Do Determinants of Behaviors Influence the Intention to Invest in Green Sukuk?

Apakah Faktor Perilaku Mempengaruhi Minat dalam Berinvestasi di Green Sukuk?

M. Iqbal Affandi ២, Farida Rahmawati ២

Economics Development, Faculty of Economics and Business, Universitas Negeri Malang, Malang, Indonesia m.iqbal.1904326@students.um.ac.id, farida.rahmawati.fe@um.ac.id

ABSTRACT

Green finance is being developed in response to growing environmental concerns. Green sukuk is a type of green finance based on Shariah rules. Green sukuk initiatives have been carried out in Indonesia since 2019. The participation of green sukuk has been consistently increasing every year. This study aimed to determine the cause of this occurrence using green financing knowledge, environmental concern, risk behavior, financial literacy, and intention as observed variables. This research was based on a quantitative method using primary data. The sampling technique used in this study was convenience sampling and 10 times rule for SEM. Data was collected by distributing structured questionnaires to approximately 176 respondents. The respondents came from individuals aged between 20-40 years old, from different educational backgrounds, and different regions in Indonesia. The results of the structural equation modeling analysis show that green finance knowledge significantly influences intention, while environmental concern and risk behavior significantly influence financial literacy. Financial literacy as a moderating variable has a significant influence on intention. The findings are expected to guide the development of effective marketing strategies for green sukuk to attract investors. Keywords: Green Sukuk, Behavior, Intention, Financial Literacy

ABSTRAK

Bentuk dari kepedulian terhadap lingkungan untuk mengatasi masalah ini adalah dengan pengembangan green finance. Salah satu bentuk dari green finance yang menerapkan prinsip syariah adalah green sukuk. Inisiatif green sukuk telah dilakukan di Indonesia sejak tahun 2019. Tingkat partisipasi green sukuk terus meningkat setiap tahunnya. Tujuan dari penelitian ini adalah untuk memahami faktor di balik fenomena ini. Pendekatan yang digunakan adalah kuantitatif dengan data primer. Teknik sampling yang digunakan dalam penelitian ini adalah convenience sampling dan metode 10 times rule untuk SEM. Pengumpulan data dilakukan dengan membagikan kuesioner terstruktur kepada 176 responden. Responden terdiri dari individu berusia 20-40 tahun, dari beberapa latar belakang pendidikan berbeda, dan dari beberapa wilayah di Indonesia. Dengan bantuan analisis Structural Equation Modelling, hasil dari penelitian ini menunjukkan bahwa green financing knowledge berpengaruh signifikan terhadap minat, sedangkan environmental concerns dan risk behavior berpengaruh signifikan terhadap literasi keuangan. Literasi keuangan sebagai variabel moderasi berpengaruh signifikan terhadap minat. Hasilnya diharapkan dapat memandu pengembangan strategi pemasaran sukuk hijau yang efektif untuk menarik investor.

Kata Kunci: Green Sukuk, Perilaku, Minat, Literasi Keuangan

Article History

Submitted: 08-05-2023 Reviewed: 25-05-2023 accepted: 30-07-2023 Published: 31-07-2023

^{*)}Corresponding Author: M. Iqbal Affandi

Open access under Creative Commons Attribution-Non Commercial-Share A like 4.0 International License (CC-BY-NC-SA)

I. INTRODUCTION

One of the most important issues facing humanity today is the concern over climate change. Climate change poses an unprecedented threat to the world, such as rising global temperatures due to the alarming increase in carbon emissions(Sharif & Tauqir, 2021). Growing environmental concerns call for a greater focus on climate change. This could be done by highlighting the urgency of building green financial solutions and encouraging investment in sustainable and green initiatives (Li et al., 2020).

Green and sustainable finance concepts have become more eminent in financial discourse (F. H. M. Liu & Lai, 2021). One of the financial instruments of green finance is green bonds. Green bonds have emerged due to the emergence and growth of green finance as a medium for financing long-term, environmentally responsible, and sustainable development projects. Unlike conventional bonds, green bonds manifest the commitment to use the funds exclusively to finance environmentally sustainable projects or business activities (Barua & Chiesa, 2019).

Another form of financing, the Shariah-compliant version of a green bond, is green sukuk (Obaidullah, 2018). Green sukuk funds are raised to protect the environment, conserve natural resources, save energy, promote the use of renewable technologies, and reduce greenhouse gas emissions (Abdullah & Nayan, 2020). Green sukuk is an essential investment instrument that can meet the demand and receive in green and Islamic finance. The combination of these two growing industries (global sukuk and green bonds) and the emergence of green sukuk allows investors to invest while saving the planet.

With the largest Muslim population in the world, Indonesia has a distinct advantage in attracting Muslim and non-Muslim investors. Based on this advantage and potential, the government is pushing for the growth and development of the Islamic finance sector. The government's efforts have been demonstrated through the issuance of Green Sukuk. Data from the website of the Indonesian Ministry of Finance shows four issuances of Green Sukuk, as detailed in the table below:

Table 1.	Green Suk	uk Issuance

No	Code	Issuance Date	Initial yield	Tenure
1	ST-006	1 November 2019	6.75%	2 years
2	ST-007	4 November 2020	5.50%	2 years
3	ST-008	1 November 2021	4.80%	2 years
4	ST-009	11 November 2022	6.15%	2 years





Source: dppr.kemenkeu.go.id (2023)



with the total number of investors (people) in 2019 - 2022

The Indonesian government has issued retail green sukuk four times since 2019 as part of sukuk savings. The issuance value of green sukuk reached IDR 21.88 trillion cumulatively in 2022. Figure 1 shows that an increase in the number of investors has a significant impact on the order volume of green sukuk. It shows the potential of green financing programs in Indonesia as the data trend is increasing. By using green sukuk in the global Islamic financial market, Indonesia has also demonstrated its

commitment to promoting sustainable development and combating climate change (Suwanan et al., 2022).

The intention of the community to participate in the activity could determine the success of the program. In order to understand investors' intentions, there is a need for empirical evidence that analyzes the factors that influence the intention to participate in the issuance of green sukuk. After conducting a literature review, several previous studies have focused on discussing investors' intentions in green investment products. In the study conducted by Osman (2019), it was found that the knowledge variable has a significant positive impact on investor intention in green investments.

Another study by Adhiyogo et al., (2022), which examines investor intention to invest in green bonds, shows that environmental concern has a significant positive effect on investor intention. However, financial literacy as a moderating variable significantly negatively affects investor intention. In addition, Sadiq & Khan (2019) also examined investment intention with financial literacy and risk behavior variables as moderators. The results of this study indicate that the financial literacy variable significantly affects investment intention.

This study is an adoption and modification of the research conducted by Osman (2019) on investors' intentions toward green investments. As a primary reference, there is a connection between the research and the discussion that will be studied. The research equation is found in the discussion of the factors that influence investor intention to invest in green investment instruments. Although there are similarities, this previous research also has differences in the roots of the discussion as the novelty of this study, including investment instruments that are raised only on green investment and do not focus on green sukuk. This paper aims to bridge the research gap from the intention of investors in different investment instruments, green sukuk in Indonesia.

The purpose of this study was to examine investor intention in green sukuk issuance and identify the factors that influence it. The findings of this study were expected to assist policymakers in managing strategies to increase investor intention in green sukuk financing. The remaining sections of this paper are organized as follows: Section 2 presents a literature review and theoretical framework; Section 3 outlines the research methodology and presents the model that was tested; Section 4 analyzes and discusses the statistical results; Section 5 presents the conclusions of the study and highlights the implications of the findings for policy recommendations.

II. LITERATURE REVIEW

Consumer Behavior Theory

Consumer Behavior Theory is a fundamental concept that explains how individuals decide what to buy and how to buy it. This theory identifies the various elements that influence the consumer's purchase decision process and how they interact with each other. The theory proposes that consumers are active decision-makers who seek information from multiple sources to make informed choices (Howard & Sheth, 1970). The model of consumer behavior theory takes into account internal and external factors that influence consumer decision-making.

Input variables or stimuli, such as marketing messages, product features, and price, can influence consumer decisions. However, the model also considers how internal processes such as motivation, perception, and learning can shape the consumer's response to these stimuli. Exogenous variables, such as the consumer's socioeconomic status, age, and gender, can also influence purchase decisions. The model, therefore, proposes that an individual's decision-making process is based not only on rational factors but also on emotional and psychological factors (Howard & Sheth, 1970).

Green Sukuk Overview

Sukuk is a legal document and proof of equity participation in the ownership of a transferable, permanent, or long-term asset (Trimulato, 2021). The growing need for environmentally friendly financing has led to the development of a new form of investment known as green sukuk. Green sukuk are sukuk that focus on environmental projects and sustainable development. The benefits of green sukuk are applied to mass transportation, forestry, water conservation, clean energy, and environmentally friendly technologies. The green sukuk initiative also includes socially responsible investments to improve the lives of people (Obaidullah, 2018).

In addition to the potential of green sukuk in promoting sustainability, green sukuk has several challenges that need to be addressed. Based on the OJK report, one of the challenges in developing green sukuk is the limited information available on sustainability projects, which can be a medium for

investors to understand investment prospects in the future. The market for green sukuk is still developing, but this development looks very promising in the future (Suwanan et al., 2022; Tabassum et al., 2019).

Green Financing Knowledge

In the theory of consumer behavior by Howard & Sheth (1970), theory of consumer behavior, brand understanding can influence consumer intention. Based on the theory, green finance knowledge is a part of brand understanding. Green finance knowledge is needed to shape investor interest in green finance. Research has shown that individuals with high levels of green finance knowledge have a stronger affinity for socially responsible investing (SRI). This suggests that informed investors are more likely to recognize the long-term benefits of participating in green finance initiatives, which encompass both financial gains and environmental impact (Osman et al., 2019).

Furthermore, a study conducted by Liu et al., (2018) shed light on the importance of subjective knowledge in influencing consumer acceptance of products labeled as green. Similarly, in the context of green financing, a lack of subjective knowledge can act as a barrier that prevents investors from embracing green sukuk financing opportunities. Therefore, it is critical to increase the knowledge of green financing among potential investors, as increased awareness of the potential benefits and positive impacts can lead to greater interest and participation in green sukuk financing programs. By providing investors with comprehensive information and resources on green finance, financial institutions, and regulators can play a key role in bridging this knowledge gap and encouraging more sustainable investment decisions.

H1: There is a significant direct influence of green financing knowledge on investors' intention in the issuance of green sukuk

H2: Financial literacy moderates green financing knowledge influence on investors' intention in the issuance of green sukuk

Environmental Concern

Environmental concern is an important aspect of today's society, reflecting a growing awareness and consciousness of the impact of industrial activities on the environment and the potential consequences. Individuals who are genuinely concerned about the environment are often willing to make personal sacrifices, such as allocating a portion of their budget to purchasing environmentally friendly products or adopting sustainable practices. This propensity for green behavior is influenced by a variety of factors, with environmental concern being one of the key determinants within a household's decision-making process (Adhiyogo et al., 2022).

Furthermore, research conducted by Cantika (2022) demonstrated a notable relationship between support for environmental protection and the decision to invest in green sukuk. This finding suggests that individuals who prioritize environmental protection and sustainability are more likely to be attracted to investment opportunities that align with their values. Green Sukuk, as a financial instrument that specifically supports environmentally friendly projects, naturally appeals to these environmentally conscious investors.

However, it is important to note that the study conducted by Adhiyogo et al., (2022) revealed a somewhat contrasting result. Although environmental concerns were found to have a positive influence, the impact was deemed statistically insignificant when it came to generating interest in investing in green bonds. This implies that while environmental concerns may play a role in shaping investment decisions, there are likely other influential factors at play that overshadow the direct influence of environmental concerns on the decision to invest in green bonds.

H3: There is a significant direct influence of environmental concern on investors' intention in the issuance of green sukuk

H4: Financial literacy moderates environmental concern influence on investors' intention in the issuance of green sukuk

Risk Behavior

Risk behavior has a psychological relationship with the individual. Risk behavior is defined as an activity in which an individual has a role in identifying an acceptable level of risk based on available information (Istiqomah & Krisnawati, 2021). Risk behavior has three levels that an individual can accept: risk averse, risk neutral, and risk loving. Therefore, society can determine risk behavior when making investment decisions. Based on the investment theory, the higher the risk, the higher the return (Sadiq & Khan, 2019).

H5: There is a significant direct influence of risk behavior on investors' intention in the issuance of green sukuk

H6: Financial literacy moderates risk behavior influence on investors' intention in the issuance of green sukuk

Financial Literacy

Financial literacy plays a fundamental role in equipping individuals with the essential knowledge and skills needed to effectively navigate the complex world of finance. It encompasses a range of activities aimed at enhancing one's understanding and abilities in various financial domains, ultimately empowering individuals to make informed decisions and manage their financial resources more efficiently (Arianti, 2018).

In today's society, financial literacy has become increasingly important due to the growing complexity of financial systems, evolving investment opportunities, and the expanding array of financial products and services available to consumers. Without adequate financial literacy, individuals may face challenges in understanding the implications of their financial decisions, which can lead to detrimental consequences such as accumulating debt, making poor investment choices, or falling victim to financial fraud (Arianti, 2018).

H7: Financial literacy has a significant direct influence on investors' intention in the issuance of green sukuk.

Intention

Consumer behavior theory suggests that intentions are influenced by a variety of factors that reflect the complex interplay between individual motivations, external stimuli, and contextual constraints. Together, these factors shape an individual's mindset and influence his or her propensity to engage in certain activities or behaviors (Nekmahmud & Fekete-Farkas, 2020).

The intention is a blend of desire and will and can be subject to various constraints. It represents an attitude that can direct an individual's focus toward a specific goal and evoke feelings of pleasure and satisfaction. Intention reflects a person's tendency to choose certain activities (Nekmahmud & Fekete-Farkas, 2020).

Conceptual Model

From the description of the variables provided, the conceptual model for this study can be depicted as follows:



Figure 2. Conceptual Model

III. RESEARCH METHODS

This study adopted a quantitative research approach based on primary data. Primary data collection was conducted through surveys based on indicators of the variables under study, and the Likert scale was used as a metric to measure the degree of agreement or disagreement among respondents. The dependent variables used in this study were financial literacy (Y1) and intention (Y2), while the independent variables used in this study were green finance knowledge (X1), environmental concern (X2), and risk behavior (X3). The operational definitions of the variables are defined in the following table:

Variables	Definitions	Item
Green Financing	In the theory of consumer behavior by	Green investment knowledge (X _{1.1})
Knowledge (X1)	Howard & Sheth (1970), brand	Green investment participation $(X_{1.2})$
	comprehension can affect consumer	Benefits comparison of green investment
	intention. Green financing knowledge is	$(X_{1.3})$
	needed to shape investor interest in green	Long-term benefits $(X_{1.4})$
	finance.	
Environmental	Environmental concern is a crucial aspect	Egoistic $(X_{2.1})$
Concern (X ₂)	of contemporary society, reflecting the	Altruistic (X _{2.2})
	growing awareness and consciousness	Biospherics concern $(X_{2.3})$
	surrounding the impact of industrial	
	activities on the environment and the	
	potential consequences they entail.	
	Individuals who possess a genuine	
	environmental concern are often willing to	
	make personal sacrifices, such as	
	allocating a portion of their budget towards	
	purchasing environmentally friendly	
	products or adopting sustainable practices.	
Risk Behavior	Risk behavior has a psychological	Risk guarantees (X _{3.1})
(X ₃)	relationship with the individual. Risk	Familiarity $(X_{3.2})$
	behavior is defined as an activity in which	Use of income $(X_{3,3})$
	an individual has a role in identifying an	
	acceptable level of risk based on available	
	information.	
Financial Literacy	Financial literacy plays a fundamental role	Finance knowledge (Y _{1.1})
(\mathbf{Y}_1)	in equipping individuals with the essential	Finance behavior $(Y_{1,2})$
	knowledge and skills needed to effectively	Credit knowledge $(Y_{1.3})$
	navigate the complex world of finance. It	Investment instrument knowledge $(Y_{1.4})$
	encompasses a range of activities designed	Insurance knowledge $(Y_{1.5})$
	to improve understanding and skills in	
	various financial areas, ultimately enabling	
	individuals to make informed decisions	
	and manage their financial resources more	
	efficiently.	
Intention (Y ₂)	The intention is a blend of desire and will	Needs (Y _{2.1})
	and can be subject to various constraints. It	Social motives $(Y_{2,2})$
	represents an attitude that can direct an	Emotional needs $(Y_{2.3})$
	individual's focus toward a specific	
	objective, eliciting emotions of enjoyment	
	and contentment. Intention reflects a	
	person's tendency to choose certain	
	activities	

 Table 2. Operational definitions of variables

The researcher used non-probability sampling as the sampling strategy. The researcher used the convenience sampling method, which acquired about 176 respondents for this study. The respondents came from individuals aged between 20 and 40 years old, from different educational backgrounds, and different regions in Indonesia. The collected data were then analyzed using Structural Equation Modeling (SEM) with the help of LISREL 8.0. The stages of analysis were developing structural models, developing measurement models, constructing path diagrams to illustrate the relationships between variables, evaluating the models for their fit to the data, testing hypotheses, and making interpretations based on the statistical results. In detail, the description of model equations is as follows:

$$Y_1 = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon \dots (1)$$

$$Y_2 = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + Y_{1+} \varepsilon \dots (2)$$

Which :

 Y_1 = Financial Literacy, Y_2 = Intention, X_1 = Green Financing Knowledge, X_2 = Environmental Concern, X_3 = Risk Behavior

IV. RESULTS AND DISCUSSION

Results

Distributions of questionnaires were given to roughly 176 respondents. The number of respondents was classified into several characteristics, namely gender, age, education level, and region. **Table 3.** Gender characteristics

Gender	Frequency	Percentage		
Female	123	69.9%		
Male	53	30.1%		

This study consisted of both male and female populations. Table 3 shows that of 176 respondents, most were female, as many as 123 people (69.9%), and the rest were male respondents, about 53 people (30.1%).

Table 4. Age characteristics

Age	Frequency	Percentage
20 - 24	125	71%
25 - 29	12	6.8%
30 - 34	18	10.2%
35 - 39	6	3.4%
\geq 40 years old	15	8.5%

Table 4 shows that out of 176 respondents, 125 people (71%) were in the age range of 20-24 years old, and 12 people (6.8%) were in the age range of 25-29 years old. In another spectrum, as many as 18 people (10.2%) were in the age range of 30-34 years old, 6 people (3.4%) were in the age range of 35-39 years old, and 15 people (8.5%) were above 40 years old.

 Table 5. Education level

Education Level	Frequency	Percentage
Elementary school	1	0.6%
Middle School	1	0.6%
High School	99	56.3%
Undergraduate	72	40.9%
Graduate	3	1.7%
Post-Graduate	0	0%

Education level is essential in describing people's literacy. In this study, most respondents' last education level was high school, with roughly 99 people (56.3%). The undergraduate level was around 72 people (40.9%), and the graduate level consisted of 3 people (1.7%). The rest of the respondents' last education level was elementary and middle school, consisting of 1 person (0.6%). **Table 6.** Resion

Region	Frequency	Percentage
Java	133	75.6%
Jabodetabek	35	19.9%
Outside of Java	8	4.5%

Respondents' locations were grouped into three regions. About 133 people (75.6%) were located in Java. Meanwhile, 35 people (19.9%) lived in Jabodetabek and 8 (4.5%) were outside Java.

A validity test was conducted by examining the correlation coefficients. Approximately 30 responses were analyzed, and if the correlation coefficient of each variable is greater than 0.374 and is statistically significant with a p-value of less than 0.05, then the research indicators used can be considered valid. **Table 7.** Validity Test

Variables	Item	r-stats	Validity
Green Financing Knowledge (X ₁)	$X_{1.1}$	0.828	Valid
	X _{1.2}	0.840	Valid
	X _{1.3}	0.884	Valid
	$X_{1.4}$	0.763	Valid
Environmental Concern (X ₂)	$X_{2.1}$	0.837	Valid
	$X_{2.2}$	0.848	Valid
	$X_{2.3}$	0.813	Valid
Risk Behavior (X ₃)	X _{3.1}	0.789	Valid
	X _{3.2}	0.579	Valid
	X _{3.3}	0.677	Valid

Variables	Item	r-stats	Validity
Financial Literacy (Y ₁)	Y _{1.1}	0.716	Valid
	Y _{1.2}	0.742	Valid
	Y _{1.3}	0.670	Valid
	$Y_{1.4}$	0.505	Valid
	Y _{1.5}	0.814	Valid
Intention (Y_2)	Y _{2.1}	0.910	Valid
	$Y_{2.2}$	0.850	Valid
	Y _{2.3}	0.864	Valid

Table 7 shows that all correlation coefficients or r-statistics exceeded 0.374, indicating the validity of all indicators employed in this study.

The reliability test for the instrument was conducted using Cronbach's Alpha value. If Cronbach's Alpha value is more significant than 0.60, then the variables used in the research can be considered reliable. **Table 8** Reliability Test

Table 6. Reliability Test		
	Cronbach's Alpha	N of items
	0.924	27

Table 8 indicates that the Cronbach's Alpha value was approximately 0.924, calculated using 27 items. This high value suggests that the instrument used in this research is reliable. The average response of respondents can provide insight into the overall attitudes, opinions, or perceptions of a group of people toward a particular statement. The following table shows the average score of intention: **Table 9.** Respondents' Responses to Intention Variable

Variables	Indicators	1	2	3	4	Total	Average
Intention (Y ₂)	Y _{2.1}	7	30	106	33	517	2.94
	Y _{2.2}	7	32	107	30	512	2.91
	Y _{2.3}	9	28	104	35	517	2.94

The intention variable (Y_2) was a dependent variable measured using three statements with 4 points based on the Likert scale. Based on the calculation, it shows that the average of the Intention variable was 2.94. The highest average was in the indicator needs and social motives, with an average of 2.94. It means that most of the respondents have an intention toward green sukuk based on their needs and social motives.

Table 10. Respondents' Responses to Financial Literacy Variable

Tuble I of Respondents Res	pombes to I maneral	Diterue	'j run	uore			
Variables	Indicators	1	2	3	4	Total	Average
Financial Literacy (Y_1)	Y _{1.1}	5	2	75	94	610	3.47
	Y _{1.2}	2	3	92	79	600	3.41
	Y _{1.3}	7	29	81	59	544	3.09
	Y _{1.4}	10	43	96	27	492	2.80
	Y _{1.5}	7	12	97	60	562	3.19

Financial Literacy (Y_1) is a moderating variable used in the research. Based on the Likert scale, financial literacy is measured using five statements with a point of 4. Based on the table above, we can conclude that the average of this variable is Based on the table above, we can say that the highest average from the indicator is in the financial knowledge indicator with an average level of 3.47; this result means that the respondents have a good understanding of finance based on their financial knowledge.

 Table 11. Respondents' Responses to Green Financing Knowledge Variable

Variables	Indicators	1	2	3	4	Total	Average
Green Financing	X _{1.1}	22	48	84	22	458	2.60
Knowledge (X_1)	$X_{1.2}$	7	32	98	39	521	2.96
	$X_{1.3}$	5	27	98	46	537	3.05
	$X_{1.4}$	6	21	100	49	544	3.09

The independent variable (X_1) used in this research was green financing knowledge, with the result of the average variable shown in Table 11. The table shows that this variable used four indicators, with the highest average in the long-term benefits indicator. Meanwhile, the smallest was in the green investment knowledge indicator. Therefore, we can say that the respondents understand the long-term benefits more than the general investment itself.

Variables	Indicators	1	2	3	4	Total	Average
Environmental Concern	$X_{2.1}$	4	1	66	105	624	3.55
(X ₂)	$X_{2.2}$	4	4	71	97	613	3.48
	$X_{2.3}$	5	11	118	42	549	3.12

Table 12. Respondents' Responses to Environmental Concern Variable

The next variable used was the environmental concern variable (X_2) . This variable used three indicators that formed statements with four points based on the Likert scale. The collected data were processed, and the result is in the table above. The highest average was in the egoistic indicator. It means the respondents were concerned about the environment solely based on the impact on themselves.

Table 13. Respondents' Responses to Risk Behavior Variable

Variables	Indicators	1	2	3	4	Total	Average
Risk Behavior (X ₃)	X _{3.1}	4	6	84	82	596	3.39
	X _{3.2}	40	58	55	23	413	2.35
	X _{3.3}	8	20	101	47	539	3.06

The last variable used in this research was risk behavior (X_3) . Risk behavior used three indicators, with the highest average being the risk guarantee indicator with 3.39. Based on that number, we can conclude that most respondents would be cautious about the risk of investment instruments they are about to invest in.

This study used Structural Equation Modeling (SEM) as the statistical analysis method because it allows for the simultaneous examination of multiple relationships and provides an efficient means of statistical analysis. In addition, the comprehensive nature of SEM enables exploratory research. Before analyzing the path of influence, it is necessary to evaluate the fit of the model.

Table 14. Goodness of Fit

Model Fit	Criteria	Value
Chi-Square	Insignificant	116.91
P-value	≥0,05	0.00228
RMR	< 0,05	0.032
RMSEA	0,05≤ RMSEA ≤0,08	0.054
GFI	≥0,90	0.92
AGFI	≥0,90	0.87
CFI	≥0,90	0.98
IFI	≥0,90	0.98
NNFI	≥0,90	0.97

After several modifications, it was found that Chi-Square, RMR, RMSE, GFI, CFI, IFI, and NNFI fit the criteria. Meanwhile, P-Value and AGFI did not fit the criteria, which means that the model provides a good representation of the relationship between the variables.

This research was based on the paradigm of behaviorism, which emphasizes the role of environmental factors in shaping human behavior. The main objective of this study was to develop a conceptual model that explains the intention of individuals to invest in green sukuk and to understand the influence of green finance knowledge, environmental concern, and risk behavior on green sukuk intention moderated by financial literacy.



Chi-Square=116.91, df=77, P-value=0.00228, RMSEA=0.054

Figure 3. Standardized solutions path model



Chi-Square=116.91, df=77, P-value=0.00228, RMSEA=0.054

Figure 4. T-values path model

Figure 4 can be concluded in the table below: **Table 15.** Hypothesis results

Hypothesis	Path coefficient	t-statistics
Green financing knowledge for financial literacy	0.11	0.97 (insignificant)
Green financing knowledge to green sukuk intention	0.49	4.28
Environmental concern to financial literacy	0.44	3.95
Environmental concern about green sukuk intention	-0.54	-2.72
Risk behavior to financial literacy	0.51	3.39
Risk behavior to green sukuk intention	-0.32	-1.18 (insignificant)
Financial Literacy to green sukuk intention	0.84	2.01

Discussion

With the degree of freedom = 77, the t-table used in this study is 1.99. Based on the first hypothesis, the result shows a direct significant impact on green sukuk intention. The increase in green financing will lead to an increase in green sukuk intention by 49 percent. The Howard-Sheth model stated that brand understanding is part of a consumer's information seeking process before they have the intention to buy or invest in something (Howard & Sheth, 1970). Therefore, understanding green finance may lead to investors' intention to invest in green sukuk. Meanwhile, financial literacy as a moderating variable did not help the significance of green financing knowledge on green sukuk intention.

Environmental concern has a direct and negative significant influence of 54 percent on green sukuk intention. Meanwhile, financial literacy as a moderating variable for environmental concern shows a positive significant influence on green sukuk intention by 44 percent. These findings are contrary to the study conducted by Adhiyogo et al., (2022). The previous findings argued that environmental concern negatively influences financial literacy and does not significantly influence green bond intention.

Supported by several respondents' opinions, a high level of environmental concern has led to a prioritization of ethical and sustainable practices over financial gain. An investor is likely to make decisions based on his or her life principles. For example, individuals may prefer to invest in environmentally friendly investments, even if they come at a higher cost. Preferring these types of investments could lead to a decrease in their intention to invest in investments that do not align with their values.

In addition, individuals with strong environmental concerns may be more risk-averse when making financial decisions, as they may prioritize long-term environmental sustainability over short-term gain. As a result, they may be less willing to take risks, resulting in higher levels of financial literacy but lower intentions to invest or engage in financial activities that are perceived as less environmentally friendly.

Risk behavior has a significant impact on financial literacy, but not on green sukuk intention. Changes in risk behavior led to a 51 percent increase in financial literacy. Individuals with higher levels of financial literacy tend to understand the risks and returns of an investment. They may also be more likely to take risks and understand how different financial decisions can affect their overall financial outcomes. This increase in financial literacy may be offset by a decrease in intention, as risky behaviors can also lead to financial losses and a decreased desire to engage in financial activities.

Financial literacy has a significant positive impact on green sukuk intention. An increase in financial literacy can lead to an 84% increase in green sukuk intention. This is because people with higher levels of financial literacy understand the benefits and risks of investing in green sukuk. It can lead to an increased intention to invest in green sukuk, a financial instrument designed to finance environmentally sustainable projects.

Moreover, financial literacy can help individuals assess the potential financial returns and risks of investing in green sukuk, which can further increase their intention to invest. Financial literacy may also help individuals identify investment instruments such as green sukuk, which may increase their confidence in the investment and lead to higher intention to invest. Overall, the positive impact of financial literacy on the intention to invest in green sukuk highlights the importance of promoting financial education and literacy among investors to support the growth of sustainable finance.

V. CONCLUSION

This study aimed to construct a model of how behavioral determinants influence the intention to issue green sukuk. Based on consumer behavior theory, this study combines variables such as green financing knowledge, environmental concern, and risk behavior to measure the influence on intention. The results show that green financing knowledge significantly influences intention, while environmental concern and risk behavior significantly influence financial literacy. Financial literacy as a moderating variable has a significant influence on intention.

The implications of this study were significant for policymakers and practitioners in the financial industry. The findings can guide the development of effective marketing strategies for green sukuk to attract investors. This study highlights the importance of increasing investors' knowledge of green finance and promoting environmental concerns to increase the adoption of green sukuk. In addition, it underscores the need to improve financial literacy to support the intention to invest in green sukuk.

Overall, this study provided valuable insights into the factors influencing the intention to issue green sukuk. Future research could focus on expanding the model by including additional behavioral determinants and exploring the influence of socio-demographic factors on the intention to invest in green sukuk.

ACKNOWLEDGEMENT

I would like to express my gratitude toward the Economics Department, Faculty of Economics and Business, Universitas Negeri Malang for providing facilities for me to do this research. Also to my advisor Mrs. Farida Rahmawati for giving me opportunities to write about the topic I am interested in.

REFERENCES

- Abdullah, N., & Nayan, M. A. (2020). Green sukuk: Financing the future to sustainable environment. *International Journal of Zakat and Islamic Philanthropy*, 2(2), 14–23.
- Adhiyogo, I., Dalimunthe, Z., Triono, R. A., & Arif, H. (2022). The intention of individual investors to invest in green bond in Indonesia. *Global Business and Management Research: An International Journal*, 14(3s), 513–522.
- Arianti, B. F. (2018). The influence of financial literacy, financial behavior and income on investment decision. *Economics and Accounting Journal*, 1(1), 1-10.
- Barua, S., & Chiesa, M. (2019). Sustainable financing practices through green bonds: What affects the funding size? *Business Strategy and the Environment*, 28(6), 1131–1147. Doi:10.1002/bse.2307
- Cantika, V. P., Pinasti, U. S., & Pusparini, M. D. (2022). Pengaruh literasi keuangan dan supporting environmental protection pada generasi Z terhadap minat investasi green sukuk untuk mewujudkan indonesia ramah lingkungan. *At-Thullab: Jurnal Mahasiswa Studi Islam*, 4(2), 1138–1155. doi:10.20885/tullab.vol4.iss2.art9
- Howard, J. A., & Sheth, J. N. (1970). Theory of buyer behavior. *Journal of the American Statistical* Association, 65(331), 1406-1407. doi:10.2307/2284311
- Istiqomah, N., & Krisnawati, A. (2021). Risk tolerance and investor decision behavior in MSMEs. *AFRE: Accounting and Financial Review*, 4(1), 45–53. doi:10.26905/afr.v4i1.5979
- Li, Z., Tang, Y., Wu, J., Zhang, J., & Lv, Q. (2020). The Interest Costs of Green Bonds: Credit Ratings, Corporate Social Responsibility, and Certification. *Emerging Markets Finance and Trade*, 56(12), 2679–2692. doi:10.1080/1540496X.2018.1548350
- Liu, F. H. M., & Lai, K. P. Y. (2021). Ecologies of green finance: Green sukuk and development of green Islamic finance in Malaysia. *Environment and Planning A: Economy and Space*, 53(8), 1896–1914. doi:10.1177/0308518X211038349
- Liu, Y., Hong, Z., Zhu, J., Yan, J., Qi, J., & Liu, P. (2018). Promoting green residential buildings: Residents' environmental attitude, subjective knowledge, and social trust matter. *Energy Policy*, 112, 152–161. doi:10.1016/j.enpol.2017.10.020
- Nekmahmud, Md., & Fekete-Farkas, M. (2020). Why Not Green Marketing? Determinates of Consumers' Intention to Green Purchase Decision in a New Developing Nation. *Sustainability*, 12(19), 7880. doi:10.3390/su12197880
- Obaidullah, M. (2018). Managing climate change: Role of Islamic finance. *Islamic Economic Studies*, 26(1), 31–62. doi:10.12816/0050310
- Osman, I., Ma'in, M., Muda, R., Husni, N. S. A., Alwi, S. F. S. A., & Hassan Faridah. (2019). Determinants of behavioral intention towards green investments: The perspectives of Muslims. *International Journal of Islamic Business*, 4(1), 16–38.
- Sadiq, M. N., & Khan, R. A. A. (2019). Impact of personality traits on investment intention: The mediating role of risk behaviour and the moderating role of financial literacy. *Journal of Finance* & *Economics Research*, 4(1), 1–18. doi:10.20547/jfer1904101
- Sharif, F., & Tauqir, A. (2021). The effects of infrastructure development and carbon emissions on economic growth. *Environmental Science and Pollution Research*, 28(27), 36259–36273. doi:10.1007/s11356-021-12936-4
- Suwanan, A. F., Munir, S., & Merlinda, S. (2022). Analisis peran dan tantangan sukuk hijau bagi ketahanan perubahan iklim pada wilayah rentan selama pandemi Covid-19. *Al-Kharaj : Jurnal Ekonomi, Keuangan & Bisnis Syariah*, 4(4), 978–989. doi:10.47467/alkharaj.v4i4.767
- Tabassum, A., Diengdoh, M., & Vincent, D. G. (2019). Green sukuk: Challenges and potential. *International Journal of Social Science and Economic Research*, 4(2), 1461–1470.
- Trimulato, T. (2021). Analysis produk keuangan syariah sukuk. *Kunuz: Journal of Islamic Banking and Finance*, 1(2), 120–137. Doi:10.30984/kunuz.v1i2.72