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PERCEPTION OF POLYTECHNIC STUDENTS TOWARDS THE SMARTPHONE APPLICATION ISLAMIC STUDIES MADE EASY (ISME)

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ABSTRACT

Malaysia is ranked 10th globally for the highest number of smartphone users, with around 24 million users. Every student in higher education institutions owns a self-purchased or government-provided smartphone. The advancement in facilities necessitates a comprehensive transformation, especially in education. Traditional teaching methods using thick, costly notebooks are burdensome and outdated. Therefore, researchers and colleagues have developed an Islamic Studies Made Easy (IsMe) smartphone application for students taking Islamic Studies courses. To determine the effectiveness of this application, a study was conducted on polytechnic students enrolled in Islamic Studies courses using quantitative methods by distributing questionnaires to 67 respondents. The study's findings indicate that students are more interested in learning Islamic Studies because it is easier to refer to, discuss with lecturers, and save costs using the developed IsMe application. For improvement, the researchers must address non-Android users' inability to download the application. In conclusion, these findings indicate the need for 21st-century learning that leans towards using information technology in teaching and learning, aligning with the IR 4.0 education revolution.

Keywords: IsMe, Information Technology, Islamic Studies

INTRODUCTION

Technological advancements, particularly in smartphone usage, facilitate communication, information retrieval, and sharing of social lifestyles domestically and internationally. Applications provided on phones certainly benefit the current education system. According to Noor Syahida et al. (2019), students use smartphones primarily for communication and learning purposes, such as finding notes related to their courses. Studies by Dina and Siti (2019) show that positive impacts of smartphone usage can be seen in improved academic performance when students use them to ask questions and discuss with teachers or peers. Malaysia can adopt technology in education. It has become a norm for society to use information and communication technology in the 21st century (Nur Aisyah & Hazrati Husni, 2022).

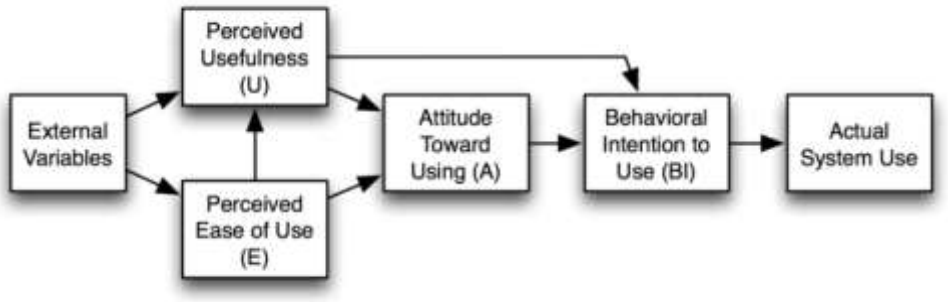
The Malaysian Education Blueprint 2015-2025 emphasises leveraging Information and Communication Technology (ICT) to enhance the quality of education in Malaysia, as stated in the seventh of the 11 fundamental shifts to transform the national education system. The Ministry of Education Malaysia has implemented ICT in teaching and learning processes (National Education Policy 2017).

The use of technology in education increased during the COVID-19 pandemic when all educational institutions were closed, and students had to follow teaching and learning from home (PDPR). Parents had to provide facilities such as laptops and smartphones equipped with data to ensure their children could participate in PDPR during the Movement Control Order (MCO).

With the availability of personal devices and the skills required, the ISME application complements students' needs today. Furthermore, the application aligns with Davis's (1989) Technology Acceptance Model (TAM), which suggests that behaviour can change with a catalyst. The TAM model, as shown in Figure 1 below, was used by researchers to develop the ISME application.

Figure 1

Technology Acceptance Model (Davis, 1989)



The Technology Acceptance Model (TAM) contains two main elements: perceived usefulness (PU) and perceived ease of use (PEOU). Perceived usefulness refers to an individual's belief that using a specific system can improve their job performance, while perceived ease of use refers to the degree to which an individual believes that using a particular system would be effortless (Davis et al., 1989).

The Islamic Studies Made Easy (ISME) application was developed to address the need for mobile-based reference materials for Islamic Studies courses. Students can refer to the course materials anytime, and

it positively impacts their interest in the subject. ISME also includes an interactive multimedia section to support self-directed learning, aligning with Education 4.0. The objectives of this app are as follows:

1. To increase students' interest in Islamic Studies courses.
2. To facilitate quick and effective access to teaching and learning materials (PDP).
3. To make it easy for students to discuss with lecturers and peers regardless of time and place.
4. To save energy resources and be environmentally friendly.

The study focuses on perceived usefulness to evaluate students' perceptions when using the application. Islamic Studies is a mandatory subject that every Muslim student must pass before graduation. This subject is a General Studies Course (MPU) and must be registered by students in their first or second semester. It aims to provide Muslim students at Polytechnics and Community Colleges across Malaysia with an understanding of Islam as a way of life, the basics of Shariah, Islamic institutions, and the challenges facing Muslims. As stated in the General Studies Course Guidelines (MPU): Second Edition 2016, the main objective is to enhance knowledge and soft skills among students.

Typically, students use books or modules purchased or printed as references for this subject. These books are A4-sized, with 232 pages containing learning content and assessments for each topic in objective and subjective forms. While these well-organised reference books facilitate lecturers in teaching and learning sessions (PdP), students often need help leaving books in dormitories, losing books, or being reluctant to carry heavy books. These problems can disrupt lecturers' planning and implementation of PdP processes. Therefore, the ISME application is expected to overcome these challenges and positively impact students' interest in Islamic Studies courses.

According to a study published in the Journal of Computer in Human Behavior, Malaysia ranks third after China and Saudi Arabia in smartphone addiction. Previous studies have shown high smartphone addiction and increased mobile internet usage (Durak, 2019; Gezgin & Cakir, 2016). On average, respondents have around 80 mobile applications on their phones, with 16% used for learning purposes (Park & Lee, 2012). A study by Shirin et al. (2014) found that educators' positive attitudes encourage students to enjoy physical or mobile learning environments. This is supported by findings showing the positive potential of mobile learning among educators and students (Nawi et al., 2015).

The ISME application was developed to meet the current mobile-based needs of students taking Islamic Studies modules at Polytechnics and Community Colleges. The application offers many benefits, such as easy and free access and the ability to refer to course materials anytime. ISME is designed to attract students with interactive multimedia features, making it suitable for modern times and aligning with the IR 4.0 education revolution. Therefore, researchers felt compelled to study students' perceptions of the ISME application to ensure it positively impacts users and promotes mobile learning in Islamic Studies courses.

The study aims to achieve the following objectives:

1. To identify students' perceptions of the ISME application.
2. To determine students' perceptions of the effectiveness of the ISME application in accessing teaching materials, discussing with lecturers and peers, saving energy resources, and being environmentally friendly.

LITERATURE REVIEW

The Global Digital Overview reported by Nurfarahin et al. (2021) states that half of the world's population uses social media, and the number of Internet users worldwide already exceeded 4.5 billion. In his research about information-seeking behaviour, Jeremy Cooper (2017) found that most prospective students of higher education institutions use smartphones.

A study conducted on university students by Khusnul and Mohd. Helmi (2017) found that smartphones are the most frequently used gadgets for browsing social media and communication platforms such as YouTube, Facebook, Instagram, Twitter, Line, WhatsApp, and others. Mobile applications have increased over time due to their crucial role in modern society (Ab Halim & Muslaini, 2018).

In line with the development of the education sector, which emphasise**s** 21st-century learning techniques**,** mobile applications are considered essential as they can enhance the teaching and learning system (T&L)**.** The study also found that students spend 5 to 6 hours per day browsing social media, enabling teachers to create groups on WhatsApp or Facebook to assign tasks (Noorhadi & Zurinah, 2017)

The study by Nur Hazirah and Masayu (2020) showed that most of the respondents, consisting of teachers who had to conduct online teaching and learning (PdPc)**,** agreed to use social media applications such as WhatsApp and Telegram during the Movement Control Order (MCO) implemented by the government. Ahmad Fikrudin and Ammar Badruddin (2017) found that lecturers and students were highly satisfied with the Mobile Apps developed for the Science, Technology, and Engineering in Islam (M-ISTECH) course at Malaysian Polytechnics.

ISLAMIC STUDIES MADE EASY (ISME) MOBILE APPLICATION

This section elaborates on features that support ISME. Several snapshots from the apps are presented below. Among the features supported by ISME are user registration and access to learning materials such as e-books and lecture notes (refer to Figures 2 and 3). There are also features of summative evaluation, such as an online quiz that evaluates students' understanding (refer to Figures 4 and 5). It also supports interactivity features such as online discussions and student activities (Figure 6). This mobile app can be downloaded from the Play Store and was around 2022, as shown in Figure 7.

Figure 2

List Of E-Books

Figure 3

Notes In E-Book

Figure 4

List Of E-Quizzes

Figure 5

Example Of E-Quiz

Figure 6

List of E-discussion

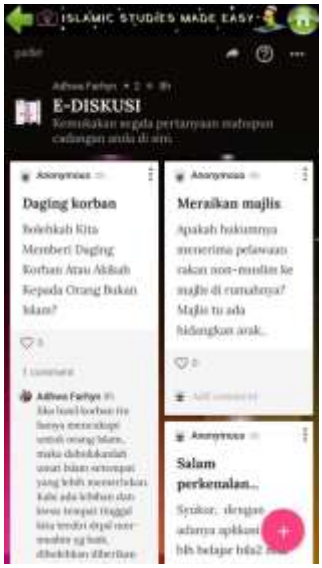
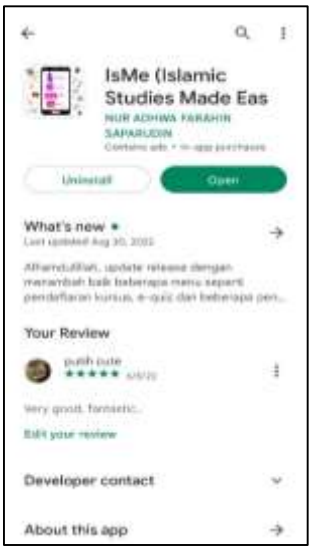


Figure 7

Google Play Download



RESEARCH METHODOLOGY

This quantitative study collected data through a questionnaire reviewed by expert lecturers to ensure the validity of the items. The study explored students' perceptions of the ISME application used by students taking the Islamic Studies module. The respondents comprised 67 students from the Diploma in Digital Technology (DDT) 2A, 2B, and 2C classes for Session I:2023/2024 at Polytechnic Tuanku Syed Sirajuddin Perlis. The respondents were selected based on their enrollment in the Islamic Studies course and common factors such as owning a smartphone and having data to access the internet. Each respondent was informed at the beginning of the semester that they should download the ISME application from Google Playstore for use throughout the semester.

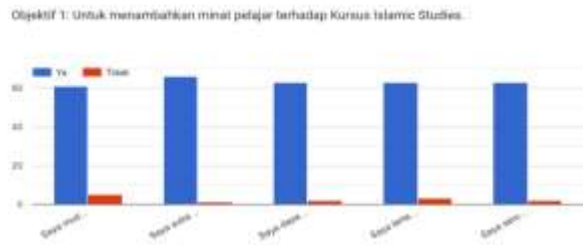
The questionnaire was divided into two main categories: Category A, concerning respondent demographics with three questions, and Category B, consisting of 25 items to evaluate students' perceptions of the ISME application based on the Technology Acceptance Model (TAM) by Davis (1989). The findings then will be analysed using Microsoft Office Excel 2000 and visualised in table and percentage graph.

FINDINGS AND DISCUSSIONS

In this section, only three items are provided to give an overview of the respondents' profiles, namely gender, age, and smartphone usage. Sixty-seven respondents were selected, with 56.7% male and 43.3% female. The majority of the age group was between 18 and 21 years, at 95.5%, with the remaining 4.5% aged between 22 and 25 years and 0% aged 26 and 29 years. In terms of smartphone (Android) usage, 80.6% of respondents used it, while 19.4% did not use Android smartphones.
Figure 8 below shows the percentage graph of data analysis results from the questionnaire on the five items presented.

Figure 8

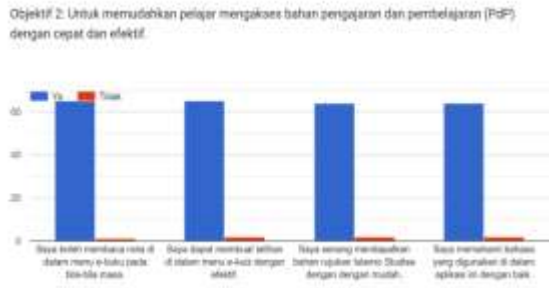
Findings on Students' Perceptions Towards the Use of the "ISME" Application



From the figure above, items 1 to 5 regarding students' interest (objective 1) show that for item 1, 90.9% representing 60 students answered 'Yes' and 9.1% representing six students answered 'No'. For item 2, 98.5%, representing 66 students, answered 'Yes', and 1.5% representing one student answered 'No'. Items 3 to 5 show that 94%, representing 63 students, answered 'Yes' and 6%, representing four, answered 'No'.

Figure 9

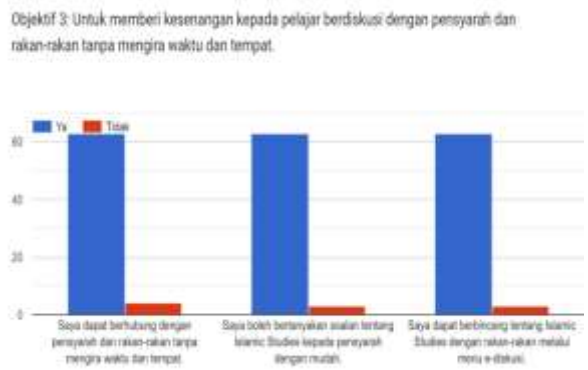
Findings on Students' Perceptions Towards the Effectiveness of ISME in Facilitating Access to Teaching and Learning Materials (PdP)



In Figure 9, items 6 to 9 are related to the ease of accessing PdP materials (objective 2), items 6 and 7 show that 97%, representing 65 students, answered 'Yes' and 3%, representing two students, answered 'No'. Items 8 and 9 show that 95.5% representing 64 students answered 'Yes' and 4.5% representing three students answered 'No'.

Figure 10

Findings on Students' Perceptions Towards the Effectiveness of ISME in Facilitating Discussions with Lecturers and Peers



In Figure 10, items 10 to 12 pertain to the ease of discussing with lecturers and peers regardless of time and place (objective 3). Data show that all three items received the same percentage, with 94% representing 63 students answering 'Yes' and 6% representing 4 students answering 'No'.

Figure 11

Findings on Students' Perceptions Towards the Effectiveness of ISME in Saving Energy Resources and Being Environmentally Friendly

Finally, in Figure 11, regarding saving energy resources and being environmentally friendly (objective 4), for item 13, 94%, representing 63 students, answered 'Yes', and 6%, representing four, answered 'No'. For item 14, the percentage is 95.5%, representing 64 students who answered 'Yes' and 4.5% representing three students who answered 'No'. Item 15 also recorded a high percentage, with 97% representing 65 students answered 'Yes' and 3% representing two students answered 'No'.

The study's findings show that all students own smartphones; however, a few do not use Android applications because they use iPhones. This can be identified as 19.4%, representing 13 students who do not use Android applications. This explains the lowest percentage for item 1, "I can easily download the 'ISME' application from Google Play store." This feedback is valuable as it allows researchers to make improvements to enable non-Android users to upload the ISME application.

Despite this, the findings of objective 1, i.e., students' perceptions of the ISME application, remain positive, with an average percentage of 94.3%, indicating that students are more interested in the Islamic Studies course with the ISME application. This finding is supported by the study by Mohd Maziz et al. (2021), which stated that technological developments must be integrated into Islamic education subjects

to ensure continuous educational success.

For objective two findings, regarding students' perceptions of the effectiveness of ISME in facilitating access to teaching and learning materials (PdP), the highest average percentage obtained is 96.25%, clearly indicating that the ISME application makes it easier for students to access PdP materials quickly and effectively. This has been explained in the study by Ronizam et al. (2016), which states that mobile applications benefit all age groups seeking information about religion.

For objective three findings regarding students' perceptions of the effectiveness of ISME in facilitating discussions with lecturers and peers, the average percentage obtained is 94%, with all three items showing the same score. From this finding, researchers believe that respondents who answered 'No' may find it challenging to ask lecturers directly through this application because they use non-Android smartphones. However, the high percentage of students answering 'Yes' aligns with the findings of Nor Adilah & Lai (2019), which state that students can efficiently complete assigned tasks when using technology in learning for discussions between lecturers and group members.

Furthermore, for objective four findings, regarding students' perceptions of the effectiveness of ISME in saving energy resources and being environmentally friendly, the average percentage obtained is 95.5%, indicating that the ISME application can save energy resources and is environmentally friendly. The researchers were particularly interested in item 15, which received a 97% score related to student cost savings. This is very meaningful as it can ease students' burdens by reducing the need to buy books lowering parental spending on their children's education. Cost savings also include free internet access provided by all educational institutions. This was also mentioned in the study by Mahathir Wardatul (2021), which stated that free SIM cards with substantial internet quotas given to underprivileged higher education students can relieve students from subscribing to their internet plans.

These findings prove that teachers and students can utilise technological advancements for teaching and learning in this era. Failure to master technology or letting it pass without effort to learn it will leave individuals and the country behind compared to countries whose citizens are aware of technological developments. As stated in the study by Nor Adilah Lai (2019), technological advancements must be integrated into current life to enable our country to be on par with developed nations and produce knowledgeable citizens.

Finally, from the discussed findings, researchers believe that various other studies can be conducted, such as the relationship between mobile applications in learning and academic achievement, the impact of mobile application usage in learning on students' health, and library studies to get views from scholars and religious experts on this matter.

CONCLUSION

Changes over time are inevitable in any field, and we must adapt to stay caught up. This is also true in the field of education. Although traditional methods were influential in the past, they must be re-evaluated to ensure our education system is on par with developed countries. Various modern learning methods, such as Blended Learning, Flipped Classroom, and Problem-Based Learning, can be used. Each method emphasises self-directed learning by students and incorporates technology in teaching.

Therefore, the IsMe application is a learning method that aligns with current times, attracts students' interest in learning, and facilitates discussions with lecturers. This helps students understand unclear aspects after interacting through the provided application. Additionally, cost savings and being environmentally friendly are significant elements for students and the entire community, as they reduce unnecessary expenses and waste, unlike books often discarded by students after graduation.

This study will benefit those in need and catalyse teachers and lecturers to develop applications that attract students' interest. These resources can be used for teaching and learning purposes, ensuring that our education system progresses and becomes comparable to developed countries.

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