the t table value of 3.980 and the significant value is less than 0.05, so H2 is accepted. So it can be concluded that the Policy has a positive and significant effect on the Implementation of Green Banking.

R2 Coefficient Determinant Test

Table 8. Coefficient Determination Test (R²)

Model Summary ^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.850 ^a	.723	.715	1.777

a. Predictors: (Constant), Kebijakan (X₂), Pengetahuan (X₁)

b. Dependent Variable: Green Banking (Y)

Source: Processed Data (2023)

Based on Table 8, the results of the R Square value show that the effect of the Knowledge (X₁) and Policy (X₂) values is known simultaneously to be 0,723 or 72,3%. While the rest (100% - 72,3% = 27,7%) is explained by other variables outside this study.

Discussion

The Effect of Knowledge on The Implementation of Green Banking

Based on the results of the first hypothesis in this study states that Knowledge does not affect on the Implementation of Green Banking so H1 is rejected. Because based on the results of the tests that have been carried out in the Knowledge variable it does not affect the Implementation of Green Banking. this is evidenced by the T test which has a significance value greater than 0,05, namely 0,334 and the obtained t value of 0,973 is smaller than the t table value of 3,980. So the H1 hypothesis is rejected, which means that knowledge has no significant effect on the implementation of green banking at Bank BSI MT Haryono Semarang.

The results of this study following the research conducted by (Shaumya and Arulrajah (2016) which explains that knowledge is not proven to strengthen the influence on the implementation of green banking. This is certainly a new finding where knowledge about green banking is needed to support sustainable development, improve company reputation, and will affect company profitability. In this case, the company's commitment should be able

to carry out corporate responsibility in sustainable economic development to improve the quality of the company, society, and the environment. In implementing green banking there are several challenges. The challenges are: (1) it is a new concept and it takes time for customers to adopt it, (2) green banking requires high-cost technology, (3) requires expensive recycling and renewal processes, (4) data protection is another challenge in implementation green banking, and (5) bank employees need training for all green practices. The company is expected to be able to make a way to realize that the application of green banking can be maximally implemented.

Green banking can be stated in new terms even within the scope of bankers. One of the factors that influence the implementation of green banking is banking, which is used as one of the considerations in channeling environmentally friendly financing or implementing operational activities with due regard to the environment.

The Effect of Policy on The Implementation of Green Banking

Based on the results of the second hypothesis in this study it states that the Policy has a positive effect on the Implementation of Green Banking so H2 is accepted. Based on the results of the tests that have been carried out in the Policy variable it influences the Implementation of Green Banking. this is evidenced by the T-test which has a significance value of 9,789 greater than the t table value of 3,980 and a significant value less than 0,05. Then H2 is accepted, which means that the Policy has a positive and significant effect on the Implementation of Green Banking at Bank BSI MT Haryono Semarang.

The results of this study are following the research conducted by (Rahman and Barua (2016) which states that the weighted average level of progress by bank in all green banking policy guidelines and the level of progress according to policy in all banks affect the implementation of green banking. This study found that the performance of banks in implementing green banking was not very satisfactory. Therefore, a series of education and awareness campaigns must be organized by banks and the government for employees and the general public. Green banking requires that the financial institution must encourage the project it handles: (i) sustainable development and use of renewable natural resources, (ii) protection of human health, biodiversity, production and efficient use of energy, and (iii) pollution prevention and waste minimization, pollution control.

The policy is considered the main determinant in realizing an action to be done or not done. The choice to make a policy is not the wish of a particular individual or group, but is part of the impact of a choice to do something. The policy is a design to solve a relevant and real problem that is guided by a concept and implemented by a specific program as a series of actions made.

CONCLUSION

Partially the knowledge variable has no significant effect on the application of green banking at Bank BSI KC MT Haryono Semarang. This is indicated by a t value of 0,973 with a significance value of 0,334 which is greater than 0,05.

This means that the level of knowledge in the banking environment is still low, so that knowledge does not affect the application of green banking at Bank BSI KC MT Haryono Semarang. Partially, the policy variable has a positive and significant effect on the implementation of green banking at Bank BSI KC MT Haryono Semarang. This is indicated by a t value of 9,789 with a significance value of 0,000 which is less than 0,05. This means that policy is one of the factors that can influence the application of green banking at Bank BSI KC MT Haryono Semarang.

Based on the test results of the coefficient of determination, the R Square (R²) value is 0,723, indicating that the contribution of all independent variables in explaining the dependent variable is 72,3%. While the remaining 27,7% is influenced by other variables not included in this research model.

REFERENCES

- Agriyanto, Ratno. 2015. "Redefining Objective Of Islamic Banking; Stakeholders Perspective In Indonesia." *Economica: Jurnal Ekonomi Islam* 6(2):77–90. doi: <https://doi.org/10.21580/economica.2015.6.2.795>.
- Agriyanto, Ratno. 2018. "Model Reka Model Rekeyasa Peril Asa Perilaku Menggun Aku Menggunakan Inform Akan Informasi Akuntansi Berbasis Akru Ansi Berbasis Akruai Pada Organisasi A Organisasi Pemerintah." *Jurnal Akuntansi Dan Keuangan Indonesia* 15(1):77–103. doi: 10.21002/jaki.2018.05.
- Ahmad, Fayez, Nurul Mohammad Zayed, and Md. Ashraf Harun. 2013. "Factors behind the Adoption of Green Banking by Bangladeshi Commercial Banks." *ASA University Review* 7(2):241–55. doi: 37871289.
- Andhara, Bobby Andre, Faiza Ratna Umoro, and Candra Haris Tua Lubis. 2018. *Knowledge Management Strategi Mengelola Pengetahuan Agar Unggul Di Era Disrupsi*. Jakarta: PT Gramedia Pustaka Utama.
- Arumugam, Dhamayanthi, and Teresa Chirute. 2018. "Factors Determining the Adoption of Green Banking amongst Commercial Banks in Malaysia." *Electronic Journal of Business & Management* 2:50–62. doi: 2550-1380.
- Bappenas. 2013. *Kumpulan Pemikiran Pengembangan Green Economy Di Indonesia (Tahun 2010-2012)*. edited by W. Darajati and S. Pratiwi. Jakarta: KEMENTERIAN PPN/BAPPENAS.
- Blakemore, Ken, and Edwin Griggs. 2007. *Social Policy An Introduction Third Edition*. New York: Open University Press.
- Bose, Sudipta, Habib Zaman Khan, Afzalur Rashid, and Shajul Islam. 2017. "What Drives Green Banking Disclosure? An Institutional and Corporate Governance Perspective." *Asia Pacific Journal of Management* 35(2):1–41. doi: 10.1007/s10490-017-9528-x.

- BSI. 2020. *Laporan Keberlanjutan 2020 Sustainability Report*. Jakarta: Bank Syariah Indonesia.
- Budiantoro, Setyo. 2014. *Mengawal Green Banking Indonesia Dalam Kerangka Pembangunan Berkelanjutan*. Jakarta: Prakarsa.
- Chariri, Anis. 2008. "Kritik Sosial Atas Pemakaian Teori Dalam Penelitian Peningkatan Sosial Dan Lingkungan." *Jurnal Maksi* 8(2):151–69. doi: 1412-6680.
- Choudhury, Tonmoy Toufic, Md. Rashidul Islam, and Md. Mamoon I Bashir. 2013. "Banking Sector of Bangladesh: How to Go Green." *Internasional Academic Research Journal of Business and Management* 2(2):5. doi: 2227-1287.
- Chusna, Arifatul. 2013. "Pengaruh Laju Pertumbuhan Sektor Industri, Investasi, Dan Upah Terhadap Penyerapan Tenaga Kerja Sektor Industri Di Provinsi Jawa Tengah Tahun 1980-2011." *Economics Development Analysis Journal* 2(3):14–23. doi: 10.15294/edaj.v2i3.1974.
- DA, Riswari. 2012. "Pengaruh Corporate Social Responsimility Terhadap Nilai Perusahaan." *Jurnal Akuntansi* 1(1):1–12. doi: 10.24843/JIAB.2022.v17.i01.
- Dharmawan, Arya Hadi, Fredian Tonny Nasdian, Baba Barus, Rilus A. Kinseng, Yoyoh Indaryanti, Hana Indriana, Dyah Ita Mardianingsih, Faris Rahmadian, Hilda Nurul Hidayati, and Ade Mirza Roslinawati. 2019. "Kesiapan Petani Kelapa Sawit Swadaya Dalam Implementasi ISPO: Persoalan Lingkungan Hidup, Legalitas Dan Keberlanjutan." *Jurnal Ilmu Lingkungan* 17(2):304–15. doi: 10.14710/jil.17.2.304-315.
- Ehrlich, Paul R. 1968. *The Population Bomb*. Vol. 291. Febuary 19. New York: Ballantine Books.
- Fadli, Moh, Mukhlis, and Mustafa Lutfi. 2016. *HUKUM & KEBIJAKAN LINGKUNGAN*. Tim UB Pre. edited by T. U. Press. Malang: UB Press.
- Hadad, Muliaman D., and Istiana Maftuchah. 2015. *Buku Sustainable Financing*. Jakarta: Elex Media Komputindo.
- Hadi, P. Hardono. 2020. *Epistemologi Filsafat Pengetahuan*. Yogyakarta: Kanisius.
- Hanif, Nur Wahyu Ningsih, and Fatullah Iqbal. 2018. "Green Banking Terhadap Profitabilitas Bank Umum Syariah Di Indonesia." *Jurnal Ilmiah Keuangan Dan Perbankan* 3(2):111–27. doi: <https://doi.org/10.24127/jf.v3i2.532>.
- Hidayat, Aceng. 2011. *GREEN ECONOMY Menuju Pembangunan Berkelanjutan*. Bogor: PT Penerbit IPB Press.
- Hutapea, Parulian, and Nurianna Thoha. 2008. *Kompetensi Plus Teori, Desain, Kasus Dan Penerapan Untuk HR Serta Organisasi Yang Dinamis*.

Jakarta: Gramedia Pustaka Utama.

IKBI. 2018. *Inisiatif Keuangan Berkelanjutan Indonesia*. Jakarta: IKBI.

Indiahono, Dwiyanto. 2009. *Kebijakan Publik Berbasis Dynamic Policy Analysis*. Yogyakarta: Gava Media.

Irfan, Mohammad, Salina Kassim, Sonali Dhimmar, Mohd Zahid, Nasrul Fahmi, and Zaki Fuadi. 2021. "Reaction Of Islamic Stock Market To Macroeconomic Variables : A Study Of India And Indonesia." *JEBIS : Jurnal Ekonomi Dan Bisnis Islam* 7(1):148–62. doi: 10.20473/jebis.v7i1.

Kementerian Lingkungan Hidup dan Kehutanan. 2020. *Rencana Strategis Kementrian Lingkungan Hidup Dan Kehutanan Tahun 2020-2024*. Vol. 12. Jakarta: <https://www.menlhk.go.id/>.

Kementerian Sekretariat Negara RI. 2020. "UU No 11 Tahun 2020 Tentang Cipta Kerja Bagian Kedua Penerapan Perizinan Berusaha Berbasis Risiko Paragraf 3 Persetujuan Lingkungan Pasal 22 Angka 1."

Kurniawan, Lulu Lugina. 2021. "Pengaruh Kinerja Keuangan Terhadap Green Banking Disclosure Dengan Mekanisme Kontrol Sebagai Variabel Moderasi." *Jurnal Ilmiah Wahana Akuntansi* 16(1):4. doi: 2302-1810.

Lestari, Baroroh, Taher Alhabsji, Endang Siti Astuti, and Syafiie Idrus. 2013. *Praktik Manajemen Pengetahuan Dan Kinerja Inovasi*. Malang: UB Press.

Lymperopoulos, Constantine, Ioannis E. Chaniotakis, and Magdalini Soureli. 2012. "A Model of Green Bank Marketing." *Journal of Financial Services Marketing* 17(2):177–86. doi: 10.1057/fsm.2012.10.

Mahardhani, Ardhana Januar. 2018. *ADVOKASI Kebijakan Publik*. Vol. 1. I. Ponorogo: Calina Media.

Maon, François, Adam Lindgreen, and Valérie Swaen. 2010. "Organizational Stages and Cultural Phases: A Critical Review and a Consolidative Model of CSR Development." *International Journal of Management Reviews* 12(1):20–38. doi: 10.1111/j.1468-2370.2009.00278.x.

Mousa, Gehan. A., and Naser T. Hassan. 2015. "Legitimacy Theory and Environmental Practices: Short Notes." *International Journal of Business and Statistical Analysis* 2(1):41–53. doi: 10.12785/ijbsa/020104.

Natawiri, and Riduwan. 2010. *Buku Statistik Bisnis*. Bandung: Alfabeta.

Nath, Vikas, Nitin Nayak, and Ankit Goel. 2014. "Green Banking Practices – A Review." *International Journal of Research in Business Management* 2(4):45–61. doi: <https://ssrn.com/abstract=2425108>.

Notoatmodjo, Soekidjo. 2012. *Ilmu Perilaku Kesehatan*. Jakarta: Rineka Cipta.

Notoatmodjo, Soekidjo. 2014. *Ilmu Perilaku Kesehatan*. Jakarta: Rineka Cipta.

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- OJK. 2014. *Roadmap Keuangan Berkelanjutan Di Indonesia 2015- 2019*. Jakarta: OJK.
- Panjaitan, Leonard Tiopan. 2015. *Bank Ramah Lingkungan*. Cetakan Pe. edited by T. Kamal. Jakarta: Penebar Plus.
- Purnaweni, Hartuti. 2014. “Kebijakan Pengelolaan Lingkungan Di Kawasan Kendeng Utara Provinsi Jawa Tengah.” *Jurnal Ilmu Lingkungan* 12(1):55. doi: <https://doi.org/10.14710/jil.12.1.53-65>.
- Rahman, S. M. Mahfuzur, and Suborna Barua. 2016. “The Design and Adoption of Green Banking Framework For Environment Protection : Lesson From Bangladesh.” *Australian Journal of Sustainable Business and Society* 2(1):1–19. doi: <https://ssrn.com/abstract=2854072>.
- Rizal, Reda. 2016. *Studi Kelayakan Lingkungan (AMDAL, UKL-UPL, & SPPL)*. Jakarta: LPPM UPNV.
- Robbbins, Stephen P., and Timothy A. Judge. 2008. *Perilaku Organisasi*. Jakarta: Salemba empat.
- Rosyid, Maskur, and Halimatu Saidiah. 2016. “Pengetahuan Perbankan Syariah Dan Pengaruhnya Terhadap Minat Menabung Santri Dan Guru.” *Islaminomic* 7(2):41. doi: 10.47903/ji.v7i2.53.
- Shaumya, K., and Anthonypillai Anton Arulrajah. 2016. “Measuring Green Banking Practices: Evidence from Sri Lanka.” *International Conference on Business Management* (April):999–1022. doi: 10.2139/ssrn.2909735.
- Subarsono. 2005. *Analisis Kebijakan Publik Konsep, Teori Dan Aplikasi*. Yogyakarta: Pustaka Pelajar.
- Sugiyono. 2013. *Metode Penelitian Kuantitatif, Kualitatif Dan R&D*. Bandung: Alfabeta.
- Suryaman, Yudi W. Suwandi. 2016. “Peran Dan Tanggungjawab Perbankan Dalam Implementasi Green Banking.” *Prosiding SENTIA* 8:36–42.
- Tambunan, Sihar Tigor Benjamin. 2007. “Kerangka Kerja Penilaian Investasi Lingkungan (Environmental Performance Appraisal).” *Jurnal Teknik Industri* 9(2):152–59. doi: 10.9744/jti.9.2.pp. 152-160.
- Tonmoy, Toufic Choudhury, Salim, Al Bashir Mamoon, and Prakash Saha. 2013. “Influence of Stakeholders in Developing Green Banking Products in Bangladesh.” *Research Journal of Finance and Accounting* 4(7):67–78. doi: <https://doi.org/10.7176/RJFA>.
- Tu, Tran Thi Thanh, and Nguyen Thi Phuong Dung. 2017. “Factors Affecting Green Banking Practices: Exploratory Factor Analysis on Vietnamese Banks.” *Journal of Economic Development* 24(2):04–30. doi: 10.24311/JABES/2017.24.2.05.
- Uddin, Mohammad Nazim, and Monir Ahmmmed. 2018. “Islamic Banking and

Green Banking for Sustainable Development: Evidence from Bangladesh.” *Jurnal Ilmu Ekonomi Syariah* 10(1):97–114. doi: <http://dx.doi.org/10.15408/aiq.v10i1.4563>.

Ulum, Miftahul, and Ratno Agriyanto. 2018. “Pengaruh Pengungkapan Emisi Gas Rumah Kaca Terhadap Nilai Perusahaan Dengan Biaya Lingkungan Sebagai Variabel Moderasi.” *At-Taqaddum* 12(2):155–67. doi: <http://dx.doi.org/10.21580/at.v12i2.6184>.

Vijayakumar, Shashikumar, and C. Nagadeepa. 2021. “Green Banking Services: Customers’ Perception towards Business Sustainability during COVID 19.” *Xilkogretim Online-Elementary Education Online* 20(1):3429–35. doi: 10.17051/ilkonline.2021.01.386.

Zahari, and Sudirman. 2017. *GREEN EKONOMI*. Yogyakarta: Tangga Ilmu.