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IMPLEMENTATION AND CHALLENGES OF E-LEARNING AMONG ASNAF STUDENT IN PERLIS: A DESCRIPTIVE ANALYSIS

Wan Azani Mustafa[1,2,*], Wan Zuki Azman Wan Muhamad[3], Ernie Adnan[4], Abdul Ghafur Hanafi[5], Fathullah Asni[6]

[1] Advanced Computing Engineering (AdvComp), Centre of Excellence (CoE), Universiti Malaysia Perlis (UniMAP), Pauh Putra Campus, 02600 Arau, Perlis, Malaysia
Email: wanazani@unimap.edu.my
[2] Faculty of Electrical Engineering Technology, UniCITI Alam Campus, Universiti Malaysia Perlis, 02100 Padang Besar, Perlis, Malaysia
[3] Institute of Engineering Mathematics, Universiti Malaysia Perlis, Arau 02600, Malaysia
Email: wanzuki@unimap.edu.my
[4] Institut Pendidikan Guru Kampus Perlis Jalan Behor Pulai,01000 Kangar, Perlis
Email: ernieadnan@ipgm.edu.my
[5] Universiti Islam Antarabangsa Tuanku Syed Sirajuddin (UniSIRAJ), Taman Seberang Jaya Fasa 3, 02000 Kuala Perlis, Perlis.
Email: ghafur@kuips.edu.my
[6] Section of Islamic Studies, School of Humanities, Universiti Sains Malaysia, 11800 Gelugor, Pulau Pinang, Malaysia.
Email: fathullah@usm.my
[*] Corresponding Author

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Abstract:

This study examines the implementation and challenges of e-learning among asnaf (zakat-eligible) students in Perlis, Malaysia, against the backdrop of national digital education initiatives accelerated by the COVID-19 pandemic. While Malaysia's MyDIGITAL and Education Blueprint 2021–2025 emphasize digital equity, marginalized groups like the asnaf constrained by infrastructural gaps, limited digital literacy, cultural hesitations, and fragmented institutional coordination face persistent barriers. A quantitative descriptive analysis, utilizing a structured questionnaire administered to 105 purposively sampled asnaf students across three schools, revealed moderate to high awareness of e-learning tools (mean = 3.10, SD = 0.43), with 91.4% having device access, primarily smartphones. However, utilization remained inconsistent, with regular usage scoring lowest (mean = 2.77). Challenges included connectivity issues (mean = 2.40), lack of quiet study spaces (mean = 2.50), and limited digital skills (mean = 2.43), though anxiety (mean = 1.78) and institutional support gaps (mean = 1.96) were less pronounced. A

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significant negative correlation ($r = -0.426$, $p < 0.001$) between awareness and challenges underscored the potential of enhanced digital literacy to mitigate barriers. The findings highlight the need for culturally attuned, faith-aligned interventions that integrate zakat institutions with educational policies, prioritize localized digital training, and address infrastructural inequities. By bridging the disconnect between religious welfare systems and technocratic agendas, Malaysia can advance inclusive e-learning models that empower marginalized communities while aligning with national development goals.

Keywords:

E-learning, SPSS, Asnaf, Zakat, Malaysia

Introduction

In recent years, Malaysia has made significant strides toward digitalizing its education system, particularly in response to the widespread disruptions caused by the COVID-19 pandemic (Izhar et al., 2021; Surianshah, 2021). The rapid transition to online and hybrid learning platforms which are accelerated by national blueprints such as MyDIGITAL and the Malaysia Education Blueprint 2021–2025 has positioned digital education as a strategic national priority. However, despite these institutional commitments, the uptake and efficacy of e-learning remain uneven, particularly among socioeconomically disadvantaged populations. Among these are the *asnaf*, a distinct classification under Islamic fiscal jurisprudence referring to zakat-eligible groups, including the poor (fuqara'), the needy (masakin), and other underserved categories within the Muslim ummah.

In Malaysia, the *asnaf* designation carries both religious and institutional implications, as it forms the basis for targeted social welfare distribution through state-managed zakat bodies. While such systems are ostensibly well-positioned to support educational development, empirical evidence indicates that *asnaf* students, especially those in rural and semi-rural states like Perlis continue to face substantial barriers to accessing and benefiting from digital learning opportunities (Z. Azhar et al., 2023; Hairunnizam et al., 2009; Rosli et al., 2018). These multifactorial challenges include infrastructural inadequacies (e.g., poor internet connectivity, lack of digital devices), limited digital literacy, cultural hesitations toward technology adoption, and fragmented coordination between religious welfare institutions and education providers.

Amid persistent educational marginalization faced by Malaysia's *Asnaf* community, this study underscores the urgency of assessing how current policies, digital interventions, and faith-aligned initiatives address barriers to e-learning adoption. Focusing on low-income Muslim groups, the research explores intersecting challenges such as the rural-urban digital divide, infrastructural gaps, policy misalignment, and religious-cultural dynamics shaping e-learning accessibility. By synthesizing empirical and policy insights, this introduction frames the study's goal: to identify actionable strategies for leveraging faith-based welfare systems, such as zakat, in bridging digital inequities. The findings aim to inform inclusive education policies and demonstrate how faith-driven collaboration can democratize access to technology-enhanced learning in marginalized communities. Figure 1 can conclude the challenges and opportunities for digital education in Malaysia.

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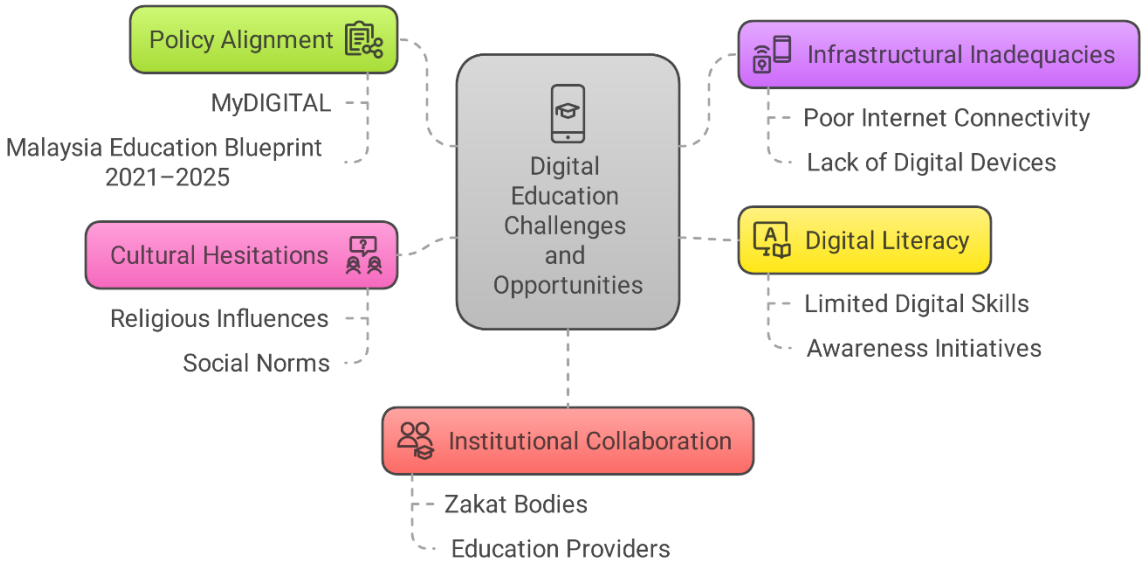

Figure 1: Digital Education Challenges and Opportunities for *Asnaf* in Malaysia

Literature Review

Conceptualizing the Digital Divide in Malaysian E-Learning

The digital divide in Malaysia is not merely a technological gap as it is a manifestation of entrenched socioeconomic, geographic, and cultural inequalities. These disparities become particularly pronounced when examining e-learning accessibility among marginalized groups such as the *asnaf*, whose exclusion from the digital mainstream reflects a deeper structural disconnect between national policy goals and ground realities. At the core of this divide lies a convergence of factors: economic precarity, limited access to reliable internet infrastructure, inadequate digital literacy, and cultural norms that influence technology adoption. For the *asnaf*—who include the poor (*fuqara'*), the needy (*masakin*), and other disadvantaged Muslim groups under Islamic fiscal law these barriers are further complicated by their unique position within a faith-based welfare framework. As a result, digital exclusion in this community is not only a technological issue but also a social and religious one, requiring multifaceted, context-sensitive interventions (Adnan et al., 2023; Che Muda et al., 2023).

N. Azhar et al., (2021) offer critical insight into these challenges through their empirical study of e-learning among Kuala Lumpur's urban poor, a population demographically aligned with many *asnaf* students. Using the Unified Theory of Acceptance and Use of Technology (UTAUT), the study revealed that key determinants of e-learning acceptance were performance expectancy, effort expectancy, and facilitating conditions—which were substantially weaker in these communities. Specifically, the study found that families often had to share a single mobile device among multiple children, with limited data plans and inadequate learning environments. These constraints not only hinder academic engagement but also perpetuate feelings of digital alienation and cognitive fatigue among learners, reinforcing cycles of disadvantage. Moreover, while urban poverty presents its own set of limitations, rural *asnaf* communities face starker challenges. Nor et al., (2012) provide a foundational analysis of rural telecenter initiatives, illustrating how digital infrastructure alone is insufficient without corresponding human and cultural capital. Their study emphasized that many rural Malay-

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Muslim communities did not utilize government-installed digital facilities due to lack of awareness, mistrust, and insufficient training. Crucially, the research highlighted the role of community gatekeepers including *imam*, *ustaz*, and village heads as intermediaries of trust and change. In conservative societies, these figures shape not only religious practices but also social behaviors, including openness to new technologies.

Despite significant policy efforts such as the Malaysia Digital Economy Blueprint (MyDIGITAL) (Unit, 2021) and JENDELA (National Digital Infrastructure Plan), these programs often assume that access equals adoption. However, the literature suggests that for *asnaf* communities, digital technology is not readily embraced without careful cultural alignment. For instance, access to the internet may exist, but families may prioritize religious education, fear negative digital content, or lack confidence in navigating online platforms. Further complicating the issue is the oversight of religious socioeconomic classifications like *asnaf* in digital inclusion strategies. As N. Azhar et al., (2021) argue, bridging the digital divide among *asnaf* must begin with an acknowledgment that technology adoption is not merely a function of access, but of deeply embedded communal values and material constraints. These include concerns over digital morality, parental digital illiteracy, gendered access to devices, and even community skepticism toward secular educational platforms.

Hence, a one-size-fits-all digital policy, however well-funded, risks marginalizing the groups it aims to uplift if it fails to incorporate religious, cultural, and socioeconomic dimensions into its design. What is needed is a model of e-learning inclusion that is both infrastructurally robust and culturally attuned, one that integrates religious leaders in digital literacy campaigns, localizes digital content and creates safe, affordable access points for learning (Tuan Mahmood et al., 2021). By reconceptualizing the digital divide through this multidimensional framework, stakeholders can better understand the lived realities of *asnaf* families and co-create e-learning ecosystems that are not only accessible but also meaningful, sustainable, and transformative.

Asnaf-Specific Interventions and Institutional Gaps

The *asnaf* group occupies a distinctive space in Malaysia's socio-economic landscape—not merely as a subset of the poor but as a religiously recognized category within Islamic fiscal jurisprudence. Governed under the zakat system, their welfare is managed through a well-organized and widely accepted institutional framework with deep historical roots and broad community trust. This unique positioning makes the *asnaf* community not just a target of charitable giving but a population with structured access to systemic welfare. However, this institutional advantage has yet to be meaningfully leveraged for long-term educational empowerment, particularly in the digital domain.

Khalilullah Amin Ahmad et al., (2024) identify this untapped potential in their review of Islamic mobile learning applications. Their study shows that when Islamic values are embedded into digital education tools, *asnaf* communities, especially in religiously conservative rural states such as Perlis, Kedah, and Kelantan are more likely to trust and adopt these platforms. Such integration serves dual purposes: it enhances cultural resonance and aligns with religious expectations, thus reducing socio-cultural resistance. However, the authors highlight a critical limitation: many Islamic digital learning platforms remain disconnected from the national education curriculum and lack pedagogical depth. These tools, while spiritually engaging, often fail to develop the academic competencies required for formal advancement within the education system. This mismatch between content and curriculum is

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symptomatic of a broader issue that leads to an *institutional disconnection*. Salaudeen & Edghiem, (2023) delve into this by analyzing *Asnaf Care*, a fintech zakat distribution platform designed to streamline and digitize aid to *asnaf* recipients. While the platform is commendable for integrating needs assessments and streamlining financial disbursement, its architecture is siloed from the national education apparatus. There is no built-in mechanism to track whether funds are translating into educational outcomes such as school attendance, digital device ownership, or access to e-learning platforms. This siloed implementation reflects a broader systemic issue: Malaysia's zakat institutions and education ministries, while both committed to improving digital inclusion, rarely operate in coordinated frameworks. The lack of inter-agency protocols or shared databases results in disjointed planning, redundant funding, and missed opportunities for synergy. As a result, *asnaf* children may receive digital devices or internet subsidies through one channel, while missing out on structured e-learning programs offered by another.

Moreover, the absence of a developmental vision within zakat distribution is evident. The zakat system, in many states, still adheres to a relief-based model that prioritizes short-term financial assistance for food, clothing, or medical emergencies. While this is crucial for immediate survival, it falls short in supporting long-term human capital development such as education. Without a shift toward development-centric zakat disbursement, the system risks perpetuating dependency rather than enabling transformation (Ab. Rahman et al., 2018; Ramli & Abdullah, 2016). This disconnect has real and far-reaching consequences. When zakat funds are not strategically aligned with education goals, the result is a fractured welfare ecosystem. Beneficiaries may receive aid without knowing how to apply it effectively for educational advancement. Educational interventions targeting *asnaf* children may suffer from a lack of continuity, monitoring, or follow-up support. Consequently, while infrastructure may exist and funds may be available, their impact on educational equity remains limited. The statement by Salaudeen & Edghiem, (2023) captures the core problem succinctly: *"The zakat system has the infrastructure, reach, and funding, what it lacks is programmatic synergy with the education sector."* This insight calls for a paradigm shift: from viewing *asnaf*-oriented e-learning initiatives as benevolent acts of charity or Corporate Social Responsibility (CSR) to recognizing them as essential structural interventions in national development.

The Role of Policy and Stakeholder Collaboration

Malaysia's vision of becoming a digitally advanced nation hinges on the inclusivity and reach of its national digital transformation agenda. Strategic frameworks such as the Malaysia Digital Economy Blueprint (MyDIGITAL) and the Malaysia Education Blueprint 2021–2025 articulate bold ambitions for digital equity, universal access, and the integration of technology across socio-economic strata. Yet, a critical review reveals a persistent gap in the translation of these ambitions into actionable frameworks for marginalized groups, particularly the *asnaf* community.

Despite being institutionalized through state-managed zakat systems and religious governance, *asnaf* communities are largely invisible in national digital policy discourse. Sulaiman et al., (2020) point out that while terms such as "B40," "underserved," and "marginalized" frequently appear in these blueprints, explicit reference to *asnaf*, is a well-defined and administratively trackable category that is rare. This absence is not merely a linguistic oversight; it reflects a deeper institutional disconnect between technocratic development planning and religiously anchored welfare structures. The result is that *asnaf*-specific interventions are neither

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systematically embedded into national policy frameworks nor adequately monitored for effectiveness. The consequence of this policy vacuum is a fragmentation of responsibility. Ministries and agencies tasked with educational and digital reform often work in silos, while religious institutions, despite their extensive grassroots presence and funding capacity, operate with limited guidance or coordination. This disconnect undermines opportunities for synergy. Zakat institutions could, for instance, co-finance digital learning initiatives under the umbrella of *fard kifayah* (communal obligation), but in the absence of formalized collaboration with ministries like the Ministry of Education or the Ministry of Communications and Digital, such initiatives remain ad hoc and unsustainable.

Encouragingly, local case studies offer glimpses into what integrated, community-based models might look like. One such example is the Kemaman Smart Community Project, which, although not exclusively targeted at *asnaf*, effectively demonstrated the impact of localized digital empowerment. Mohd Satar et al., (2021) observed that by working closely with mosques and community leaders, the project achieved measurable increases in digital literacy, online learning engagement, and technology adoption among poor Muslim families. The involvement of faith-based institutions was not incidental as it was central. Religious gatekeepers such as *imam*, *ustaz*, and mosque committees acted as both cultural validators and community mobilizers, fostering trust in technology and mitigating cultural resistance. These findings offer a powerful policy lesson: digital strategies that do not embed local cultural brokers are likely to face adoption bottlenecks, especially in religiously conservative communities. Thus, beyond high-level planning, there is a need for "digital localization"**;** the tailoring of technology deployment, training, and content to local values, beliefs, and leadership structures.

Meanwhile, the underutilization of zakat for digital empowerment remains a missed opportunity. Although discussions around digital inclusion are becoming more prominent within zakat councils, few have established structured guidelines to channel zakat contributions toward education technology infrastructure. Most zakat disbursement still focuses on immediate, consumable needs which include food, medical aid, rent subsidies rather than investing in long-term development assets like tablets, internet connectivity, or e-learning platforms. Ultimately, bridging the gap between Malaysia's digital ambitions and the lived experiences of its *asnaf* populations will require multi-stakeholder governance**,** policy re-alignment, and cultural sensitivity. By transforming zakat institutions into development allies and embedding them in the broader digital transformation ecosystem, Malaysia can build a model of inclusive e-learning that is not only technically sound but spiritually anchored and socially.

Methodology

The figure 2 summarizes a research methodology for studying e-learning implementation, structured into five key components: (1) quantitative survey design for systematic data collection, (2) validated questionnaire as the primary tool, (3) data analysis using Excel and SPSS for statistical insights, (4) ethical practices like informed consent and confidentiality, and (5) sampling and digital data collection targeting specific student groups via Google Forms. It highlights a streamlined, technology-driven approach to investigate e-learning challenges, balancing analytical rigor with modern tools for efficiency.

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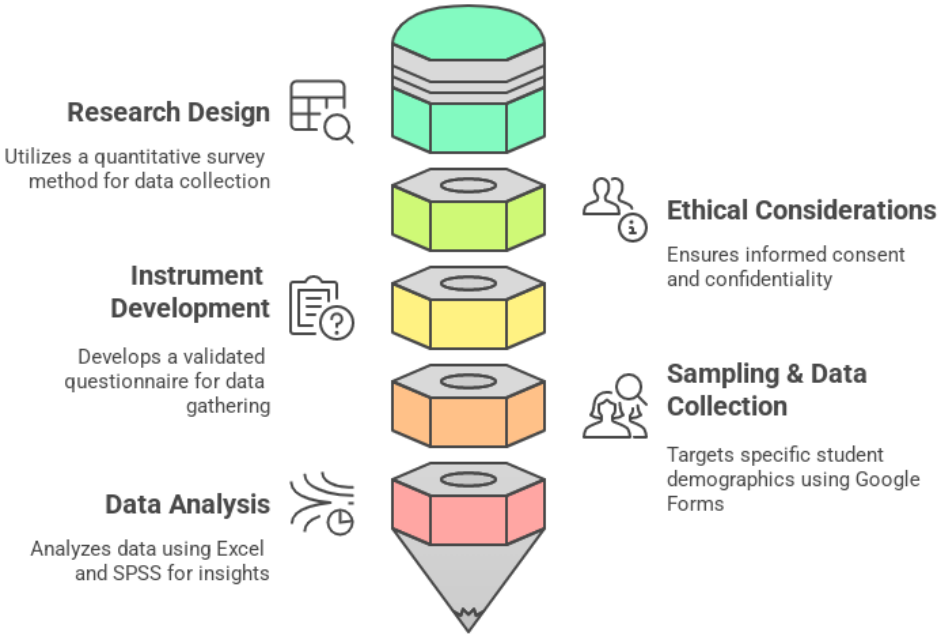

Figure 2: Flowchart Of Study

Research Design

This study adopted a quantitative descriptive research design to investigate the implementation and challenges of e-learning among *Asnaf* students in Perlis. A descriptive approach was chosen to enable systematic collection, analysis, and presentation of data, focusing on identifying patterns, opinions, and challenges faced by the students. The study aimed to provide a clear understanding of students' experiences and perceptions regarding e-learning implementation.

Ethical Consideration

Prior to data collection, ethical approval was obtained from the Ministry of Education Malaysia (MOE) to ensure that the research complied with national educational research guidelines. Furthermore, informed consent letters were distributed to the parents or guardians of all participating students. The consent process emphasized voluntary participation, confidentiality of student information, and the right to withdraw from the study at any time without penalty. Only students whose parents provided written consent were included in the survey.

Instrument Development

A structured questionnaire was developed as the primary research instrument. The questionnaire consisted of three main sections:

- Section 1: Demographic Information
  This section collected basic student demographic data, including age, gender, and school attended.
- Section 2: Perceptions of Usefulness and Implementation of E-Learning
  This section assessed students' experiences and views on the effectiveness, accessibility, and application of e-learning in their educational environment.

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- Section 3: Issues, Problems, and Challenges
  This section focused on identifying the specific difficulties and barriers students faced in participating in e-learning activities.
  All questions across the three sections were measured using a four-point Likert scale (1 = Strongly Disagree, 2 = Disagree, 3 = Agree, 4 = Strongly Agree), allowing the respondents to express the intensity of their opinions without a neutral option to encourage decisive responses.

Sampling and Data Collection

The study employed a purposive sampling technique by selecting three schools in Perlis known to have a significant number of *Asnaf* students. Data were collected from a total of 105 students across these schools. The questionnaires were administered during school hours with prior arrangement and cooperation from school administrators. Researchers explained the purpose of the study to the students before distribution to ensure clarity and voluntary participation.

Data Analysis

The collected data were coded and analyzed using Statistical Package for the Social Sciences (SPSS) software. Descriptive statistics, including mean and median, were computed to summarize the central tendencies of students' responses. Additional descriptive analyses such as frequency distributions and percentages were employed to provide a detailed overview of the findings related to demographics, perceptions of e-learning usefulness and implementation, as well as challenges encountered. The analysis aimed to highlight prominent patterns and draw conclusions relevant to the e-learning experience among *Asnaf* students in Perlis.

Result and Discussion

The data analysis was conducted using descriptive statistics to interpret and summarize the collected responses. The purpose of this analysis is to identify the critical factors influencing the adoption of e-learning tools among *Asnaf* students from four schools in Perlis, focusing on their experiences with digital platforms, access to information, and technological familiarity. The study was conducted on March 2025. The school's name and identity were omitted for integrity and privacy reasons. The questionnaire was sent to all students using Google form and after the right approval from Department of Education, Perlis and school administration. All answers were destined to be confidential and no personal or identity information were required. After elimination of incomplete information, 105 respondents were analysed.

Sample Characteristics

In this subsection, the responses to the demographic questions are presented. Table 1 illustrates the demographic distribution of the respondents. It can be observed from Table 1 that 62.9% of the respondents were female, while the remaining 37.1% were male. Regarding the age distribution, the majority of respondents (72.4%) were between 13 to 15 years old, and 27.6% were aged 16 to 17 years. In terms of access to devices at home, 91.4% of the students reported having access to a device (such as a smartphone or laptop), while 8.6% indicated that they did not have access to any device. Notably, among those who had access, a large proportion reported primarily using smartphones for their e-learning activities.

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Table 1. Demographic Participants Of This Study

		Frequency	Percentage
Gender	Female	66	62.9
	Male	39	37.1
Age	13-15	76	72.4
	16-17	29	27.6
Access to devices at home	Yes	96	91.4
	No	9	8.6

Analysis and Findings

Descriptive statistics, specifically the mean scores and standard deviation values, were calculated for each factor. Through the mean scores, factors with higher average values were highlighted as key adoption factors that significantly impact e-learning utilization. In this study, the success factors influencing the adoption of e-learning were determined by analyzing the average mean classification of the responses. The analysis of the mean and standard deviation scores presents findings across different dimensions, including awareness, accessibility, motivation, and technical challenges.

Table 2 presents the mean and standard deviation values for the items related to students' awareness and utilization of e-learning tools. Overall, the results indicate a relatively high level of awareness and moderate utilization among the respondents. The highest mean score was recorded for the item "I am aware of the e-learning tools used in my school" (M = 3.37, SD = 0.61), followed closely by "I believe e-learning is essential for my education" (M = 3.30, SD = 0.62) and "I find e-learning tools helpful in completing my studies" (M = 3.26, SD = 0.62). These findings suggest that the students generally recognize the importance and benefits of e-learning in their educational experience. Conversely, the item "I use e-learning tools regularly to study" recorded the lowest mean score (M = 2.77, SD = 0.80), indicating that while awareness levels are high, consistent utilization of e-learning tools remains a challenge for some students. Furthermore, the standard deviation values ranged between 0.56 and 0.80, suggesting moderate variability in students' responses, with greater variation particularly on the regular usage and access aspects.

Table 2. The Descriptions Of Awareness And Utilization Of Skills For E-Learning

Descriptions	**Mean**	**SD**
I am aware of the e-learning tools used in my school.	3.37	0.61
I know how to use basic e-learning tools.	3.10	0.60
I am comfortable with online learning platforms.	3.10	0.72
I understand the functions of various e-learning applications.	2.93	0.64
I find it easy to complete assignments through e-learning tools	3.02	0.71
I use e-learning tools regularly to study.	2.77	0.80
I can access e-learning materials from home.	2.91	0.74
I feel motivated to use e-learning tools.	3.11	0.56
E-learning tools help me understand lessons better.	3.24	0.60
I am aware of the online learning resources provided by my school.	3.17	0.58
I am comfortable asking for help if I have trouble with e-learning tools.	3.20	0.66
I believe e-learning is essential for my education.	3.30	0.62

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I can troubleshoot basic technical issues when using e-learning tools.	2.80	0.74
I am aware of the online safety measures while using e-learning tools.	3.22	0.59
I find e-learning tools helpful in completing my studies.	3.26	0.62

Table 3 presents the mean and standard deviation values for the items related to the problems and challenges faced by *Asnaf* students in utilizing e-learning tools. The analysis shows that the highest mean score was recorded for the item "I struggle to find a quiet space for e-learning at home" (M = 2.50, SD = 0.95), followed by "I have limited knowledge of how to use e-learning tools effectively" (M = 2.43, SD = 0.68) and "I often experience connectivity issues during online classes" (M = 2.40, SD = 0.79). These findings suggest that issues related to the learning environment, digital literacy, and internet connectivity are the most significant barriers faced by students.

Meanwhile, the lowest mean scores were observed for "I feel anxious using e-learning tools" (M = 1.78, SD = 0.66) and "My school does not provide sufficient support for e-learning" (M = 1.96, SD = 0.75). This indicates that although students face technical and situational challenges, feelings of anxiety and institutional support were perceived as comparatively less problematic. The standard deviation values ranged between 0.60 and 0.95, indicating a moderate variability in responses, particularly for environmental and focus-related challenges.

Table 3. The Descriptions Of Problems And Challenges In Using E-Learning Tools

Descriptions	Mean	SD
I face difficulty accessing the internet.	2.31	0.78
I have limited access to devices needed for e-learning.	2.34	0.79
I often experience technical issues with e-learning tools.	2.12	0.69
I find it challenging to focus during online classes.	2.34	0.82
I have limited knowledge of how to use e-learning tools effectively.	2.43	0.68
I feel anxious using e-learning tools.	1.78	0.66
I struggle to find a quiet space for e-learning at home.	2.50	0.95
I have difficulty understanding the instructions for e-learning tasks.	2.10	0.64
I often experience connectivity issues during online classes.	2.40	0.79
I do not feel motivated to participate in e-learning activities.	2.00	0.60
I find it hard to keep track of assignments in e-learning.	2.14	0.64
I feel isolated when studying through e-learning.	2.09	0.82
My school does not provide sufficient support for e-learning.	1.96	0.75
I feel e-learning tools are complex to navigate.	1.93	0.65
I find it challenging to communicate with teachers in e-learning settings.	2.24	0.77

Table 4 presents the overall descriptive statistics for the two major constructs measured in this study: Awareness and Utilization of E-Learning and Problems and Challenges in Using E-Learning. For Awareness and Utilization of E-Learning, the respondents reported a relatively high mean score of M = 3.10 (SD = 0.43), indicating a generally positive perception and familiarity with e-learning tools among *Asnaf* students. The range for this construct was 2.27, and the variance was 0.18, suggesting a moderate spread of responses.

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In contrast, the construct related to Problems and Challenges recorded a lower mean score of M = 2.18 (SD = 0.43). The range for this dimension was 2.07, with a variance of 0.19. This indicates that although students face certain barriers in e-learning adoption, the perceived severity of these challenges is moderate. The comparison of mean values suggests that while students are relatively aware and able to utilize e-learning tools, there remains a moderate level of difficulty associated with technical, infrastructural, and motivational challenges that may hinder full adoption and consistent use.

Table 4. Descriptive Statistics Of Awareness, Utilizing, Problems And Challenges Using E-Learning

	N	Range	Mean	SD	Variance
Awareness and utilizing e-learning	105	2.27	3.10	0.43	0.18
Problems and challenges	105	2.07	2.18	0.43	0.19

A Pearson correlation analysis was conducted to examine the relationship between awareness and utilization of e-learning tools (AUScore) A Pearson correlation analysis was conducted to examine the relationship between awareness and utilization of e-learning tools (AUScore) and the problems and challenges in using e-learning tools (PCScore) among *Asnaf* students.

The results revealed a moderate negative correlation between awareness and challenges, $r = -0.426$, $p < 0.001$, indicating that higher levels of awareness and utilization of e-learning tools are associated with lower levels of perceived problems and challenges. This relationship was statistically significant at the 0.01 level (two-tailed).

Thus, enhancing students' awareness and skills in using e-learning platforms could potentially reduce the barriers and difficulties they encounter during online learning activities.

Table 5. Pearson Correlation Between Awareness and Challenges

Variables	AUScore	PCScore
AUScore	1	-0.426**
PCScore	-0.426**	1

Note : $p < 0.01$, two-tailed.

The analysis of the collected data provided valuable insights into the awareness, utilization, and challenges associated with e-learning among *Asnaf* students. Descriptive analysis revealed that respondents demonstrated a relatively high level of awareness and utilization of e-learning tools, with an overall mean score of M = 3.10 (SD = 0.43). Conversely, the perceived problems and challenges in adopting e-learning tools were moderate, with a lower mean score of M = 2.18 (SD = 0.43). Further analysis indicated that students were highly aware of the e-learning tools provided by their schools and recognized the importance of e-learning in supporting their educational development. However, challenges related to access to a conducive learning environment, technical skills, and internet connectivity remained notable barriers to full adoption. The Pearson correlation analysis identified a moderate negative relationship between awareness and challenges ($r = -0.426$, $p < 0.001$). This finding suggests that as students' awareness and familiarity with e-learning tools increase, the problems and challenges they face tend to decrease.

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Overall, the results emphasize the importance of increasing students' digital literacy and e-learning exposure to minimize barriers and enhance the effective implementation of e-learning initiatives within the *Asnaf* community. Although a moderate negative correlation was observed between awareness and challenges, the cross-sectional nature of the data limits causal interpretation. Additionally, unmeasured factors such as parental support or prior digital exposure could influence this relationship and should be explored in future studies.

Conclusion

This study explored the implementation and challenges of e-learning among *asnaf* students in Perlis, Malaysia, focusing on the intersection of socioeconomic marginalization, digital inequity, and faith-based welfare systems. The research aimed to identify barriers hindering effective e-learning adoption within this community and propose actionable strategies for improvement. A quantitative analysis involving 105 students revealed moderate to high awareness of e-learning tools, with most respondents acknowledging their educational value. Despite 91.4% reporting access to devices—primarily smartphones—consistent utilization remained low, highlighting disparities between awareness and practical engagement. Key challenges included unstable internet connectivity, insufficient quiet study environments, and gaps in digital literacy, underscoring the multifaceted nature of barriers faced by marginalized learners. Notably, a significant negative correlation between awareness levels and perceived challenges suggested that enhancing digital competence could alleviate adoption difficulties, emphasizing the need for targeted skill-building initiatives.

The findings contribute to understanding how socio-religious frameworks, such as the zakat system, can synergize with digital education policies to address structural inequities. By highlighting the disconnect between national digital agendas and grassroots realities, the study underscores the importance of culturally sensitive interventions that integrate community gatekeepers, such as religious leaders, into program design. Practical implications include advocating for policies that bridge infrastructural gaps, expand localized training programs, and align zakat disbursements with long-term educational goals rather than short-term relief. Limitations, such as the restricted sample size and reliance on quantitative data, call for future research to incorporate qualitative insights and broader demographic representation. Expanding such studies could deepen insights into the role of faith-based collaboration in fostering inclusive e-learning ecosystems. Ultimately, this research underscores the urgency of reimagining digital inclusion through a lens that harmonizes technological advancement with cultural and religious values, ensuring equitable access to education for Malaysia's most vulnerable populations. However, as this was a descriptive study, internal reliability measures (such as Cronbach's Alpha) were not calculated. We acknowledge this as a limitation and will address it in future research.

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