



Awareness of sustainable finance development in the world from a stakeholder perspective

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ABSTRACT

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Keywords

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Sustainable finance is one way to realize a new paradigm of sustainable development that incorporates social and environmental issues into economic calculations. However, in its implementation, each country faces different challenges in making and implementing policies to support sustainable finance. This study will analyze the public perception of Muslim-majority and Muslim-minority countries towards the implementation of sustainable finance in their respective countries and then analyze the stages of implementing sustainable finance. To analyze the level of implementation of sustainable finance, this study uses the concept of Attention-Interest-Desire-Action (AIDA). To collect data about the object of research using the methods of content analysis and field studies. Content analysis is all the efforts made by researchers in gathering information relevant to documents that explain the background of the existence of sustainable finance and its implementation in several countries. The field study is used to collect primary data regarding perceptions related to the context of sustainable finance, which can be used to determine the proportion of activities that substantially contribute to environmental objectives (climate change mitigation and adaptation efforts). Research results show that there is no difference in the views of respondents as development stakeholders regarding the implementation of sustainable finance in both Muslim-majority and minority countries. The majority of the two categories of country groups are still at the interest stage, reflected in high scores in normative statements and low scores in positive statements that describe real activities in running a sustainable finance system.

Contribution/Originality: This kind of study has never been done before, because it tries to compare stakeholders' awareness of the implementation of sustainable finance in two categories of countries: Muslim-majority countries and Muslim-minority countries.

1. INTRODUCTION

Sustainable finance is an approach from the financial services sector to support sustainable development goals and climate change by aligning economic, social, and environmental interests (The Platform on Sustainable Finance, 2022). Sustainable finance is an economic calculation that incorporates social and environmental aspects as a new paradigm in a sustainable economy (Ilma, 2020; Nicholls, 2021). So, sustainable finance is a new approach that considers environmental factors (climate change) and social factors that can increase financial risk for financial

institutions. The Rio Declaration on Environment and Development agreement made by developed countries, is committed to reducing the emission of greenhouse gases globally and seeks to help developing countries to develop environmentally friendly economies. In addition, more than 80 financial institutions in 34 countries have adopted the Equator Principles (EPs), accounting for more than seventy percent of debt Financing Projects in fast-growing markets. Through EP, these financial institutions provide strict environmental and social regulations to prospective debtors. The EP has helped spur the development of other environmentally and socially responsible management practices in the finance sector and the banking industry (e.g., United States Carbon Principles, worldwide Climate Principles) and has provided a platform for broad engagement with stakeholders, including non-governmental organizations (NGOs), clients, and industry bodies. The United Nations Environment Program Finance Initiative (UNEP FI) has also developed a Global Reporting Initiative (GRI) guideline in the form of a sustainability report that aims to disclose the company's performance on economic, social, community, and environmental aspects in a transparent and accountable manner. The development of various environmental initiatives and programs in many developed countries has implications for the development of institutional arrangements related to sustainable finance (Migliorelli, 2021; Nicholls, 2021; Volz, 2018). These sustainable financial products can be in the form of loans, private equity, stocks, bonds, insurance, and others (Chen & Zhao, 2021). The EU Action Plan on Funding for Sustainable Growth is consistently implemented by countries in Europe (Ionescu, Antohi, Zlati, Georgescu, & Iticescu, 2022).

Not only in Europe, sustainable finance and various green financial management concepts have also been developed in South Africa and Asia. The People's Republic of China provides economic incentives for companies to spur green investment (Wan, Miao, & Afshan, 2022). In Southeast Asia, the Association of Southeast Asian Nations (ASEAN), ASEAN Capital Markets Forum (ACMF), the ASEAN Insurance Regulators' Meeting (AIRM), the ASEAN Senior Level Committee (SLC) on Financial Integration, and the ASEAN Working Committee on Capital Market Development (WC-CMD), through the ASEAN Taxonomy Board (ATB), work together to create the ASEAN Taxonomy for Sustainable Finance, which is the basis for grouping and assessing the green industry.

If governments and other stakeholders in each country are not committed to improving the business processes of their entire industry, while still exploiting the environment, climate-related disasters will continue to increase significantly (Glemaïn, 2011). These disasters resulted in a lot of monetary losses, as did Malaysia. Malaysia has suffered huge losses in terms of monetary and social life, where many workers have been injured and died due to more than fifty natural disasters over the last twenty years (Chan, 2012). Likewise with Indonesia, the government, through the Financial Services Authority (FSA), made the Sustainable Finance Roadmap Phase I (2015-2019) and Phase II (2021-2025) as an effort to accelerate the implementation of sustainable finance (Financial Services Authority, 2021b). In the Roadmap of Sustainable Finance Phase II, FSA focuses on finalizing the Green Taxonomy that has been made previously, preparing for carbon exchange operations, developing a reporting system, developing a risk management and risk-based monitoring framework, developing financing schemes, and increasing public awareness of sustainable finance. However, in its implementation, each country faces different challenges in making and implementing policies to support sustainable finance (Sepetis, 2022). So that the achievement of sustainable finance in each country will be different (Laokulrach, 2022; Širá, Kotulič, Kravčáková Vozárová, & Daňová, 2021), and some are still at the concept-making stage (Abubakar, Khalifa, Elbasset, & Alkharusi, 2022), some are already at the implementation stage of program development (Britel & Cherkaoui, 2022). Providing understanding to business actors and increasing their confidence that paying attention to the environment and social community in generating profits will make businesses better and more sustainable is the biggest challenge in implementing sustainable finance (Rotaru, 2019). The principles of managing profit, people, and planet (3P) are needed as the basis for initiatives to change the business mindset that previously only pursued short-term profits (Gil-Doménech & Berbegal-Mirabent, 2018).

One of the mindsets can be formed from a belief, including religion (Dweck & Yeager, 2019). This study will analyze the public perception of Muslim-majority and Muslim-minority countries towards the implementation of

sustainable finance in their respective countries, then analyze the stages of implementing sustainable finance using the concept of attention-interest-desire-action (AIDA).

2. MATERIALS AND METHODS

There are 195 sovereign countries in the world that are registered as members of the United Nations (UN). When viewed from the standpoint of the number of adherents of Islam, the country will be divided into two groups: Muslim-majority countries and Muslim-minority countries. A Muslim-majority country is one where more than 50% of the population is Muslim. According to the Pew Research Center there are 50 Muslim-majority countries, meaning that Muslim-majority countries make up only about 25% of the total UN countries in the world. The population in this study is comprised of stakeholders for sustainable finance in Muslim-majority countries and Muslim-minority countries while the sample used was taken by simple random sampling using an online questionnaire (Google Form). The survey was completed within the time frame of June 5 to June 27, 2022, and a total of 127 participants responded. The dimensions in this research use the AIDA concept, which so far is more familiar, as a concept that describes consumer behaviours in making decisions to buy a product. This concept will be used in exploring the views of development stakeholders on the existence of a sustainable finance system, as described in Table 1.

Table 1. Variable operations.

Variables	Dimensions	Indicators	Scale
AIDA model	Attention	Be aware of the existence of a sustainable finance system	Ordinal
	Interest	More interested in finding out more about the sustainable finance system, persuading, and being able to give reasons	Ordinal
	Desire	Confidence that sustainable finance system used is the one that can best meet the sustainable economic growth	Ordinal
	Action	Take action to implement a sustainable finance system	Ordinal

2.1. Data Collection Methods

In this research, we collected data about the object of research using the methods of content analysis and field studies. Content analysis is all the efforts made by researchers in gathering information relevant to documents that explain the background of the existence of sustainable finance and its implementation in a number of countries. The field study is used to collect primary data regarding perceptions related to the context of sustainable finance, which can be used to determine the proportion of activities that substantially contribute to environmental objectives (climate change mitigation and adaptation efforts).

2.2. Techniques Collection Methods

Questionnaires are used as data collection instruments that are delivered to stakeholders in various sectors around the world. Through personal questionnaires, researchers can get more direct and exclusive responses, as well as the necessary explanations regarding the implementation of sustainable finance in each respondent's country. The drawback of the questionnaire method lies in its high cost, especially where the geographic distribution is dispersed. A closed questionnaire consisting of questions regarding attention, interests, desires, and actions in implementing sustainable finance in Muslim-majority countries and Muslim-minority countries.

2.3. Data Analysis Design

Research, in the form of answers or research problem solving, is loaded based on the results of the data testing process, which includes the selection, collection, and analysis of data. This research was conducted in the following ways: 1) doing preliminary studies regarding sustainable finance; 2) choosing the dimensions to be used and creating questionnaire questions; 3) conducting research with questionnaires to stakeholders for sustainable finance in

Muslim-majority countries and Muslim-minority countries; 4) performing analysis with an Independent Sample Test, and 5) finding the awareness of sustainable finance development in the world from a stakeholder perspective.

The research was conducted using a questionnaire instrument consisting of as many as 32 question items: (P) attention; (Q) interest; (R) desire; and (S) action. With the number of respondents as many as 127, then r table = 0.1466. The following are the results of the validity test using SPSS 24.0 for Windows.

Below are presented the results of the validity of the question items for each variable, as follows:

Table 2. Validity test.

	Scale mean if item deleted	Scale variance if item deleted	Corrected item-total correlation	Cronbach's alpha if item deleted
P1	83.1035	368.592	0.688	0.961
P2	82.8744	371.539	0.630	0.962
P3	83.4626	371.343	0.629	0.962
P4	83.4424	371.018	0.638	0.962
P5	83.1743	367.648	0.732	0.961
P6	83.0053	370.841	0.647	0.961
P7	82.8743	373.086	0.620	0.962
Q1	82.7006	376.759	0.569	0.962
Q2	82.6262	384.615	0.269	0.964
Q3	82.7655	376.040	0.541	0.962
Q4	82.6261	376.754	0.532	0.962
Q5	82.9648	369.915	0.694	0.961
Q6	83.1438	370.408	0.658	0.961
R1	82.5376	370.450	0.684	0.961
R2	82.6263	371.410	0.645	0.961
R3	82.7009	372.318	0.645	0.961
R4	82.5377	373.198	0.627	0.962
R5	82.9213	370.334	0.667	0.961
R6	82.7652	373.307	0.618	0.962
R7	83.6590	371.418	0.637	0.962
R8	83.3082	368.277	0.715	0.961
R9	83.2032	367.474	0.743	0.961
S1	83.6261	369.294	0.694	0.961
S2	83.5391	367.486	0.738	0.961
S3	83.4214	367.177	0.746	0.961
S4	83.6094	367.094	0.754	0.961
S5	83.4422	367.477	0.739	0.961
S6	83.4825	368.460	0.710	0.961
S7	83.3083	367.466	0.745	0.961
S8	83.2839	367.226	0.748	0.961
S9	83.4004	367.265	0.742	0.961
S10	83.2580	377.486	0.469	0.963

From Table 2, it can be seen that the coefficient value of the validity of the question items on all variables shows valid results because r count > r table.

Measurement of reliability as a measuring tool in measuring the concept to keep it consistent is by means of one-shot or one-time measurement. A variable is said to be reliable if it gives a Cronbach's Alpha value > 0.60.

Table 3. Reliability test.

Cronbach's alpha	Cronbach's alpha based on standardized items	N of items
0.963	0.962	32

A questionnaire is said to be reliable if the Cronbach's Alpha value is > 0.60. Table 3 shows the Cronbach's Alpha value, which is 0.963. This result is greater than 0.600, so it can be concluded that the variables in the questionnaire studied are reliable.

3. RESULTS AND DISCUSSION

Belief and religion are very important factors in determining human nature and behaviour (Grine, Bensaid, Nor, & Ladjal, 2013), and these behaviours continue to develop and form a community mindset both constructively and destructively (Narayanan, 2013). Basically, religion has a good role in determining economic sustainability by encouraging economic development through a commitment to protect and preserve ecology (Ari & Koc, 2021). The progress of thinking about sustainability around the world is increasingly directed towards bringing about institutional change at the social, economic, and environmental levels.

Currently, financial tools and instruments are increasingly being developed innovatively to address social, environmental, and ecological problems. Financing that supports the social economy focuses on concession financing. Figure 1 shows that the social economy plays an important role in providing non-market goods and services outside the government or primary markets for many countries in the world (Saidane & Abdallah, 2021).

ESG category	Environmental		Social		Governance	
Type of finance	Green finance		Impact finance		Stakeholder finance	
Investment approach	Risk-focus	Double delta focus	Risk-focus	Double delta focus	Risk-focus	Double delta focus
	Negative: exclusionary	Positive: integrated	Negative: exclusionary	Positive: integrated	Negative: exclusionary	Positive: integrated
Investee profile	Carbon intensive	Carbon reduction	Perpetuates inequality	Address social market failure	Fails to follow ILO standards	Focus on corporate purpose
Investment strategy	Divest be active shareholder	Invest new capital	Divest be active shareholder	Invest new capital	Divest be active shareholder	Invest new capital

Figure 1. Sustainable finance strategy.

Every country in the world has started to develop a taxonomy of sustainable finance, both in terms of approach and strategy. This study was represented by 127 respondents from 40 countries in the world, consisting of 22 Muslim-majority countries and 18 Muslim-minority countries, in analyzing perceptions related to the implementation of sustainable finance in their respective countries (Figure 2).

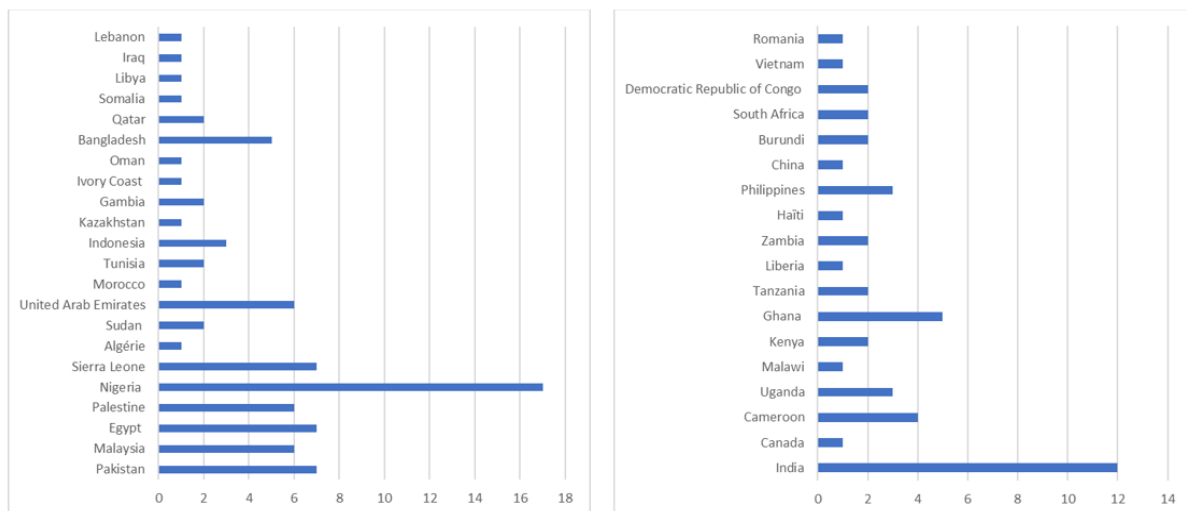


Figure 2. Respondents based on countries.

Table 4. Independent samples test.

Independent samples test										
		Levene's test for equality of variances		t-test for equality of means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean difference	Std. error difference	95% Confidence interval of the difference	
									Lower	Upper
Attention	Equal variances assumed	0.733	0.394	-0.780	125	0.437	-0.103	0.132	-0.365	0.158
	Equal variances not assumed			-0.754	86.589	0.453	-0.103	0.137	-0.376	0.169
Interest	Equal variances assumed	0.004	0.950	-0.086	125	0.932	-0.010	0.118	-0.244	0.224
	Equal variances not assumed			-0.086	97.148	0.931	-0.010	0.118	-0.244	0.224
Desire	Equal variances assumed	0.491	0.485	-0.257	125	0.797	-0.031	0.123	-0.275	0.212
	Equal variances not assumed			-0.256	95.205	0.798	-0.031	0.123	-0.277	0.213
Action	Equal variances assumed	0.076	0.783	-0.368	125	0.714	-0.052	0.143	-0.336	0.230
	Equal variances not assumed			-0.370	98.786	0.712	-0.052	0.142	-0.334	0.229

These 127 respondents are members of the Global Ambassadors of Sustainability, which is an international community that has taken the initiative to promote the concept of sustainability, including the development of a sustainable finance system. The community has 13,000 members from all over the world who work in various fields such as education, government, and the business industry.

In this study, the perception of sustainable finance development in Muslim-majority countries and Muslim-minority countries is divided into four levels: attention, interest, desire, and action. The result of the independent sample test on the attention aspect shows that the sig value is $0.394 > 0.05$, as presented in Table 4. Therefore, the hypothesis (Ho) that there is no difference in Attention perceptions related to Sustainable Finance in Muslim-majority countries and Muslim-minority countries is accepted.

Respondents' perceptions of the aspect of attention are presented in Table 5. It seems that the numbers are not much different for each indicator of attention between Muslim Majority Countries and Muslim Minority Countries.

Table 5. Independent samples test attention aspects.

Code	Indicators	Muslim majority country	Muslim minority country
P1	I know about the sustainable finance system	2.638	2.760
P2	I find information about the sustainable finance system on the internet	2.840	3.036
P3	I learned about the sustainable finance system from colleagues or leaders	2.305	2.357
P4	I know about the sustainable finance system from the socialization of outside parties	2.313	2.398
P5	I know about the scope of the sustainable finance system	2.532	2.749
P6	There are a number of countries in the world that have a sustainable finance system	2.742	2.849
P7	Each country is expected to implement a sustainable finance system to support the achievement of sustainable economic growth	2.932	2.879
Average		2.615	2.718

Based on the research results, the average perception of respondents in Muslim-majority countries and Muslim-minority countries from the aspect of attention is sufficient to know and pay attention to the sustainable finance system in their respective countries. Respondents have mainly searched for and found information about the sustainable finance system on the internet. This indicates that information related to the sustainable finance system, both historically and from the experience of best practices in several countries, is very easily accessible. According to the Söderholm (2020) research, information about sustainable development, particularly that which is financial, fosters genuine connections between ecological and economic systems. The United Nations Environment Program (UNEP) is very proactive in building sustainable finance system information through various types of information, including basic knowledge, technical, and institutional efforts, and sharing experiences from a number of countries (United Nations, 2023).

Furthermore, respondents expect each country to implement a sustainable finance system to support the achievement of sustainable economic growth. Increasing awareness of the importance of responsible growth and green investment opportunities globally is pushing the adoption of sustainable finance to the next level. The sustainable finance approach has the potential not only to stimulate sustainable business practices, but also to generate better risk-adjusted financial returns.

If the Independent sample test on the interest aspect shows that the sig value is $0.950 > 0.05$, then the hypothesis (Ho) that there is no difference in the perception of Interest related to Sustainable Finance in Muslim-majority countries and Muslim-minority countries is accepted.

The interest of countries around the world in sustainable finance is getting more attention because they realize that the future economy will not only be based on digitalization but also on climate change. Climate change risk is one of the challenges for governments in various countries related to how to finance transitional energy that is environmentally friendly or renewable.

Table 6. Independent samples test attention aspects.

Code	Indicators	Muslim majority country	Muslim minority country
Q1	It is important for a country to have a sustainable finance system	3.121	3.027
Q2	In my country, there are many economic activities whose production has a negative impact on the environment	3.196	3.101
Q3	The sustainable finance system is an effort to achieve sustainable economic growth from a financial perspective	2.975	3.101
Q4	A sustainable finance system will encourage green production and improve the quality of the environment in my country	3.135	3.204
Q5	The sustainable finance system is in accordance with the financial and environmental policies in my country to achieve sustainable economic growth	2.812	2.840
Q6	In my country, there are agencies or parties that actively encourage the realization of a sustainable finance system	2.632	2.661
Average		2.979	2.989

Based on the research results, the average perception of respondents in Muslim-majority countries and Muslim-minority countries from the aspect of interest is quite high. This high interest is due to public awareness of the many economic activities that have a negative impact on the environment, thus requiring a sustainable finance system that can regulate economic activities in the country in order to maintain environmental sustainability. Policymakers can stimulate sustainable development through clear, stable, and predictable policies and enable/support innovative financial mechanisms that harness the power of public-private partnerships. The results of a study conducted by Fidelity by tracking the performance of investments in ESG from 1970 to 2014 show that half of its investments have outperformed the market, and only 11% have had negative performance. This raises interest from stakeholders to implement sustainable finance as well because the system is considered capable of encouraging green production and improving environmental quality in their country.

When looking at the value of interest for each indicator, as can be seen in [Table 6](#), the value of the Q5 and Q6 indicators is relatively lower compared to the other indicators. This indicates that new interest has reached the normative stage and that a sustainable finance system is very important for environmental protection. Interest becomes doubtful when faced with a reality that is not as it should be. The majority of the 40 respondent countries have not yet implemented a sustainable finance system.

Some of the respondent countries that have implemented sustainable finance include China, South Africa, Malaysia, and Morocco. In China, the government has been vigorously pushing for development that has continued after the "reform and opening up" of 1987. However, in making decisions, financial institutions do not pay attention to environmental variables. The Chinese government began implementing policies of economic restructuring and improvement and environmental protection in the mid-1990s. The implementation of this policy is carried out through restrictions on certain energy-intensive and high-polluting industries (Xie, 2020). Meanwhile, in Indonesia,

the Indonesian government, through the FSA, has prepared Phase I (2015-2019) and Phase II (2021-2025) Sustainable Finance Roadmaps as an effort to support commitments to the Paris Agreement. FSA established Regulation Number 51/POJK.03/2017 concerning Application of Finance Sustainable Finance for Financial Institutions, Issuers, and the Public in the implementation of Phase I Sustainable Finance Roadmap. Similar to Indonesia, financial institutions in Malaysia also integrate considerations of climate change and the potential for pollution into all aspects of their business strategy. These considerations were made as a result of climate-related events and disasters that have occurred since 1969 (Camilleri, 2017).

South Africa has also made explicit commitments related to the environment in the National Environmental Management Act, NEMA (Act No. 107 of 1998 as amended), together with the National Climate Change Response White Paper, NCCRP (Department of Environmental Affairs), taken as the foundations for this project. The priority of the NCCRP is a comprehensive strategy, capacity, mechanism, or instrument to mobilize resources and investments that support and enable the implementation of a climate change response (Republic of South Africa, 2020). Following China, Indonesia, Malaysia, and South Africa, Morocco launched a national roadmap for aligning the Moroccan financial sector with sustainable development in 2016. Implementation of the roadmap was developed by the government in collaboration with Bank Al-Maghrib (Morocco's central bank), the regulatory authority, and market associations (Rukikaire, 2022).

The impact of climate change, which is expected to have an impact on the decline in gross domestic product (GDP) per capita in most countries, has been felt by all countries in the world, both Muslim-majority countries and Muslim-minority countries. This is a factor that increases the desire of people around the world to build a sustainable finance system that is needed in their respective countries. If an Independent sample test on the aspect of desire shows that the sig value is $0.485 > 0.05$, then H_0 is accepted. This means that there is no difference in Desire's perception of Sustainable Finance in Muslim-majority countries and Muslim-minority countries.

The perception of desire both in Muslim-majority countries and Muslim-minority countries towards sustainable finance globally and regionally is an important program that must be scheduled and carried out. ASEAN countries, through the ASEAN Taxonomy Council (ATB), cooperate in compiling and releasing the ASEAN Taxonomy for Sustainable Finance (ASEAN Taxonomy). The ASEAN Taxonomy is a joint initiative produced by bringing together views from capital market regulators, insurance companies, and banks in ASEAN countries. The ASEAN Taxonomy represents the collective commitment of ASEAN Member States in the transition to a sustainable region. However, the Joint agreement of ASEAN countries on implementing Sustainable Finance will not be carried out properly without the awareness of investors and business people.

Based on the results of the study (Table 7), the average respondent's perception of the desire for sustainable finance is already high but slightly lower than the interest stage. When looking at the figures forming the desire aspect, it appears that the number above 3 applies to indicators that are institutional stages that must be passed by a country that runs a sustainable finance system. So, there is a similarity between the phenomenon and the answer behind interest; it is still normative. The average value is lower than the interest value because there are more indicators with lower values, namely R5, R7, R8, and R9. The four indicators describe concrete steps that have not yet taken place in their country.

The final stage of the AIDA approach is action. If an Independent sample test on the action aspect shows that the sig value is $0.783 > 0.05$, then H_0 is accepted. This means that there is no difference in the perception of action related to Sustainable Finance in Muslim-majority countries and Muslim-minority countries.

Based on the research results (Table 8), the score for this action stage is relatively low compared to all previous stages. This is very logical because all indicator statements are positive, namely, real activities in running a sustainable finance system, while the position of the respondents is still normative. Thus, the value of the action stage is consistent with the answers at the interest and desire stages, where the respondent still objects to positive statements. This

means that in most of the countries sampled in this study, there are still limited efforts towards a sustainable finance system.

Table 7. Desire aspects.

Code	Indicators	Muslim majority country	Muslim minority country
R1	A sustainable finance system can be implemented by forming a working group	3.181	3.366
R2	The sustainable finance system can be implemented by the Central Bank/Financial Services Authority	3.187	3.117
R3	A sustainable finance system can be implemented through collaboration between the Central Bank/Financial Services Authority, the ministry of environment, and other relevant ministries	3.103	3.057
R4	When implementing a sustainable finance system, you must prepare regulations, institutions, and human resources managers	3.244	3.258
R5	The sustainable finance system that has been prepared is in accordance with the development policy in my country	2.858	2.878
R6	I am looking for information about sustainable finance system in other countries that have implemented them	3.044	2.983
R7	I have done comparative studies with other countries that have sustainable finance system	2.111	2.157
R8	There are meetings with related parties in the context of socializing the sustainable finance system	2.429	2.562
R9	There are assessments with related parties in the context of a plan to realize a sustainable finance system	2.559	2.625
Average		2.857	2.889

Table 8. Action aspects.

Code	Indicators	Muslim majority country	Muslim minority country
S1	There is a special meeting in my country to discuss plans for a sustainable finance system	2.177	2.132
S2	There is already a memorandum of agreement (MOA) with related parties (The ministry, banking, and capital markets) to discuss the development of a sustainable finance system	2.227	2.284
S3	There is already a cooperation agreement with related parties to discuss the development of a sustainable finance system	2.345	2.401
S4	There is already a budget allocation for the implementation of a sustainable finance system	2.180	2.173
S5	Industry players in every sector are enthusiastic about a sustainable finance system	2.351	2.334
S6	There are already forms of incentives given to companies that carry out green production in my country	2.287	2.335
S7	The sustainable finance system that is run in my country is legally legal	2.441	2.542
S8	The condition of human resources involved in the sustainable finance system in my country is very supportive	2.468	2.563
S9	There has been a realization of a sustainable finance system; for example, credit disbursement for the green industry	2.335	2.475
S10	There are obstacles to implementing a sustainable finance system in my country	2.492	2.592
Average		2.330	2.383

The action stage that has been seen through the development of a green taxonomy. As is the case in Indonesia, to accelerate the implementation of sustainable finance, OJK's main focus is on several areas of activities related to Sustainable Finance Roadmap Phase II, such as finalizing the Green Taxonomy and preparing carbon exchange operations in line with government policies (Financial Services Authority, 2021a).

Indonesia has compiled Indonesian Green Taxonomy Edition 1.0 based on the Indonesian Standard Industrial Classification (ISIC). The green taxonomy is used as the basis for the development of incentive and disincentive policies, as well as guidelines for information disclosure, risk management, and the development of product innovations and/or sustainable financial services. In Indonesia, there are currently 2,733 sectors and sub-sectors that have been studied, and 919 can be mapped to sub-63 sectors, groups, or business activities (ISIC Level 5), and the thresholds have been clarified by the technical ministry. In practice the criteria are divided into three categories: green (no significant harm), yellow (no significant harm), and red (hazardous activity).

The South African government has also adopted a taxonomy for sustainable finance by publishing a 'Green Economy Inventory for South Africa'. The green economy inventory document forms the basis of major development projects and programs in South Africa. In addition, in responding to climate change and the environment, the Malaysian government has also classified its economic activities into three categories: climate support, transition, and watch list. The considerations taken to classify these economic activities are based on mitigation and adaptation, potential adverse environmental impacts, and steps to reduce harmful business practices. Then, in China, there has been a shift towards a green industry. The government has made policies in the form of economic incentives to encourage green investment and prepared a list of several green industries that will enjoy these incentives. The Green Bond Endorsed Projects Catalogue consists of six sectors, such as the Energy Saving and Environmental Protection Industry, the Clean Production Industry, the Clean Energy Industry, the Ecology and Environment Related Sector, the Sustainable Upgrade of Infrastructure, and Green Services. Meanwhile, India is engaged in developing renewable energy and energy efficiency markets without explicitly mentioning them as part of a sustainable finance system. In 2016, a set of interlocking actions were taken to scale up finance for renewable energy, such as priority sector lending, market commitments, and green bond guidelines. To further emphasize the picture of awareness of sustainable finance in the countries sampled in this study, Figure 3 shows the level of sustainable finance development in Muslim-majority countries and Muslim-minority countries from the median. There is harmony between the average and median values; that is, the highest score is in the interest stage in both Muslim majority and minority countries.

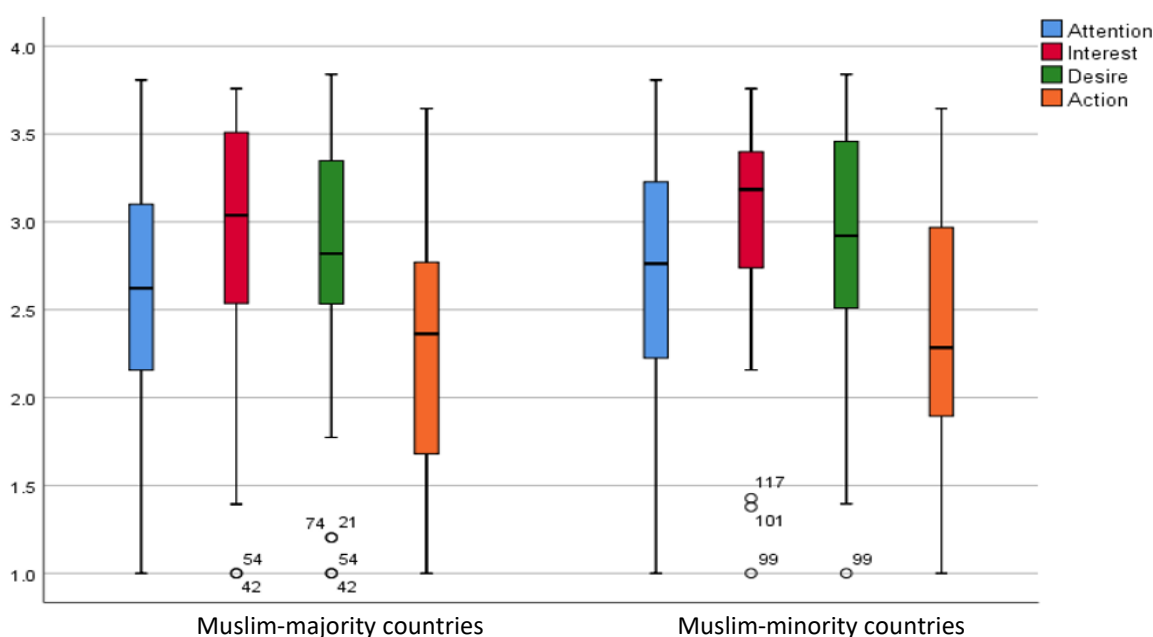


Figure 3. Awareness of sustainable finance development in the world.

With increasing public awareness about the importance of maintaining social and environmental conditions, interest in creating a sustainable finance system is also increasing. Meanwhile, real activity, especially in the action aspect stage, is still relatively low due to the many challenges faced by the government as a regulator and the community as participants.

4. CONCLUSION

The results of the study show that there is no difference in the views of respondents as development stakeholders regarding the implementation of sustainable finance in both Muslim-majority and minority countries. This is because the statement indicators for all aspects of AIDA are general in nature. The majority of the two categories of country groups are still at the interest stage, reflected in high scores in normative statements and low scores in positive statements that describe real activities in running a sustainable finance system.

In the future, Muslim-majority and minority countries need to make a roadmap for implementing a sustainable finance system in a structured manner according to their respective socio-economic and environmental conditions. You can take lessons from other countries that are the samples in this study and have already gone through several stages, such as Indonesia, Malaysia, South Africa, China, Morocco, and India.

In the following research, it is important that the sustainable finance development process be carried out through the principle of obedience to God, which requires humans to maintain harmony in the social and environmental environment as well as moral integrity through efforts to do well in every behaviour in various elements of society. The vision of sustainability basically seeks to promote certain positive thinking, ways of life, and actions that lead to divine pleasure while engendering a direction of change and reform that is driven by sustainable morality.

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REFERENCES

- Abubakar, A., Khalifa, M. M., Elbasset, F. H. A., & Alkharusi, B. (2022). Strategic integration of green innovation, green behavior, and information systems for sustainable business performance & competitiveness. *International Journal of Management and Sustainability*, 11(1), 31-45. <https://doi.org/10.18488/11.v11i1.2951>
- Ari, I., & Koc, M. (2021). Towards sustainable financing models: A proof-of-concept for a waqf-based alternative financing model for renewable energy investments. *Borsa Istanbul Review*, 21, S46-S56. <https://doi.org/10.1016/j.bir.2021.03.007>
- Britel, Z., & Cherkaoui, A. (2022). Measuring an organization's change readiness regarding the implementation of corporate social responsibility. *International Journal of Management and Sustainability*, 11(1), 1-20. <https://doi.org/10.18488/11.v11i1.2916>
- Camilleri, M. A. (2017). Corporate sustainability and responsibility: Creating value for business, society and the environment. *Asian Journal of Sustainability and Social Responsibility*, 2(1), 59-74. <https://doi.org/10.1186/s41180-017-0016-5>
- Chan, N. W. (2012). *Impacts of disasters and disasters risk management in Malaysia: The case of floods impacts of disasters and disaster risk management in Malaysia: The case of floods*. ERIA Research Project Report.
- Chen, Y., & Zhao, Z. J. (2021). The rise of green bonds for sustainable finance: Global standards and issues with the expanding Chinese market. *Current Opinion in Environmental Sustainability*, 52, 54-57. <https://doi.org/10.1016/j.cosust.2021.06.013>

- Dweck, C. S., & Yeager, D. S. (2019). Mindsets: A view from two eras. *Perspectives on Psychological Science*, 14(3), 481-496. <https://doi.org/10.1177/1745691618804166>
- Financial Services Authority. (2021a). *OJK Regulation No. 4/POJK.05/2021 of 2021 concerning application of risk management in the use of information technology by non-bank financial services institutions*. Retrieved from <https://www.ojk.go.id/id/regulasi/Documents/Pages/Penerapan-Manajemen-Risiko-dalam-Penggunaan-Teknologi-Informasi-oleh-Lembaga-Jasa-Kuangan-Nonbank/pojk%204-2021.pdf>
- Financial Services Authority. (2021b). *Sustainable finance roadmap phase II (2021 – 2025)*. Financial Services Authority. Retrieved from [https://www.ojk.go.id/id/berita-dan-kegiatan/publikasi/Pages/Roadmap-Kuangan-Berkelanjutan-Tahap-II-\(2021-2025\).aspx](https://www.ojk.go.id/id/berita-dan-kegiatan/publikasi/Pages/Roadmap-Kuangan-Berkelanjutan-Tahap-II-(2021-2025).aspx)
- Gil-Doménech, D., & Berbegal-Mirabent, J. (2018). People, planet, profit. Handbook of Engaged Sustainability. In (pp. 1-22). Cham: Springer International Publishing.
- Glemin, P. (2011). The strategy and fundamentals of sustainable finance serving sustainable development. In Sun, W., Louche, C. and Pérez, R. (Ed.) Finance and Sustainability: Towards a New Paradigm? A Post-Crisis Agenda Critical Studies on Corporate Responsibility, Governance and Sustainability. In (pp. 187-209). Bingley: Emerald Group Publishing Limited.
- Grine, F., Bensaid, B., Nor, M. R. M., & Ladjal, T. (2013). Sustainability in multi-religious societies: An Islamic perspective. *Journal of Beliefs & Values*, 34(1), 72-86. <https://doi.org/10.1080/13617672.2013.759363>
- Ilma, M. A. (2020). Sustainable finance: Customer loyalty or green environment? *International Journal of Contemporary Accounting*, 2(2), 155-172. <https://doi.org/10.25105/ijca.v2i2.8316>
- Ionescu, R. V., Antohi, V. M., Zlati, M. L., Georgescu, L. P., & Iticescu, C. (2022). To a Green economy across the European union. *International Journal of Environmental Research and Public Health*, 19(19), 12427. <https://doi.org/10.3390/ijerph191912427>
- Laokulrach, M. (2022). The influence of sustainable development on stock risk and volatility in Thailand's stock exchange during the COVID-19 pandemic. *Asian Economic and Financial Review*, 12(9), 751-765. <https://doi.org/10.55493/5002.v12i9.4592>
- Migliorelli, M. (2021). What do we mean by sustainable finance? Assessing existing frameworks and policy risks. *Sustainability*, 13(2), 975. <https://doi.org/10.3390/su13020975>
- Narayanan, Y. (2013). Religion and sustainable development: Analysing the connections. *Sustainable Development*, 21(2), 131-139. <https://doi.org/10.1002/sd.1557>
- Nicholls, A. (2021). *Sustainable finance: A primer and recent developments*. Retrieved from <https://www.adb.org/sites/default/files/institutional-document/691951/ado2021bp-sustainable-finance.pdf>
- Republic of South Africa. (2020). *The South African national climate change response policy*. Retrieved from https://www.dffe.gov.za/sites/default/files/reports/nccrp_nationalclimatechange_responsepolicy_casestudy.pdf
- Rotaru, C. S. F. (2019). Challenges and opportunities for sustainable finance. *The Journal of Contemporary Issues in Business and Government*, 25(1), 1-13.
- Rukikaire, K. (2022). *Religious leaders, UNEP appeal for climate-responsible finance as a moral imperative towards children*. UN Environment Programme. Retrieved from <https://www.unep.org/news-and-stories/press-release/religious-leaders-unep-appeal-climate-responsible-finance-moral>
- Saidane, D., & Abdallah, S. B. (2021). Sustainable finance: Concepts, analyses and Perspectives. In Bourghelle, D., Pérez, R. and Rozin, P. (Ed.), Rethinking Finance in the Face of New Challenges Critical Studies on Corporate Responsibility, Governance and Sustainability. In (Vol. 15, pp. 181-192). Bingley: Emerald Publishing Limited.
- Sepetis, A. (2022). Sustainable finance and circular economy. In Circular Economy and Sustainability. *Management and Policy*, 1, 207-226. <https://doi.org/10.1016/B978-0-12-819817-9.00002-8>
- Širá, E., Kotulič, R., Kravčáková Vozárová, I., & Daňová, M. (2021). Sustainable development in EU countries in the framework of the Europe 2020 strategy. *Processes*, 9(3), 443. <https://doi.org/10.3390/pr9030443>

- Söderholm, P. (2020). The green economy transition: The challenges of technological change for sustainability. *Sustainable Earth*, 3(1), 1-11. <https://doi.org/10.1186/s42055-020-00029-y>
- The Platform on Sustainable Finance. (2022). *The extended environmental taxonomy: Final report on taxonomy extension options supporting a sustainable transition*. Retrieved from <https://www.csreurope.org/newsbundle-articles/the-platform-on-sustainable-finance-releases-final-reports-on-environmental-taxonomy-extension>
- United Nations. (2023). *United nations environment programme (UNEP)*. Retrieved from <https://sdgs.un.org/un-system-sdg-implementation/united-nations-environment-programme-unep-24515>
- Volz, U. (2018). *Fostering green finance for sustainable development in Asia*. ADBI Working Paper. No. 814.
- Wan, Q., Miao, X., & Afshan, S. (2022). Dynamic effects of natural resource abundance, green financing, and government environmental concerns toward the sustainable environment in China. *Resources Policy*, 79, 102954. <https://doi.org/10.1016/j.resourpol.2022.102954>
- Xie, Z. (2020). China's historical evolution of environmental protection along with the forty years' reform and opening-up. *Environmental Science and Ecotechnology*, 1, 100001. <https://doi.org/10.1016/j.ese.2019.100001>

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