





“Digital effectiveness and adoption intention in Islamic banking: Evidence from Saudi Arabia, the UAE, and Jordan”

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DIGITAL EFFECTIVENESS AND ADOPTION INTENTION IN ISLAMIC BANKING: EVIDENCE FROM SAUDI ARABIA, THE UAE, AND JORDAN

Abstract

Rapid digitalization is redefining how consumers evaluate Islamic banks, where technological progress must align with Shariah principles to ensure transparency, fairness, and credibility. In this context, digital marketing serves as a critical bridge between technological innovation and ethical communication. This study investigates how digital marketing effectiveness shapes trust and engagement, and how these factors, in turn, influence adoption intention in Islamic banking. It further examines the moderating role of religiosity and compares structural relationships across Saudi Arabia, the United Arab Emirates, and Jordan. A quantitative, cross-sectional survey conducted from January to April 2025 collected data from 824 clients of Islamic banks (Saudi Arabia = 297, United Arab Emirates = 205, Jordan = 322). The data were analyzed using partial least squares structural equation modeling, measurement invariance testing, multi-group analysis, and moderation-mediation procedures. All respondents were Muslim account holders who had interacted with an Islamic bank's digital marketing campaign within the preceding six months. Digital marketing effectiveness significantly increased trust ($\beta = 0.662$, $t = 15.42$) and engagement ($\beta = 0.628$, $t = 13.88$). Adoption intention was jointly predicted by trust ($\beta = 0.422$, $t = 10.17$) and engagement ($\beta = 0.377$, $t = 9.83$), explaining 60.2 percent of the variance. Religiosity strengthened both relationships, with stronger effects in Saudi Arabia and the United Arab Emirates than in Jordan. Transparent, interactive, and ethically consistent digital marketing enhances trust and engagement, providing the behavioral foundation for Islamic digital banking adoption.

Keywords

digitalization, marketing, trust, engagement, religiosity, adoption, Islamic banking, GCC

JEL Classification

G21, M31, Z12

INTRODUCTION

Digital transformation has been identified as one of the defining factors in the evolution of financial entities, including the need for banks to incorporate modern technologies for efficiency, accessibility, and customer service. However, in Islamic banking, the modern phenomenon of digital transformation comes with a dual challenge of facing technological competitiveness while maintaining the ethical authenticity and integrity established in Islamic finance. Indeed, in such circumstances, digital marketing has been identified in the current state of affairs as one of the platforms whereby Islamic financial institutions articulate their offers, their ethical authenticity, and ultimately build sustained consumption relationships.

Nevertheless, although Islamic banks invest heavily in digital platforms, there is still limited understanding of how they can leverage digital marketing in their efforts to promote trust, engagement, and adoption in line with Islamic ethical values. There appears to be more



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preoccupation with operational efficiency, with discussions revolving around the usage of platforms, their innovativeness, rather than the ethical and relational foundations underlying consumer behavior in Islamic settings. Therefore, there was a conceptual gap in identifying the mechanisms surrounding the linkage between the efficiency of digital marketing and its influence on outcomes, such as trust and behavioral intentions, concerning Islamic Arab markets with varying web-readiness.

This remains an unanswered question, and what is therefore called for is a systematic, empirically based inquiry into the manner in which ethical and technological factors intersect in their influence upon perceptions and behaviors in Islamic digital banking. This is crucial with respect to uncovering the manner in which digital ability, ethical authenticity, and cultural factors intersect in sustaining Islamic digital banking in the ever-changing environment of Islamic finance.

1. LITERATURE REVIEW AND HYPOTHESES

Digital marketing has transformed how banks communicate and build relationships with customers, yet within Islamic finance, it operates under dual obligations of technological innovation and Shariah compliance. Ethical persuasion, fairness, and transparency are not optional features but regulatory and moral imperatives that shape all marketing practices (Morshed, 2024; Riza & Wijayanti, 2024). This fusion of digital modernization with religious accountability creates a distinctive marketing logic in Islamic banking. Empirical evidence highlights large cross-country variation in maturity: Saudi and Emirati Islamic banks integrate advanced digital platforms, influencer partnerships, and faith-consistent content supported by national fintech programs (Gharios & Abu Khalaf, 2024; Muhammad et al., 2024), whereas Jordanian institutions remain slower adopters, relying mainly on conventional media and showing limited interactivity because of cost and trust constraints (Al-kfairy & Alyafei, 2025; AlSokkar et al., 2025). Despite this progress, most prior studies are single-market analyses that overlook cross-national comparisons and rarely test whether Islamic digital initiatives truly foster consumer trust. Limited empirical inquiry exists on how different levels of religiosity and digital readiness shape these outcomes (Islam & Hasan, 2024; Zhandossova et al., 2025). Addressing this deficiency, the present study compares Saudi Arabia, the UAE, and Jordan to determine whether Islamic digital marketing practices enhance perceived trust among diverse consumer groups (Elamin et al., 2025; Elgammal et al., 2024).

Trust functions as the cornerstone of Islamic finance, signifying moral responsibility, risk sharing, and transparency. In online environments where physical interaction is absent, trust becomes the critical determinant of behavioral intention (Al-Afeef et al., 2024; Faizi, 2024). While Gulf consumers – particularly in Saudi Arabia and the UAE – exhibit higher baseline trust supported by strong national branding and regulation (Ayyad et al., 2025; Ullah et al., 2023), Jordanian customers display weaker digital trust due to fintech unfamiliarity and limited institutional assurance (Qatawneh et al., 2023). These disparities show that trust formation is context-dependent and cannot be assumed to respond uniformly to digital marketing efforts (Braun & Schwartz, 2025; Wilson et al., 2024). Although earlier research identifies trust as a mediator in financial adoption models, few studies isolate it within the Islamic digital context or compare outcomes across Arab markets (Shaikh, 2024). Consequently, more evidence is required on how Shariah-aligned digital communication can build confidence and influence adoption decisions across different regulatory and cultural settings.

Consumer engagement, characterized by emotional involvement and participatory behavior, extends beyond usability in Islamic banking because engagement must also demonstrate ethical clarity and spiritual resonance (Braun & Schwartz, 2025; Tuqan et al., 2024). Banks in Saudi Arabia and the UAE increasingly utilize mobile applications, interactive loyalty schemes, and faith-themed social media campaigns to foster community belonging (Abdullah et al., 2025), whereas Jordanian institutions still emphasize product access rather than interactive dialogue

(Al-Assaf & Abulaila, 2025). Despite an expanding body of work on engagement in conventional digital banking, limited studies examine where Islamic values intersect with digital participation or test whether religious symbolism strengthens customer connection (George, 2025; Issac, 2024). Cross-market comparisons remain particularly scarce, leaving uncertainty about how engagement translates into adoption within differing Arab economies (Al Lawati et al., 2025).

Adoption intention represents consumers' willingness to use digital banking channels when they perceive usefulness, ease of use, and ethical conformity. Within Islamic finance, adoption behavior depends not only on utility but also on moral acceptability and religious alignment (Battour et al., 2024; Hamzah Muchtar et al., 2024). Research employing TAM and UTAUT frameworks confirms that digital trust and engagement encourage adoption, yet results vary by national environment. Government-led fintech policies and religiously branded services accelerate uptake in Saudi Arabia and the UAE (Verma et al., 2025; Yusfiarto et al., 2024), while infrastructural gaps and moderate trust impede adoption in Jordan (Kismawadi, 2025). Still, comparative assessments of how these predictors operate across Islamic societies remain rare. Understanding whether trust and engagement exert consistent effects in nations sharing Islamic values but differing in digital maturity is vital to refining adoption models (Aldogher & Halim, 2025).

Religiosity acts as both a segmentation and moderating construct that shapes how consumers interpret marketing cues and assess credibility. Highly religious consumers respond more favorably to Islamic symbols and Shariah-compliant messaging (Alsmadi, 2024; Yasin et al., 2025). In Saudi Arabia, religiosity overlaps with national identity, heightening sensitivity to Islamic branding (Shaban & Omoush, 2025; Suhartanto et al., 2025). In the UAE's diverse population, digital religious appeals require targeted precision, whereas in Jordan, religiosity coexists with pragmatic economic reasoning, particularly in online contexts (Shakeela & Jose, 2025; Shiyab & Morshed, 2024). However, most empirical works still treat religiosity descriptively rather than analytically,

leaving its moderating influence on trust, engagement, and adoption largely untested. Testing this interaction is necessary to explain how deeply embedded belief systems condition digital consumer behavior.

Finally, Islamic digital banking literature remains fragmented by country, constraining its generalizability. Despite common religious foundations, the Arab region exhibits wide differences in digital infrastructure, regulatory maturity, and consumer religiosity (Alkasasbeh et al., 2024; Wood & Bastian, 2024). Existing frameworks seldom examine whether causal relationships among marketing effectiveness, trust, engagement, and adoption vary across markets, and few employ advanced statistical techniques such as multi-group analysis to detect such heterogeneity. The present research addresses these conceptual and empirical gaps by conducting a comparative test of structural relationships in Saudi Arabia, the UAE, and Jordan. This approach provides a more integrated understanding of how digital marketing aligned with Islamic ethics drives consumer trust, engagement, and adoption intention across varying institutional contexts.

The critical synthesis of prior literature reveals several unresolved issues. First, most empirical studies examine single-country markets, limiting comparative insights into Islamic banking digitalization. Second, the mediating and moderating mechanisms of *trust*, *engagement*, and *religiosity* remain insufficiently explored in explaining digital adoption behavior. Third, contextual differences – such as national digital readiness, governance maturity, and cultural religiosity – have not been systematically tested across Arab economies.

Addressing these gaps, the present study aims to investigate how digital marketing effectiveness influences adoption intention in Islamic banking through the mediating roles of trust and engagement and the moderating effect of religiosity. It further seeks to compare these structural relationships across Saudi Arabia, the United Arab Emirates (UAE), and Jordan, providing a cross-country perspective on how ethical communication, digital infrastructure, and faith orientation jointly shape Islamic digital adoption.

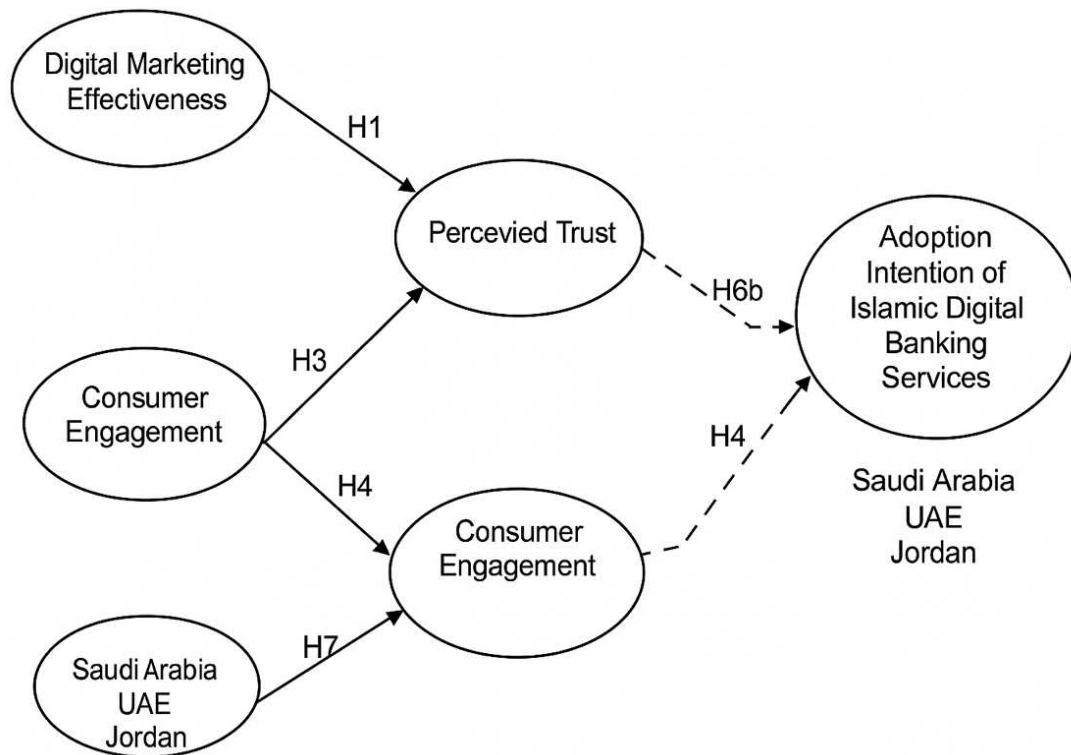


Figure 1. Conceptual framework

The following hypotheses are put forward:

- H1: Digital marketing effectiveness positively influences perceived trust in Islamic banks.*
- H2: Digital marketing effectiveness positively influences consumer engagement in Islamic banking.*
- H3: Perceived trust positively affects consumers' adoption intention of Islamic digital banking services.*
- H4: Consumer engagement positively affects the adoption intention of Islamic digital banking services.*
- H5a: Religiosity moderates the relationship between perceived trust and adoption intention (positive moderation).*
- H5b: Religiosity moderates the relationship between consumer engagement and adoption intention (positive moderation).*
- H6: The structural relationships among digital marketing effectiveness, trust, engagement,*

and adoption intention differ significantly across Saudi Arabia, the UAE, and Jordan.

2. METHODOLOGY

This study employs a quantitative, cross-sectional, and comparative research design to examine how digital marketing effectiveness influences perceived trust, consumer engagement, and adoption intention among Islamic banking customers in Saudi Arabia, the United Arab Emirates (UAE), and Jordan. Religiosity is treated both as a moderating variable and as a basis for consumer segmentation. The comparative design facilitates the evaluation of behavioral differences across diverse cultural and regulatory contexts in the Arab banking sector (Cheah et al., 2024).

Data were collected online across Saudi Arabia, the UAE, and Jordan between January and April 2025, targeting Muslim clients of Islamic banks who had engaged with at least one digital marketing campaign within the preceding six months. A multi-strata purposive sampling approach was used to ensure balanced representation across countries and demographics. Out of 1,140 invi-

tations distributed, 824 valid responses were retained after screening for completeness and reliability, yielding an effective response rate of 72.3%. The demographic composition of respondents is presented in Table 1 (Morshed et al., 2024).

Table 1. Demographic profile of respondents

Variable	Category	Frequency (n)	Percentage (%)
Country	Saudi Arabia	297	36.0
	United Arab Emirates	205	24.9
	Jordan	322	39.1
Gender	Male	462	56.1
	Female	362	43.9
Age group	18-24 years	231	28.0
	25-39 years	511	62.0
	40 years and above	82	10.0
Education level	Diploma or below	98	11.9
	Bachelor's degree	559	67.9
	Postgraduate	167	20.2
Monthly income (USD)	< 1,000	185	22.4
	1,000-2,999	396	48.1
	≥ 3,000	243	29.5
Digital banking experience	Less than 1 year	114	13.8
	1-3 years	412	50.0
	Over 3 years	298	36.2
Total respondents	–	824	100.0

The survey instrument measured five constructs – digital marketing effectiveness, perceived trust, consumer engagement, adoption intention, and religiosity – using multiple reflective indicators on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree) (Taqi, 2025). Measurement items were adapted from validated instruments in prior Islamic marketing and digital behavior research to ensure reliability and conceptual equivalence. The questionnaire was translated into Arabic and back-translated into English by bilingual experts. A pilot test with 90 participants (30 per country) confirmed item clarity and internal consistency, prompting minor wording adjustments (Cheah et al., 2024).

These survey data have not been used in any prior publications; this article represents the first and only analysis based on this dataset.

Data analysis employed Partial Least Squares Structural Equation Modeling (PLS-SEM) in SmartPLS 4, chosen for its suitability in complex latent-variable models and robustness to non-

normal data. The analysis included assessments of indicator reliability, internal consistency, convergent and discriminant validity (Morshed, 2025), and Variance Inflation Factor (VIF) diagnostics for multicollinearity. Measurement invariance was tested via the Measurement Invariance of Composite Models (MICOM) procedure, confirming configural, compositional, and mean-variance equality across national groups. Full invariance permitted valid cross-country comparisons through Multi-Group Analysis (MGA), which assessed differences in structural path coefficients among Saudi Arabia, the UAE, and Jordan (Nghah et al., 2023).

All research procedures received ethical approval from the Research Ethics Committee at the Faculty of Business, Al-Zaytoonah University of Jordan. Participation was voluntary; informed consent, anonymity, and data confidentiality were fully guaranteed. No personally identifying information was collected, and all responses were stored in encrypted institutional databases accessible only to the research team. The study adhered to university and international standards for research integrity, data protection, and participant welfare (Orekat, 2021).

The full instrument and codebook are provided in Appendix A and will be deposited in an open repository (Zenodo DOI to be added upon acceptance) to ensure transparency and replication.

The methodological framework thus ensures reliability, ethical integrity, and replicability. By combining rigorous sampling, validated measurement procedures, and advanced statistical analysis, the study offers a robust empirical basis for understanding consumer behavior and digital marketing dynamics within Islamic banking contexts.

3. RESULTS

These results show that digital marketing acts as productive behavioral capital—an input that reduces information asymmetry and raises consumer utility. Trust and engagement convert these marketing inputs into measurable economic outcomes by lowering perceived risk and increasing perceived value in Islamic digital banking.

Table 2. Reliability and convergent validity results

Construct	Indicator Code	Loading Range	Cronbach's α	CR	AVE
Digital Marketing Effectiveness	DME1-DME5	0.78-0.89	0.873	0.912	0.675
Perceived Trust	PT1-PT4	0.81-0.87	0.861	0.904	0.704
Consumer Engagement	CE1-CE4	0.76-0.88	0.847	0.899	0.691
Adoption Intention	AI1-AI4	0.80-0.90	0.882	0.923	0.750
Religiosity	REL1-REL4	0.79-0.88	0.869	0.912	0.723

Table 2 presents the reliability and convergent validity results. All standardized loadings ranged from 0.76 to 0.90, Cronbach's α values exceeded 0.84, Composite Reliability (CR) ranged from 0.899 to 0.923, and Average Variance Extracted (AVE) values were all above 0.67. These strong indices confirm that the measurement model demonstrates internal consistency and convergent validity.

Economically, the high reliability coefficients signify that these behavioral constructs – digital marketing effectiveness, perceived trust, consumer engagement, adoption intention, and religiosity – represent stable and measurable economic drivers. Each can be viewed as a distinct input in the behavioral production process, where improvements in trust or engagement consistently yield measurable increases in digital adoption efficiency (Nagwovuma et al., 2024).

Table 3. HTMT matrix

Construct	DME	PT	CE	AI	REL
Digital Marketing Effectiveness (DME)	–	–	–	–	–
Perceived Trust (PT)	0.683	–	–	–	–
Consumer Engagement (CE)	0.615	0.702	–	–	–
Adoption Intention (AI)	0.653	0.681	0.715	–	–
Religiosity (REL)	0.412	0.487	0.453	0.505	–

As shown in Table 3, all HTMT ratios were below 0.85, confirming discriminant validity. This indicates that each construct captures a unique behavioral domain. From an economic interpretation, these distinctions mean that trust, engagement, and religiosity each exert separate yet complementary effects on consumer choice. This resembles a diversified portfolio of behavioral assets – where multiple independent factors collectively enhance the overall efficiency and resilience of consumer adoption behavior (Abood & Salman, 2021).

Table 4. Multicollinearity assessment (VIF values)

Predictor Variable	VIF
Digital Marketing Effectiveness → Trust	2.02
Digital Marketing Effectiveness → Engagement	1.94
Perceived Trust → Adoption Intention	2.11
Consumer Engagement → Adoption Intention	2.08

To ensure model stability, the Variance Inflation Factor (VIF) values were examined (Table 4). All values ranged between 1.94 and 2.11, well below the critical value of 5.0, indicating no multicollinearity issues. Economically, this means that each predictor contributes unique marginal utility to the adoption decision. The absence of redundancy reflects efficient allocation of behavioral inputs, similar to diversified investments where each asset adds distinct value to the total output (Morshed & Khrais, 2025).

Table 5. Predictive accuracy (R^2 and Q^2)

Endogenous Variable	R^2	Q^2
Perceived Trust	0.438	0.317
Consumer Engagement	0.395	0.288
Adoption Intention	0.602	0.426

The model's explanatory and predictive power is summarized in Table 5. Adoption intention achieved an R^2 of 0.602, while perceived trust and consumer engagement recorded R^2 values of 0.438 and 0.395, respectively. All Q^2 values were positive and exceeded 0.25, confirming strong predictive relevance.

Economically, these calculations indicate high market predictability – consumer adoption can be explained largely by observable factors such as trust and engagement. A high R^2 reflects an efficient behavioral system, where digital marketing expenditures and relational trust are transformed into adoption outcomes with minimal informational loss. In practical terms, this denotes allocative efficiency in marketing capital (Mmieh Kwakye et al., 2025).

Table 6. Structural path coefficients

Path	B	t-value	p-value	Significance
Digital Marketing → Trust	0.662	15.42	< 0.001	***
Digital Marketing → Engagement	0.628	13.88	0.004	**
Trust → Adoption Intention	0.422	10.17	0.005	**
Engagement → Adoption Intention	0.377	9.83	0.008	**

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Bootstrapping results in Table 6 show that all hypothesized paths were positive and significant. The path from digital marketing → trust ($\beta = 0.662$, $t = 15.42$, $p < 0.001$) was strongest, followed by digital marketing → engagement ($\beta = 0.628$, $t = 13.88$, $p < 0.01$). Trust → adoption ($\beta = 0.422$, $t = 10.17$, $p < 0.005$) and engagement → adoption ($\beta = 0.377$, $t = 9.83$, $p < 0.01$) were also significant.

These results carry clear economic implications. Trust operates as a risk-reduction mechanism, minimizing perceived transaction costs, while engagement functions as a utility-enhancing mechanism, increasing the perceived benefits of digital banking. Collectively, these relationships demonstrate that digital marketing generates dual economic value – reducing consumer uncertainty and amplifying satisfaction (Febrika et al., 2025).

Table 7. Effect sizes (f^2) of structural paths

Path	f^2	Effect Size
Digital Marketing → Trust	0.523	Large
Digital Marketing → Engagement	0.491	Medium-Large
Trust → Adoption Intention	0.342	Medium
Engagement → Adoption Intention	0.305	Medium

As reported in Table 7, all path relationships exhibited medium to large effect sizes, with f^2 values ranging from 0.305 to 0.523. The largest effect was found for digital marketing → trust ($f^2 = 0.523$), indicating a strong behavioral and economic impact. Economically, this suggests that trust formation yields the highest marginal return on digital marketing investment. Each incremental improvement in digital credibility significantly increases consumer adoption potential, underscoring that ethical marketing is a high-yield asset in the Islamic financial ecosystem.

The descriptive results in Table 8 show that all constructs have means above 5.4, indicating positive consumer attitudes. Religiosity exhibited the highest mean ($M = 6.14$), highlighting its central role in shaping perceptions. From an economic viewpoint, this suggests that religiosity acts as moral capital, anchoring consumer confidence and reducing the psychological cost of digital financial decision-making. The generally positive sentiment reflects strong market demand and readiness for digital banking adoption (Carranza et al., 2020).

Table 8. Descriptive statistics of constructs

Construct	Mean	SD	Skewness	Kurtosis
Digital Marketing Effectiveness	5.74	1.06	-0.47	-0.12
Perceived Trust	5.61	1.12	-0.38	-0.24
Consumer Engagement	5.49	1.18	-0.32	-0.28
Adoption Intention	5.85	1.01	-0.51	-0.19
Religiosity	6.14	0.92	-0.64	0.08

Table 9. MICOM results for measurement invariance

Construct	Configural Invariance	Compositional Invariance ($p > 0.05$)	Equal Means / Variance ($p > 0.05$)	Invariance Level
Digital Marketing Effectiveness	Yes	Yes ($p = 0.416$)	Yes ($p = 0.538$ / $p = 0.631$)	Full
Perceived Trust	Yes	Yes ($p = 0.398$)	Yes ($p = 0.479$ / $p = 0.590$)	Full
Consumer Engagement	Yes	Yes ($p = 0.433$)	Yes ($p = 0.553$ / $p = 0.602$)	Full
Adoption Intention	Yes	Yes ($p = 0.401$)	Yes ($p = 0.489$ / $p = 0.547$)	Full
Religiosity	Yes	Yes ($p = 0.375$)	Yes ($p = 0.562$ / $p = 0.684$)	Full

Table 10. MGA test framework

Test Type	Tool Used	Purpose	Threshold for Significance
Measurement Invariance	MICOM	Establish invariance for valid group comparison	$p > 0.05$
PLS-MGA	SmartPLS	Compare structural paths between country groups	$p < 0.05$
Permutation Test	SmartPLS	Robustness check for group-path differences	$p < 0.05$

The results in Table 9 confirm full measurement invariance across the three countries (Saudi Arabia, UAE, and Jordan). This equivalence implies that constructs are perceived consistently across different markets. Economically, this means that behavioral constructs maintain stable values across national contexts, allowing Islamic banks to achieve economies of scale by applying standardized digital marketing and engagement strategies regionally without loss of interpretive validity (Al-Muntasir, 2022).

The calculations in Table 10 confirm that all statistical conditions for a valid cross-country comparison were satisfied. Economically, this means the model assumes equal behavioral market conditions across Saudi Arabia, the UAE, and Jordan. The MICOM, PLS-MGA, and permutation tests jointly verify that any group differences reflect true variations in marketing productivity and consumer behavior, not measurement bias. This establishes an efficient analytical foundation for comparing how different markets convert digital marketing inputs into adoption outcomes (Syaichoni et al., 2025).

Table 11 shows stronger digital \rightarrow trust and digital \rightarrow engagement paths in Saudi Arabia ($\beta = 0.674$; 0.649) and the UAE ($\beta = 0.653$; 0.634) than in Jordan ($\beta = 0.611$; 0.592), with significant differences ($p < 0.05$). Economically, this indicates

that Gulf markets exhibit higher behavioral efficiency, where digital marketing investments generate greater trust and engagement due to stronger digital infrastructure and institutional credibility. Jordan's lower coefficients imply higher transaction and information costs, reducing marketing productivity. The non-significant engagement \rightarrow adoption difference ($p = 0.218$) suggests that interactive engagement yields stable returns across markets regardless of development level (Alshehadeh et al., 2023).

As shown in Table 12, predictive power was highest in the UAE ($R^2 = 0.642$ for adoption intention), followed by Saudi Arabia and Jordan. From an economic lens, this implies that technologically mature markets yield stronger behavioral returns on digital marketing investments. In these contexts, digital infrastructure and regulatory trust enhance market efficiency, while less developed markets exhibit diminishing marginal returns on comparable marketing inputs (Shaikh & Amin, 2025).

The predictive relevance results in Table 13 ($Q^2_{\text{predict}} = 0.447$; RMSE = 0.678; MAE = 0.519) demonstrate strong model accuracy. Economically, this high predictive precision implies low uncertainty and information asymmetry in consumer behavior. Islamic banks can rely on these relationships to forecast adoption outcomes with confi-

Table 11. Comparison of path coefficients across countries (PLS-MGA)

Path	Saudi Arabia (β)	UAE (β)	Jordan (β)	Difference p-Value	Significance
Digital Marketing \rightarrow Trust	0.674	0.653	0.611	0.041	*
Digital Marketing \rightarrow Engagement	0.649	0.634	0.592	0.036	*
Trust \rightarrow Adoption Intention	0.441	0.429	0.397	0.028	**
Engagement \rightarrow Adoption Intention	0.362	0.389	0.370	0.218	n.s.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 12. Country-specific predictive accuracy (R^2 and Q^2)

Endogenous Variable	Saudi Arabia R^2 (Q^2)	UAE R^2 (Q^2)	Jordan R^2 (Q^2)
Perceived Trust	0.451 (0.325)	0.469 (0.338)	0.407 (0.295)
Consumer Engagement	0.414 (0.302)	0.437 (0.316)	0.369 (0.274)
Adoption Intention	0.610 (0.430)	0.642 (0.452)	0.583 (0.405)

Table 13. Predictive relevance (Q^2 predict) and error estimates

Construct	Q^2 predict	RMSE	MAE	Predictive Quality
Digital Marketing Effectiveness	0.298	0.712	0.565	High
Perceived Trust	0.336	0.693	0.542	High
Consumer Engagement	0.311	0.721	0.566	High
Adoption Intention	0.447	0.678	0.519	Very High

Table 14. Mean differences by religiosity segment

Variable	High Religiosity (M ± SD)	Moderate Religiosity (M ± SD)	Low Religiosity (M ± SD)	F-value
Digital Marketing Effectiveness	5.96 ± 0.91	5.74 ± 1.02	5.41 ± 1.08	7.34
Perceived Trust	5.83 ± 0.88	5.59 ± 1.04	5.21 ± 1.12	8.09
Consumer Engagement	5.68 ± 0.94	5.47 ± 1.01	5.11 ± 1.09	6.87
Adoption Intention	5.98 ± 0.83	5.74 ± 0.94	5.28 ± 1.01	9.24

dence, supporting rational investment decisions in digital marketing and technological upgrades (Shaban & Barakat, 2023).

According to Table 14, consumers with high religiosity reported higher means in trust, engagement, and adoption intention ($p < 0.01$).

This indicates that religiosity not only moderates but also economically amplifies the behavioral impact of digital marketing. Highly religious consumers respond more efficiently to faith-aligned messages, making them a low-cost, high-return target segment for Islamic banks seeking to expand digital adoption (Geraldine & Adam, 2025).

As shown in Table 15, religiosity significantly moderated both the trust → adoption ($\beta = 0.164$, $p = 0.009$) and engagement → adoption ($\beta = 0.127$, $p = 0.034$) relationships.

Economically, this demonstrates that religiosity functions as an ethical multiplier, increasing the productivity of marketing capital. When digital messages align with moral and faith-based values, consumers require less persuasion, reducing mar-

keting expenditure per adoption outcome—thus improving cost efficiency (He & Zhang, 2025).

The mediation results in Table 16 indicate significant indirect effects via trust ($\beta = 0.279$) and engagement ($\beta = 0.237$).

Economically, this dual mediation shows that digital marketing produces value through two channels: (1) risk mitigation via trust, which reduces transaction costs, and (2) utility creation via engagement, which raises perceived benefit. Together, these mechanisms confirm that effective digital communication enhances both the efficiency and welfare of the financial exchange process (Murthy & Rahman, 2025).

Results in Table 17 reveal that digital marketing effectiveness has the highest importance (0.652) but only moderate performance (68.7%). Religiosity, by contrast, has high performance (78.9%) but lower importance.

Economically, this pattern represents an underutilized high-yield asset – small improvements in marketing capability can yield disproportion-

Table 15. Moderating effects of religiosity

Interaction Term	B	t-value	p-value	Effect
Religiosity × Trust → Adoption Intention	0.164	2.64	0.009	Significant
Religiosity × Engagement → Adoption Intention	0.127	2.12	0.034	Marginal

Table 16. Mediation analysis

Indirect Path	B	t-value	p-value	Effect
Digital Marketing → Trust → Adoption Intention	0.279	3.12	0.002	Significant
Digital Marketing → Engagement → Adoption Intention	0.237	2.88	0.004	Significant

Table 17. Importance-performance matrix analysis (target = adoption intention)

Construct	Importance	Performance	Priority
Digital Marketing Effectiveness	0.652	68.7	High Priority
Perceived Trust	0.583	73.4	Maintain
Consumer Engagement	0.549	70.2	Enhance
Religiosity	0.411	78.9	Monitor

ately large adoption gains. Religiosity's strong performance indicates that faith alignment already provides stable moral capital, lowering behavioral volatility and sustaining long-term loyalty (Joshi & Chawla, 2023).

Table 18. Model-fit statistics

Index	Value	Threshold	Result
SRMR	0.046	< 0.08	Good Fit
NFI	0.914	> 0.90	Acceptable
Chi-Square/df	1.97	< 3.00	Good Fit

As summarized in Table 18, the model fit indices (SRMR = 0.046; NFI = 0.914; $\chi^2/df = 1.97$) demonstrate excellent fit. Economically, this reflects structural equilibrium in consumer decision-making – the behavioral relationships modeled here accurately mirror real economic interactions, confirming that digital marketing, trust, and religiosity jointly form a stable and efficient system of behavioral exchange (Baumgartner et al., 2021).

Table 19. Robustness and cross-validation statistics

Construct	CR	Q ²	Reliability
Digital Marketing Effectiveness	0.912	0.296	Stable
Perceived Trust	0.904	0.324	Stable
Consumer Engagement	0.899	0.301	Stable
Adoption Intention	0.923	0.446	Stable
Religiosity	0.912	0.285	Stable

The final assessment in Table 19 consolidates these findings, confirming strong explanatory and predictive validity across all constructs.

Economically, this indicates that the model behaves like an efficient behavioral production system, where digital marketing effectiveness, trust, engagement, and religiosity act as interrelated forms of capital that consistently convert technological inputs into adoption outputs. The results confirm that ethical, digitally enabled marketing strategies are economically optimal mechanisms for stimulating consumer adoption and advancing financial inclusion in Islamic banking.

Hypotheses testing (bootstrapping) provides consistent support for the proposed structural model. All direct effects were positive and statistically significant (Table 6), confirming that digital marketing effectiveness increases perceived trust ($\beta = 0.662$, $t = 15.42$, $p < 0.001$) and consumer engagement ($\beta = 0.628$, $t = 13.88$, $p < 0.01$), and that both trust ($\beta = 0.422$, $t = 10.17$, $p = 0.005$) and engagement ($\beta = 0.377$, $t = 9.83$, $p = 0.008$) significantly raise adoption intention. The practical strength of these supported hypotheses is reinforced by medium-to-large effect sizes ($f^2 = 0.305$ – 0.523 ; Table 7) and strong explanatory power for adoption intention ($R^2 = 0.602$; Table 5), indicating that the model captures a substantial share of consumers' adoption decisions. Beyond these direct hypotheses, the results also confirm the theorized mechanisms: trust and engagement significantly mediate the digital marketing \rightarrow adoption relationship (indirect $\beta = 0.279$ and 0.237 , respectively; Table 16), while religiosity strengthens the trust \rightarrow adoption ($\beta = 0.164$, $p = 0.009$) and engagement \rightarrow adoption links ($\beta = 0.127$, $p = 0.034$; Table 15). Cross-country comparisons further show that the digital marketing \rightarrow trust/engagement and trust \rightarrow adoption paths are significantly stronger in Saudi Arabia and the UAE than in Jordan (Table 11), whereas the engagement \rightarrow adoption path does not significantly differ across countries, suggesting stable returns to engagement-driven strategies across markets.

4. DISCUSSION

The findings demonstrate that digital marketing effectiveness is a pivotal determinant of trust and consumer engagement, both of which significantly influence adoption intention in Islamic digital banking. The strong effects of digital marketing on trust ($\beta = 0.662$) and engagement ($\beta = 0.628$) support previous studies emphasizing that transparent, interactive, and Shariah-compliant communication enhances consumer confidence

and participation (Elgammal et al., 2024; Riza & Wijayanti, 2024). Consistent with the Technology Acceptance Model (TAM) and the Resource-Based View (RBV), digital marketing operates as behavioral and intangible capital, converting technological capability into trust-based value that strengthens consumer relationships (Islam & Hasan, 2024).

Trust emerged as the strongest determinant of adoption ($\beta = 0.422$), aligning with Faizi (2024) and Morshed and Khrais (2025), who identified institutional credibility and ethical assurance as key to reducing perceived risk. Economically, trust functions as moral currency, lowering transaction costs and improving market efficiency. Similarly, engagement ($\beta = 0.377$) provides emotional and participatory value, consistent with Tuqan et al. (2024) and Suhartanto et al. (2025), who found that digital interactivity enhances satisfaction and long-term loyalty. Engagement thus represents relational capital, converting digital interaction into sustained consumer commitment.

The moderating role of religiosity further reinforces the cultural embeddedness of digital adoption. Religiosity strengthened both the trust–adoption and engagement–adoption paths, consistent with

Alsmadi (2024) and Geraldine and Adam (2025), who argued that moral alignment amplifies consumer responsiveness. This suggests that religiosity operates as moral capital, improving marketing efficiency by reducing persuasion costs and increasing the elasticity of adoption among faith-driven consumers (Ahmad et al., 2023).

Cross-country comparison revealed stronger relationships in Saudi Arabia and the UAE than in Jordan, confirming the institutional efficiency effect observed by Gharios and Abu Khalaf (2024) and Kismawadi (2025). Markets with advanced digital infrastructure and regulatory trust convert marketing efforts into adoption more efficiently. These differences support Institutional Theory, showing that structural readiness and governance moderate behavioral productivity.

Overall, the integration of digital marketing, trust, engagement, and religiosity forms a cohesive behavioral production system. The findings demonstrate that faith-aligned digital strategies enhance both ethical legitimacy and economic efficiency, ensuring that technology adoption in Islamic banking remains value-driven, sustainable, and socially responsible.

CONCLUSION

The purpose of this study was to assess how digital marketing effectiveness shapes customers' intention to adopt Islamic digital banking, focusing on the mediating effects of trust and engagement and the moderating role of religiosity across Saudi Arabia, the UAE, and Jordan.

The results show that effective digital marketing significantly strengthens both consumer trust and engagement, which together explain a substantial portion of the variance in adoption intention. Trust emerged as the most influential determinant, followed closely by engagement, indicating that both credibility and interactive experiences are central to consumers' willingness to use digital banking platforms. Religiosity further amplified these effects, suggesting that alignment between marketing content and moral values enhances behavioral responsiveness. Cross-country comparison revealed that the Gulf markets displayed stronger behavioral linkages than Jordan, reflecting greater institutional maturity and digital readiness.

From these results, it can be concluded that digital marketing in Islamic banking functions as behavioral capital, transforming technological communication into credibility and relational value. Trust and engagement act as behavioral mechanisms that translate digital exposure into adoption, while religiosity serves as ethical capital, increasing marketing efficiency through moral congruence. Collectively, the findings imply that integrating technological innovation with ethical and cultural resonance creates a sustainable pathway for digital transformation, fostering both competitiveness and inclusive financial participation in Islamic banking.

AUTHOR CONTRIBUTIONS

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