



What Strategies are Employed in the Implementation of Sharia Bank Green Banking?

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Abstract

Green banking is an approach that aims to mitigate market competition and preserve the environment since the banking sector is reliant on a healthy environment for its sustainability. If the banking sector does not implement this, it will increase legal risks, financing risks, and the bank's reputation. This research aims to find out the green banking development strategy of Sharia banks in Indonesia, along with the problems and potential solutions for its implementation. This research employs the Analytic Network Process (ANP) method and is processed using the SuperDecision software. The findings of this study reveal that Islamic banking in Indonesia has three distinct problems: The primary focus is on regulatory issues, followed by human resources problems, and subsequently, governance matters. Respondents have a rater agreement of $W = 0.10345$. The best solution to overcome the problem of developing green banking for Islamic banks in Indonesia is a human resources solution, followed by a regulatory solution and a governance solution. The level of respondent agreement or rater agreement $W = 0.05461$. Strategies for developing green banking for Sharia banks in Indonesia include improving the quality of human resources, implementing government support initiatives, and strengthening governance systems. Respondents have a rater agreement of $W = 0.04598$. Strategies for developing green banking for Sharia banks in Indonesia include strategies for improving the quality of human resources through employee green training and capabilities, strategies for implementing government support initiatives through the establishment of policies that facilitate the enactment of green banking in Sharia banks, and strategies for strengthening governance system by complying with the precautionary principle for an excellent image of Sharia banks.

Keywords : Analytic Network Process, Green Banking, Sharia Bank, Regulation

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INTRODUCTION

Environmental problems, which are now a global and important phenomenon, are the result of reckless behavior toward the natural environment and careless industrial competition throughout the world (Bose et al., 2018). Globally, supplies of critical resources continue to decrease while pollution levels are increasing (Bag et al., 2020; Razzaq et al., 2021; Shahzad et al., 2021). According to the University of California, failure to address climate change would result in a 23% decrease in GDP by the year 2100 (OJK, 2021). One of the causes of this is the large use of paper, the accumulation of plastic waste, and other related factors.

According to the Ministry of Environment and Forestry (KLHK), the amount of national waste in 2019-2020 was 67.8 million tons or 0.7 kg per person, or 175 thousand tons per day (Setiawan, 2021). The Waste Management Information System explains that 22.31 percent or 4.2 million tons of waste per year in Indonesia is not processed at all (SIPSN, 2023). Of course, it can directly pollute the surrounding environment, causing depletion of the ozone layer, river and sea pollution, global warming, and the greenhouse effect. Apart from that, it is also influenced by companies and MSMEs; the number of MSMEs reaches 99 percent or 62 million of the total number of entrepreneurs (Santia, 2020).

The green economy is the answer to global warming. The green economy includes a series of environmental and economic interventions based on the idea that the contemporary financial crisis and the current environment provide growth opportunities through targeted environmentally friendly projects and activities (Asiyanbi, 2018). In Indonesia, Professor Otto Sumarwoto discussed the importance of sustainable development, namely the green economy, in 1972, so that the green economy is not something new (Hidup, 2019).

The driving force for sustainable development is the green economy concept, which has the main principle of meeting current needs without harming the needs of future generations (Zulfikar et al., 2019). Therefore, sustainable development entails the application of the green economy concept, which means a development model to overcome climate change and avoid increasing greenhouse gas emissions (Panjaitan, 2015).

As global attention to environmental issues strengthens, banks are also carrying out behavioral and operational transformations (Choubey & Sharma,



2022), one of which is the concept of green banking (Azmir Hossain et al., 2020; Zhixia et al., 2018; Zulfikar et al., 2019). The goal of ensuring long-term economic prosperity will be achieved with green banking, which has been recognized as sustainable banking that protects the world from environmental damage (Islam et al., 2020). To green and protect the environment, we must take some practical initiatives to focus on environmental factors and implement greening activities in an industry (Islam, 2020). Unbalanced industrialization damages the environment and causes natural and industrial disasters (Rehman et al., 2021). There are important considerations that the Central Bank considers the value of developing green banking, which is a new rule for carrying out banking activities by considering clean environmental issues as well as banking corporate social responsibility (CSR) and the unavoidable competition and globalization that we face (Uddin & Ahmmed, 2018).

This movement to green the banking sector is known as green banking, which has a broader scope for environmental development, which is not only related to being environmentally friendly (Akter et al., 2017; Khairunnessa et al., 2021; Masukujjaman & Aktar, 2014; Zhixia et al., 2018). Green banking is defined as a bank prioritizing sustainable development in its operational activities and financing distribution (Park & Kim, 2020). Banking is not directly classified as the highest donor to nature, but it also contributes to environmental pollution, such as resource use for daily banking operational activities and carbon footprint (Bukhari et al., 2019; Hoque et al., 2019). In addition, bank financing has an indirect detrimental impact on industries that damage the environment, such as chemicals, paper, coal, electricity, steel, textiles, fertilizer, and cement.

Green banking prioritizes ecological or caring activities by implementing various banking activities (Azmir Hossain et al., 2020) related to the Triple P, namely Profit (economic/profit), Planet (nature/environment), and People (social) (Budiantoro, 2014). Applying this concept aim to manage and mitigate risks in the internal environment of banking itself and the environment around banking (Bose et al., 2018; Julia & Kassim, 2020; Shakil et al., 2014). There are several ways to adopt the green banking concept, for example, internet banking, online banking, electronic banking outlets, mobile banking, green loans, green checking accounts, as well as implementing energy savings as an effort to contribute to environmentally friendly programs (Mozib Lalon, 2015).



The importance of banks implementing green banking is to the results of research conducted by Rahmayati, Siti Mujiatun, and Maya Sari entitled “Green Banking at Regional Development Banks in Indonesia”. This research shows that the implementation of Green Banking is a pattern that can be implemented by the Regional Development Bank (BPD, *Bank Pembangunan Daerah*) through the digitalization of online services (Rahmayati et al., 2022). Research produced by Sara Senja Setyoko and Rita Wijayanti, entitled “Green Banking and Bank Performance: Corporate Governance Mechanisms”, revealed that green banking influences banking performance (Senja Setyoko & Wijayanti, 2022).

A recent qualitative study on green banking in the Indian banking industry was conducted by Sharma & Choubey (2022). This study identifies the barriers that the Indian banking industry faces in its efforts to become more environmentally friendly. These include low customer awareness of green banking products and technology, low customer confidence in environmentally friendly products and services, customer reluctance to adopt new tools and technology, low education levels, low awareness among bank employees of environmentally friendly banking, high short-term implementation costs, and technical obstacles. In addition, (Muhammad Hussain Qureshi & Talat Hussain, 2020) investigated the problems and difficulties Islamic banks and conventional banks had while creating green banking products in Pakistan. This research found that, in Pakistan, lack of skills and knowledge, lack of financing, and lack of customer persuasion are significant barriers to developing and implementing green banking products.

The implementation of green banking, apart from having an impact on banking performance, also generally has an impact on economic growth (Zhang et al., 2022), as the results of research conducted by Mohammad Farid Fad entitled “Revitalization of Fiqh Al-Bi’ah in the Implementation of Green Banking for Islamic Bank”. The results of this research reveal that green banking complies with the principles of environmental fiqh, namely when it comes to environmental protection. With the help of low-carbon policies and environmentally friendly project financing, green banking can play a dual role, namely, economic growth against *mafsadat* (mischief), and supporting national development by protecting the environment from exploitation activities and arbitrary exploration (Fad, 2021).



The research above shows the importance of implementing green banking because it hugely influences the bank's growth, but in fact, it has not worked well in Sharia banking. Basically, Islamic banks should have implemented green banking in accordance with the foundations of Islamic law. However, the implementation of green banking is still minimal in Sharia banking, according to the following table data:

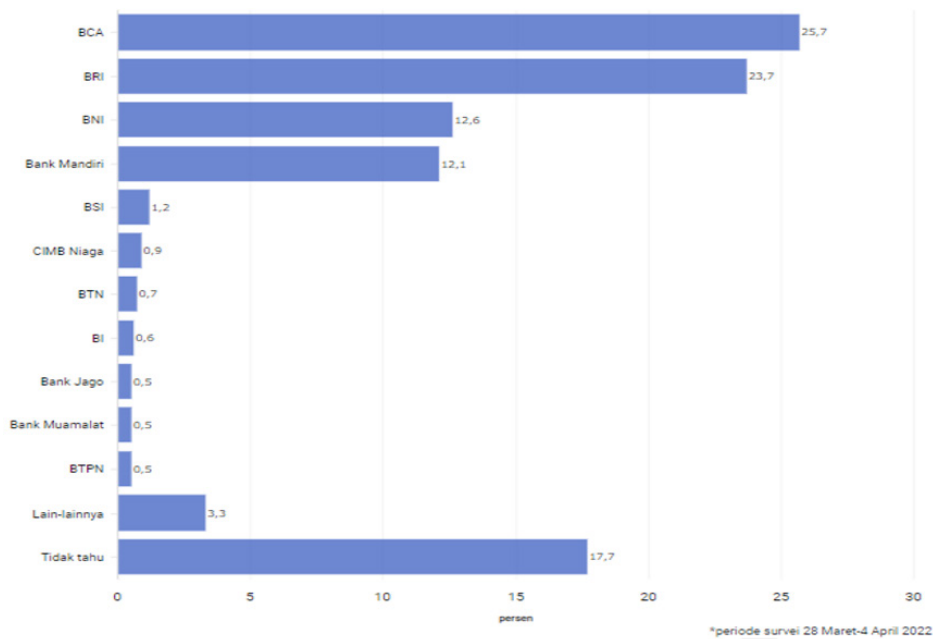


Figure 1: Banks that have Implemented Green Banking

Based on the table above, it can be seen that Islamic banks are still minimal in implementing green banking, not comparable to conventional banks, which are in the first place. This is an important problem considering that Islamic banks have a legal basis, which should be the axis of movement in implementing green banking.

The implementation of green banking in Indonesia has had a significant impact, especially because Indonesia has its main supporting strength

due to Indonesia's major benefit of having the world's biggest Muslim-majority population. Several challenges are the causes or obstacles that are the reason for the slow development of Green Banking, namely the lack of awareness of green banking initiatives among employees based on research results (Choubey & Sharma, 2022). Customers also need time to adapt to this new concept, and the implementation of environmentally friendly banking practices by bank employees must also be increased through environmental training and educational activities (Handajani et al., 2019).

Recently, various research has been conducted on green banking development, environmentally friendly financing, and various challenges and benefits associated with green banking globally (Kala et al., 2020; Sarma & Roy, 2021; Sharmeen et al., 2019). However, this research mainly focuses on the implementation of green banking (Iqbal et al., 2016; TU & DUNG, 2017). In addition, several studies have examined the impact of green banking practices on the environmental performance of banks in Pakistan (Rehman et al., 2021), Nepal (Risal & Joshi, 2018), India (Kala et al., 2020), and Sri Lanka (Shaumya & Arulrajah, 2017). However, no research documented in the current literature highlights the strategy for implementing green banking in Sharia banking using the ANP method, which was conducted through in-depth interviews with experts, regulators, and Sharia banking practitioners.

In contrast, the role of Sharia banking is needed in developing Green Banking so that it can be more focused on financing that leads to sustainable businesses, does not pollute the environment, does not produce products that are risky for the environment, and is accepted by the community. Therefore, this research is necessary to find the right solutions and strategies for implementing green banking. This research aims to analyze priority problems, solutions, and strategies for developing Green Banking in Islamic banking in Indonesia. Thus, in order to enhance the implementation of green banking in Sharia banking, it is necessary to intensify efforts, which will contribute to fostering robust economic development.



LITERATUR REVIEW

Legitimacy Theory

Legitimacy theory was first developed by Dowling and Pfeffer (1975), focusing on interactions between society and companies (Yanuar Puspitaningrum & Indriani, 2021). The legitimacy of an organization can be said to be an advantage or potential source for the company's survival (Ghozali & Chariri, 2007). According to this theory, companies must publicize their social activities to ensure their survival and be accepted by society (Reverte, 2009). Ghozali and Chariri argue that the theory underlying legitimacy is the social contract between society and the company, where the business operates and uses economic resources (Nuraeni & Rini, 2019).

This theory makes this assumption because businesses are obligated by a "social contract" to maintain intimate social ties with the community. According to legitimacy theory, a company's ability to continue operating in a given region is dependent on political backing and is upheld by laws passed by the legislature, which serves as a community representative. In order to support the firm's sustainability, society creates expenses and profits. Hence, there is an implicit social compact between corporations and society.

Stakeholders Theory

Stakeholders theory was first initiated by Freeman in 1984 (R. E. E. Freeman & McVea, 2001). Based on this theory, all stakeholders have the right to obtain information about company activities (Apridawati & Hermanto, 2020). This concept explains that the support of individuals or groups who are related to an organization influences the existence of an organization (R. E. Freeman, 1984). One way for companies to maintain relationships with stakeholders is by publishing sustainability reports. Therefore, the support shared by stakeholders for the company greatly influences the company's existence (Rukmana et al., 2020).

The stakeholder concept mainly aims to support company management in increasing the results of the activities carried out and reducing potential losses for stakeholders. Stakeholders theory states that a company is not only an institution that acts for its purposes but also provides benefits for investors, stakeholders,



the consumer analysis community, the government, suppliers, consumers, and other parties.

Sharia Enterprise Theory

The Sharia Enterprise Theory is a refinement of the concept underlying the previous enterprise theory (Kalbarini & Suprayogi, 2015). An important rule in building The Sharia Enterprise Theory is that God is the primary source of trust and the main resource for stakeholders. These resources are related to the responsibilities determined by the trustor in terms of use, methods, and objectives. Enterprise theory offers several theories that reveal reports regarding corporate social responsibility, especially in Islamic banking.

Islamic Banking

As a financial institution, banking plays an important role in a country's economy (Y. W. Nasution et al., 2022). Islamic banking, a Sharia-compliant financial institution, emerged in reaction to conventional banking (Yafiz et al., 2019). The dual banking system in Indonesia has made the banking sector more competitive due to the entry of Islamic banks (Wardhani et al., 2023). This Sharia system arises from the prohibition of borrowing or taking usury (loan interest), and investing in prohibited companies that are considered illegal (Anggraini, 2015). The rewards sent or paid to Islamic bank customers depend on the contract made between the customer and the bank (Andrianto & A, 2019). Thus, Sharia banking must be able to avoid activities that contain elements of usury and anything contrary to Islamic Sharia (Sudiarti et al., 2023). These activities include profit-sharing, working capital financing using the sale and purchase principle, financing capital goods using the pure rental principle, and transferring ownership of goods rented from the bank to other parties (Syarvina, 2020).

Green Banking

The country's economic system certainly cannot be separated from Indonesian banking. National banking is an important part of the Indonesian economy. Banking becomes a stimulus and helps support economic activity so that it continues to grow. As the economy progresses, it can attract banking



interest, while banking plays a role in stimulating various economic activities. Banking contributes directly to economic growth.

Banking activities indirectly finance product and service development activities. This can have a large or small impact on environmental damage and significant degradation of natural resources. Of course, this could create a situation that is not conducive to sustainable development, and future generations will face severe resource shortages. According to Khan (2021), green banking disclosure has a positive effect on the overall value of a bank and contributes to creating market value for banks (Khan et al., 2021).

Green banking is an environmentally friendly operational activity to maintain environmental quality and offering environmentally friendly financing or funding to customers is one of the important issues that must be implemented by all bank employees. According to Julia, green banking cannot be separated from the terms green investment, environmentally friendly public policy financing, and environmentally friendly financial systems (Julia & Kassim, 2020).

Green banking entails that financial institutions must now prioritize protecting the environment the universe (planet), and raising the standard of living for society (people) in addition to their financial responsibilities and operating as profitably as possible for shareholders. The term triplebottom-l refers to the third combination.

There are several reasons why state-owned banks must immediately respond and adopt the green banking concept, namely (Lako, 2015):

1. Banking has a strategic function to collect and provide public funds to encourage the national economy. Banks can force debtors to be more environmentally and socially responsible in terms of providing funds.
2. As an economic and social actor, banking must help achieve the green movement and sustainable development, which is the government's goal. Banking must first have green banking governance and its business based on green banking before greening the financial system and debtors.

The IMF, UNEP, Bank Dunis, and financial institutions in various countries are trying to design a green banking system to support a green economy,



business at the corporate level, and banking. Green banking is of concern to the international financial and banking industry at large.

RESEARCH METHOD

In order to understand the opinions of Sharia practitioners and experts on the advancement of green banking in Indonesian Sharia banks, this study employed a qualitative analytical research design. One analytical technique is the Analytic Network Process (ANP) approach. Primary data information from in-depth interviews with specialists and practitioners who are aware of the concerns mentioned was used in this study (Ascarya, 2005).

The respondents selected in this survey were nine experts in their fields, consisting of three regulators from the Financial Services Authority (OJK, *Otoritas Jasa Keuangan*), the Ministry of Environment and Forestry, and the Sharia Supervisory Board (DPS, *Dewan Pengawas Syariah*) of Sharia banking. Furthermore, three respondents from academics came from university academics who were competent in the field of Islamic economics. Then, three respondents from Sharia banking practitioners held leadership positions.

Respondents filled out the questionnaire using a comparison of verbal scales and numerical scales. In the ANP method, the numerical scale ranges from 1 to 9. The data obtained from filling in the questionnaire is then processed using super decision software. The rating scale and numerical scale used in ANP can be seen in the table below:

Table 1 : Research Scale

Numerical Scale (Intensity of Importance)	Verbal Scale (Defenition)
9	Extreme Importance
8	Very, very strong
7	Very strong or demonstrated importance
6	Strong plus
5	Strong importance
4	Moderate plus
3	Moderate importance
2	Weak
1	Equal importance

(Source: Ascarya, 2005)



An innovative method for handling decision-making that offers a general framework for handling it without making assumptions about the independence of elements at higher levels at lower levels and the independence of elements at higher levels at lower levels is the ANP method, which is the tool used in the analysis, elements at the same level. Based on the ANP method, this research consists of three main steps in ANP modeling, namely:

1. The decomposition or model construction phase identifies complex problems and builds them into a hierarchical framework or ANP network through literature reviews, questionnaires, in-depth interviews with respondents (academics, regulators, and practitioners), ANP network construction, and ANP network validation.
2. The model measurement or pairwise comparison phase is to design pairwise comparisons of all combinations of elements in a cluster, which are used to get local priorities for the elements in a cluster by looking at the parent cluster. This phase includes designing and testing paired questionnaires according to the ANP network with a numerical scale. Next, data collection was carried out through surveys with respondents by filling out questionnaires and data processing and synthesis using Superdecisions software.
3. The synthesis and analysis step involves processing and synthesizing data using SuperDecisions software. This analysis is conducted to verify the accuracy of computations and estimations of the geometric mean. Next, validate and analyze the outcomes.
4. Geometric mean: used in the assessment process to determine the outcomes of respondents' individual evaluations as well as the opinions of the group. A consensus was formed by combining the pairwise comparison questions answered by respondents. Ascarya states that the geometric mean is a kind of average computation that uses a formula to display a specific value:

$$\left(\prod_{i=1}^n a_i\right)^{1/n} = \sqrt[n]{a_1 a_2 \dots a_n}$$



Rater Agreement, the tool used to measure rating agreement, is the Kendall Coefficient for Coordination ($W: 0 < W \leq 1$). $W = 1$ means very good fit. Meanwhile, when the W value is 0 or closer to 0, the answers between respondents have discrepancies or varying answers. Respondents agree on A decision if a value of $W = 0.4$ is obtained. If the W value is less than 0.4, it means that the respondents' opinions vary.

RESULTS AND DISCUSSION

Decomposition

Based on the results of questionnaire interviews with several experts from academics, regulators, and practitioners, several problems were obtained in developing the implementation of green banking in Islamic banking in Indonesia. These problems are classified into three aspects: human resources (HR), regulations, and governance.

1. Human Resources (HR) Issues

It includes low HR, a weak understanding of HR regarding the environment, and low Sharia competency in HR.

2. Regulatory Issues

There are no specific regulations regarding green banking or audit policies, and a digital and green banking index is absent.

3. Governance Issues

It includes inadequate capital, lack of competence of the directors and board of commissioners, and lack of conditions in the distribution of financing.

Data Analysis Results

Based on the results of data processing from questionnaires produced by respondents, the results of pair matches were obtained as follows:



1. Pairwise Comparison of Problem Aspect Clusters

Table 2 : Results of Pairwise Comparison of Problem Aspect Clusters

Aspect	Priority Value	Ranking
HR	0,34555	2
Regulations	0,34584	1
Governance	0,30870	3

(Source: Processed Data, 2023)

Based on the data in the table above, the results of pairwise comparisons of the problem aspect clusters show that there are leading priorities for the various existing aspects according to the results of questionnaire interviews with experts. Of the three aspects, the priority problem is the regulatory aspect, with an average value of 0.34584. Then, in second place is the human resources (HR) aspect, with an average value of 0.34555. The third place is the governance aspect, with an average value of 0.30870. For more details regarding the results of pairwise comparisons, see the graph below:

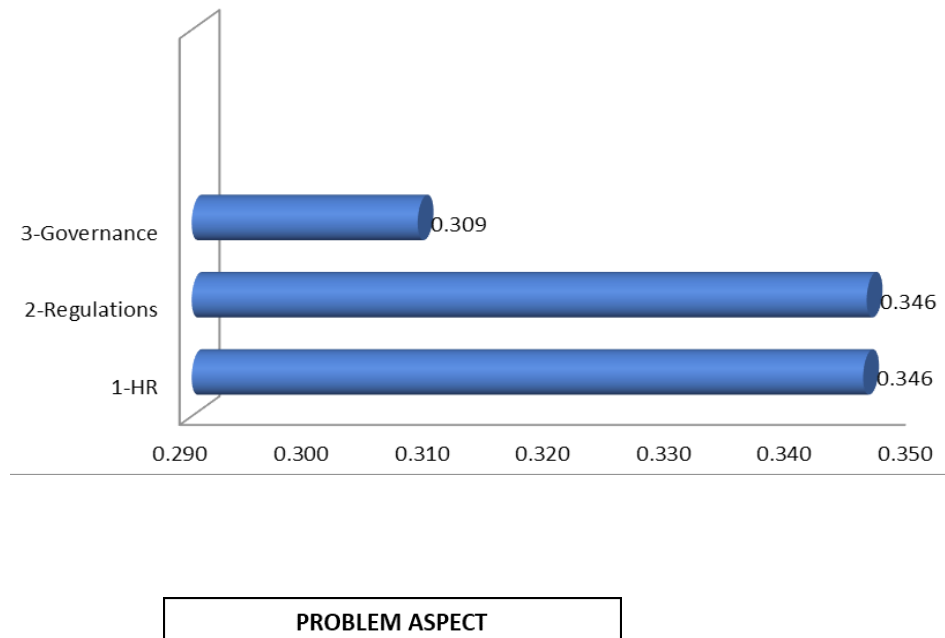


Figure 1: Comparison Graph of Problem Aspect Priorities

2. Pairwise Comparison of Problem Aspect Sub-criteria Clusters

Table 3 : Results of Pairwise Comparison of Problem Aspect Sub-Criteria Clusters

Aspect	Priority Value	Ranking
HR		
1. Low quality of human resources	0,37321	1
2. Low environmental understanding	0,32923	2
3. Low Sharia competency	0,28548	3
Regulation		
1. There are no green banking regulations yet	0,38313	1
2. There is no green banking audit policy	0,30887	2
3. There is no digital and green banking index	0,30800	3
Governance		
1. Minimal capital	0,39701	1
2. Lack of competence of directors and board of commissioners	0,27525	3
3. Lack of Financing condition	0,31539	2

(Source: Processed Data, 2023)

Based on the data in the table above, shows that the results of the pairwise comparison of the problem aspect sub-criteria cluster contain three problem aspects, namely human resources, regulations, and governance. Each aspect of the problem has sub-criteria that explain the details of the problem. The table above explains the problem priority sub-criteria for each aspect.

The main priority sub-criterion in the HR aspect is the low quality of human resources, which has a value of 0.37321. In the regulatory aspect based on sub-criteria, the main priority is that there are no specific regulations governing the implementation of green banking, with a value of 0.38313. The main priority in the governance aspect sub-criteria is minimal capital with a value of 0.39701.



3. Pairwise Comparison of Solution Aspect Clusters

Table 4 : Pairwise Comparison Results of Solution Aspect Clusters

Aspect	Priority Value	Ranking
HR	0,35339	1
Regulations	0,35254	2
Governance	0,29407	3

(Source: Processed Data, 2023)

Based on the data in the table above, the pairwise comparison of the solution aspect clusters shows that there are main priorities for the various existing aspects according to the results of questionnaire interviews with experts. Of the three aspects, the priority solution is human resources, with an average value of 0.35339. Next, the regulatory aspect takes second place, with an average value of 0.35254. The third place is the governance aspect, with an average value of 0.29407. For more details regarding the results of pairwise comparisons, see the graph below:

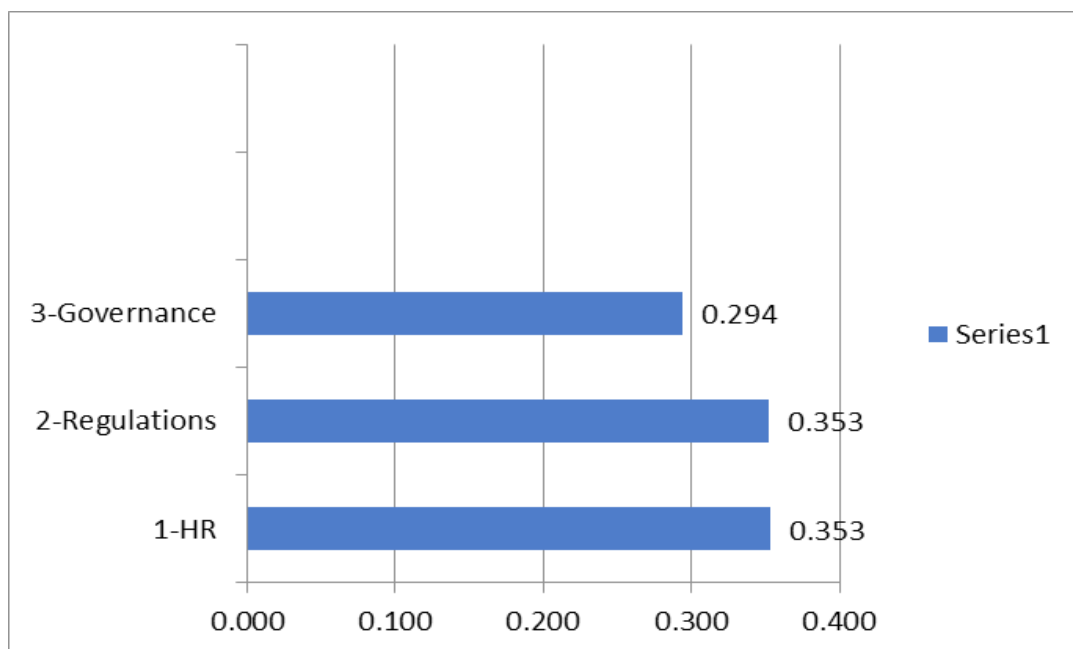


Figure 2: Comparison Graph of Solution Aspect Priorities

4. Pairwise Comparison of Solution Aspect Sub-Criteria Clusters

Table 5 : Pairwise Comparison Results of Solution Aspect Sub-Criteria Clusters

Aspect	Priority Value	Ranking
HR		
1. Sharia banking training	0,40331	1
2. Environmental competency education	0,36014	2
3. Internship at a sharia company	0,23655	3
Regulation		
1. POJK Implementation of green banking	0,35585	1
2. POJK green banking audit policy	0,32547	2
3. Establishment of a digital and green banking index	0,31868	3
Governance		
1. Increase capital	0,36444	1
2. Developing the competence of directors and board of commissioners	0,27209	3
3. The existence of an AMDAL document	0,36347	2

(Source: Processed Data, 2023)

The data in the table above shows that the pairwise comparison of the solution aspect sub-criteria cluster contains three solution aspects: human resources, regulations, and governance. Each aspect of the solution has sub-criteria that explain the details of the solution. The table above explains the solution priority sub-criteria for each aspect.

The main priority of the sub-criteria in the HR aspect is conducting training at Sharia training institutions with a value of 0.40331. In the regulatory aspect, based on sub-criteria, the main priority is the special OJK Regulation (POJK) that regulates the implementation of green banking with a value of 0.35585. The main priority in the governance aspect sub-criteria is increasing capital with a value of 0.36444.



5. Pairwise Comparison of Strategy Aspect Clusters

Table 6 : Results of Pairwise Comparison of Strategy Aspect Clusters

Aspect	Priority Value	Ranking
Quality of Human Resources	0,33892	1
Government Support	0,33461	2
Strengthen Governance	0,32648	3

(Source: Processed Data, 2023)

Based on the data in the table above, the pairwise comparison of the strategic aspect clusters shows that there are main priorities for the various existing aspects according to the results of questionnaire interviews with experts. Of the three aspects, the strategic priority is the quality of human resources, with an average value of 0.33892. The government support aspect comes second, with an average value of 0.33461. The third position is the aspect of strengthening governance, with an average value of 0.32648. For more details regarding the results of the pairwise comparison, it shows in the graph below:

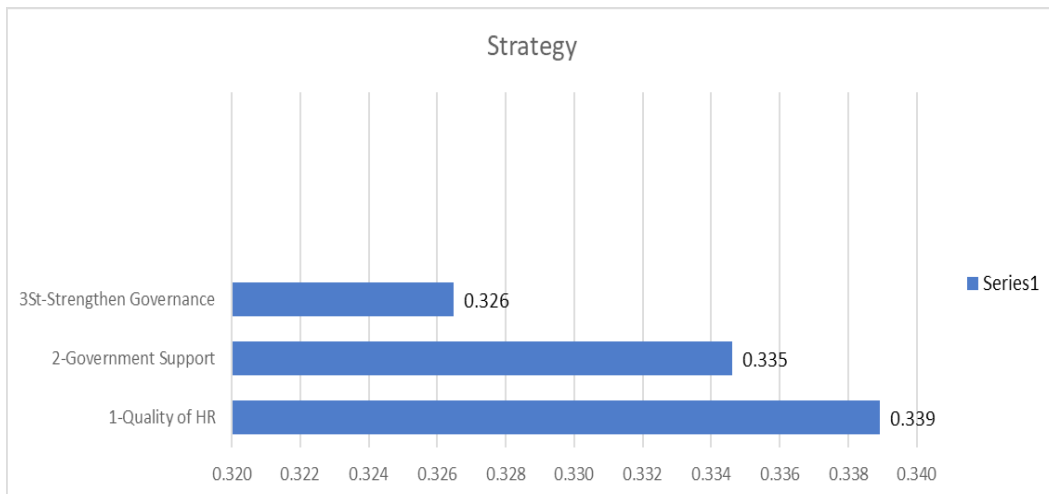


Figure 3 : Comparison Graph of Strategic Aspect Priorities

Synthesis Results

Based on three aspects of the problem that have been identified by the key individuals regarding the strategic issue of implementing green banking for Islamic banks in Indonesia, They agreed with a rater agreement value of $W = 0.10345$. These results show that the key individuals agree that the priority issues that need to be addressed, namely 1) Regulations, 2) HR, and 3) Governance. In terms of the solution aspect, the experts agree that the priority solution for the three aspects of the strategy solution for implementing green banking in Islamic banks in Indonesia is with a rater agreement value of $W = 0.05461$. This solution also addresses the problems of low-quality human resources, low understanding of the environment, and weak Sharia competency. After evaluating the problems and potential solutions, it is necessary to determine the priority strategies. However, there is a lack of agreements among key individuals about the implementation of green banking for Islamic banks in Indonesia due to the relatively low agreement value among raters, namely $W = 0.04598$. This strategy will support solutions to problems in cluster aspects such as human resources, regulations, and governance.

Discussion

In order to address the issues highlighted in this study about the implementation of green banking in Islamic banks in Indonesia, several strategic initiatives can be undertaken, which include the following:

1. Improving the Quality of Human Resources

Efforts to increase human resources both quantitatively and qualitatively can certainly contribute to the growth of more competitive Sharia banking. Increasing human resource capacity is also an activity that aligns with universal Islamic values. Islam says that good work is work that is *al-qawiyu* and natural. *Al-Qawiyu*, which is more related to physical strength, is a symbol of hard skills, while *al-amin*, which means reliable, is a symbol of soft skills, which are the inner nature of every individual. In short, human resource capacity must be developed on both sides at the same time. This is in line with research conducted by



Rahmayati Nasution, who said that Sharia banks need human resources who know not only the field of Sharia banking but also knowledge about environmental conservation (R. Nasution, 2018).

The essential strategies required for the implementation of green banking in Sharia banks, particularly in Indonesia, encompass competent data management and analysis in the era of big data, comprehensive understanding of environmental issues to facilitate the establishment of green banking, comprehensive understanding of every aspect related to Sharia-based products, innovation of green banking products designed for Sharia banks, enhancement of technological infrastructure, development of user-friendly transaction systems, content-oriented marketing within the realm of digital marketing, establishment of partnerships, collaborations, and investments with appropriate stakeholders. Makarim found that training packaged with the concept of caring for the environment was able to reduce employees' intentions to move, and the environmental awareness of employees at PT Angkasa Pura I Adi Soemarmo Airport Branch showed a good level. This is because the type of training that has been implemented has led to very significant results in reducing employee turnover intentions (Makarim, 2021).

2. Government support

A fundamental strategy is to encourage the government and related institutions, such as the OJK, to create regulations that can become a legal umbrella for all Sharia banking activities. Remember that these provisions must provide benefits to everyone involved. It is hoped that this regulation will also be able to protect consumer rights, which is also a sharia priority. It is also necessary to specifically regulate matters relating to green banking for financial service institutions, which are not limited to banking but include all activities of financial service institutions, along with strict sanctions for violations committed by customers and banks that are financing institutions (Agus Salim, 2018).

The Financial Services Authority requires banks to submit sustainable financial action plans and sustainability reports offline (directly) to the supervisory board of each institution. It must publish them on the official website no later than April 30 of the following year to ensure banks

are committed to implementing sustainable finance. Unfortunately, compliance with these regulations is still lacking, even though they are mandatory. This is most likely because Financial Services Institutions (LJK, *Lembaga Jasa Keuangan*), issuers, and public companies only received written warnings for not submitting reports. In addition, it will be difficult to assess compliance and increase capacity in implementation due to the lack of technical recommendations for banks to adopt green banking implementation.

3. Strengthen Governance

The implementation of governance is the embodiment of the vision and mission of Sharia banking. The objective is to conduct operational activities with prudence, while the purpose is to establish a governance and supervision system that eliminates risks and ensures the sustainable management of Sharia banks. The need for cooperation from all parties in society, such as academics, community leaders, ulama, customers, and government support, can encourage Sharia banks to develop the image of Sharia banks as a forum for *uswatun hasanah* to improve Sharia economic welfare. According to Mihajat, implementing an Islamic governance system in Sharia banking entities is too challenging. There are unique risks that do not exist in conventional banking, for example, the risk of sharia non-compliance. Risks arise when banks fail to comply with sharia principles that have been enforced by sharia authorities (Mihajat, 2021).

Good sharia banking governance is useful in creating more effective and efficient governance. Sharia banking institutions should support and implement governance and apply Sharia principles such as the principles of honesty (*siddiq*), trustworthiness (*amanah*), professional management (*fathanah*), and community education (*tabligh*). The *siddiq* principle means that Sharia bank operational management is carried out by upholding the value of honesty and using halal methods, avoiding any haram practices. *Amanah* means maintaining careful operational governance and fostering the value of honesty, the benefits of which will create trust in Islamic banks. By the *fathanah* principle, bank management must be carried out professionally and competitively to obtain maximum profits and low levels of risk for Islamic banks. Lastly, *tabligh*, which



means all operational activities are carried out sustainably, must spread the benefits of Sharia banking products and services widely. However, Islamic governance emphasizes the inclusion of not only human welfare but also environmental welfare (Uddin & Ahmmed, 2018).

CONCLUSION

From the presentation, discussion, and analysis that has been carried out, this research produces conclusions regarding the strategy for implementing green banking at Islamic banks in Indonesia. The problems faced by green banking at Islamic banks in Indonesia are divided into three problems: the primary focus is on regulatory issues, followed by human resources problems, and subsequently, governance matters. Respondents had a rater agreement level of $W = 0.10345$. In order to overcome the existing problems, the best solution is to overcome the problems of developing green banking for Sharia banks in Indonesia. The main priorities to overcome these problems are human resource, regulatory, and governance solutions. The level of respondent agreement or rater agreement $W = 0.05461$. The most priority alternative in determining the green banking development strategy for Sharia banks in Indonesia is to implement a strategy to improve the quality of human resources, a government support strategy, and a strategy to strengthen governance. Respondents had a level of agreement (rater agreement) of $W = 0.04598$. Strategies for developing green banking for Sharia banks in Indonesia include strategies for improving the quality of human resources through employee green training and capabilities, government support initiatives by establishing policies for implementing green banking in Sharia banks, and strategies for strengthening governance by complying with the precautionary principle for an excellent image of Islamic Bank. In this way, a green bank can be designed, which will have an impact on saving the economy and the environment, especially from things that can damage environmental sustainability as well as transaction practices that are not in accordance with Islamic principles. It is hoped that the results of this research can become a reference for developing green banking in Sharia banking, both in terms of human resource development, governance, and the role of government. This research does not discuss in detail other strategies related to the development of green banking, namely strategies in terms of technology, supervision from DPS, and education to the community. Future research should investigate the future



green banking potential of Sharia banks, including opportunities, challenges, costs, risks, and collaboration between Sharia banks. Apart from that, research can find out the problems that exist in society so that the development of sharia green banking can be resolved.

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