

## Determinants of Generation Z’s Investment Intentions in Green Sukuk as Sustainable Investments

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**Abstract:** This study examines the factors influencing Generation Z’s intention to invest in green sukuk by extending the pro-environmental planned behavior model with financial literacy and risk behavior variables. Using a quantitative approach and SEM-PLS analysis on 383 Generation Z respondents, the findings reveal that environmental concern and perceived authority support significantly influence attitude, subjective norm, and perceived behavioral control. Furthermore, attitude, subjective norm, perceived behavioral control, and financial literacy positively affect investment intention, while risk behavior has no significant effect. The study highlights the importance of financial literacy, institutional support, and investment accessibility in promoting sustainable investment participation among Generation Z.

**Keywords:** Islamic Finance; Green Sukuk; Sustainability; Green Economy; Behavioral Intention.

**Abstrak:** Penelitian ini menganalisis faktor-faktor yang memengaruhi niat Generasi Z untuk berinvestasi pada green sukuk dengan mengembangkan model pro-environmental planned behavior melalui penambahan variabel financial literacy dan risk behavior. Penelitian menggunakan pendekatan kuantitatif dengan analisis SEM-PLS terhadap 383 responden Generasi Z. Hasil penelitian menunjukkan bahwa environmental concern dan perceived authority support berpengaruh signifikan terhadap attitude, subjective norm, dan perceived behavioral control. Selain itu, attitude, subjective norm, perceived behavioral control, dan financial literacy terbukti berpengaruh positif terhadap niat investasi, sedangkan risk behavior tidak menunjukkan pengaruh yang signifikan. Penelitian ini menegaskan pentingnya literasi keuangan, dukungan institusional, dan kemudahan akses investasi dalam meningkatkan partisipasi Generasi Z pada investasi berkelanjutan.

**Kata Kunci:** Keuangan Syariah; Green Sukuk; Keberlanjutan; Ekonomi Hijau; Niat Berperilaku.

## **A. Introduction**

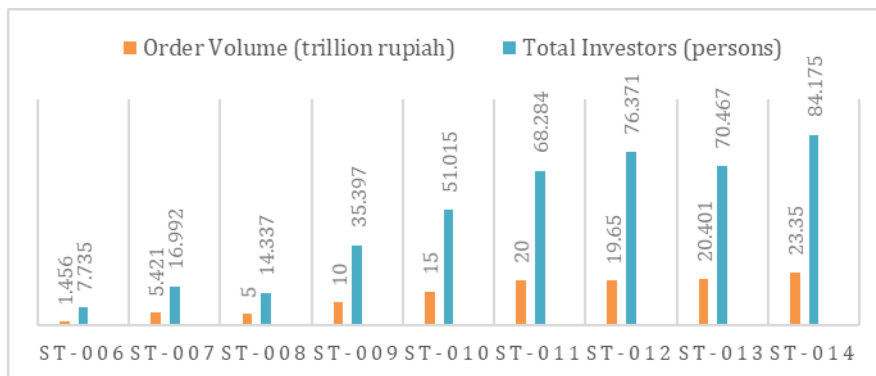
Climate change has emerged as one of the most pressing global challenges of the twenty-first century, as its consequences extend beyond environmental degradation and increasingly threaten economic stability, social welfare, and sustainable development. The United Nations defines climate change as long-term alterations in temperature and weather patterns primarily driven by human activities, particularly the combustion of fossil fuels that intensifies greenhouse gas concentrations in the atmosphere (United Nations, 2023). The continuous rise in greenhouse gas emissions has triggered severe environmental consequences, including global warming, sea-level rise, changing precipitation patterns, and the increasing frequency of natural disasters, all of which directly affect food security, public health, and global economic growth. The Intergovernmental Panel on Climate Change (IPCC) reported that the average global surface temperature has risen by approximately 0.8°C over the last century and is projected to increase by 1.8°C–4°C by the end of the twenty-first century if carbon emissions are not effectively controlled (IPCC, 2018). These conditions indicate that climate change has evolved into a multidimensional threat requiring collective responses through more sustainable development policies.

In response to the growing climate crisis, the international community has strengthened global commitments through various multilateral forums and agreements. One of the most significant milestones occurred in 2015 when 195 countries participated in The 21st Session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP21 UNFCCC) in Paris. The meeting resulted in the Paris Agreement, which aims to keep the increase in global average temperature well below 2°C while pursuing efforts to limit it to 1.5°C above pre-industrial levels (UNFCCC, 2015). This agreement reflects the increasing global commitment toward low-carbon development and the transition to a green economy. Nevertheless, the implementation of sustainable development agendas continues to face substantial challenges, particularly regarding financing needs.

According to the United Nation Indonesia (2025), achieving all Sustainable Development Goals (SDGs) targets requires approximately USD 4.2 trillion in financing, while the global financing gap has reached USD 1.7 trillion, predominantly affecting developing countries, including Indonesia. This financing gap indicates that conventional funding sources remain insufficient to support sustainable development objectives comprehensively. Consequently, innovative financing mechanisms capable of integrating economic objectives with environmental sustainability are urgently needed. In this context, green finance has emerged as a strategic alternative to facilitate sustainable development financing while accelerating the transition toward a low-carbon economy (Zhiyong Li et al., 2020).

Green finance has developed as a financing approach emphasizing capital allocation toward environmentally sustainable economic activities. One of the fastest-growing instruments within the green finance ecosystem is the green bond, which is specifically designed to finance projects with positive environmental impacts, such as renewable energy development, energy efficiency, waste management, and environmentally friendly transportation. Unlike conventional bonds, funds raised through green bonds are explicitly allocated to environmentally oriented projects (Suborna Barua & Micol Chiesa, 2019). The development of green financial instruments has also expanded into the Islamic financial system through the issuance of green sukuk. According to Mohammed Obaidullah (2018), green sukuk represents a Sharia-compliant financing instrument that integrates Islamic financial principles with sustainable development objectives. The proceeds generated from green sukuk issuance are directed toward projects related to environmental protection, carbon emission reduction, renewable energy development, and energy efficiency enhancement (Abdullah Norhayati & Nayan Masri Azrul, 2020). Therefore, green sukuk serves not only as an Islamic investment instrument but also as a strategic mechanism to support sustainable economic development.

Indonesia possesses considerable potential for the development of green sukuk due to its demographic structure and the strong prospects of its Islamic financial market. Based on the World Population Review (2026), Indonesia is home to the world’s largest Muslim population, comprising approximately 240 million people. This demographic advantage provides Indonesia with significant comparative potential in developing Sharia-based financial instruments, including green sukuk. Moreover, the number of investors in Indonesia has experienced substantial growth. Data from the Indonesian Central Securities Depository indicate that domestic investors exceeded 21 million in 2026, with approximately 54.35% belonging to Generation Z Kustodian Sentral Efek Indonesia (2026). The dominance of Generation Z in the investment market suggests that younger generations play a crucial role in shaping the future of Indonesia’s financial and investment industries.



**Figure 1. Trends in the uptake of Green Sukuk in Indonesia**

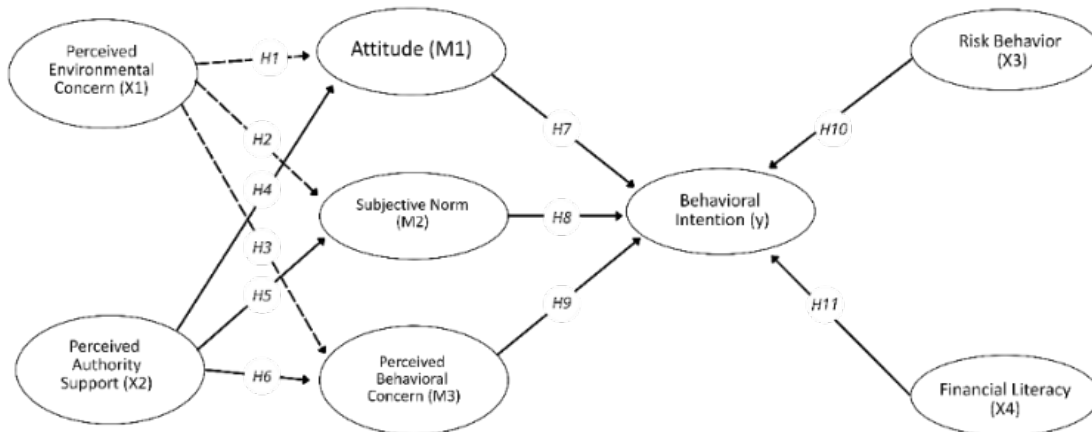
Source: [djpr.kemenkeu.go.id](http://djpr.kemenkeu.go.id)

Generation Z represents a demographic cohort raised amid rapid digital transformation and increasing global awareness of environmental issues. These characteristics make Generation Z more receptive to financial innovation and more environmentally conscious than previous generations. Parzonko et al. (2021) found that Generation Z demonstrates stronger pro-environmental behavior than other generational groups. Such characteristics position Generation Z as a potential driving force behind the expansion of sustainable investment practices, including investments in green sukuk.

Their environmental awareness should theoretically encourage greater participation in environmentally oriented investment instruments.

However, empirical evidence indicates that Generation Z's participation in green sukuk investment remains relatively low. According Bareksa (2021)), Generation Z accounted for only 0.78% of total Green Sukuk ST008 investors, with transaction values amounting to IDR 38.95 billion. A similar trend was observed in the issuance of Green Sukuk ST014, where Generation Z contributed merely 1.09% of total investors (Bareksa, 2025). This phenomenon reveals a paradox between the dominance of Generation Z in conventional investment markets and their relatively limited participation in environmentally oriented investment instruments. The evidence suggests that environmental concern alone may not be sufficient to encourage investment intention toward green sukuk. Other factors, such as financial literacy, risk behavior, social influence, and institutional support, may also shape investment decisions among younger investors.

From a theoretical perspective, this study adopts the pro-environmental planned behavior framework developed by PersadaPersada (2016), which extends the Theory of Planned Behavior proposed by Ajzen (1991). The model explains that behavioral intention is influenced by attitude, subjective norm, and perceived behavioral control. Within the context of sustainable investment, the framework incorporates environmental concern and perceived authority support to better explain environmentally oriented investment behavior. Furthermore, this study integrates financial literacy and risk behavior as additional variables expected to influence Generation Z's intention to invest in green sukuk. The inclusion of these variables is motivated by previous findings highlighting the importance of financial knowledge and risk perception in shaping individual investment decisions.



**Figure 2. Model Construction and Hypothesis Development**

Previous studies have examined various determinants of sustainable and Islamic investment behavior. (Ma et al., 2019), (Bin-Nashwan et al., 2022), and (Hemdan & Zhang, 2024) reported that environmental concern positively influences attitudes and pro-environmental behavioral intentions. Other studies conducted by (Raza et al., 2020) and (Yee et al., 2021) demonstrated that subjective norm and perceived behavioral control significantly affect green investment decisions. Meanwhile, Jain et al. (2023), Majid & Nugraha (2022) and M Iqbal Affandi & Farida Rahmawati (2023) argued that financial literacy positively contributes to investment intention by improving individuals' understanding of investment mechanisms, benefits, and risks. Nevertheless, empirical findings regarding the role of risk behavior in shaping investment intention remain inconsistent, particularly in the context of green sukuk investment.

Despite the growing body of literature, limited research has comprehensively integrated environmental, social, and financial dimensions in explaining Generation Z's intention to invest in green sukuk. Most previous studies have focused either on sustainable investment in general or on behavioral factors without simultaneously incorporating financial literacy and risk behavior. Therefore, the novelty of this study lies in extending the pro-environmental planned behavior framework by integrating

financial literacy and risk behavior variables to explain Generation Z's investment intention toward green sukuk.

Accordingly, this study aims to analyze the influence of environmental concern and perceived authority support on attitude, subjective norm, and perceived behavioral control, as well as to examine the effects of attitude, subjective norm, perceived behavioral control, financial literacy, and risk behavior on green sukuk investment intention. This study is expected to contribute theoretically to the development of sustainable Islamic investment behavior literature while also providing practical implications for governments, regulators, and financial institutions in formulating strategies to enhance Generation Z participation in green investment instruments. The remainder of this article is organized into several sections, including literature review and hypothesis development, research methodology, results and discussion, and conclusion and implications.

## **B. Research Method**

This study employed a quantitative approach with an explanatory research design to investigate the factors influencing Generation Z's intention to invest in green sukuk. The study utilized primary data collected through an online questionnaire administered via Google Forms using a four-point Likert scale ranging from 1 = strongly disagree to 4 = strongly agree. The respondents consisted of individuals aged 14–29 years, consistent with the definition of Generation Z proposed by Singer et al. (2023), with the additional criterion of having prior experience investing in conventional financial instruments. The sampling process adopted a purposive sampling technique. The minimum sample size was determined based on the rule of thumb suggested by Kyriazos (2018), which recommends a minimum sample of ten times the number of indicators. Given that this study employed 33 indicators, a minimum of 330 respondents was required. The research variables comprised Perceived Environmental Concern (PEC), Perceived Authority Support (PAS), Attitude (AT), Subjective Norm (SN),

Perceived Behavioral Control (PBC), Risk Behavior (RB), Financial Literacy (FL), and Behavioral Intention (BI). Prior to the main data collection, the research instrument underwent content validity and reliability assessments through a preliminary study. The conceptual framework was developed to illustrate the relationships among variables, where PEC and PAS influence AT, SN, and PBC, which subsequently affect BI, with FL and RB incorporated as additional direct explanatory variables.

The data analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM). The measurement model evaluation involved assessing outer loadings, composite reliability, average variance extracted (AVE), and the heterotrait-monotrait ratio (HTMT) to establish construct validity and reliability. Subsequently, the structural model was evaluated by examining the variance inflation factor (VIF), coefficient of determination ( $R^2$ ), standardized root mean square residual (SRMR), effect size ( $f^2$ ), and predictive relevance ( $Q^2$ ). Hypothesis testing was performed using the bootstrap resampling procedure to generate standard errors, t-statistics, p-values, and confidence intervals. In addition, supplementary analyses were conducted to ensure the robustness and stability of the relationships among variables within the proposed research model.

## C. Result and Discussion

### 1. Respondents' Characteristic

Questionnaires were administered to approximately 414 respondents. The sample was subsequently categorized by gender, age, educational attainment, geographic region, and investment experience.

**Tabel 1.**  
**Demographic Profile of Respondents**

Demography	Frequency	Percentage
<i>Gender</i>		
Male	188	45.6%
Female	226	54.6%

<i>Age</i>		
14-18	2	0.5%
19-23	218	52.7%
24-29	194	46.9%

*Education Level*

Demography	Frequency	Percentage
Elementary	0	0
Middle School	0	0
High School	151	36.5%
Bachelor's/Vocational Degree	260	62.8%
Master's Degree	3	0.7%
Doctoral Degree / PhD	0	0

*Region*

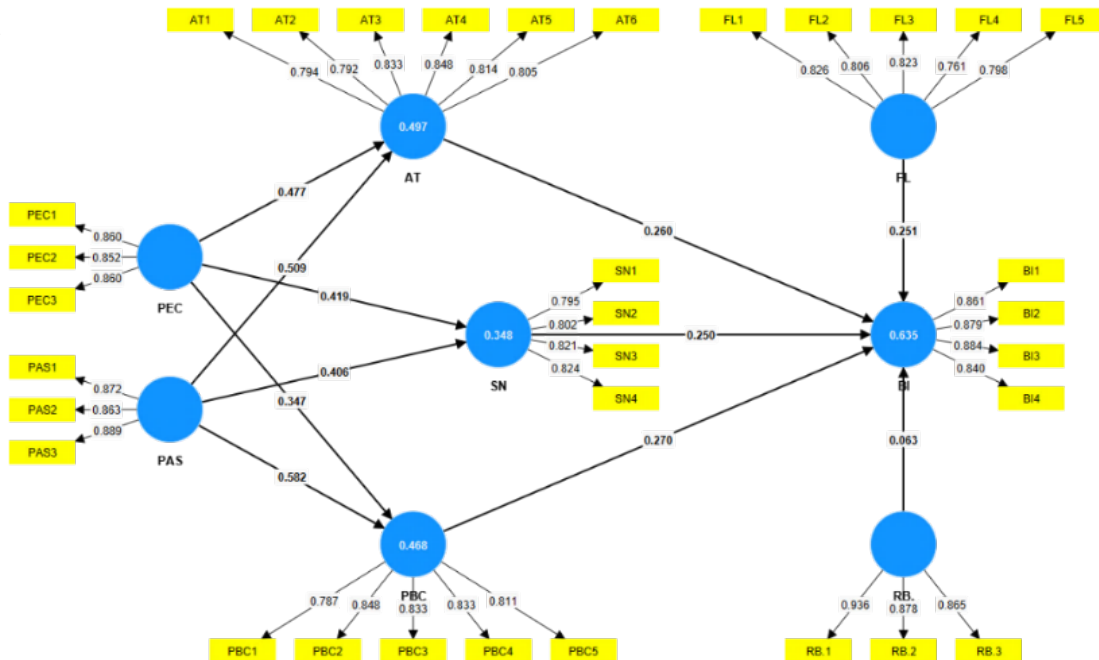
Java	347	83.8%
Outside of Java	67	16.2%

*Investment Experience*

Have previously invested	383	92.5%
Have not invested before	31	7.5%

## 2. Outer Model Evaluation

The evaluation of the measurement model (outer model) was conducted to assess the extent to which the observed indicators adequately represent the latent constructs and to ensure that the research instrument is both valid and reliable. The assessment procedure involved several stages, including the examination of convergent validity, discriminant validity, and reliability



**Figure 3. Graphical Output Outer Model Evaluation**

### 3. Construct Reliability and Convergent Validity

Construct In the measurement-model evaluation of SEM, construct reliability and convergent validity are assessed using three primary metrics: outer (standardized) loadings, composite reliability (CR), and average variance extracted (AVE). Outer loadings indicate the strength of each indicator’s association with its latent construct and should be significant and preferably  $\geq 0.708$ , values  $\geq 0.50$  may be tolerated during instrument development (Hair, Black, et al., 2019). CR assesses internal consistency while weighting indicators by their loadings; a CR  $\geq 0.70$  is recommended for confirmatory studies,  $\geq 0.60$  may be acceptable in exploratory research, whereas CR values above  $\sim 0.90\text{--}0.95$  can signal indicator redundancy Hair, Black, et al. (2019). AVE captures the average proportion of indicator variance explained by the construct, with AVE  $\geq 0.50$  denoting adequate convergent validity. When loadings, CR, and AVE concurrently satisfy these thresholds, the measurement model can be considered to possess acceptable reliability and convergent validity (Hair, Black, et al., 2019).

**Tabel 2.**  
**Measurement Model Evaluation**

No	Variable	Indicator	Loading	Result	CR	AVE	Result
1	Attitude	AT1	0.794	Valid	0.922	0.664	Reliable
		AT2	0.792	Valid			
		AT3	0.833	Valid			
		AT4	0.848	Valid			
		AT5	0.814	Valid			
		AT6	0.805	Valid			
2	Behavior	BI1	0.861	Valid	0.923	0.750	Reliable
		BI2	0.879	Valid			
		BI3	0.884	Valid			
		BI4	0.840	Valid			
3	Financial Literacy	FL1	0.826	Valid	0.901	0.645	Reliable
		FL2	0.806	Valid			
		FL3	0.823	Valid			
		FL4	0.761	Valid			
		FL5	0.798	Valid			
4	Perceived Authority Support	PAS1	0.872	Valid	0.907	0.765	Reliable
		PAS2	0.863	Valid			
		PAS3	0.889	Valid			
5	Perceived Behavior Control	PBC1	0.787	Valid	0.913	0.677	Reliable
		PBC2	0.848	Valid			
		PBC3	0.833	Valid			
		PBC4	0.833	Valid			
		PBC5	0.811	Valid			
6	Perceived Environmental Concern	PEC1	0.860	Valid	0.893	0.735	Reliable
		PEC2	0.852	Valid			
		PEC3	0.860	Valid			
7	Risk Behavior	RB.1	0.936	Valid	0.922	0.799	Reliable
		RB.2	0.878	Valid			
		RB.3	0.865	Valid			
8	Subjective Norm	SN1	0.795	Valid	0.885	0.657	Reliable
		SN2	0.802	Valid			
		SN3	0.821	Valid			
		SN4	0.824	Valid			

#### 4. Discriminant Validity

Discriminant validity denotes the extent to which a construct is empirically distinct from other constructs; high discriminant validity therefore provides evidence

that a construct is unique and captures phenomena not explained by alternative measures (Hair, Black, et al., 2019). Historically, the most widely used criterion in PLS-SEM was the Fornell–Larcker test, which compares the Average Variance Extracted (AVE) for two constructs with the squared correlation between them. More recently, however, the heterotrait–monotrait ratio (HTMT) has been recommended as the preferred procedure for assessing discriminant validity in PLS-SEM. HTMT estimates the correlation that would be observed between two constructs if they were measured without error, and the common rule of thumb is that HTMT values should remain below 0.90 for conceptually similar constructs; an HTMT exceeding 0.90 indicates a potential lack of discriminant validity (Hair, Black, et al., 2019).

**Tabel 3.**  
**Dicsriminant Validity Measurement**

	AT	BI	FL	PAS	PBC	PEC	RB,	SN
AT								
BI	0,689							
FL	0,430	0,643						
PAS	0,595	0,617	0,388					
PBC	0,654	0,728	0,426	0,681				
PEC	0,567	0,558	0,389	0,034	0,424			
RB	0,064	0,129	0,162	0,061	0,092	0,048		
SN	0,497	0,699	0,495	0,494	0,58	0,521	0,058	

## 5. Evaluation of Structural Models

According to (Hair, Black, et al., 2019), Variance inflation factor (VIF) is An indicator that reflects the influence of other independent variables on the standard error of a regression coefficient. VIF is commonly used to assess collinearity among formative indicators. Large VIF values indicate a high degree of collinearity or multicollinearity among the independent variables. VIF values of 5 or higher indicate problematic collinearity among the indicators of formatively measured constructs (Hair et al. 2019). According (Amora, 2023; Hair, Risher, et al., 2019) VIF values should be lower than 3 and lower.

**Tabel 4.**  
**Collinearity Statistics**

<b>Construct</b>	<b>VIF</b>	<b>Result</b>
AT -> BI	1.656	Non Collinearity
FL -> BI	1.341	Non Collinearity
PAS -> AT	1.000	Non Collinearity
PAS -> PBC	1.000	Non Collinearity
PAS -> SN	1.000	Non Collinearity
PBC -> BI	1.750	Non Collinearity
PEC -> AT	1.000	Non Collinearity
PEC -> PBC	1.000	Non Collinearity
PEC -> SN	1.000	Non Collinearity
RB. -> BI	1.049	Non Collinearity
SN -> BI	1.482	Non Collinearity

If no collinearity concerns are detected, the subsequent step is to evaluate the R<sup>2</sup> of the endogenous construct(s) to assess the model's explanatory power. The R<sup>2</sup> value represents the proportion of variance explained in each endogenous construct and thus serves as an indicator of the model's explanatory power (Shmueli & Koppius, 2010). As a guideline, R<sup>2</sup> values of 0.75, 0.50 and 0.25 can be considered substantial, moderate and weak (Hair, 2011; Henseler, 2009).

**Tabel 5.**  
**Coefficient of Determination R<sup>2</sup>**

<b>Construct</b>	<b>R-square</b>	<b>Result</b>
Attitude	0.497	Weak
Behavior Intention	0.635	Moderate
Perceived Behavior Control	0.468	Weak
Subjective Norms	0.348	Weak

According (Hair, Black, et al., 2019), the next step to evaluated structural models is effect size values. which reflects the extent to which a particular exogenous construct contributes to explaining the variance of an endogenous construct. In this context, the effect size is assessed by comparing the R<sup>2</sup> value of the endogenous construct when a specific predictor is included in the structural model with the R<sup>2</sup> value obtained when the predictor is excluded. The difference between these values indicates the extent to which the predictor contributes to the model's explanatory power. According to the

guidelines proposed by Cohen,  $f^2$  values of 0.02, 0.15, and 0.35 indicate small, medium, and large effects, respectively, while values below 0.02 suggest that the predictor has no meaningful effect on the endogenous construct.

**Tabel 6.**  
**Effect Size**

<b>Construct</b>	<b><math>f^2</math></b>	<b>Result</b>
AT -> BI	0.112	Small
FL -> BI	0.132	Small
PAS -> AT	0.517	Large
PAS -> PBC	0.636	Large
PAS -> SN	0.253	Medium
PBC -> BI	0.107	Small
PEC -> AT	0.457	Large
PEC -> PBC	0.227	Medium
PEC -> SN	0.263	Medium
RB. -> BI	0.010	Small
SN -> BI	0.114	Small

The next criterion to examine is blindfolding  $Q^2$  (Hair, Black, et al., 2019) Blindfolding in the context of Partial Least Squares Structural Equation Modeling (PLS-SEM) is an internal cross-validation procedure used to evaluate the predictive relevance of a structural model. This technique is implemented by systematically omitting a portion of the data points associated with the indicators of endogenous constructs, re-estimating the model parameters using the remaining data, and subsequently predicting the values of the omitted data points. The comparison between the predicted and the actual values provides an assessment of the model's predictive capability (Ringle et al., 2020). As a guideline,  $Q^2$  values greater than zero for a particular endogenous construct indicate that the path model has acceptable predictive accuracy for that construct, whereas values less than zero indicate a lack of predictive relevance (Hair, Black, et al., 2019).

**Tabel 7.**  
**Blindfolding Endogenous Variable**

	<b>SSO</b>	<b>SSE</b>	<b><math>Q^2</math></b>
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Attitude	2298	1550.304	0.325
Behavior Intention	1532	817.26	0.467
Perceived Behavior Control	1915	1318.552	0.311
Subjective Norms	1532	1188.785	0.224

Model fit was further assessed using the Standardized Root Mean Square Residual (SRMR) obtained from the saturated model. The analysis produced an SRMR value of 0.057, which is below the recommended threshold of 0.08 as suggested by (Henseler et al., 2015). This result indicates that the model demonstrates an acceptable level of fit. Moreover, the obtained value also satisfies the commonly accepted criteria proposed by (Hu & Bentler, 1999), which recommend that SRMR values should be below 0.10 or preferably below 0.08 to indicate a good model fit.

**Tabel 8.**  
**Model Fit Measurement**

Criteria	Saturated	Estimated
SRMR	0.044	0.057
d ULS	1.081	1.84
d G	0.481	0.504
Chi-square	1085.382	1096.841
NFI	0.858	0.856

## 6. Significance of Path Coefficients and Hypothesis Testing

The final criterion involves assessing the significance of the path coefficient and hypothesis testing. To test the hypotheses and the significance of the path coefficients, the bootstrapping procedure is applied. The bootstrapping procedure uses standard errors to compute the t-statistics and p-values of the path coefficients. In addition, the bias-corrected and accelerated confidence intervals are examined, where a path coefficient is considered significant at the 0.05 level if zero is not included within the 95 percent confidence interval. Table 9 Show that All hypothesized paths except the effect of risk behavior (RB) on behavioral intention (BI) were supported.

**Tabel 9.**  
**Hypothesis Testing**

	<b>Construct</b>	<b>Std Beta</b>	<b>Std Error</b>	<b>T statistics</b>	<b>P-Value</b>	<b>Result</b>
<i>Direct Effect</i>						
H <sub>1</sub>	PEC -> AT	0,477	0,034	14,205	0	<i>Supported</i>
H <sub>2</sub>	PEC -> PBC	0,347	0,038	9,035	0	<i>Supported</i>
H <sub>3</sub>	PEC -> SN	0,419	0,037	11,213	0	<i>Supported</i>
H <sub>4</sub>	PAS -> AT	0,509	0,034	15,058	0	<i>Supported</i>
H <sub>5</sub>	PAS -> PBC	0,582	0,033	17,902	0	<i>Supported</i>
H <sub>6</sub>	PAS -> SN	0,406	0,037	11,015	0	<i>Supported</i>
<i>Indirect Effect</i>						
H <sub>7</sub>	AT -> BI	0,260	0,044	5,854	0	<i>Supported</i>
H <sub>8</sub>	SN -> BI	0,250	0,037	6,681	0	<i>Supported</i>
H <sub>9</sub>	PBC -> BI	0,270	0,042	6,375	0	<i>Supported</i>
H <sub>10</sub>	RB, -> BI	0,063	0,034	1,871	0,061	<i>Not Supported</i>
H <sub>11</sub>	FL -> BI	0,251	0,036	6,927	0	<i>Supported</i>

The results of the structural model assessment using the bootstrapping procedure indicate that the majority of the proposed hypotheses were empirically supported. In general, perceived environmental concern (PEC) and perceived authority support (PAS) were found to exert positive and significant effects on attitude (AT), subjective norm (SN), and perceived behavioral control (PBC). These findings suggest that environmental awareness, together with support from governments and related institutions, plays a crucial role in shaping positive attitudes, strengthening social norms, and enhancing individuals' perceived capability to invest in green sukuk. The findings are consistent with previous studies conducted by (German et al., 2022; Lin et al., 2017; Nadlifatin et al., 2016; Timur et al., 2025) which emphasized the importance of environmental and institutional factors in fostering sustainable investment behavior.

Furthermore, attitude (AT), subjective norm (SN), perceived behavioral control (PBC), and financial literacy (FL) were also shown to have positive and significant influences on behavioral intention (BI). This indicates that positive attitudes toward

green sukuk, social support, self-perceived capability, and financial knowledge are important determinants of Generation Z’s intention to invest in green sukuk. These findings support earlier studies by (Bin-Nashwan et al., 2022; Hemdan & Zhang, 2024; Jain et al., 2023; Majid, 2024; Raza et al., 2020). In contrast, risk behavior (RB) did not demonstrate a significant effect on BI, suggesting that risk preference is not a primary determinant of Generation Z’s investment intention toward green sukuk. This finding implies that investment decisions related to green sukuk are more strongly driven by sustainability considerations and social values rather than purely by financial risk orientation.

## 7. Robustness Check

Following the recommendations of Sarstedt et al. (2020), this study assessed model robustness by examining nonlinearity because effect-size estimates can be distorted when relationships are nonlinear since both the magnitude and the level of the exogenous construct affect the observed effect (Hair et al., 2018). This procedure, also employed by Ghasemy et al. (2021) and Yusfiarto et al. (2022), tests whether a quadratic component contributes beyond the linear term. The absence of a significant quadratic effect.

**Tabel 10.**  
**Quadratic Effec**

Construct	Std Beta	P-values	F <sup>2</sup>	97.5%	2.5%
QE (PEC) -> AT	0.023	0.517	0.001	-0.045	0.094
QE (PEC) -> PBC	0.015	0.731	0.000	-0.066	0.100
QE (PEC) -> SN	-0.008	0.852	0.000	-0.089	0.077
QE (PAS) -> AT	0.046	0.25	0.004	-0.028	0.125
QE (PAS) -> PBC	0.020	0.605	0.001	-0.056	0.098
QE (PAS) -> SN	-0.029	0.507	0.001	-0.114	0.059
QE (AT) -> BI	0.011	0.754	0.000	-0.058	0.080
QE (SN) -> BI	-0.015	0.649	0.001	-0.075	0.054
QE (PBC) -> BI	-0.037	0.289	0.003	-0.105	0.030
QE (RB.) -> BI	0.014	0.592	0.001	-0.043	0.060
QE (FL) -> BI	0.017	0.614	0.001	-0.047	0.082

#### D. Conclusion

This study demonstrates that Generation Z's intention to invest in green sukuk as a sustainable Islamic investment instrument is shaped by psychological, environmental, institutional, and financial factors. Environmental concern, perceived authority support, attitude, subjective norm, perceived behavioral control, and financial literacy were found to significantly enhance behavioral intention toward green sukuk investment. In contrast, risk behavior did not emerge as a significant determinant of investment intention. These findings suggest that Generation Z's investment decisions are more strongly influenced by sustainability awareness, social and institutional support, and the ability to understand financial instruments rather than by risk-oriented considerations. Furthermore, perceived behavioral control and financial literacy were identified as the most influential factors driving investment intention, emphasizing the importance of investment accessibility and financial understanding in encouraging youth participation in Sharia-based sustainable investment. Accordingly, this study reinforces the relevance of the Pro-Environmental Planned Behavior framework and the Theory of Planned Behavior in explaining sustainable investment behavior among Generation Z.

The practical implications of this study indicate that efforts to increase Generation Z participation in green sukuk investment should prioritize strengthening Islamic financial literacy and expanding education on sustainable investment. Governments, Islamic financial institutions, and educational organizations need to intensify public outreach regarding the economic, social, and environmental benefits of green sukuk through digital platforms that align with the characteristics of Generation Z. In addition, providing investment mechanisms that are more accessible, inclusive, and user-friendly is essential to enhance individuals' perceived behavioral control toward green sukuk investment. Strengthening regulatory frameworks and institutional support is also necessary to foster greater trust among younger generations in sustainable Islamic financial instruments. Future studies are recommended to extend the

research model by incorporating additional variables, such as religiosity, digital financial behavior, or green awareness, while also broadening the respondent coverage to provide a more comprehensive understanding of green sukuk investment behavior in Indonesia.

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#### E. Bibliography

- Abdullah Norhayati, & Nayan Masri Azrul. (2020). Green Sukuk: Financing The Future To Sustainable Environment. *Issues*, (2), 2672–7471.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Amora, J. T. (2023). On the validity assessment of formative measurement models in PLS-SEM. In *Analysis Perspectives Journal* (Vol. 4, Number 2). <https://www.scriptwarp.com>,
- Bareksa. (2021). *Terjual Rp5 Triliun, Ini 9 Capaian Green Sukuk Ritel ST008*.
- Bareksa. (2025). *ST014 Tenor 4 Tahun akan Jadi Green Sukuk, Ini Penjelasan & Dampaknya ke Lingkungan*.
- Bin-Nashwan, S. A., Muneeza, A., & Kunhibava, S. (2022). What motivates retail investors to invest in government-issued digital sukuk during COVID-19? *Journal of Islamic Accounting and Business Research*, 13(3), 393–424. <https://doi.org/10.1108/JIABR-12-2020-0387>
- German, J. D., Redi, A. A. N. P., Prasetyo, Y. T., Persada, S. F., Ong, A. K. S., Young, M. N., & Nadlifatin, R. (2022). Choosing a package carrier during COVID-19 pandemic: An integration of pro-environmental planned behavior (PEPB) theory and service quality (SERVQUAL). *Journal of Cleaner Production*, 346. <https://doi.org/10.1016/j.jclepro.2022.131123>
- Ghasemy, M., Muhammad, F., Jamali, J., & Roldán, J. L. (2021). Satisfaction and Performance of the International Faculty: To What Extent Emotional Reactions and Conflict Matter? *SAGE Open*, 11(3). <https://doi.org/10.1177/21582440211030598>

- Hair, J. F. (2011). *PLS-SEM\_Indeed\_a\_silver\_bullet*.
- Hair, J. F. ., Sarstedt, Marko., Ringle, C. M. ., & Gudergan, Siegfried. (2018). *Advanced issues in partial least squares structural equation modeling*. Sage.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate Data Analysis Eighth Edition*. [www.cengage.com/highered](http://www.cengage.com/highered)
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. In *European Business Review* (Vol. 31, Number 1, pp. 2–24). Emerald Group Publishing Ltd. <https://doi.org/10.1108/EBR-11-2018-0203>
- Hemdan, W., & Zhang, J. (2024). Investors' intention toward green investment: an extension of the theory of planned behavior. *International Journal of Emerging Markets*. <https://doi.org/10.1108/IJOEM-06-2023-0874>
- Henseler, J. (2009). *The\_Use\_of\_Partial\_Least\_Squares\_Path\_Modeling\_in\_*.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6(1), 1–55. <https://doi.org/10.1080/10705519909540118>
- IPCC. (2018). *The IPCC Report Will Have Profound Effects on Climate Governance*.
- Jain, R., Sharma, D., Behl, A., & Tiwari, A. K. (2023). Investor personality as a predictor of investment intention – mediating role of overconfidence bias and financial literacy. *International Journal of Emerging Markets*, 18(12), 5680–5706. <https://doi.org/10.1108/IJOEM-12-2021-1885>
- Kustodian Sentral Efek Indonesia. (2026). *Statistik Pasar Modal Indonesia*.
- Kyriazos, T. A. (2018). Applied Psychometrics: Sample Size and Sample Power Considerations in Factor Analysis (EFA, CFA) and SEM in General. *Psychology*, 09(08), 2207–2230. <https://doi.org/10.4236/psych.2018.98126>
- Lin, S. C., Nadlifatin, R., Amna, A. R., Persada, S. F., & Razif, M. (2017). Investigating citizen behavior intention on mandatory and voluntary pro-

environmental programs through a pro-environmental planned behavior model. *Sustainability (Switzerland)*, 9(7). <https://doi.org/10.3390/su9071289>

M Iqbal Affandi, & Farida Rahmawati. (2023). Do Determinants of Behaviors Influence the Intention to Invest in Green Sukuk? *Jurnal Ekonomi Syariah Teori Dan Terapan*, 10(4), 403–414. <https://doi.org/10.20473/vol10iss20234pp403-414>

Ma, M., Ruhaini Muda, in, Syahirah Amin Husni Sharifah Faigah Syed Alwi Faridah Hassan Arshad Ayub Graduate Business School, N., Teknologi Mara, U., & Alam Campus, S. (2019). Determinants Of Behavioural Intention Towards Green Investments: The Perspectives Of Muslims \*Ismah Osman (Corresponding author). In *International Journal of Islamic Business* (Number 1).

Majid, R. (2024). What drives prospective investors to support small and medium enterprises via Islamic securities crowdfunding? An empirical evidence from Indonesia. *Journal of Islamic Marketing*, 15(11), 3174–3194. <https://doi.org/10.1108/JIMA-11-2023-0375>

Majid, R., & Nugraha, R. A. (2022). Crowdfunding And Islamic Securities: The Role Of Financial Literacy. *Journal of Islamic Monetary Economics and Finance*, 8(1), 89–112. <https://doi.org/10.21098/jimf.v8i1.1420>

Mohammed Obaidullah. (2018). *Managing Climate Change: Role of Islamic Finance*.

Nadlifatin, R., Lin, S. C., Rachmaniati, Y. P., Persada, S. F., & Razif, M. (2016). A pro-environmental reasoned action model for measuring citizens' intentions regarding ecolabel product usage. *Sustainability (Switzerland)*, 8(11). <https://doi.org/10.3390/su8111165>

Parzonko, A. J., Balińska, A., & Sieczko, A. (2021). Pro-environmental behaviors of generation z in the context of the concept of homo socio-oeconomicus. *Energies*, 14(6). <https://doi.org/10.3390/en14061597>

Persada Satria Fadil. (2016). "Pro Environmental Planned Behavior Model to Explore the Citizens' Participation Intention in Environmental Impact Assessment: An Evidence Case in Indonesia."

Raza, S. A., Ahmed, R., Ali, M., & Qureshi, M. A. (2020). Influential factors of Islamic insurance adoption: an extension of theory of planned behavior. *Journal of Islamic Marketing*, 11(6), 1497–1515. <https://doi.org/10.1108/JIMA-03-2019-0047>

- Ringle, C. M., Sarstedt, M., Mitchell, R., & Gudergan, S. P. (2020). Partial least squares structural equation modeling in HRM research. *International Journal of Human Resource Management*, 31(12), 1617–1643. <https://doi.org/10.1080/09585192.2017.1416655>
- Sarstedt, M., Ringle, C. M., Cheah, J. H., Ting, H., Moisescu, O. I., & Radomir, L. (2020). Structural model robustness checks in PLS-SEM. *Tourism Economics*, 26(4), 531–554. <https://doi.org/10.1177/1354816618823921>
- Shmueli, G., & Koppius, O. (2010). *Predictive Analytics in Information Systems Research Predictive Analytics in Information Systems Research Predictive Analytics in Information Systems Research*.
- Singer, M. F., Callendar, C. L., Ma, X., & Tham, S. M. (2023). Differences in perceived influencer authenticity: A comparison of Gen Z and Millennials' definitions of influencer authenticity during the de-influencer movement. *Online Media and Global Communication*, 2(3), 351–378. <https://doi.org/10.1515/omgc-2023-0038>
- Suborna Barua, & Micol Chiesa. (2019). *Sustainable financing practices through green bonds: What affects the funding size?*
- Timur, Y. P., Ridlwan, A. A., Rahim, S. A., Fikriyah, K., Susilowati, F. D., Canggih, C., Nurafini, F., & Badrul Munir, M. B. (2025). Determinants of Muslim investors in investing through green sukuk retail: an extended pro-environmental planned behavior approach. *Journal of Islamic Marketing*. <https://doi.org/10.1108/JIMA-07-2024-0286>
- Unfccc. (2015). *Report of the Conference of the Parties on its twenty-first session, held in Paris from 30 November to 11 December 2015. Part one: Proceedings*.
- UNITED NATION INDONESIA. (2025). *Pembiayaan Berbasis Iman: Indonesia Tempuh Jalur Inovatif untuk Pembangunan Berkelanjutan*.
- United Nations. (2023). *Climate Change*.
- World Population Review. (2026). *Muslim Population by Country 2026*.
- Yee, C. H., Al-Mulali, U., Goh, &, & Ling, M. (2021). *Intention towards renewable energy investments in Malaysia: extending theory of planned behaviour*. <https://doi.org/10.1007/s11356-021-15737-x/Published>

Yusfiarto, R., Pambekti, G. T., Setiawan, A., Khoirunnisa, A. N., & Nugraha, S. S. (2022). Does Islamic Social Capital Enhance Smes Sustainable Performance? *Journal of Islamic Monetary Economics and Finance*, 8(1), 113–132. <https://doi.org/10.21098/jimf.v8i1.1398>

Zhiyong Li, Ying Tang, Jingya Wu, Junfeng Zhang, & Qi Lv. (2020). *The Interest Costs of Green Bonds: Credit Ratings, Corporate Social Responsibility, and Certification.*