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SCAI: USER ACCEPTANCE OF A SHARIAH-COMPLIANT CONVERSATIONAL AGENT FOR PROMOTING ISLAMIC FINANCIAL LITERACY AMONG MARGINALIZED COMMUNITIES

Subashini Annamalai^{1*}, Kuo Wei Sheng², Azizah Che Omar³, Norhana Yusof⁴, Mohd Adib Abd Muin⁵

¹School of Multimedia Technology and Communication, Universiti Utara Malaysia, Sintok, Kedah, Malaysia

 subashini@uum.edu.my

 <https://orcid.org/0000-0003-3065-3099>

²Mercedes-Benz Malaysia Sdn Bhd, Wisma Mercedes-Benz, Puchong, Selangor, Malaysia

 kuoweisheng@gmail.com

 <https://orcid.org/0009-0001-4984-8286>

³School of Multimedia Technology and Communication, Universiti Utara Malaysia, Sintok, Kedah, Malaysia

 co.azizah@uum.edu.my

 <https://orcid.org/0000-0002-3718-2392>

⁴School of Multimedia Technology and Communication, Universiti Utara Malaysia, Sintok, Kedah, Malaysia

 ynorhana@uum.edu.my

 <https://orcid.org/0000-0003-1675-2250>

⁵Islamic Business School, Universiti Utara Malaysia, Sintok, Kedah, Malaysia

 mohdadib@uum.edu.my

 <https://orcid.org/0000-0002-2827-9440>

*Corresponding Author

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Abstract:

Although Islamic financial literacy remains critical for underserved communities, existing educational resources are largely static, and dedicated conversational AI platforms capable of delivering accessible, bilingual, and Shariah-compliant financial education remain limited. To address this gap, this study presents the development and user acceptance evaluation of SCAI, a Shariah-Compliant Conversational Agent that uniquely integrates conversational AI, structured educational modules, bilingual language support, voice interaction, and accessibility features into a single Shariah-compliant platform for promoting Islamic financial literacy and Takaful awareness among marginalized communities. Developed in collaboration with the Malaysian Takaful Association (MTA), the application was designed using user-centred design principles and underwent expert review prior to user evaluation. A mixed-method summative evaluation involving 33 questionnaire respondents and 10 focus group discussion participants was conducted using constructs adapted from the USE Questionnaire (Lund, 2001) and the Questionnaire for User Interaction Satisfaction

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(QUIS) (Wallace et al., 1988), covering Usefulness, Ease of Use, Ease of Learning, Satisfaction, Interface and Interaction Quality, and Accessibility and Trust. Mean scores across the six constructs ranged from 3.25 to 3.66 (out of 4), with 91.5% to 100% of responses indicating agreement or strong agreement, reflecting high levels of perceived usability, satisfaction, and trust. Participants reported that SCAI supported their perceived understanding of Takaful concepts, was easy to use and learn, and provided a positive and trustworthy interaction experience through its chatbot and educational features. The findings also highlighted the value of bilingual support, accessibility features, and conversational interaction in supporting user engagement and learning. Overall, the results indicate that SCAI is a practical, user-friendly, and promising platform for supporting Islamic financial literacy and Takaful awareness. This study contributes to the growing body of research on conversational AI in education and provides insights into the potential of AI-powered applications for supporting public awareness of Takaful and Islamic finance.

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Conversational AI, Educational Chatbot, Islamic Financial Literacy, Mobile Learning, SCAI, Takaful Awareness, User Acceptance



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Introduction

Financial decisions are only as good as the literacy behind them, and that holds even more for Islamic finance, where understanding goes beyond conventional financial knowledge to include Shariah-compliant principles, products, and services such as Islamic banking and Takaful (Lusardi & Mitchell, 2014; Rahim et al., 2016). The Islamic finance industry keeps growing, yet many people still know surprisingly little about the products meant to serve them, which limits how well they can actually make informed financial decisions (Rahim et al., 2016; Md Husin & Rahman, 2016).

That gap widens further among marginalized and lower-income communities, where limited access to financial education, thin exposure to literacy programmes, and structural barriers to financial inclusion all compound the problem (Sharizan et al., 2021). Closing it calls for educational initiatives that are actually accessible to underserved populations, not just theoretically available to them.

Digital technology has opened up new ways to deliver that kind of education. Conversational AI, chatbots and virtual assistants in particular, has drawn growing attention for its ability to offer personalised guidance, instant responses, and interactive learning (Winkler & Söllner, 2018), and educational chatbots specifically have been shown to boost learner engagement, accessibility, and self-directed learning (Okonkwo & Ade-Ibijola, 2021).

What's missing is the intersection of the two: few studies have looked at applying conversational AI to Islamic financial literacy for marginalized communities, and dedicated platforms that deliver accessible, bilingual, Shariah-compliant financial education barely exist. SCAI, a Shariah-Compliant Conversational Agent, was built to fill that gap: a mobile-based conversational learning application aimed at promoting Islamic financial literacy among marginalized communities. It combines conversational AI, bilingual language support, structured learning modules, voice interaction, accessibility settings, and direct access to information from the Malaysian Takaful Association (MTA).

This study evaluates how users actually accepted the SCAI mobile application, using constructs adapted from the USE Questionnaire (Lund, 2001) and the Questionnaire for User Interaction Satisfaction (QUIS) (Wallace et al., 1988). In doing so, it adds to the growing body of knowledge on conversational AI in education and what AI-powered conversational agents can do for Islamic financial literacy among marginalized communities.

Background of the Study

Islamic financial literacy differs from its conventional counterpart in what it actually requires understanding: Shariah-compliant principles, products, and services, including Islamic banking, Takaful, risk sharing, and the prohibition of *riba* (Rahim et al., 2016). Getting these right matters because it lets people align their financial decisions with their principles, yet awareness of Islamic financial products stays limited despite the sector's growth (Rahim et al., 2016; Abdullah & Anderson, 2015).

Takaful, specifically, protects through mutual assistance and shared responsibility rather than the risk transfer of conventional insurance. Md Husin and Rahman (2016) found that awareness genuinely drives participation in Takaful schemes, which makes the gap in public understanding, and the misconceptions it breeds about how Takaful actually differs from ordinary insurance, a real barrier rather than an academic one.

That gap bites hardest among B40 and other underserved households, where limited financial knowledge and thin exposure to educational programmes compound existing barriers to financial inclusion (Sharizan et al., 2021; Munisamy et al., 2022).

Recent generative AI advances have extended what conversational systems can offer learners, personalised support and educational assistance across very different learning environments (Kasneci et al., 2023), and mobile delivery specifically suits flexible learning for diverse user groups (Crompton, 2013).

What follows sets out how SCAI was built to sit at that intersection, and what its user acceptance evaluation, using the USE Questionnaire (Lund, 2001) and QUIS (Wallace et al., 1988), reveals about conversational AI's potential for Islamic financial education.

Problem Statement

Islamic financial literacy remains inadequate across large segments of the Muslim population despite the industry's rapid growth, limiting how well people actually use Shariah-compliant financial products and services (Lusardi & Mitchell, 2014; Rahim et al., 2016; Osman et al., 2024; Nawang et al., 2025).

Takaful specifically suffers from gaps in understanding, its concepts, benefits, claims process, exclusions, and how it differs from conventional insurance, that breed misconceptions and depress participation in Shariah-compliant protection schemes (Md Husin & Rahman, 2016; Abdullah & Anderson, 2015).

Marginalized and B40 communities feel this most acutely, where limited financial knowledge, thin programme exposure, and restricted access to services compound each other (Sharizan et al., 2021; Munisamy et al., 2022). Busari (2025) adds a further wrinkle: digital adoption itself is uneven among B40 Muslim communities, which means the solution has to be technology-based and genuinely accessible, not just technically available.

Existing information on Islamic finance and Takaful, websites, brochures, and similar resources, tends to sit in a static format that can't adapt to someone stuck on specific terminology or needing an answer to a specific question (Mayer, 2020). Interactive technologies that give immediate, personalised feedback have been shown to outperform this static approach on both engagement and accessibility (Winkler & Söllner, 2018; Okonkwo & Ade-Ibijola, 2021), which is exactly the alternative Islamic financial education needs.

SCAI was developed and evaluated specifically to close this gap: a Shariah-compliant conversational learning platform built on the interactive, personalised approach that chatbot technologies make possible (Kasneci et al., 2023; Okonkwo & Ade-Ibijola, 2021), evaluated here for both the platform's usability and its actual user acceptance.

SCAI: A Shariah-Compliant Conversational Agent for Promoting Islamic Financial Literacy

SCAI was developed as a Shariah-Compliant Conversational Agent designed to promote Islamic financial literacy among marginalized communities by providing accessible, interactive, and user-friendly educational support through a mobile application. The development of SCAI was motivated by the need to improve public understanding of Takaful and Islamic finance, particularly among individuals who may have limited access to formal financial education. Previous studies have highlighted the importance of Islamic financial literacy in enabling individuals to make informed financial decisions and effectively utilise Shariah-compliant products and services (Rahim et al., 2016; Osman et al., 2024; Nawang et al., 2025). By combining conversational artificial intelligence with structured educational content, SCAI aims to provide users with convenient access to trustworthy information while supporting self-paced learning. The application was developed based on user-centred design principles and incorporates educational content aligned with Islamic financial literacy concepts and Takaful awareness initiatives.

Unlike traditional learning resources that rely on static information delivery, SCAI adopts a conversational learning approach that enables users to interact with the system through natural language queries. The chatbot allows users to ask questions related to Takaful and Islamic finance and receive immediate responses in either Bahasa Melayu or English. To enhance accessibility and user engagement, SCAI supports both text-based and voice-based interactions. Additional conversational features such as the Clarify and End Session functions were incorporated to help users refine their questions and manage their learning sessions more effectively. The conversational design is supported by previous studies that highlight the effectiveness of chatbots in providing personalised guidance, improving accessibility, and enhancing learning engagement (Winkler & Söllner, 2018; Okonkwo & Ade-Ibijola, 2021).

In addition to the chatbot component, SCAI provides structured learning content through a series of educational topic modules. The application includes eight main topics: What is Takaful, Principles of Takaful, Takaful vs Insurance, Types of Takaful, Family Takaful Exclusions, Family Takaful Claims, Frequently Asked Questions (FAQ), and Contact Us. These modules were designed to introduce users to fundamental Takaful concepts and provide concise explanations using a microlearning approach. By organising information into manageable learning units, the application seeks to improve comprehension and reduce cognitive overload, consistent with recommendations from multimedia learning research (Mayer, 2020).

To ensure accessibility for diverse user groups, SCAI incorporates several user-friendly features. Users may select their preferred language during application startup and switch languages when required. The application also includes voice-to-text functionality for users who prefer speaking rather than typing, text-to-speech support for listening to chatbot responses, and adjustable font-size settings to improve readability. These features were incorporated to accommodate different learning preferences and accessibility needs while supporting inclusive access to Islamic financial education. Research has shown that accessible and flexible digital learning environments can enhance learner engagement, improve information accessibility, and support diverse user needs across different learning contexts (Crompton, 2013; Kasneci et al., 2023).

The interface of SCAI was designed using user-centred design principles to ensure clarity, consistency, and ease of use across different user groups. The application employs a simple and intuitive layout, supported by accessibility features such as bilingual language support, adjustable font sizes, and voice interaction. Prior to the summative evaluation, formative reviews involving experts in Islamic finance, user experience, and system development were conducted to assess content accuracy, usability, and functionality. Feedback from these reviews was incorporated into the final prototype, while minor refinements following the summative evaluation included improvements to URL formatting and the addition of a visible play button indicator for educational video content. Figures 1(a) to 1(g) illustrate the user interface of the SCAI mobile application.

Technically, SCAI was developed using React Native Expo and deployed as an Android mobile application. The conversational component is supported by a Node.js backend integrated with artificial intelligence services and a curated knowledge base containing verified information related to Takaful and Islamic finance. Educational content was developed based on materials provided by the Malaysian Takaful Association (MTA) to ensure information accuracy and alignment with industry practices. The application was designed as a lightweight and accessible learning tool that enables users to conveniently access Islamic financial information and educational content through their smartphones.

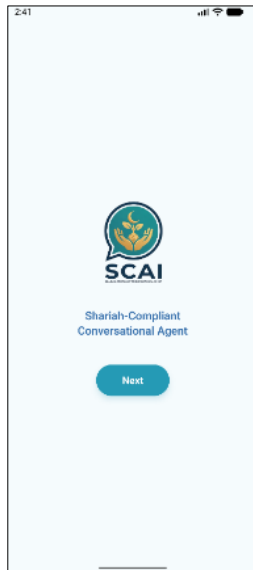


Figure 1(a): Splash Screen



Figure 1(b): Language Selection Overlay



Figure 1(c): Topic Tab

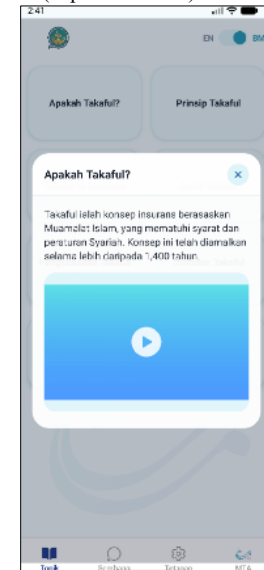


Figure 1(d): Topic Card Overlay

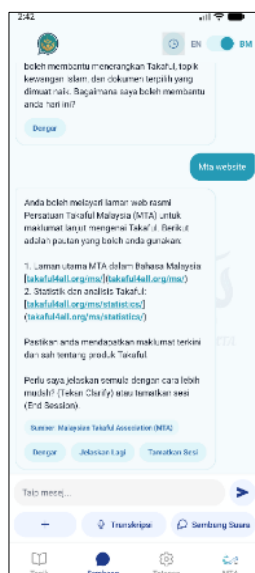


Figure 1(e): Chat Tab

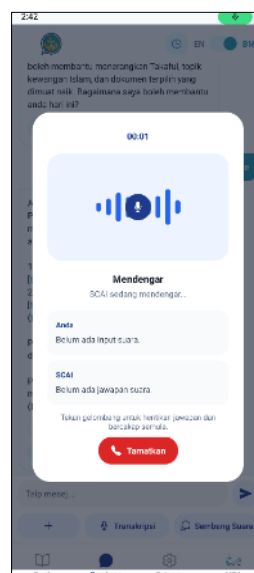


Figure 1(f): Voice Chat

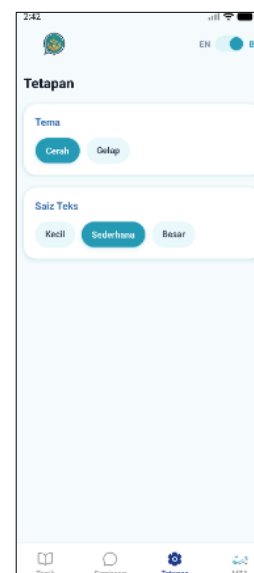


Figure 1(g): Setting Tab

Overall, SCAI provides a practical and user-centred approach to promoting Islamic financial literacy through conversational learning. By integrating conversational AI, structured educational modules, bilingual support, and accessibility features into a single mobile platform, the application addresses several limitations associated with traditional information delivery methods. The combination of educational content and interactive chatbot support enable users to learn about Takaful and Islamic finance in a more engaging and accessible manner. The effectiveness and user acceptance of SCAI are evaluated in the following section to determine its potential as a conversational learning tool for promoting Islamic financial literacy among marginalized communities.

Methodology

The user acceptance of the SCAI mobile application was examined through a summative evaluation involving end users from the target community. The primary objective of the evaluation was to assess users' perceptions of the application's usefulness, ease of use, ease of learning, satisfaction, interface and interaction quality, accessibility, and trust after interacting with the application. By focusing on these constructs, the evaluation aimed to provide insights into the extent to which SCAI supports users in learning about Takaful and Islamic finance through its educational modules and conversational AI features.

A mixed-method approach was adopted, combining quantitative and qualitative data collection methods to obtain a comprehensive understanding of users' acceptance and experiences with the application (Creswell & Creswell, 2017). The quantitative component consisted of a questionnaire adapted from the USE Questionnaire (Lund, 2001) and the Questionnaire for User Interaction Satisfaction (QUIS) (Wallace et al., 1988), while the qualitative component involved a focus group discussion designed to further explore users' perceptions and experiences.

A total of 33 participants were involved in the questionnaire evaluation, while 10 participants participated in the focus group discussion. Participants consisted primarily of university students and individuals representing the target user group for the application. Their involvement enabled the study to evaluate the acceptance of SCAI among potential users who may benefit from improved access to Islamic financial literacy resources.

Data were collected using a structured questionnaire consisting of six evaluation constructs: Usefulness, Ease of Use, Ease of Learning, Satisfaction, Interface and Interaction Quality, and Accessibility and Trust. These constructs were selected because they jointly capture the core dimensions of usability and user experience relevant to a conversational learning application: Usefulness, Ease of Use, and Ease of Learning were adapted from the USE Questionnaire (Lund, 2001) to assess perceived functional value and learnability, Satisfaction and Interface and Interaction Quality were adapted from the QUIS (Wallace et al., 1988) to assess the quality of the conversational and interface experience, and Accessibility and Trust was added to address the bilingual, accessibility, and credibility considerations specific to a Shariah-compliant financial education context. Responses were measured using a five-point Likert scale ranging from Strongly Disagree (0) to Strongly Agree (4). In addition, a focus group discussion protocol adapted from the same evaluation constructs was used to obtain more detailed feedback regarding users' experiences, perceived benefits, challenges, and recommendations for future improvements.

The summative evaluation was conducted after the completion of the application development process. Participants were first introduced to the objectives and functionality of SCAI before being allowed to explore the application independently. They interacted with the educational topic modules, chatbot functions, voice interaction features, and accessibility settings before completing the questionnaire. Subsequently, selected participants participated in a focus group discussion consisting of seven open-ended questions. Prior to the summative evaluation, formative reviews involving experts in Islamic finance, user experience, and system development were conducted to ensure content accuracy, usability, and functionality. Feedback obtained during this stage was incorporated into the final prototype before user evaluation.

Quantitative data were analysed using descriptive statistics, including mean scores, standard deviations, and the percentage of participants who selected Agree or Strongly Agree responses. Qualitative data obtained from the focus group discussion were analysed using thematic analysis to identify recurring themes and patterns within participants' feedback (Braun & Clarke, 2006).

Findings

The findings of this study were obtained from the summative evaluation of the SCAI mobile application involving 33 questionnaire respondents and 10 focus group discussion participants. The questionnaire findings were analysed using descriptive statistics, including mean scores, standard deviations, and the percentage of respondents who selected Agree or Strongly Agree responses. The overall results indicate positive user acceptance across all evaluation constructs, namely Usefulness, Ease of Use, Ease of Learning, Satisfaction, Interface and Interaction Quality, and Accessibility and Trust.

Table 1: Item-Level Descriptive Statistics For User Acceptance Of SCAI

Construct	Item	Mean (M)	SD	% Agree / Strongly Agree
Usefulness	The SCAI application helps me better understand Takaful concepts.	3.33	0.48	100.0%
	The application provides useful Islamic financial information.	3.27	0.45	100.0%
	The chatbot makes learning Islamic finance easier.	3.91	0.29	100.0%
	The application helps improve my awareness of Takaful.	3.00	0.61	81.8%
	The information provided meets my requirements.	3.12	0.60	87.9%
	The application saves time when searching for Islamic financial information.	3.79	0.42	100.0%
Ease of Use	The SCAI application is easy to use.	3.85	0.36	100.0%
	Interacting with the chatbot is simple and understandable.	3.76	0.44	100.0%
	The application interface is user-friendly.	3.64	0.49	100.0%
	The chatbot responses are clear and understandable.	3.27	0.63	90.9%
	I can use the application without assistance.	3.48	0.62	93.9%
	The application is easy to navigate on mobile devices.	3.52	0.62	93.9%

Ease of Learning	I learned to use the application quickly.	3.73	0.45	100.0%
	It is easy to remember how to use the application.	3.64	0.49	100.0%
	I quickly became comfortable using the application.	3.36	0.49	100.0%
	The instructions are easy to understand.	3.70	0.47	100.0%
	The features are easy to understand.	3.76	0.44	100.0%
Satisfaction	I am satisfied with the overall experience of using SCAI.	3.48	0.51	100.0%
	I enjoy using the chatbot application.	3.48	0.51	100.0%
	The application works the way I expected.	3.52	0.62	93.9%
	I would recommend this application to others.	2.91	0.63	81.8%
	I would use this application again in the future.	2.88	0.60	81.8%
Interface and Interaction Quality	The layout and organization of information are clear.	3.82	0.39	100.0%
	The Topics tab helps me understand information more easily.	3.70	0.47	100.0%
	The visual design of the application is attractive.	3.33	0.48	100.0%
	The text is easy to read.	3.85	0.36	100.0%
	The buttons are easy to interact with.	3.85	0.36	100.0%
Accessibility and Trust	The response flow of the chatbot feels natural.	3.42	0.50	100.0%
	The bilingual language support is helpful.	3.79	0.42	100.0%
	The chatbot uses simple and understandable language.	3.79	0.42	100.0%
	The chatbot responses feel trustworthy.	3.45	0.51	100.0%
	The information provided aligns with Islamic values.	3.45	0.51	100.0%
	The chatbot communicates politely and respectfully.	3.58	0.50	100.0%
	The voice interaction improves accessibility.	3.52	0.62	93.9%

Note: Items were rated on a 5-point Likert scale (0 = Strongly Disagree, 4 = Strongly Agree) (N = 33).

Table 2: Summary of Descriptive Statistics For User Acceptance Of SCAI

Construct	M	SD	% Agree / Strongly Agree	Description of Findings
Usefulness	3.40	0.59	94.9%	Users perceived SCAI as useful for improving their understanding of Takaful and Islamic finance.
Ease of Use	3.59	0.56	96.5%	Users found the application easy to use, navigate, and interact with.
Ease of Learning	3.64	0.48	100.0%	Users were able to learn and understand the application quickly.
Satisfaction	3.25	0.64	91.5%	Users expressed positive satisfaction with the application and its features.
Interface and Interaction Quality	3.66	0.47	100.0%	Users positively evaluated the interface design, readability, and interaction experience.
Accessibility and Trust	3.60	0.51	99.0%	Users perceived the application as accessible and trustworthy.

Note: Items were rated on a 5-point Likert scale (0 = Strongly Disagree, 4 = Strongly Agree) (N = 33).

Usefulness posted a mean of 3.40 (SD = 0.59), with 94.9% agreeing or strongly agreeing overall. Respondents generally found SCAI beneficial for understanding Takaful concepts and Islamic finance, and the chatbot in particular seemed to do the heavy lifting: participants singled out its ability to give immediate explanations and cut down the time spent hunting for Islamic financial information.

Ease of use came in at 3.59 (SD = 0.56), with 96.5% agreement. Users found the application straightforward to navigate, interacting with the chatbot, pulling up educational content, and using the various features without much friction, which points to an interface and navigation structure that actually supported the interaction rather than getting in its way.

Ease of learning scored 3.64 (SD = 0.48), with full agreement across the board (100%). Users picked up the application quickly and understood its features without confusion, a result that credits the educational content, instructions, and interaction design for making the first-time experience a smooth one.

Satisfaction landed at 3.25 (SD = 0.64), with 91.5% agreement, the lowest of the six constructs but still solidly positive. Most participants said they enjoyed the application, were satisfied overall, and would use it again or recommend it to others.

Interface and Interaction Quality scored highest of all six constructs (M = 3.66, SD = 0.47, 100% agreement). Users rated the organisation of information, text readability, button interaction, and overall flow positively, suggesting the interface did its job: delivering information efficiently while staying comfortable to use.

Accessibility and Trust came in at 3.60 (SD = 0.51, 99.0% agreement). Respondents responded well to the bilingual support, the chatbot's plain language, and how trustworthy and Islamically

aligned the information felt, results that matter more here than in a typical usability study, since credibility and Shariah compliance are what make or break acceptance in this particular context.

The focus group backed up the numbers. Participants called SCAI easy to use, helpful, simple, and well suited to beginners approaching Takaful and Islamic finance for the first time. Most agreed the organised educational content and conversational features genuinely helped their understanding of Takaful concepts, and the chatbot came up again and again as the most useful piece, letting people ask a question and get an answer quickly. Bilingual support, the Topics tab, the Clarify function, and document-based question submission all got mentioned too.

Trust and interaction quality came up unprompted as well. Participants described the interaction as smooth, user-friendly, and straightforward, and found the chatbot's responses clear, respectful, and aligned with Islamic values. Several noted approvingly that it stayed on topic, Takaful and nothing else, rather than wandering into unrelated territory.

Not everything drew praise, though. Participants wanted the video replay fixed (videos could not be replayed without manually dragging the progress slider back), the font-size options made more visually distinct, the voice interaction refined, the educational content expanded, more languages (Mandarin came up specifically), more interactive examples, and some kind of learning progress tracker. All useful direction for what comes next.

Taken together, the quantitative and qualitative findings tell the same story: strong user acceptance of SCAI as useful, easy to use, easy to learn, accessible, and trustworthy, capable of actually teaching people about Takaful and Islamic finance through conversation rather than static text.

Discussion

Across the board, SCAI landed well with users. High mean scores on Usefulness, Ease of Use, Ease of Learning, Satisfaction, Interface and Interaction Quality, and Accessibility and Trust all point the same way: conversational AI can genuinely work as a medium for Islamic financial literacy content that's accessible, interactive, and easy to follow. Between the questionnaire and the focus group, the evidence lines up that SCAI did what it set out to do as a conversational learning platform for Takaful and Islamic finance awareness.

On usefulness specifically, users felt supported in learning about Takaful and Islamic finance, though it's worth being precise about what that means: since the evaluation relied on self-reported perceptions rather than a pre-test/post-test, what we have here is perceived rather than measured learning gain. Still, the chatbot's ability to hand over immediate explanations rather than making people dig for information tracks with what prior work has already found about chatbot technologies in education (Winkler & Söllner, 2018; Okonkwo & Ade-Ibijola, 2021), and the same logic applies to Takaful specifically: better perceived understanding here is consistent with research linking financial literacy to actually using Islamic financial products (Rahim et al., 2016; Osman et al., 2024).

Ease of Use, Ease of Learning, and Interface and Interaction Quality moved together, which makes sense: participants described the same application as simple, user-friendly, easy to navigate, valuing the chatbot interface, bilingual support, and topic modules in roughly the

same breath. That combination, intuitive design plus clear interaction structure, is exactly what prior research on digital learning environments would predict (Lund, 2001; Mayer, 2020). Accessibility and Trust scored just as strongly, and in this particular context that matters more than usual: users trusted the responses as reliable, respectful, and Islamically aligned, and credibility is not a nice-to-have here but close to the whole point of a Shariah-compliant tool. The wish list was short but specific: better video replay, clearer font-size distinctions, a more refined voice interaction feature, more educational content, and more language options. Two of these, URL formatting and a visible play button for video content, were already fixed based on the feedback. The rest is a fair roadmap rather than a real complaint, and none of it undercuts the core result: SCAI has real potential as an accessible, user-centred, trustworthy way to teach Islamic financial literacy through AI.

Implications

The clearest implication is that conversational AI works as a delivery medium for Takaful and Islamic finance education specifically. Participants said the interactive conversations and structured topic modules helped them feel they understood key concepts better, which lines up with prior findings on conversational AI's role in accessibility, personalised support, and engagement (Winkler & Söllner, 2018; Okonkwo & Ade-Ibijola, 2021). For users starting with limited prior knowledge of Islamic financial products, that's a genuinely practical alternative to traditional information dissemination, not just a novelty.

Design-wise, the high Ease of Use, Ease of Learning, and Interface and Interaction Quality scores reinforce something fairly basic but easy to get wrong: user-centred design principles matter more, not less, when your audience has varying digital literacy. Intuitive interfaces, clear information, and lower cognitive complexity keep showing up in the literature as drivers of both user experience and learning outcomes (Lund, 2001; Mayer, 2020) and pairing that with conversational interaction rather than static delivery seems to be where the real gain comes from.

Trust deserves its own callout. High Accessibility and Trust scores mean users found the chatbot's responses reliable, understandable, and aligned with Islamic values, which matters because trustworthiness is one of the biggest levers on whether people even bother seeking out financial information in the first place. Given that inadequate understanding of Islamic financial products is already a documented barrier to adoption (Rahim et al., 2016; Osman et al., 2024), a conversational AI tool that people actually trust is doing real work, not just delivering information but making people willing to receive it.

For MTA and similar organisations, the practical implication is fairly direct. SCAI was built on verified content through direct collaboration with MTA, and the positive results suggest conversational AI can extend, not replace, existing outreach: seminars, campaigns, and printed materials all have a shelf life that a mobile, always available chatbot doesn't. Reaching diverse user groups anywhere, anytime is exactly the kind of digital approach financial inclusion efforts increasingly depend on (Sharizan et al., 2021; Busari, 2025).

Looking ahead, participants' own wishlist, expanded content, more languages, better accessibility, doubles as a development roadmap. It also points toward a bigger opportunity: personalised, adaptive AI-powered learning, which recent work suggests is where educational

conversational systems are heading generally (Kasneci et al., 2023), not just for SCAI specifically.

Put simply, SCAI's reception suggests conversational AI can be a genuinely practical tool for Islamic financial literacy, not just a proof of concept. Verified content, conversational interaction, bilingual support, and accessibility features in one mobile platform scales in a way that seminars and brochures never quite manage, and that should interest educators, researchers, policymakers, and Islamic financial institutions alike, MTA included, looking to actually move the needle on Shariah-compliant financial engagement.

Limitations and Future Work

A few limitations are worth naming. The sample skewed toward university students, and while their feedback on usability was genuinely useful, it doesn't necessarily speak for the wider target population, especially people from different age groups, educational backgrounds, and socioeconomic circumstances. A larger, more varied sample would tell us more about how acceptance holds up across different segments of society.

The evaluation also measured perception rather than actual learning. Participants said the application helped them understand Takaful and Islamic finance better, but without a pre-test/post-test design, that's a self-report rather than a measured outcome. Longitudinal or experimental follow-up work could close that gap and show whether the perceived gains translate into retained knowledge.

The focus group's own suggestions sketch a fairly concrete improvement list: fix video replay (currently stuck requiring a manual slider drag), sharpen the visual distinction between font-size options, refine voice interaction, expand content, add practical examples, and bring in more languages, Mandarin came up by name. None of it is a redesign; all of it is refinement.

There's also room to push SCAI's AI further: personalised learning recommendations, adaptive pathways, progress tracking, and conversational responses that read context rather than just intent. These would deepen engagement and tailor the experience more precisely to individual learners, in line with where conversational systems in education generally seem to be headed (Kasneci et al., 2023).

And there's a natural next step with MTA already in place: broadening SCAI beyond Takaful into wider Islamic financial literacy, savings, investment, wealth management, financial planning, other Shariah-compliant services, while keeping the content current as the industry itself evolves. Done right, that keeps SCAI relevant as a platform rather than a one-off project and keeps it useful to MTA's own ongoing awareness work.

Conclusion

This study evaluated user acceptance of SCAI, a Shariah-Compliant Conversational Agent built to promote Islamic financial literacy and Takaful awareness through conversational learning. Interactive chatbot conversations, structured topic modules, bilingual support, voice interaction, and accessibility features were meant to make the educational content both accessible and trustworthy, and building it in collaboration with the Malaysian Takaful

Association (MTA) kept the underlying information accurate and aligned with industry practice.

The results back that design up: strong user acceptance across every construct measured, Usefulness, Ease of Use, Ease of Learning, Satisfaction, Interface and Interaction Quality, and Accessibility and Trust. Participants found the application useful, easy to use, easy to learn, and genuinely helpful for understanding Takaful and Islamic finance, and both the questionnaire and focus group pointed to the same features earning that trust: chatbot interaction, the topic modules, bilingual support, accessibility settings. Taken together, that's real evidence that conversational AI can serve as an effective medium for building awareness of Islamic financial concepts.

Beyond the education angle, SCAI shows what conversational AI can practically do for financial literacy and public awareness work more broadly. Immediate, verified information through a mobile platform sidesteps a lot of what makes traditional information delivery clunky, and the MTA partnership itself demonstrates how industry collaboration can produce educational tools that are actually relevant and trustworthy rather than generic.

This also fills a real gap in the literature. Chatbots in education have been studied extensively in general settings, but Takaful and Islamic financial literacy specifically have barely been touched. The results here offer empirical evidence, not just a plausible argument, that conversational AI can deliver specialised financial knowledge in a way that's both accessible and engaging.

In the end, SCAI is a working example of conversational AI, structured educational content, and user-centred design coming together in one mobile application to move Islamic financial literacy forward. Strong acceptance suggests it has genuine potential as a practical, accessible, scalable platform for Takaful awareness and Islamic financial education, and as AI keeps reshaping digital learning generally, applications like SCAI point toward what public access to trustworthy financial knowledge, and lifelong learning within Islamic finance specifically, could actually look like.

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