



## Islamic Moral Values and Sukuk Investment Intentions: A TPB-Based Behavioral Study with Mediating and Moderating Variables

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### Abstract

*This study investigates sukuk investment behavior through the lens of the Theory of Planned Behavior (TPB), integrating Islamic ethical principles to understand the factors influencing individuals' intentions to invest in sukuk. The research first examines the impact of Islamic moral values on Empathy, while assessing the mediating roles of internal behavioral control (IBC), and external behavioral control (EBC). At the same time the onwards effect of empathy on investment intentions (niyyah) was established. Employing an Islamic behavioral framework, the study delves into how these psychological constructs shape ethical investment behavior. Subsequently, it explores the moderating effects of market-related factors—sukuk pricing, rating, and ulama influence—on the relationship between these behavioral variables and investment intentions. Data were collected from 700 clients across Meezan Bank and other institutions in the Islamic banking sector. Using Partial Least Squares Structural Equation Modeling (SmartPLS), the findings reveal that Islamic moral values, empathy, IBC, and EBC significantly drive sukuk investment intentions. Empathy and behavioral control serve as key mediators in the relationship between Islamic values and investment behavior. Among the moderating factors, ulama pressure and sukuk pricing notably strengthen the ethical and financial appeal of sukuk investments, whereas sukuk ratings demonstrate a relatively weak influence, possibly due to limited awareness or skepticism regarding rating credibility. The study contributes to the understanding of ethical investment behavior in Islamic finance and offers strategic implications for promoting sukuk through moral, behavioral, and market-based interventions.*

**Keywords:** Sukuk, Theory of Planned Behavior, Islamic Moral Values, Niyyah, Empathy, Internal Behavioral Control, External Behavioral Control



## Introduction

Islam presents itself as a holistic and comprehensive framework for living, influencing both individual conduct and broader societal norms across global contexts (Damak, 2022; Rassool, 2021; Ashraf, 2019). Its worldview encompasses not just religious obligations but also economic, social, psychological, philosophical, and scientific domains (Rassool, 2021). At the heart of this worldview lies the regulation of human behavior and decision-making, rooted in the ethical teachings of the Qur'an and Hadith—the two central sources of Islamic jurisprudence and guidance (Ashraf, 2019).

For devout Muslims, decision-making is deeply spiritual, guided by the understanding of accountability before Allah in the hereafter (Sherif, 2017). This faith-based approach impacts various life choices, including financial behavior. Financial institutions now face the challenge of presenting Islamic financial products like sukuk in a way that aligns with the familiar structures of conventional finance to enhance investor confidence. Most innovations in sukuk lie within the legal framework to ensure Shariah compliance, with minimal developments in financial structuring (Wilson, 2008). This study draws on the Theory of Planned Behavior (Ajzen, 1991) and seeks to contextualize it within Islamic finance to better understand investment behavior in sukuk markets.

### Background of the Study

Sukuk—Islamic financial certificates akin to bonds—are designed to comply with Shariah by avoiding interest (*riba*) and instead promoting ethical, asset-backed, and risk-sharing principles (Iqbal & Mirakhor, 2007). Unlike conventional bonds, which provide periodic interest payments and return the principal at maturity (Le, Nguyen & Nguyen, 2015), sukuk generate returns based on the performance of underlying assets (Smaoui & Khawaja, 2017). Investors gain ownership stakes and are entitled to the revenue generated, with the issuer agreeing to repurchase the sukuk at a specified future date (Said & Grassa, 2013; Smaoui, Mimouni & Temimi, 2017). Despite its increasing global presence, sukuk adoption remains limited in countries like Pakistan. Introduced in 2002, sukuk has yet to gain widespread recognition among Pakistani investors (Khan & Bhatti, 2008). Many remain uninformed about its structure and how it conforms to Islamic ethics, due in part to inadequate financial literacy initiatives and persistent misconceptions that equate sukuk too closely with conventional bonds (Saeed, 2016).

Existing literature indicates a research gap regarding how Islamic moral values such as fairness and justice influence sukuk investment decisions in Pakistan (Hasan, 2017). Moreover, the impact of psychological variables—such as empathy, self-efficacy, and perceived behavioral control—on sukuk investment has not been sufficiently explored. Similarly, external determinants like sukuk pricing, credit ratings, and the influence of religious scholars (*‘ulama*) are crucial but under-researched factors affecting investment behavior (Saeed, 2016). Given the significant role that religious leaders play in shaping financial attitudes in Pakistan, their influence is particularly worth examining.

The Theory of Planned Behavior (Ajzen, 1991) provides a useful lens for understanding how beliefs, perceived social norms, and behavioral control shape investment intentions. While TPB



has been widely applied in behavioral finance, its adaptation within an Islamic framework remains limited. This study seeks to integrate religious values and external influences—such as ulama endorsements, sukuk pricing, and rating—into the TPB framework to understand sukuk investment intentions among Pakistani investors more effectively.

Additionally, the sukuk market faces a technical challenge: returns are often benchmarked against interest-based standards like LIBOR, which raises concerns among Shariah scholars regarding riba compliance (Kantakji, 2012; Usmani, 2002). Nonetheless, the demand for sukuk is rising globally. According to World Bank data, demand grew from 53.6% in 2017 to 78.5% in 2021, with sukuk issuance increasing from USD 115 billion in 2017 to USD 129 billion in 2020 (World Bank, 2018).

### **Problem Statement**

Despite the rapid global expansion of Islamic finance, Pakistan continues to witness low levels of awareness and participation in sukuk investment. A significant portion of the population remains unfamiliar with the structural and Shariah-compliant nature of sukuk, limiting its adoption as a viable alternative to conventional financial instruments (Saeed, 2016; Khan & Bhatti, 2008). This informational gap deprives individuals of opportunities for ethical investment that align with Islamic values, such as fairness, transparency, and risk-sharing (Iqbal & Mirakhor, 2007; Hasan, 2017). Furthermore, the psychological and behavioral determinants of sukuk investment—such as empathy, internal and external behavioral control, and perceived influence of religious authorities (‘ulama)—have been insufficiently examined in existing literature (Ashraf, 2019; Sherif, 2017; Rassool, 2021). These factors may play a critical role in shaping individuals’ intention (niyyah) to invest in sukuk, especially in socio-religious contexts like Pakistan.

Additionally, external variables such as sukuk pricing, rating credibility, and religious endorsements may significantly moderate the impact of Islamic moral values on investment behavior. However, the interaction of these external and psychological factors remains largely unexplored (Usmani, 2002; Kantakji, 2012; Smaoui & Khawaja, 2017). This lack of integrated behavioral insight limits the formulation of effective strategies, financial policies, and educational campaigns to enhance sukuk adoption in Pakistan.

### **Literature Review**

Islamic moral values play a crucial role in shaping ethical investment frameworks like sukuk. According to Ahmad and Rahman (2023), these values, justice, fairness, and transparency—are central to the design, issuance, and regulation of sukuk, distinguishing them from traditional bonds. The study highlights how such values not only enhance investor confidence but also provide a guiding framework for ensuring that investment activities align with Islamic ethical principles. This alignment fosters the view of sukuk as a socially responsible and spiritually guided investment instrument.

Sukuk is deeply rooted in Islamic moral teachings, which prohibit interest (Riba) and promote asset-backed, risk-sharing contracts. Yusuf and Karim (2022) note that sukuk are grounded in principles of fairness, transparency, and shared responsibility. These ethical principles reflect the Quranic teachings on justice, especially in economic transactions. Rahim and Abdullah (2023)



emphasize that sukuk help in the fair distribution of wealth and support social welfare, reflecting key elements of Islamic moral thought. Additionally, Mahmood et al. (2023) argue that sukuk counter speculative practices, prioritizing ethical investment and thus contributing to a more responsible financial environment. Bilal and Khan (2022) further explore how Islamic moral values influence investor behavior, stressing the importance of avoiding haram (forbidden) elements such as gambling (maysir) and excessive speculation in sukuk. These moral guidelines not only direct individual investment choices but also promote collective societal benefit by advancing social justice and fair wealth distribution. Alim and Siddiqi (2023) also argue that sukuk embody a broader sense of ethical responsibility, as they channel investments into projects that foster sustainable development. This includes initiatives such as green sukuk, which reflect a moral obligation to future generations, ensuring that investments contribute to both economic and environmental well-being.

Nabila and Rahim (2021) suggest that empathetic investors are more likely to choose financial products with positive social outcomes. Their research shows that sukuk, grounded in ethics and social justice, naturally appeal to individuals with higher empathy, as these instruments reflect values such as fairness and community welfare.

Zulfiqar et al. (2023) highlight that green sukuk embody concern for future generations by funding renewable energy and conservation initiatives. Similarly, Abdullah et al. (2023) note sukuk's role in promoting financial inclusion by supporting underprivileged communities. Khalid and Yusuf (2023) describe retail sukuk as tools for democratizing Islamic finance, offering broader access to ethical investment options. Hussain et al. (2022) explain that empathy fosters trust and encourages long-term commitment to financial products like sukuk. Syed and Ahmed (2022) reinforce that socially conscious investors prefer sukuk for their alignment with sustainability and moral responsibility.

Latif and Hamid (2021) find that investors with strong self-efficacy and personal capability—elements of internal behavioral control—are more inclined to invest in sukuk due to their asset-backed and stable nature. These psychological strengths promote responsible financial choices, especially under uncertainty. Hussain and Ahmed (2022) support this view, stating that sukuk's structural security enhances investor confidence. Ahmad and Rahman (2023) further observe that sukuk's performance during volatile periods reassures investors. Ali and Hassan (2023) assert that sukuk's consistent returns and low risk boost self-efficacy. Zafar and Javed (2023) add that a clear understanding of sukuk's ethical framework improves internal control, while Rashid and Tariq (2023) argue that sukuk's transparency and predictability empower investors to make informed decisions. Hussain and Ahmed (2022) also examine how external conditions—like regulatory support, institutional availability, and educational outreach—affect investment behavior. Strong external systems reduce procedural challenges and increase investor confidence. External behavioral control is shaped by economic, legal, and institutional factors that influence the ease of executing investment decisions.

Samira and Bashir (2021) identify that sukuk pricing is influenced by perceived Shariah compliance, regulatory expenses, and market demand. Omar and Ismail (2023) explain that



macroeconomic factors like inflation and interest rates also impact sukuk pricing and accessibility. Zulfiqar and Ismail (2023) add that global events such as oil price changes affect sukuk performance. Kareem and Latif (2023) emphasize that government support and regulatory structures enhance investor trust, while Raza and Siddiqui (2023) stress the importance of financial literacy in promoting informed sukuk investments.

Yusuf and Karim (2022) demonstrate that religious endorsements by ulama significantly affect Muslim investors, encouraging alignment with Islamic principles. Nabila and Rahim (2021) note that Shariah certification from credible scholars creates a moral obligation to favor sukuk. Rahman and Yusuf (2023) highlight the impact of varying scholarly opinions across regions, which can create regulatory inconsistencies. Hamid and Salim (2022) assert that unified Shariah councils boost investor confidence, while Tariq and Bashir (2023) explain that religious leaders' influence often leads to collective investor behavior in favor of sukuk.

Sukuk pricing is significantly influenced by ethical considerations and adherence to Shariah principles. Samira and Bashir (2021) argue that asset-backing and moral screening often increase issuance costs, but this is offset by enhanced transparency and long-term investor confidence. Omar and Ismail (2023) highlight macroeconomic factors such as inflation, asset quality, and investor sentiment as additional determinants of sukuk yields. Zulfiqar and Ismail (2023) note that global dynamics, including oil prices and geopolitical events, also shape pricing outcomes. Latif and Hamid (2021) emphasize the importance of issuer credibility and the reputation of the Shariah supervisory board in influencing the risk premium associated with sukuk. Hussain and Ahmed (2022) further observe that growing investor demand for green and socially responsible sukuk introduces sustainability considerations into pricing mechanisms. Complementing these perspectives, Rahman and Kareem (2023) suggest that investors guided by Islamic moral values are more willing to accept slightly higher costs for the assurance that their investments are ethically sound and Shariah-compliant, reinforcing the moral dimension in pricing decisions.

Zafar and Imran (2023) argue that sukuk ratings—based on Shariah compliance and asset quality—significantly impact investor confidence. Omar et al. (2023) show that higher ratings attract global investors and reduce capital costs. Hassan and Malik (2023) distinguish between sovereign and corporate sukuk, advocating for rating standardization. Latif and Hamid (2021) stress that ratings should assess both financial and ethical dimensions. Hussain and Ahmed (2022) mention that ESG factors increasingly influence ratings for green sukuk.

Ameen and Zain (2020) explain that *niyyah*, or investment intention, is shaped by ethical, moral, and religious motives. Investors with faith-based values prefer sukuk for their Shariah compliance and social responsibility. Latif and Hamid (2021) find that sukuk's resilience during crises supports ethical investment commitment. Yusof and Karim (2023) argue that sukuk offer both financial return and spiritual value. Khan and Malik (2023) observe increased sovereign sukuk investment during post-COVID recovery, as investors sought morally grounded instruments. Rahman and Yusuf (2023) note that transparency and religious oversight strengthen *niyyah*, while



Hassan and Malik (2023) point out that ESG-compliant sukuk attract both faith-driven and socially responsible investors.

### Research Methodology

This study utilizes Smart PLS-4 SEM (Structural Equation Modeling) as the primary statistical inference technique due to its capability to examine complex relationships among latent variables, evaluate mediating and moderating effects, and accommodate non-normal data distributions. Given the study's objective of assessing the impact of Islamic moral values on *niyyah* in sukuk investments, PLS-SEM is chosen over CB-SEM for its effectiveness in exploratory research and predictive modeling.

With a sample of 700 respondents, selected through non-probability random sampling, PLS-SEM enhances statistical accuracy in estimating path relationships. The bootstrapping method was employed to generate confidence intervals and standard errors, ensuring robustness in hypothesis testing. The analysis encompassed validity and reliability assessments (Cronbach's Alpha, Composite Reliability, AVE), measurement model validation, and structural model evaluation (path coefficients,  $R^2$  values, effect sizes, and model fit indices). The adoption of Smart PLS-4 SEM ensures a methodologically sound, predictive, and reliable analytical approach, reinforcing the study's theoretical significance and practical contributions to Islamic finance and ethical investment decision-making.

### Research Design

This study utilizes Structural Equation Modeling (SEM) through SmartPLS 4 to investigate the mediating and moderating roles between Islamic moral values, *niyyah* (investment intention), and associated constructs. It explores both direct and indirect effects to uncover the psychological, ethical, and contextual drivers of sukuk investment behavior. The findings are presented using path coefficients, hypothesis testing, and measurement reliability indicators such as Cronbach's Alpha, Composite Reliability, and Average Variance Extracted (AVE), with visual aids like tables and structural diagrams enhancing interpretation.

PLS-SEM is an appropriate methodological choice due to its strength in handling complex models with latent variables, particularly in exploratory research contexts such as Islamic finance. Data collection involved a structured Likert-scale questionnaire. A purposive non-probability sampling technique was used to ensure participation from professionals with relevant experience in sukuk investments. While this approach may not allow for broad statistical generalization, it enhances the depth and applicability of findings by focusing on informed, context-specific insights aligned with the research aims. We aimed to get the answers mainly from Islamic banks' participants and corporate sectors for the sake of

### Method of data collection

A quantitative data collection method was employed in this research, utilizing structured surveys to gather responses. The data was collected through close-ended questions based on a Likert scale, ensuring standardized responses for statistical analysis. A personal survey approach was adopted, targeting 700 respondents, primarily employees from Meezan Bank and other professionals with



expertise in Islamic bonds (sukuk). This method ensured accuracy, consistency, and reliability in capturing insights relevant to the study.

### **Sampling Technique**

An unrestricted non-probability sampling technique was utilized to select respondents for this study. Participants were chosen randomly from various departments of Meezan Bank and other professionals with expertise in Islamic bonds (sukuk). This approach allowed for the inclusion of relevant industry experts, ensuring diverse perspectives while maintaining the study's practical relevance in the field of Islamic finance.

### **Sampling size**

The study is based on a sample of 700 respondents, primarily employees from Meezan Bank and other professionals with expertise in Islamic bonds (sukuk). Data was collected through an online survey to ensure broad participation and accessibility. A purposive sampling technique was employed, enabling the selection of knowledgeable respondents from the targeted population. This approach facilitated direct engagement with industry experts, ensuring the collection of relevant and insightful data aligned with the study's objectives, thereby enhancing the validity and applicability of the research findings.

### **Model assessment using partial least Square-SEM**

The model was assessed using Partial Least Squares-Structural Equation Modeling (PLS-SEM), a widely recognized method in business and marketing research for analyzing complex models with multiple latent variables. This technique is particularly suited for exploratory studies, as it effectively examines causal relationships while accommodating non-normal data distributions and varying sample sizes.

To test the hypotheses, a bootstrapping procedure with 5,000 resamples was employed, ensuring the reliability of path loading significance. This method enhances result accuracy by generating confidence intervals and estimating standard errors, leading to precise statistical inferences. Additionally, the PLS-SEM assessment involved model fit evaluation, reliability tests (Cronbach's Alpha, Composite Reliability), and validity checks (AVE, HTMT), thereby reinforcing the study's methodological robustness.

### **Ensuring Measurement Accuracy: Reliability and Validity Testing Methods in Research Instruments**

Reliability and validity testing are essential for ensuring research instruments measure constructs accurately and consistently in Smart PLS 4. Reliability checks the consistency of indicators, with Composite Reliability preferred over Cronbach's Alpha for its consideration of indicator loadings. Outer loadings assess how well each item represents its construct, with weak items often removed to improve reliability. Validity ensures the instrument measures what it intends. Convergent validity, measured by Average Variance Extracted (AVE), confirms indicators relate well to the same construct. Discriminant validity ensures constructs are distinct, tested using the Fornell-Larcker Criterion and the HTMT ratio. Bootstrapping, a resampling method, and evaluates the significance and stability of model estimates, adding confidence to the results. Together, these tests



guarantee that the measurement model in Smart PLS 4 is reliable, valid, and statistically sound, enhancing research credibility.

### Results and Discussion

The study surveyed 700 participants with no missing data. Males made up 60.7% (425), and females 39.3% (275). Most were young professionals: 303 aged 26-30, 189 aged 21-25, and fewer in older age groups. Regarding experience, 292 had 2-5 years, 236 less than a year, 146 between 5-10 years, and 26 over 10 years. Most respondents were unmarried (445) versus married (255). Educationally, 291 held graduate degrees, 240 bachelor's, 99 masters, and 70 had other qualifications like diplomas. This diverse sample across age, experience, marital status, and education provides a solid basis for analysis and meaningful insights.

Table 1  
Descriptive Analysis

Variable	Questions	Outer loading	Mean (M)	Standard deviation	T stats	p-value
EMP1	Seeing unfairness and Pity for others influences my Sukuk investments.	0.790	0.789	0.015	54.089	0.000
EMP2	I buy Sukuk to help less fortunate people.	0.799	0.799	0.015	53.038	0.000
EMP3	Feeling sorry for others affects my interest in Sukuk	0.819	0.819	0.014	58.467	0.000
EMP4	Seeing unfairness and Pity for others influences my Sukuk investments.	0.821	0.821	0.013	63.618	0.000
EBC1	Regulatory authorities would facilitate my Sukuk investment.	0.727	0.733	0.051	14.313	0.000
EBC2	I could easily find financial institutions to support my Sukuk investment.	0.800	0.801	0.014	55.400	0.000
EBC3	I could obtain the necessary resources to engage in Sukuk investments.	0.801	0.801	0.015	54.078	0.000
EBC4	External factors like policies or market demand would not hinder my Sukuk investment.	0.775	0.774	0.018	43.590	0.000
IBC1	I can contribute to societal challenges by purchasing sukuk.	0.824	0.824	0.012	69.566	0.000
IBC2	I can support societal solutions through sukuk investments.	0.813	0.812	0.015	53.714	0.000
IBC3	Sukuk investments help address societal solutions.	0.818	0.818	0.014	57.487	0.000
IMV1	Islam encourages helping the less fortunate through sukuk.	0.758	0.757	0.020	38.520	0.000





<b>IMV2</b>	Islamic justice promotes investing in sukuk to aid those in need.	0.799	0.799	0.016	49.057	0.000
<b>IMV3</b>	Sukuk investments are a way to fulfill my religious duty to contribute to the wellbeing of society.	0.817	0.817	0.015	55.993	0.000
<b>IMV4</b>	I believe purchasing sukuk reflects my commitment to ethical and responsible investing, as encouraged by Islam	0.768	0.767	0.018	41.742	0.000
<b>NY1</b>	I like to purchase sukus.	0.499	0.499	0.029	16.988	0.000
<b>NY2</b>	Purchasing sukus is a wise decision.	0.820	0.819	0.017	49.240	0.000
<b>NY3</b>	Buying sukus would be enjoyable for me.	0.841	0.841	0.010	80.623	0.000
<b>NY4</b>	Purchasing sukus is a good idea.	0.783	0.782	0.014	56.134	0.000
<b>P1</b>	The pricing format affects my decision to invest in sukuk.	0.641	0.566	0.270	2.374	0.018
<b>P2</b>	A lower price on sukuk increases my willingness to invest.	0.857	0.786	0.199	4.306	0.000
<b>P3</b>	Sukuk offers that include a gift or bonus attract me to invest more	0.822	0.757	0.194	4.245	0.000
<b>PFU1</b>	Recommendations from scholars influence my intention to purchase sukuk.	0.886	0.885	0.010	88.782	0.000
<b>PFU2</b>	The views of scholars shape my decisions about sukuk investments and I am motivated to invest in sukuk when ulama advocate for them.	0.868	0.868	0.014	63.940	0.000
<b>R1</b>	I prefer asset-backed sukuk over asset-based sukuk and The credit rating of sukuk influences my investment decisions.	0.495	0.427	0.256	1.934	0.053
<b>R2</b>	I perceive sukuk as more legitimate than conventional bonds.	0.683	0.611	0.201	3.400	0.001
<b>R3</b>	Shariah compliance is important to me when purchasing sukuk.	0.755	0.688	0.173	4.351	0.000
<b>R4</b>	I consider the risk of investing in sukuk to be lower than other investment options.	0.875	0.812	0.163	5.378	0.000

The results indicate that empathy strongly influences investment decisions in sukuk, with indicators showing high consistency and significance. Participants feel emotionally connected, which motivates their investment behavior. External behavioral control is also important, as respondents recognize the support from policies and financial institutions that facilitate sukuk investment. Internal behavioral control demonstrates that individuals feel confident and capable of



making investments that contribute to social good. Islamic moral values are highly regarded, showing that many view sukuk investment as a reflection of their faith and ethical beliefs.

The intention to invest in sukuk is generally strong, although one indicator showed weaker performance, suggesting some measurement issues. Opinions on sukuk pricing are varied, with some indicators showing significance but others less so, indicating mixed views on the role of price in investment choices. The influence of religious scholars is a major factor, with strong agreement that their guidance significantly shapes investment decisions. Sukuk rating mostly has positive effects, though one indicator's weak loading points to a need for better understanding among investors regarding sukuk types.

In conclusion, the findings highlight that emotional, moral, and religious factors play a crucial role in shaping sukuk investment intentions, while pricing and rating factors have a less consistent impact. This reinforces the importance of ethical and faith-based motivations in Islamic finance investment decisions.

Table 2

Construct reliability and validity

	<b>Cronbach's alpha</b>	<b>Composite reliability (rho_a)</b>	<b>Composite reliability (rho_c)</b>	<b>Average variance extracted (AVE)</b>
<b>EBC</b>	0.780	0.783	0.858	0.603
<b>IBC</b>	0.754	0.754	0.859	0.670
<b>IMV</b>	0.793	0.793	0.866	0.617
<b>Pricing</b>	0.700	0.751	0.820	0.607
<b>Rating</b>	0.725	0.833	0.801	0.512
<b>Ulama</b>	0.700	0.702	0.870	0.769
<b>empathy</b>	0.822	0.823	0.882	0.652
<b>niyyah</b>	0.731	0.778	0.831	0.560

The results indicate strong internal consistency and reliability across all constructs. Cronbach's alpha values exceed the 0.70 threshold for each variable, confirming internal reliability. Composite reliability (rho\_c) values are all above 0.80, demonstrating that the indicators consistently measure their respective constructs. The values of average variance extracted (AVE) also mostly surpass 0.60, showing that each construct explains more than half of the variance in its indicators.

Empathy exhibits the highest internal reliability and convergent validity, reflecting a stable construct. Ulama influence stands out with the highest AVE (0.769), signifying that respondents view scholars' guidance as a highly cohesive and powerful influence on their investment intentions. External and internal behavioral control, Islamic moral values, and pricing also meet the necessary thresholds, reflecting their robustness and clarity in respondents' perceptions. Although the rating construct shows a slightly lower AVE (0.512), it remains within the acceptable range, indicating moderate convergent validity. Overall, the results confirm that all latent



constructs used in the study are statistically sound and effectively represent the underlying theoretical concepts.

Table 3  
Collinearity statistics (VIF) – Inner model – List

Concept	Item	Factor loading	VIF
Empathy	EMP1	0.790	1.403
	EMP2	0.799	1.603
	EMP3	0.819	1.675
	EMP4	0.821	1.515
External behavioral control	EBC1	0.727	1.672
	EBC2	0.800	1.707
	EBC3	0.801	1.795
	EBC4	0.775	1.791
Internal behavioral control	IBC1	0.824	1.502
	IBC2	0.813	1.518
	IBC3	0.818	1.518
Islamic moral value	IMV1	0.758	1.468
	IMV2	0.799	1.640
	IMV3	0.817	1.759
	IMV4	0.768	1.548
Niyyah	NY1	0.499	1.192
	NY2	0.820	1.783
	NY3	0.841	1.798
	NY4	0.783	1.442
Pricing	P1	0.641	1.371
	P2	0.857	1.478
	P3	0.822	1.301
Subjective pressure from ulama	PFU1	0.886	1.409
	PFU2	0.868	1.409
Rating	R1	0.495	1.294
	R2	0.683	1.389
	R3	0.755	1.440
	R4	0.875	1.367

The factor loadings confirm strong convergent validity, with empathy, internal and external behavioral control, and Islamic moral values showing high loadings (above 0.75), indicating clear alignment between observed items and latent constructs. Niyyah indicators are strong, though NY1 (0.499) reflects poor alignment and may require revision. Pricing loadings (0.641–0.857) suggest



moderate consistency, while rating items vary, with R1 (0.495) indicating low relevance and R4 (0.875) reflecting high sensitivity to risk and Shariah compliance. Ulama pressure items load above 0.90, confirming strong influence of religious authority. VIF values (1.192–1.798) show no multicollinearity issues, validating the model’s reliability. Overall, the measurement model is statistically robust, conceptually consistent, and provides a solid base for structural analysis.

Table 4  
Path coefficient – Mean, STDEV, T values, p values

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ( O/STDEV )	P values
<b>EBC -&gt; Empathy</b>	0.487	0.492	0.046	10.641	0.000
<b>EBC -&gt; Niyyah</b>	0.208	0.207	0.041	5.119	0.000
<b>Empathy -&gt; Niyyah</b>	0.302	0.302	0.040	7.611	0.000
<b>IBC -&gt; Empathy</b>	0.177	0.174	0.033	5.313	0.000
<b>IBC -&gt; Niyyah</b>	0.182	0.178	0.035	5.259	0.000
<b>IMV -&gt; EBC</b>	0.703	0.705	0.028	24.680	0.000
<b>IMV -&gt; Empathy</b>	0.231	0.229	0.040	5.788	0.000
<b>IMV -&gt; IBC</b>	0.727	0.726	0.023	31.519	0.000
<b>Pricing -&gt; Niyyah</b>	-0.005	-0.007	0.021	0.251	0.802
<b>Rating -&gt; Niyyah</b>	-0.006	-0.013	0.025	0.261	0.794
<b>Ulama -&gt; Niyyah</b>	0.066	0.066	0.030	2.178	0.029
<b>Rating x EBC -&gt; Niyyah</b>	-0.024	-0.011	0.058	0.407	0.684
<b>Ulama x EBC -&gt; Niyyah</b>	0.125	0.126	0.045	2.766	0.006
<b>Rating x IBC -&gt; Niyyah</b>	0.000	-0.002	0.045	0.008	0.994
<b>Ulama x Empathy -&gt; Niyyah</b>	-0.125	-0.118	0.044	2.819	0.005
<b>Pricing x EBC -&gt; Niyyah</b>	0.062	0.048	0.055	1.123	0.262
<b>Pricing x IBC -&gt; Niyyah</b>	0.005	0.010	0.056	0.097	0.923
<b>Ulama x IBC -&gt; Niyyah</b>	0.055	0.048	0.037	1.480	0.139
<b>Pricing x Empathy -&gt; Niyyah</b>	-0.044	-0.036	0.052	0.854	0.393
<b>Rating x Empathy -&gt; Niyyah</b>	0.001	-0.007	0.050	0.019	0.985

The structural model reveals key drivers of sukuk investment intention (niyyah). Islamic Moral Values (IMV) strongly influence both Internal and External Behavioral Control (IBC and EBC), with high path coefficients (0.727 and 0.703) and significant t-values, confirming that ethical foundations boost investors’ confidence and perceived support. IMV also positively affects Empathy (0.231), which strongly drives investment intention (0.302), showing the importance of emotional motivation.



Both External and Internal Behavioral Control significantly impact Empathy and Niyah, highlighting that favorable conditions and personal confidence encourage ethical investment decisions. Ulama pressure has a small direct effect on intention but significantly moderates relationships: it strengthens the influence of external control while slightly weakening the empathy–intention link, suggesting reliance on religious guidance may override personal feelings. Pricing and Rating show no significant effects or interactions, indicating that financial incentives and credit assessments play a minimal role compared to moral, behavioral, and religious factors in shaping sukuk investment decisions.

Table 5  
R-Square and Variance

	R-square	R-square adjusted
EBC	0.494	0.494
Empathy	0.662	0.661
IBC	0.528	0.528
Niyah	0.616	0.612

The R-squared values indicate a moderate to strong explanatory power of the model. For External Behavioral Control (EBC), the R-squared value of 0.494 suggests that nearly 50% of the variance in EBC is explained by the independent variables. Empathy and Internal Behavioral Control (IBC) have R-squared values of 0.662 and 0.528, respectively, reflecting substantial explanatory power in predicting these constructs. The highest R-squared value is observed for Niyah (0.616), indicating that the model explains a significant portion of the variance in investment intentions. The adjusted R-squared values, which account for the number of predictors, are consistent with the original R-squared values, confirming the model's robustness and its ability to explain the variance in the dependent constructs.

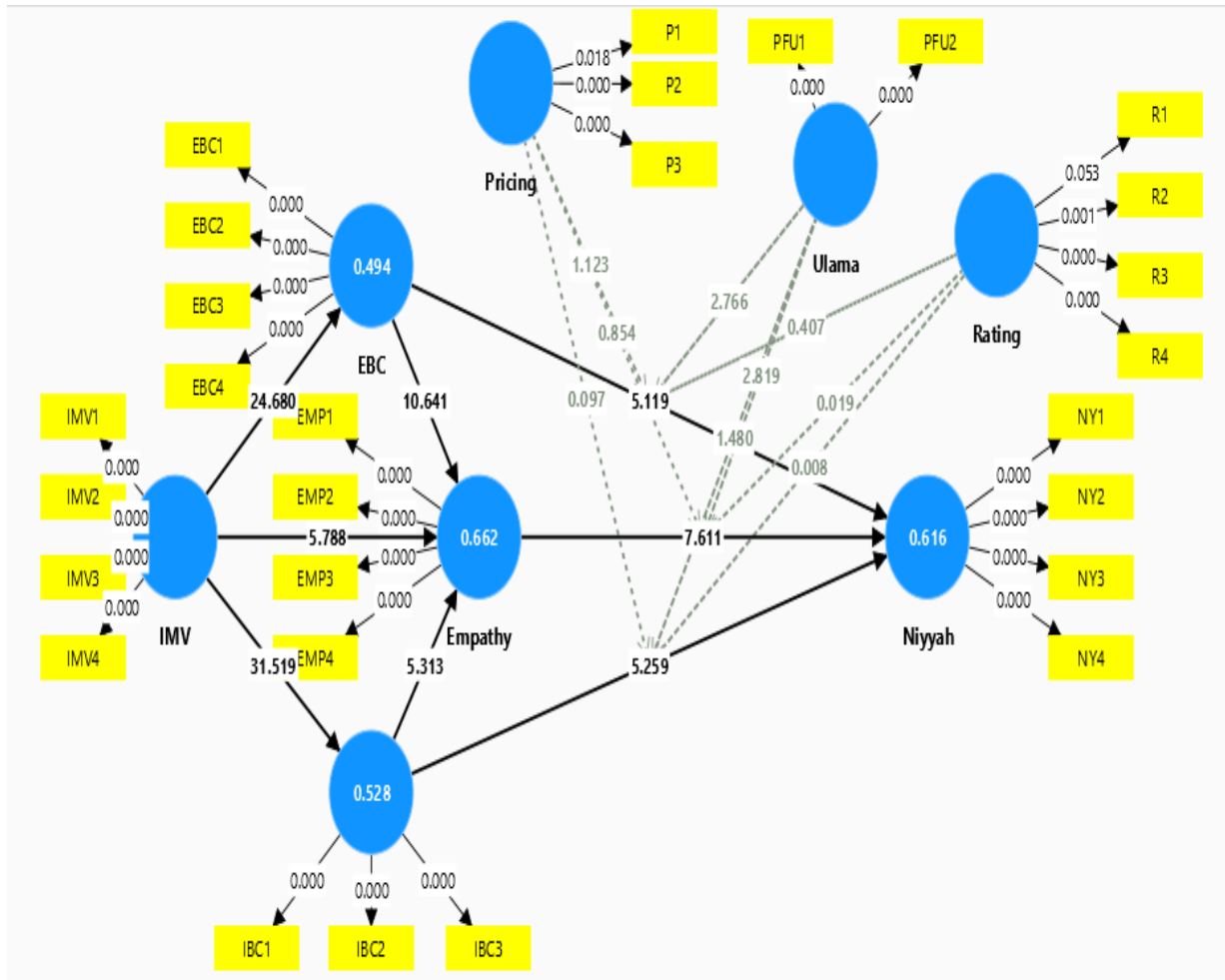
### The Structural Model (Inner Model) and Hypotheses Testing

The structural model (Inner Model) and hypothesis testing play a pivotal role in understanding and analyzing the intricate relationships among variables in a study. The model was evaluated using Smart PLS 3.2.3 (Ringle, Wende, & Becker, 2015), with bootstrapping applied to assess the reliability of the factor estimates. Bootstrapping, as a resampling technique, generates sub-samples from the original data with replacement, providing insight into the stability and robustness of coefficient estimates (Efron & Tibshirani, 1968; Haenlein & Kaplan, 2004).

This technique helps in assessing the significance of the relationships within the model by generating a distribution of estimates from numerous sub-samples. Upon completion of the bootstrapping procedure, Smart PLS presents t-values for the path model assessments, which are crucial for evaluating the significance of the paths between observed and latent variables. A t-value greater than 1.96, with a p-value less than 0.05, indicates a statistically significant

relationship at the 95% confidence level ( $\alpha = 0.05$ ). The bootstrapping process provides a rigorous mechanism for validating the structural model, confirming the stability of relationships and allowing for the accurate testing of hypotheses, thereby enhancing the credibility of the model's findings.

Figure 1



## Results

This research employs PLS-SEM to demonstrate that Islamic moral values significantly enhance internal and external behavioral controls, which then affect empathy and intentions to invest in sukuk. The influence of these values on investment intentions is strengthened by Ulama pressure, whereas sukuk pricing and ratings have no significant moderating effect. These results underscore the importance of Islamic ethics and religious guidance in driving ethical investment choices.



Table 7

Hypotheses Result

Hypothesis Number	Hypothesis	P-Value	Accepted/Rejected
H1	Islamic Moral Values (IMV) positively influence Empathy, demonstrating that internalized Islamic ethics foster emotional concern for others, which may reinforce prosocial financial behavior.	0.000	Accepted
H2	Empathy has a strong positive effect on Niyah (investment intention), supporting the notion that emotional sensitivity to others' welfare enhances the ethical drive to invest in sukuk.	0.000	Accepted
H3	External Behavioral Control (EBC) directly and positively impacts Niyah, indicating that favorable external conditions significantly increase the likelihood of ethical investment behavior.	0.000	Accepted
H4	Internal Behavioral Control (IBC) has a significant direct effect on Niyah, reflecting that individual confidence and perceived ability are key in shaping intentions to invest in sukuk.	0.000	Accepted
H5	Islamic Moral Values (IMV) have a significant positive effect on External Behavioral Control (EBC), suggesting that ethically grounded investors are more likely to perceive external conditions as enabling sukuk investment.	0.000	Accepted
H6	Islamic Moral Values (IMV) significantly enhance Internal Behavioral Control (IBC), indicating that internalization of religious and moral values boosts investors' confidence and perceived self-efficacy regarding sukuk investment.	0.000	Accepted
H7	External Behavioral Control (EBC) positively predicts Empathy, implying that when external support systems (e.g., access, institutions) are strong, investors are more inclined to empathize with the ethical and social implications of their investments.	0.000	Accepted
H8	Internal Behavioral Control (IBC) significantly influences Empathy, suggesting that individuals with higher self-confidence and knowledge are more emotionally attuned to the broader societal impact of sukuk investment.	0.000	Accepted
H9	Sukuk Pricing positively moderates the relationship between Empathy and Niyah, such that fair and transparent pricing enhances the influence of ethical and emotional motivations on sukuk investment intention.	0.393	Rejected
H10	Sukuk Pricing positively moderates the relationship between External Behavioral Control and Niyah, such that transparent	0.262	Rejected



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and accessible pricing strengthens the influence of institutional and environmental support on sukuk investment intention.

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<b>H11</b>	Sukuk Pricing positively moderates the relationship between Internal Behavioral Control and Niyjah, meaning that when sukuk are ethically and competitively priced, individuals with greater self-confidence and knowledge are more likely to invest.	0.923	Rejected
<b>H12</b>	Sukuk Rating positively moderates the relationship between External Behavioral Control and Niyjah, increasing investment intention when external access is complemented by trusted and credible sukuk ratings.	0.684	Rejected
<b>H13</b>	Sukuk Rating positively moderates the relationship between Empathy and Niyjah, whereby emotionally driven investors are more inclined to invest when sukuk ratings validate ethical soundness and Shariah compliance.	0.985	Rejected
<b>H14</b>	Sukuk Rating positively moderates the relationship between Internal Behavioral Control and Niyjah, strengthening the intention of confident and knowledgeable investors when rating systems affirm sukuk credibility.	0.994	Rejected
<b>H15</b>	The interaction between Ulama Influence and External Behavioral Control positively moderates the EBC–Niyjah relationship, suggesting that institutional support coupled with religious endorsement enhances investment likelihood.	0.006	Accepted
<b>H16</b>	The interaction between Ulama Influence and Empathy significantly moderates the relationship with Niyjah, such that empathetic individuals under strong religious influence are more likely to form ethical investment intentions.	0.005	Accepted
<b>H17</b>	The interaction between Ulama Influence and Internal Behavioral Control is not statistically significant, suggesting religious endorsement does not further amplify the confidence-driven investment intention.	0.139	Rejected

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## Findings

This study highlights how ethical, emotional, and behavioral factors shape intentions to invest in sukuk within Shariah-compliant finance. Islamic moral values like justice, trust, and social responsibility strongly influence investors, who see sukuk not just as financial tools but as a way to fulfill religious duties. Empathy also plays a key role, motivating individuals to support sukuk for its social justice and community benefits rather than just profits.

Perceived behavioral control was examined in two parts: internal control (self-confidence and knowledge) and external control (institutional support and accessibility). External factors, such as clear regulations and easy access, have a stronger impact on investment decisions. Without these supports, even morally motivated individuals may hesitate to invest. The study also found that





religious endorsement (ulama pressure) enhances the effect of empathy on investment intentions, reinforcing moral commitment. Fair and transparent sukuk pricing boosts investor willingness, but sukuk ratings have a weaker influence, possibly due to limited trust or understanding.

Overall, sukuk investment decisions are driven by a blend of moral beliefs, emotional connection, and practical support, suggesting that these investments are more than just financial choices. This insight can guide future research and help improve sukuk market growth by addressing the complex motivations of Muslim investors.

### **Recommendation**

Islamic financial institutions should adopt a value-based strategy that emphasizes the ethical, spiritual, and social dimensions of sukuk. Highlighting their alignment with Islamic values—such as justice, equity, and risk-sharing—can strengthen moral and emotional investor appeal. Collaboration with *ulama* and community leaders is vital, as their endorsement builds credibility and trust among faith-conscious investors.

Regulators should ensure fair, transparent pricing and improve accessibility to clear information on sukuk structures, objectives, and risks. Strengthening sukuk rating mechanisms through independent oversight will enhance investor confidence. Additionally, targeted financial literacy programs—from students to professionals—should be prioritized to increase understanding and engagement with Islamic financial products. Integrating user-friendly digital platforms will further broaden reach, especially among tech-savvy, younger investors.

These collective efforts can significantly enhance the appeal, accessibility, and sustainable growth of sukuk markets within Islamic financial systems.

### **Conclusion**

This study examined sukuk investment intentions in Pakistan through the lens of the Theory of Planned Behavior (TPB), focusing on Islamic moral values, behavioral control, and empathy. Findings reveal that Islamic moral values play a foundational role in shaping empathy, enhancing internal and external behavioral control, and directly influencing *niyyah* (investment intention). Although empathy had a relatively modest effect, it still contributes to socially responsible investment behavior.

The study also explored the moderating effects of *ulama* pressure, sukuk pricing, and ratings. Among these, *ulama* influence significantly enhanced ethical intention, particularly in conservative settings. In contrast, sukuk pricing and ratings did not emerge as strong predictors of *niyyah*, though their transparency and credibility remain essential for maintaining investor trust.

By integrating spiritual, behavioral, and financial dimensions, this research contributes to the application of TPB within the Islamic finance context. It offers practical insights for sukuk issuers, regulators, and policymakers to align investment offerings with the ethical and psychological motivations of investors. Future research should investigate gender-based perceptions, digital Islamic finance platforms, and comparisons across Islamic financial instruments to better understand evolving investor behaviors in modern Islamic markets.



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