THE EFFECTIVENESS OF ONLINE PROBLEM-SOLVING STRATEGIES AND THEIR IMPACT ON THE ACHIEVEMENTS OF ISLAMIC CULTURE IN JORDAN

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ABSTRACT

This study examines the effectiveness of online problem-solving strategies and their impact on achievements within the Islamic culture context in Jordan. Investigating the intricate dynamics involved, the study explores the interplay between technology adoption, cultural heritage, and educational outcomes. The study involves 200 participants at Al-Zaytoonah University, delving into technology adoption in education. Utilizing a meticulously designed instrument with both closed and open-ended questions, it evaluates experiences related to ease of use, usefulness, and Cultural heritage, aiming to unravel the interplay between technology and culture. This contributes to discussions on educational progress in Jordan, highlighting the importance of a comprehensive approach to online education. The findings emphasize the need for educators and policymakers to enhance user-friendliness while ensuring cultural attunement and alignment with students' values. In enhancing our understanding, this study provides insights into the optimal integration of online problem-solving strategies for fostering academic success within the framework of Islamic culture in Jordan.

Keywords: *Online Problem-Solving Strategies, Islamic Culture, Technology Acceptance Model, Culture Heritage*

1. INTRODUCTION

In the ever-evolving terrain of the 21st century, the amalgamation of technology and education serves as a driving force for substantial change worldwide (Sharma & Kumar, 2023). Jordan, renowned for its deep Islamic roots and dedication to progress in education, takes a leading role in steering this transformative wave. With the growing reliance on online platforms for addressing challenges and gaining knowledge globally, it becomes crucial to evaluate the efficacy of these digital approaches and their distinct influence on accomplishments within the framework of Islamic culture in Jordan (Al Attari, 2020).

The connection between technology and education holds the potential to redefine conventional learning approaches, providing fresh opportunities for addressing challenges and fostering skill development (Joynes, Rossignoli, & Amonoo-Kuofi, 2019). In Jordan, a nation deeply entrenched in Islamic values and customs, the convergence of online approaches to problem-solving with the preservation and progress of Islamic culture emerges as a crucial element in contemporary discussions on education (Mohiuddin, 2023). Acknowledged, as crucial factors influencing the adoption and effectiveness of technological tools are the perceived ease of use and perceived usefulness. Yet, within the context of Jordan, where Islamic culture seamlessly intertwines with educational pursuits, these factors assume heightened importance (Mohiuddin, 2023).

The researchers suggest that the effective assimilation of online problem-solving approaches goes beyond mere evaluations of practicality and user-friendliness. Rather, it is closely connected to how well these approaches align with and show regard for the cultural sensitivities deeply embedded in Jordan's Islamic traditions (Altarawneh & Hassan 2022). (F. B. Ahmad, et al 2023)

Nevertheless, even with the potential advantages, effectively combining perceived ease of use, perceived usefulness, and cultural sensitivity in online problem-solving strategies within Jordan's Islamic educational framework presents a complex challenge.(Fülöp, Breaz, Topor, Ionescu, & Dragolea, 2023). The query that arises is: how can we navigate the juncture of technological progress and cultural preservation to ensure that these digital tools not only fulfill the requisites of contemporary education but also harmonize with the values and traditions inherent in Islamic culture in Jordan (Altarawneh & Al-Ghammaz, 2023). This investigation aims to bridge this gap in comprehension by exploring the nuanced dynamics of these connections and suggesting approaches that nurture a mutually beneficial relationship between technological innovation and cultural heritage in the pursuit of educational excellence (Danasabe & Elias, 2017).

The aim of this study is to enhance. comprehension regarding the intricate interplay between online problem-solving strategies and achievements within the framework of Islamic culture in Jordan. This initiative seeks to illuminate the opportunities and challenges inherent in the digital era. Through this exploration, the study aspires to provide meaningful insights that can guide educational policies, equip educators, and promote a seamless integration of technology and cultural values, ultimately advancing Jordan's educational landscape and enhancing its overall educational excellence.

2. TECHNOLOGY INTEGRATING IN JORDAN

In Jordan, the integration of technology in education represents a pivotal stride towards modernizing and enhancing the learning experience.

The nation has demonstrated a commendable commitment to leveraging technological advancements to address the evolving needs of its educational landscape (Al-Ruz & Khasawneh, 2011). Embracing initiatives such as e-learning and digital education, Jordan has sought to bridge gaps in access to quality education and promote a more inclusive learning environment (Alshahrani, 2021).

The implementation of technology in Jordanian classrooms is not merely a technological infusion but a strategic effort to cultivate critical thinking skills, foster innovation, and prepare students for the demands of the digital era. Despite facing challenges such as resource constraints and varying levels of technological infrastructure across regions, Jordan's educational institutions have shown resilience in their pursuit of effective technology integration (Alawamreh & Elias, 2016; Pastor et al., 2020). As the nation navigates this digital transformation, the impact of technology on traditional pedagogical methods and its resonance with the cultural and religious values intrinsic to Jordanian society becomes an intriguing avenue for exploration, particularly concerning Islamic education. This intersection serves as a lens through which we can understand the broader implications of technology integration in Jordan and its potential to harmonize modern educational tools with the rich Islamic cultural heritage embedded in the nation's educational fabric, enhancing the overall educational experience (Alawamreh & Elias, 2015; Apriani, Williams, Rahardja, Khoirunisa, & Avionita, 2021).

2.1 TECHNOLOGY ACCEPTANCE MODEL

In the domain of technology adoption within educational contexts, considerations regarding perceived ease of use and perceived usefulness hold paramount importance, shaping the success and embrace of digital tools. In the distinctive context of Jordan, where the integration of tradition and technology is an evolving process, it is essential to deepen our insights into how educators, students, and stakeholders perceive the ease of utilization and the usefulness of technological interventions (Qawaqneh, Ahmad, & Alawamreh, 2023).

The Technology Acceptance Model (TAM) furnishes a conceptual framework for the exploration of these dimensions, providing valuable perspectives on the factors influencing individuals' decisions to embrace or resist technology in educational settings (Rawash, Alawamreh, Obeidat, & Nawafleh, 2023).

Within the educational landscape of Jordan, educators and learners are actively navigating the realm of perceived ease of use, reflecting on the perceived simplicity of integrating technology into educational practices, and perceived usefulness, evaluating the utility and advantages that technology brings to the teaching and learning processes (Alawamreh et al., 2023).

The dynamic interplay between these factors serves as a linchpin for the successful adoption of technology, influencing the efficacy of online

problem-solving strategies, and consequently enhancing the accomplishments of Islamic culture within Jordan's educational sphere. The exploration of these perceptions not only enriches our comprehension of the dynamics of technology acceptance in Jordan but also significantly contributes to the broader discourse on shaping educational strategies that align with the diverse needs and expectations of cultural and educational contexts, thereby enhancing the overall educational experience (Abualoush, Obeidat, Abusweilema, & Khasawneh, 2022; Obeidat, 2019).

2.2 CULTURAL HERITAGE

The educational landscape of Jordan places profound importance on cultural heritage, serving as both a guardian of the nation's rich history and a guiding influence in shaping contemporary pedagogy. Jordan's cultural heritage, firmly rooted in its Islamic traditions, forms a fundamental element in the crafting of educational curricula and learning experiences (Sesana, Gagnon, Ciantelli, Cassar, & Hughes, 2021). The incorporation of cultural heritage into education not only nurtures a sense of identity and belonging among students but also cultivates a profound appreciation for the values woven into Jordan's cultural tapestry. In managing the delicate equilibrium between tradition and progress, Jordanian educators bear the responsibility of imparting cultural heritage while equipping students with the skills and knowledge essential for the modern world (Li, Krishnamurthy, Roders, & Van Wesemael, 2020).

The integration of cultural heritage into educational practices extends beyond textbooks, constituting a dynamic process that encompasses cultural events, preservation of historical sites, and the infusion of traditional arts and practices into the curriculum. As Jordan embraces technology in education, an evolving discourse explores how digital tools can be utilized to enhance the preservation and dissemination of cultural heritage, ensuring its relevance in contemporary educational settings (Alam & Mohanty, 2023). An examination of the intersection between cultural heritage and technology in Jordanian education offers a nuanced perspective on how the nation aims to cultivate a new generation that is not only globally aware but also deeply connected to its cultural roots (Kim, 2020).

2.3 THE ACADEMIC ACHIEVEMENT OF ISLAMIC CULTURE

In Jordan, the academic accomplishments of Islamic culture stand as a testament to the enduring dedication to knowledge, learning, and the preservation of cultural values. With roots deeply embedded in a history of scholarly contributions and intellectual pursuits, Islamic culture holds an integral place in Jordan's educational narrative. The evaluation of academic success within this cultural context extends beyond standardized assessments, weaving together with the comprehensive development of individuals who embody the principles of Islamic scholarship (Astuti, Shodikin, & Ud-Din, 2020).

In Jordan, academic achievement within Islamic culture adopts a multifaceted approach, encompassing not only conventional academic subjects but also religious studies, Arabic language, and ethical considerations. The educational system aims to foster a well-rounded comprehension of the world, instilling critical thinking skills and moral values aligned with Islamic teachings. The pursuit of academic excellence within Islamic culture is guided by a profound respect for knowledge, promoting a lifelong commitment to learning, and a profound understanding of one's cultural and religious identity (Pammu & Hasyim, 2023; Suroso, Hendriarto, Mr, Pattiasina, & Aslan, 2021). Furthermore, with the increasing integration of technology into education in Jordan, the academic accomplishments of Islamic culture extend into the digital domain (Al-Talhouni, 2021).

The seamless fusion of technology with Islamic educational values aims to equip students for the challenges of the modern world while ensuring the continued relevance of Islamic teachings in contemporary academic settings. An exploration of academic achievements within Islamic culture in Jordan offers insight into how the nation negotiates the intersection of tradition and progress, nurturing a generation that excels not only academically but also embodies the values and principles ingrained in Islamic heritage. As Jordan continues to undergo transformations in its educational landscape, the academic achievements within the framework of Islamic culture serve as a guiding light, reflecting the enduring legacy of knowledge and wisdom that has defined Islamic scholarship throughout history (Al-Talhouni, 2021; Faqih & Jaradat, 2021).

3. RESEARCH HYPOTHESIS.

3.1 The hypotheses are as follows:

Enhanced perceived ease of use is hypothesized to be associated with significantly improved learning outcomes among Islamic students using online problem-solving skills.

Enhanced perceived usefulness is hypothesized to be associated with significantly improved learning outcomes among Islamic students using online problem-solving skills.

Enhanced cultural heritage is hypothesized to be associated with significantly improved learning outcomes among Islamic students using online problem-solving skills.

3.2 METHODOLOGY

Through integrating these methodological approaches, this research seeks to provide a comprehensive and nuanced comprehension of the intricate dynamics between technology and cultural elements within the academic realm of Al-Zaytoonah University.

3.2.1 Participants

The study's participants are selected from the vibrant academic environment at Al-Zaytoonah University in Jordan. This institution is highly regarded for its steadfast commitment to academic excellence and its embodiment of the cultural and educational values inherent in the Jordanian context. Situated in the heart of Amman, Al-Zaytoonah University offers an academic tapestry that enhances the fusion of tradition and modernity, creating a dynamic environment conducive to the flourishing of diverse perspectives. The 200 students chosen for this study are carefully selected from this esteemed institution, serving as a microcosm of Jordan's educational landscape, and embodying the ethos of Islamic culture within an academic setting. These participants come from various disciplines and backgrounds, representing the cultural diversity synonymous with Jordan itself.

The active engagement of these participants in this research holds the potential to enhance our nuanced comprehension of the complex dynamics involving technology integration, perceived ease of use, perceived usefulness, and cultural sensitivity within the distinctive setting of Al-Zaytoonah University. As active contributors to the academic community, these 100 students play a pivotal role in influencing the discourse surrounding educational progress in Jordan. Their experiences and perspectives are invaluable in unraveling the broader implications of technology adoption within the intricate weave of culture and education in the region.

3.2.2 Instrument

The instrument designed for this study at Al-Zaytoonah University in Jordan is intricately crafted to navigate the complex relationships involving technology integration, perceived ease of use, perceived usefulness, and cultural heritage. Comprising a blend of closed-ended and open-ended questions, the survey aims to capture a nuanced understanding of the participants' experiences and perceptions. The demographic section establishes the foundation by identifying academic disciplines and familiarity levels with technology. Following this, the section on perceived ease of use delves into participants' comfort and confidence levels in using technology. The perceived usefulness section aims to quantify the impact of technology on academic performance and learning experiences. Lastly, the cultural sensitivity section explores the significance of aligning technology with Islamic cultural values in academic settings. This comprehensive instrument not only quantifies participants' attitudes but also solicits qualitative insights through open-ended questions, ensuring a thorough exploration of the intricate interplay between technology and cultural factors within the academic realm of Al-Zaytoonah University(Fiorucci et al., 2020; Karterud & Kongerslev, 2019).

3.2.3 Data Analysis and Findings

Partial Least Squares (PLS) analysis emerges as a robust and flexible technique for dissecting intricate and high-dimensional datasets. This sophisticated method excels at pinpointing key factors contributing to variations in both independent and dependent variables.

Its effectiveness lies in streamlining data interpretation, thus aiding in the development of precise predictive models. Adopted widely across various fields, PLS provides researchers with the means to derive valuable insights from complex datasets, enriching decision-making processes and

advancing progress (Purwanto, Asbari, & Santoso, 2021).

During our analysis, despite an initial distribution of 200 surveys, the collected responses amounted to 176. This incongruity was influenced by factors like missing data and incomplete sections. Nonetheless, the resilience of PLS became evident, underscoring its ability to extract meaningful patterns and relationships from the available dataset. Even when confronted with challenges inherent in real-world data collection, PLS stands as an invaluable tool, demonstrating its versatility and dependability in navigating intricate scenarios.

3.3 Evaluation of the Measurement Model

3.3.1 As emphasized by Sarstedt, Ringle, and Hair (2021), the verification of the survey for the measurement model constituted a crucial step within the PLS procedure. This verification encompassed both reflective and formative constructs. The assessment of reliability and validity stood out as the pivotal criteria employed to evaluate the quality of the measures. Reliability, in this context, involves scrutinizing the consistency of a proposed instrument in measuring a specific aspect for which it was designed. Validity, on the other hand, pertains to evaluating how effectively an instrument measures the intended concept (Hariri, Muslim, Ekohariadi, & Yundra, 2021). The evaluation of the measurement model in this study adhered to a three-fold process: examining the reliability of indicator items, ensuring convergent validity, and establishing discriminant validity.

As depicted in Fig. 1, the measurement model underwent testing utilizing 20 reflective indicators. During this analysis, it was observed that the items, specifically PE4, exhibited a factor loading below 0.50. Following the recommendations of Hair, Ringle, and Sarstedt (2016), for items with variable factor loading values falling within the range of 0.40 to 0.70, it is advised to consider removing the indicator if its elimination contributes to an increase in composite reliability (CR) beyond the suggested threshold. Consequently, in the context of this study, these indicators were excluded through the implementation of the PLS algorithm test.
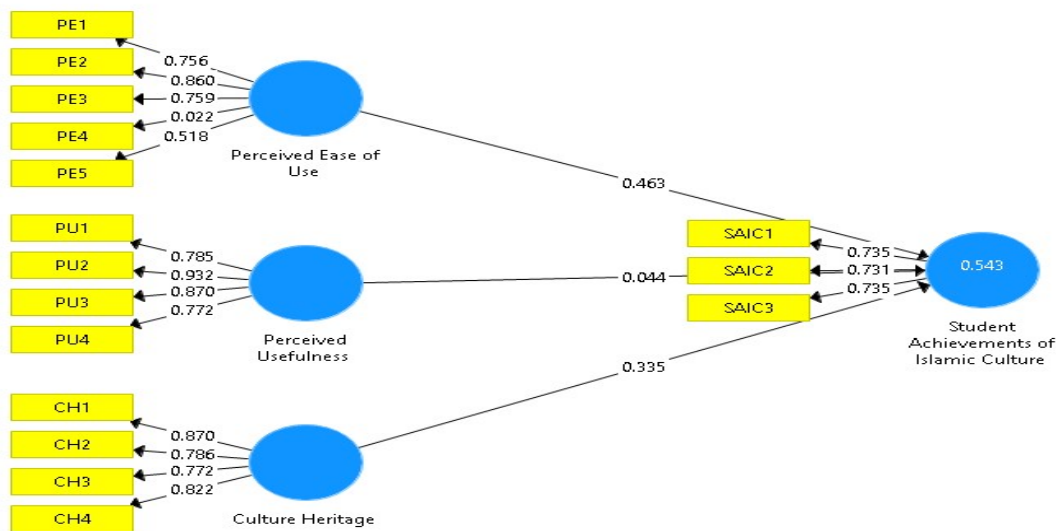
3.3.1 Sections **and Subsections**

Figure 1 Measurement Model

As presented in Table 1, the examination of convergent validity for each construct was conducted through the Average Variance Extracted (AVE). Convergent validity, defined as the extent to which a measure exhibits a positive correlation with alternative measures of the same construct Sarstedt, Hair Jr, Nitzl, Ringle, and Howard (2020), was evaluated in this study with 0.5 established as the acceptable minimum AVE value, aligning with recommendations from previous studies (Hair Jr et al., 2016). The outcomes reveal that perceived usefulness attained the highest AVE value (0.709), while perceived ease of use achieved the minimum acceptable value (0.431). To summarize, all values

met the acceptable criteria for convergent validity. Drawing from the insights of Ab Hamid, Sami et al. (2017), in instances where the composite reliability surpasses the 0.4 threshold and the Average Variance Extracted (AVE) falls below the standard 0.5 level, dismissing the AVE is deemed appropriate, a condition met in this study. In addition, Table 1 displays the values of Composite Reliability (CR), utilized to gauge the internal consistency of the respective constructs. While the suggested benchmark is at least 0.70, higher CR values are preferable. In this study, the CR values for each construct range from 0.749 to 0.907, surpassing the benchmark value. Consequently, based on the established benchmark values, the variables demonstrate satisfactory convergent validity.

4. TABLES AND FIGURES

Table 1: Results of Measurement Model

Variable	Items	Factor Loading	Composite Reliability (CR)	Average Variance Extracted (AVE)>50%
perceived ease of use	PE1	0.759	0.749	0.431
	PE2	0.860		
	PE3	0.759		
	PE4	0.022		
	PE%	0.518		
perceived usefulness	PU1	0.785	0.907	0.709
	PU2	0.932		
	PU3	0.870		
	PU4	0.772		
Culture Heritage	CH1	0.870	0.887	0.662
	CH2	0.786		
	CH3	0.772		
	CH4	0.822		
Students' achievements of Islamic culture	SAIC1	0.735	0.778	0.538
	SAIC2	0.731		
	SAIC3	0.735		

In evaluating the discriminant validity of the examined constructs, the present study applied the criteria outlined by Fornell and Larcker (1981a) and Afthanorhan, Ghazali, and Rashid (2021) Discriminant validity is established when a specific construct exhibits an average square root of extracted variance higher than the correlation values with all other variables (Hair Jr et al., 2016). As depicted in Table 2, the results, in line with the Fornell and Larcker criterion, suggest sufficient discriminant validity for each construct as the squared correlation for each construct is lower than the average variance extracted. Additionally, the Heterotrich- Monetarist Ratio (HTMT), serving as an estimate of the correlation between constructs, aligns with the deattenuated construct score creation, utilizing a threshold value of 0.9. As shown in Table 2, this study concludes that there is no evidence indicating a lack of discriminant validity, and all the constructs fulfill the stipulated criteria.

Table 2. Assessment of Discriminant Validity (Fornell & Larcker, 1981b)

	Culture Heritage	Perceived Ease of Use	Perceived Usefulness	Student Achievements of Islamic Culture
Culture Heritage	0.814			
Perceived Ease of Use	0.590	0.657		
Perceived Usefulness	0.340	0.524	0.842	
Student Achievements of Islamic Culture	0.623	0.684	0.400	0.734

The parameter estimates and statistical significance of the results for all constructs affirm their validity as measures of their respective constructs. The comprehensive findings indicate that the measurement model in this study has garnered substantial empirical support, showcasing satisfactory reliability, convergent validity, and discriminant validity.

4. Evaluation of the Structural Model

The structural model, also referred to as the inner model in this study, delineates the causal relationships among the investigated constructs. Consequently, the evaluation of the structural model involves scrutinizing the research hypotheses that underlie the proposed relationships or effects among these constructs. In this context, the present study employed path coefficient (ß) criteria to test the six research hypotheses. Path coefficients, standardized between -1 and +1, signify the strength and direction of relationships between two constructs. A path coefficient close to +1 indicates a strongly positive relationship, while negative values imply a strongly negative association (Hair Jr et al., 2016). The assessment of the significance of these relationships utilizes t-values, where a t-value higher than a specific critical value suggests the significance of the coefficient at a given error probability. For instance, a t-value > 1.96 signifies a significance level with a p-value < 0.05. The primary criteria
for assessing the goodness of the structural
models involve the determination coefficient and the significance level of the path coefficients (beta values). A higher Adjusted value signifies an increased capability of the endogenous variables to explain the exogenous variable, thereby indicating a superior fit for the structural equation (Hair, Ringle, Sarstedt, & Practice, 2011).
Our results, depicted in Figure 2 and summarized in Table 3, unveil a complex array of influences. Noteworthy is the examination of our research

hypotheses, where two received confirmation, while one yielded an unforeseen outcome.

H1: **ENHANCED PERCEIVED EASE OF USE IS HYPOTHESIZED TO BE ASSOCIATED WITH SIGNIFICANTLY IMPROVED LEARNING OUTCOMES AMONG ISLAMIC STUDENTS USING ONLINE PROBLEM-SOLVING SKILLS**.

The examination exposed a substantial and positive impact of perceived ease of use on student achievements in Islamic Culture (ß = 0.451, t = 7.447, p < 0.05). This underscores the vital role of technology accessibility and user-friendliness in nurturing academic success, thereby substantiating H1. This contributes to our comprehension of the interconnectedness between technology adoption and educational results.

H2. Enhanced Perceived Usefulness Is Hypothesized to Be Associated with Significantly Improved Learning Outcomes Among Islamic Students Using Online Problem-Solving Skills.
Our inquiry additionally brought to light a statistically significant positive correlation between perceived usefulness and student achievements in Islamic Culture (ß = 0.052, t = 0.854, p < 0.05). This emphasizes the crucial role of perceived utility in molding students' academic accomplishments. The affirmation of H2 underscores the significance of incorporating technology into pedagogical approaches to enhance educational efficacy.

H3: **Enhanced perceived usefulness is hypothesized to be associated with significantly improved learning outcomes among Islamic students using online problem-solving skills.**

Interestingly, our analysis demonstrated a notable and positive effect of cultural heritage on student achievements in Islamic Culture (ß = 0.335, t =

5.120, p < 0.05). This underscores the substantial contribution of cultural heritage to academic success, underscoring the necessity for a comprehensive educational approach that integrates traditional values with contemporary learning methods. H3 is confirmed, shedding light on the intricate dynamics between cultural heritage and academic performance.

Table 4. Hypothesis Testing

|	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Result
Culture Heritage -> Student Achievements of Islamic Culture	0.335	0.339	0.066	5.120	0.000	Supported
Perceived Ease of Use -> Student Achievements of Islamic Culture	0.451	0.450	0.061	7.447	0.000	Supported
Perceived Usefulness -> Student Achievements of Islamic Culture	0.052	0.053	0.060	0.854	0.394	Not Supported
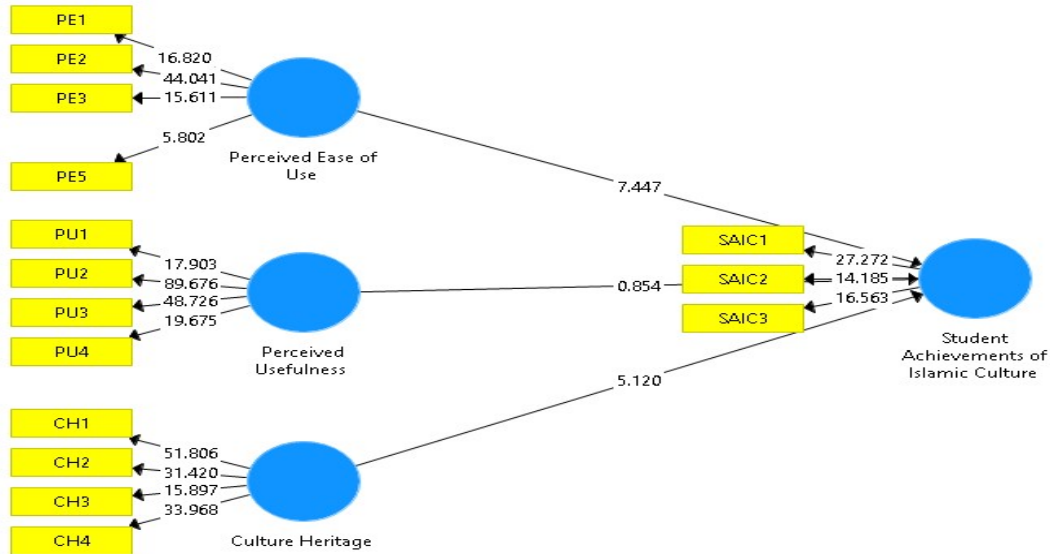
Fig. 2Structural Model

5. DISCUSSION

The research sought to investigate the complex interplay between online problem-solving strategies and academic success within the framework of Islamic Culture education. The analysis of the research hypotheses yielded valuable insights into how perceived ease of use, perceived usefulness, and cultural heritage contribute to shaping students' achievements in this educational context.

5.1 Perceived Ease of Use (H1):

The results confirm a noteworthy and positive influence of perceived ease of use on the academic accomplishments of students in the domain of Islamic Culture. This highlights the crucial significance of technology accessibility and user-friendliness in promoting academic success. These findings resonate with prior research that underscores the significance of creating an intuitive and easily navigable online learning environment. The observed positive correlation implies that students are more inclined to interact with the educational materials and, as a result, attain elevated academic achievements when the online platform is perceived as user-friendly therefore this result is consist with other studies (Chen & Aklikokou, 2020; Prastiawan, Aisjah, & Rofiaty, 2021).

5.2 Perceived Usefulness (H2):

The research discloses a statistically significant and positive association between perceived usefulness and the academic achievements of students in Islamic Culture. This emphasizes the crucial function of perceived utility in molding the academic accomplishments of students. The incorporation of technology into pedagogical approaches is emphasized as a pivotal element contributing to improved educational efficacy. Educators are urged to acknowledge the significance of integrating online tools perceived as useful by students, as this positively impacts their academic accomplishments (Keržič, Tomaževič, Aristovnik, & Umek, 2019; Majali, Al-Kyid, Alhassan, Barkat, & Almajali, 2022).

5.3 Cultural Heritage (H3):

The examination illustrates a significant and positive impact of cultural heritage on student achievements in the realm of Islamic Culture. This highlights the substantial contribution of cultural heritage to academic success, emphasizing the necessity for an all-encompassing educational approach that seamlessly integrates traditional values with contemporary learning methods.

The affirmed hypothesis (H3) proposes that recognizing and integrating cultural heritage into the educational context positively shapes students' academic performance (Al Ganideh & Awudu, 2021; Yaseen, El Qirem, & Dajani, 2022).

5.4 Integration of Findings

Collectively, these findings enrich our comprehension of the complex dynamics inherent in online problem-solving strategies and their impact on achievements within the realm of Islamic Culture in Jordan. The interaction among the adoption of technology, cultural heritage, and educational outcomes highlights the importance of embracing a comprehensive approach to online education. Educators and policymakers should consider these insights when crafting online learning platforms, ensuring that they not only prioritize user-friendliness but also enhance cultural attunement and align with the values cherished by the students(Ali, 2023).&

(Nawaiseh,2023)

This study examines the effectiveness of employing online problem-solving strategies within the Islamic cultural context of Jordan. Through an investigation into technology utilization, cultural heritage, and educational outcomes, it is apparent that these online methods have a significant impact on academic performance. While technology adoption in education shows promise, it necessitates careful consideration of cultural heritage to ensure effectiveness. Additionally, the study stresses the importance of adopting a comprehensive approach to online education, incorporating both technological advancements and cultural values.

By evaluating user experiences and attitudes towards online problem-solving strategies, the research highlights the importance of developing culturally sensitive and user-friendly platforms. Furthermore, it advocates for aligning educational practices with students' cultural backgrounds to enhance academic achievement. Overall, this study contributes valuable insights to discussions on educational progress in Jordan by offering recommendations for the optimal integration of online problem-solving methods within the Islamic cultural context. Looking ahead, it is essential to explore innovative educational approaches that promote academic excellence while embracing cultural diversity.

5.5 Study Limitations and Recommendations for Future Research:

While this study provides valuable insights, it is essential to acknowledge its limitations. Future research should explore additional factors influencing student achievements in Islamic Culture education and delve deeper into the specific facets of online problem-solving strategies contributing to academic success. Additionally, the study's focus on a specific context in Jordan may limit the generalizability of the findings. Replicating the study in diverse cultural and educational settings would contribute to a more comprehensive understanding of the effectiveness of online problem-solving strategies.

The study investigates the effects of technology usage, cultural heritage, and educational outcomes on academic performance. It highlights the substantial influence of online strategies and underscores the importance of cultural heritage in adopting educational technology. Embracing a comprehensive approach to online education, the study emphasizes the integration of technology and culture, as well as aligning educational methods with students' backgrounds to enhance academic achievement. In summary, the findings offer valuable insights into the integration of online problem-solving methods within Jordan's Islamic cultural context, promoting educational advancement while respecting cultural diversity.

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