Student Engagement with Intelligent Technologies: An Empirical Study Using UTAUT in Islamic Studies Higher Education

Sami Ghazzai Alsulami[1], ,Shouket Ahmad Kouchay[2] ,Abdulrahman Awdah Albeladi[3], Abdullah Ali Altammam[4]
Mohammed Yousef Afifi[5],Reem Thabet Muhammad Al-Qahtani[6], Ibraheem Khaled Alnejaidi[7]

Islamic university in Medina, Medina Munawarah, Saudi Arabia

Abstract

This study applies the unified theory of acceptance and use of technology (UTAUT) to examine the extent to which students of higher education Islamic studies utilize an optional intelligent educational intervention. The study employs a sample of 316 students at the college of Islamic litigation and judicial systems at the Islamic university of Medina. UTAUT integrates previous theoretical frameworks of technology acceptance and adoption, and hypothesizes that actual use of technological interventions is a function of student behavioral intention to use the technology and the set of facilitating conditions governing such intervention. Most fundamentally, UTAUT holds that student intention to use the technological intervention is driven by the perception-oriented variables of performance expectancy, effort expectancy, and social influence. The study results show that the impact of performance expectancy, effort expectancy, and social influence on student satisfaction with the intervention is positive and strongly significant. The study further shows that whereas student behavioral intention to use the intervention taken in conjunction with facilitating conditions strongly influences actual use of the intervention, such intention is significantly driven by performance expectancy, effort expectancy, and social influence. The results thus suggest that student intention to use the intervention tends to mediate the impact of performance expectancy, effort expectancy, and social influence on actual use. The results reported in this study, however, don't establish that student intention to use the intervention fully mediates the impact of performance expectancy, effort expectancy, and social influence on student actual use.

Keywords: Technological Intervention; Performance Expectancy, Effort Expectancy, and Social Influence on Student Satisfaction, UTAUT

Introduction

The research examines how personality traits, along with established models like UTAUT, influence mature students' willingness to use mobile learning in higher education (Chau, K. F.,2024). Customized learning is an AI-driven learning technique via which students are supplied with individualized learnings paths depending on their respective learning performance, backgrounds, learning preferences, prior training, learning strengths, and learning aspirations (Marikyan and Papagiannidis, 2023). Customized learning is therefore often consummated by adaptive learning platforms that adjust to learning needs and progress of students with packages of individualized learning resources, targeted predefined activities, and customized, student-centered assessments to improve both the level and quality of their knowledge attainment (Celik et al., 2022). Customized learning is thus particularly relevant for higher education Islamic studies since such studies are intricately interwind with Islamic teachings and fundamental practices are in unison with flexible pacing and differentiated instruction (Almazrooie et al., 2020; Alzouebi, 2019). In this regard, flexible pacing exhausts the personalized learning tool via which students are able to pace their own learning and knowledge attainment progress in a fashion that dynamically factors in all relevant opportunities and challenges accordingly (Crompton et al., 2020). Moreover, differentiated instruction is yet another dimension to personalized learning where instructional interventions, teaching strategies, and supporting materials are student-tailored so as to accommodate the magnitude of different learning presences in the form of differentiated content formats, varying content difficulty levels, and individualized educational materials and resources (Fisher et al., 2021). Personalized learning is also anchored heavily on the behavioral tool of student empowerment (Gao et al., 2020). Via allowing students to replicate their individual preferences, learning interests, and learning strengths in deciding on their learning choices, student empowerment may augment the levels of motivation, engagement, and collaboration among students

of Islamic studies (Hakak et al., 2018; Aziz et al., 2016). The study explores what factors influence teachers' adoption of generative AI for teaching, using a model that considers usefulness, ease of use, social pressure, and available resources (Zhang, X., & Wareewanich, T. ,2024).

In view of the preceding, the objective of this study is to examine the extent to which students at the college of Islamic jurisdiction and judicial systems at the Islamic university of Medina utilize the AI educational intervention of the electronic synthesizer of Sunnah (jamie khadim alharamayn alsharifayn lilsunat alnabawia.) The synthesizer leverages functions from AI and information and communication technology to establish and maintain networks for shared resources and mechanisms for collaborative, distributed, and diverse learning with respect to Sunnah. The study adopts the unified theory of acceptance and use of technology (hereafter, UTAIT) as its theoretical framework where actual use of technological interventions is explained in terms of student behavioral intention to use the technology and the host of facilitating conditions governing such intervention (Salloum and Shaalan, 2019). Most fundamentally, UTAUT establishes that student intention to use the technological intervention is driven by performance expectancy, effort expectancy, and social influence (Venkatesh et al., 2003). Toward this end, the study advances the following research questions:

RQ1: What is the extent to which behavioral intention mediates the impact of performance expectancy on student adoption of the synthesizer?

RQ2: What is the extent to which behavioral intention mediates the impact of effort expectancy on student adoption of the synthesizer?

RQ3: What is the extent to which behavioral intention mediates the impact of social influence on student adoption of the synthesizer?

RQ4? What is the impact of facilitating conditions on student adoption of synthesizer?

In this fashion, the rest of the study is presented in terms of literature review, research design, data analysis and results, and concluding remarks.

Literature Review

Models and conceptual frameworks that address the utilization and acceptance of intelligent technological interventions in higher education represent a latitude of underlying theories and hypothetical predictions (Sabeh et al., 2021). Such theories cover, most predominantly, Fishbein's and Ajzen (1975) Theory of reasoned action (TRA), Ajzen's (1991; 1985) theory of Planned Behavior (TPB), Bandura's (1975) Social Cognitive Theory (SCT), Rogers' (1962) Diffusion of Innovations Theory (IDT), Taylor's and Todd (1995) Decomposed Theory of Planned Behavior (DTPB), and UTAUT. TRA posits that intentions driven by attitudes and subjective norms completely predict actions where attitudes are driven by belief formation and subjective norms are driven by motivations (Sabri, 2016). TPB extends TRA and explains the behavioral and rather controllable variable of intention to use ICT in terms of a priori individual attitudes and beliefs (Svenningsson et al., 2022). TPB thus explicitly allows for psychological aspects to perceived behavioral control to enter into the process of belief formation and become replicated in behavioral decision making (Svenningsson et al., 2022). TPB thereby posits that, though intentions dictate actions, such intentions reflect an underlying relationship of interaction and mutual bi-direction between attorneys, subjective norms, and perceived behavioral control (Dwivedi et al., 2019). On the other hand, SCT studies the utilization and acceptance of ICT from the premise that the individual decision to utilize ICT reflects an underlying intrinsic interactive and mutually bidirectional mechanism where personal attitude and belief factors, behavioral habits and actions factors and the environmental surroundings and social norms factors jointly indicate toward such decision (Taherdoost, 2018). IDT specifies the utilization/adoption and acceptance of ICT would progressively develop as the society expands (Rogers, 1995). Such theory classifies potential users of emerging intelligent technologies into innovation agents, early adoption agents, late adoption agents, and lagging agents. Such classification adheres to the Gaussian probability distribution where the probability that a potential users belongs to the early adoption group or to the late adoption group is approximately 68% (Rogers, 1995). At the same time, DTPB extends TPB and Davis' (1989) technology acceptance model (TAM), and incorporates TAM variables of perceived usefulness (PU) and perceived ease of use

(PEU) as drivers of attitudes instructing behavioral intention along with subjective norms and perceived behavioral control (Taylor and Todd, 1995). In light of the foregoing, Venkatesh et al. (2003) develop UTAUT as a comprehensive theory of technology adoption and acceptance by introducing a wealth of mediating and explanatory mechanisms that were largely overlooked by previous models and theoretical frameworks. In particular, UTAUT introduced the four critical constructs of performance expectancy, effort expectancy, social influence, and facilitating conditions (Salloum and Shaalan, 2019). UTAUT hypothesizes that whereas performance expectancy, effort expectancy, and social influence predict the behavioral Intention to adopt the technology intervention, such intention taken in conjunction with facilitating conditions directly predict actual adoption (Dwivedi et al., 2019; Alshehri et al., 2019). In this concern, UTAUT studies are widely documented in the extant literature with satisfactory explanatory power and significant parameter estimates (Venkatesh et al., 2003). For instance, Abbasi et al. (2020) applies UTAUT to describe student perceptions with respect to facilitating conditions governing intelligent and e-learning educational interventions. Jethro et al. (2012) use UTAUT to evaluate the impact of intelligent e-learning systems on teaching behavior of instructors and learning behavior of students in higher education. Alshehri et al. (2019) report empirical evidence that UTAUT is successful in explaining student perception of and attitude toward intelligent learning management systems in Saudi higher education. Maatuk et al. (2022) summarize that UTAUT's facilitating conditions collectively define the ultimate challenge facing higher education when developing intelligent educational interventions. Marlina et (2021) underscore that UTAUT's actual adoption of intelligent learning systems translates into higher academic performance via the mitigating influence of facilitating conditions. Furthermore, Salloum and Shalaan (2015) report that performance expectancy and social influence tend to vary positively with student intention to utilize intelligent e-learning technologies. On the same subject, Bellaj et al. (2015) document that performance expectancy taken in conjunction with effort expectancy influences student behavioral intention to adopt and accept AI learning systems. By the same token, Dečman (2015) shows that social influence and performance expectancy (and not effort expectancy) tend to drive student behavioral intention to use mandatory (as opposed to optional) intelligent learning systems. Bellaaj et al. (2015) contend that facilitating conditions and behavioral intention to adopt the intervention significantly explain actual adoption of voluntary intelligent learning systems in Saudi higher education. Dwivedi et al. (2019) suggest that facilitating conditions including service quality and system quality are ought to explain actual adoption of the technology intervention via the mediating influence of behavioral intention. Karaman (2011) concludes, within UTAUT gram, that student engagement responds positively to intelligent, adaptive, and online examinations in higher education. Khan et al. (2020) measure student perception of intelligent learning technologies using a theoretical framework implied by UTAUT. They find that such perception is greatly influenced by performance expectancy, effort expectancy, and information and service quality. Nikou and Maslov (2021) employ UTAUT and show that voluntary student participation in intelligent and e-learning activities is driven by effort expectancy and performance expectancy. Salloum and Shaalan (2019) adhere to a structural equation modeling of UTAUT and find that performance expectancy, effort expectancy, social influence, and facilitating consumption are all binding factors when evaluating student adoption and acceptance of intelligent and e-learning educational interventions in higher education. Moreover, when applied to educational settings UTAUT may relate to the contrast of learning transfer (Marikyan and Papagiannidis, 2023). This can be understood since UTAUT ultimately deals with actual use as endogenous, which is antecedent to transfer of learning (Celik et al., 2022). In this regard, Barkley (2010) highlights that modern technology and AI supported learning systems go a long way in augmenting the levels of student engagement. Along the same lines, Belenky and Nokes-Malach (2012) relate the effectiveness and presence of intelligent learning systems to concept mastery, student motivation and participation in learning transfer.

According to the above mentioned, this review is concluded by highlighting that, though the body of UTAUT evidence with respect to higher education settings is large, such evidence doesn't specifically report student data from Islamic studies. In this vein, this study complements the literature by applying UTAUT and documenting empirical evidence with respect to the extent to which students of higher education Islamic studies utilize an optional intelligent educational intervention.

Research Design

This study follows the quantitative paradigm to explain student actual use of the electronic synthesizer of Sunnah in terms of UTAUT variables of performance expectancy, effort expectancy, social influence, student intention to use, and facilitating conditions. In this fashion, the study applies all relevant ontological, epistemological, and axiological assumptions underlying the quantitative paradigm (Creswell, 2003). Ontologically, the holds that the variables of performance expectancy, effort expectancy, social influence, student intention to use, facilitating conditions, and student actual use are observable and objectively measurable. Epistemologically, the study assumes that the individual impacts of performance expectancy, effort expectancy, and social influence on student intention to use and student actual use can be objectively measured and tested. By the same token, the study maintains that the impact of facilitating conditions on student actual use can also be objectively measured and tested. Axiologically, the study keeps that examining and measuring the effect of performance expectancy, effort expectancy, social influence, facilitating conditions, and student intention to use on student actual use may inform improved future designs of AI-driven learning systems in higher education while contributing to the technology acceptance and utilization literature.

Study Sample

The study employs a sample size of 316 students at the college of Islamic litigations and judicial systems at the Islamic University of Medina. The study applies Cochran's (1977) sample size determination framework to a total student population of 1759 at a 95% confidence interval, 5% margin of error, and 50% population proportion as follows: 313 = [(1.96^2) *0.5*(1-0.5) *(0.05^-2)] / [1 + {(1.96^2) *0.5*(1-0.5) *(0.05^-2) *(1759^-1)}].

Variables' Measurement and coding

Performance expectancy is measured according to the PU original measurement scale reported by Davis (1989) (Table 1). Effort expectancy is measured according to the PEU original measurement scale reported by Davis (1989) (Table 2). Social influence is measured according to the validated scale measurement of social learning and social norms reported by Stibe and Cugelman (2019) (Table 3). Student intention to use the optional AI intervention of the electronic synthesizer of Sunna is measured according to the validated scale measurement of use intention reported by Teo (2019) (Table 4). Facilitating conditions are measured according to the system quality validated scale measurement of accessibility (Lee et al., 2011), ease of operation (Lee et al., 2011), enjoyment (Venkatesh and Bala, 2008), compatibility (Chang and Tuang, 2007), and security (Lee et al., 2011) (Table 5). Student actual use of the intervention is measured according to the validated scale measurement of usefulness reported by (Venkatesh and Bala (2008) (Table 6). All items to variable measurements are captured on a five-point Likert-type scale. All variables are measured based on average item scores and are coded as 1 for lowest score, 2 for lower score, 3 for average score, 4 for high score, and 5 for highest score.

Table 1: measurement of performance expectancy
Using the system in my studies would enable me to accomplish tasks more quickly
Using the system would improve my performance
Using the system in my studies would increase my productivity
Using the system would enhance my effectiveness
Using the system would make it easier
I would find the system useful

Table 2: measurement of effort expectancy
Learning to operate the system would be easy for me
I would find it easy to get the system to do what I want it to do
My interaction with the system would be clear and understandable
I would find the system to be flexible to interact with
It would be easy for me to become skillful at using the system
I would find the system easy to use

Table 3: measurement of social influence
Social learning
I prefer learning new things by watching others
I learn new skills by observing others
I learn new skills by watching others
To improve my skills, I learn best by observing others
Social norms
I prefer to do what other people typically do
I prefer to act the way everyone else is acting
I follow behaviors that people typically do
I avoid acting in a way that is uncommon

Table 5: measurement of student intention to use
I will use the electronic synthesizer of Sunnah in the future
I plan to use the electronic synthesizer of Sunnah often

Table 6: measurement of actual student use
My interaction with the electronic synthesizer of Sunna is clear and understandable.
Interacting with the electronic synthesizer of Sunna does not require a lot of my mental effort.
I find the electronic synthesizer of Sunna easy to use.
Using the electronic synthesizer of Sunna improves my learning performance.
Using the electronic synthesizer of Sunna in learning increases my productivity.
Using the electronic synthesizer of Sunna enhances my effectiveness in education.
I find the electronic synthesizer of Sunna useful for my education.

Data Analysis & Empirical Results

This study employs the mediating influence of student intention to use the intervention to explain the impact of performance expectancy, effort expectancy, and social influence on student actual use of the intervention. The study, therefore, tests whether student intention to use the intervention is significantly influenced by performance expectancy, effort expectancy, and social influence, and meanwhile has a positive and significant impact on student actual use of the intervention. It follows that, to answer RQ1, RQ2, RQ3, and RQ4, the study estimates three linear models to explain: [1] student actual use of the intervention in terms of performance expectancy, effort expectancy, and social influence (Table 6), [2] student intention to use the intervention in terms of performance expectancy, effort expectancy, and social influence (Table 7), and [3] student actual use of the intervention in terms of student intention to use the intervention and facilitating conditions (Table 8). The study tests whether student intention to use the intervention fully mediates the impact of performance expectancy, effort expectancy, and social influence on student actual use by regressing student actual use of the intervention on performance expectancy, effort expectancy, social influence, and student intention to use the intervention (Table 9).

FF *(1): student actual use = f (performance expectancy, effort expectancy, social influence)*

FF (2): student intention to use = f (performance expectancy, effort expectancy, social influence)

FF (3): student actual use = f (student intention to use, facilitating conditions)

FF (4): student actual use = f (performance expectancy, effort expectancy, social influence, student intention to use)

The models are specified as follows while assuming that the underlying data generating processes satisfy the Gauss-Markov properties of correct specification and identically and independently distributed error terms with zero mean and constant variance:

*SF (1): student actual use (i) = b0 + b1*performance expectancy (i) + b2*effort expectancy (i) + b3*social influence (i) + e (i)*

*SF (2): student intention to use (i) = b0 + b1*performance expectancy (i) + b2*effort expectancy (i) + b3*social influence (i) + e (i)*

*SF (3): student actual use (i) = b0 + b1*student intention to use (i) + b2*facilitating conditions + e (i)*

*SF (4): student actual use (i) = b0 + b1*performance expectancy (i) + b2*effort expectancy (i) + b3*social influence (i) + b4*student intention to use + e (i)*

Where (i) is an index for the student included in the dataset and takes discrete values between 1 and 313; b0 is an intercept parameter estimate; b1, b2, b3, and b4 are coefficients or parameter estimates; and e is a Gauss-Markov error term with an average value of zero and constant variance everywhere across the study sample.

The statistical model outputs show that the models have significant explanatory power as measured by adjusted R squared (see Table 7, Table 8, Table 9, and Table 10). In particular, the statistical output shows that student intention to use the electronic synthesizer of Sunna replicates the UTAUT variables of performance expectancy, effort expectancy, and social influence. Moreover, the results also show that student intention to use the synthesizer significantly explains student actual use of the synthesizer with a positive parameter estimate. This suggests that student intention to use significantly mediates the individual impact of performance expectancy, effort expectancy, and social influence on student actual use of the electronic synthesizer of Sunna. Besides student intention to use the synthesizer, the empirical results reported in this study are consistent with the UTAUT theoretical prediction concerning the positive impact facilitating conditions have on student actual use of the intelligent educational intervention. Furthermore, though the study establishes that student intention to use the synthesizer mediates the impact of performance expectancy, effort expectancy, and social influence on student actual use, full mediation couldn't be established (Table 10). In fact, when student intention to use is included as exogenous variable along with performance expectancy, effort expectancy, and social influence to explain the endogenous student actual use, the model collapses with meaningless parameter estimate for the mediating variable. This suggests that there exist more mediating mechanisms to the relationship between the three UTAUT variables of performance expectancy, effort expectancy, and social influence and student actual use than simply the content carried through by student intention to use the intervention.

Table 7: Regressing student actual use on performance expectancy, effort expectancy, and social influence

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.633053							
R Square	0.400757							
Adjusted R Square	0.394995							
Standard Error	0.925506							
Observations	316							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			

Regression	3	178.7273	59.57578	69.5522	1.82E-34			
Residual	312	267.2474	0.856562					
Total	315	445.9747						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.62864	0.203373	3.091065	0.002174	0.228483	1.028796	0.228483	1.028796
Performance Expectancy	0.146794	0.053297	2.754276	0.006227	0.041928	0.251661	0.041928	0.251661
Effort Expectancy	0.268587	0.059689	4.499802	9.61E-06	0.151144	0.38603	0.151144	0.38603
Social Influence	0.383258	0.063844	6.00303	5.38E-09	0.257639	0.508878	0.257639	0.508878

Table 8: Regressing student intention to use on performance expectancy, effort expectancy, and social influence

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.802766							
R Square	0.644433							
Adjusted R Square	0.641014							
Standard Error	0.646517							
Observations	316							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	3	236.358	78.78599	188.4904	9.98E-70			
Residual	312	130.411	0.417984					
Total	315	366.769						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.536669	0.146586	3.661122	0.000295	0.248247	0.82509	0.248247	0.82509
Peformance Expectancy	0.543589	0.037867	14.35512	3.13E-36	0.469081	0.618096	0.469081	0.618096
Effort Expectancy	0.121639	0.039422	3.085587	0.002214	0.044073	0.199205	0.044073	0.199205

Social Influence	0.204423	0.042649	4.793171	2.54E-06	0.120507	0.288338	0.120507	0.288338

Table 9: student actual use on student intention to use and facilitating conditions

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.581571							
R Square	0.338224							
Adjusted R Square	0.333996							
Standard Error	0.971043							
Observations	316							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	2	150.8395	75.41976	79.98499	8.73E-29			
Residual	313	295.1352	0.942924					
Total	315	445.9747						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.775544	0.221985	3.493683	0.000545	0.338773	1.212316	0.338773	1.212316
Intention to use	0.325245	0.053857	6.039069	4.39E-09	0.219278	0.431213	0.219278	0.431213
Facilitating conditions	0.428091	0.050803	8.426496	1.31E-15	0.328132	0.528049	0.328132	0.528049

Table 10: Regressing student actual use on performance expectancy, effort expectancy, social influence, and student intention to use

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.600408							
R Square	0.36049							
Adjusted R Square	0.352265							
Standard Error	0.957632							
Observations	316							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			

Regression	4	160.7694	40.19235	43.82746	3.68E-29			
Residual	311	285.2053	0.917059					
Total	315	445.9747						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.715803	0.22174	3.228114	0.001379	0.279502	1.152104	0.279502	1.152104
Performance Expectancy	0.1708	0.072277	2.363139	0.018736	0.028587	0.313014	0.028587	0.313014
Effort Expectancy	0.358513	0.059276	6.048175	4.2E-09	0.24188	0.475146	0.24188	0.475146
Social Influence	0.23779	0.065457	3.632787	0.000328	0.108996	0.366584	0.108996	0.366584
Intention to use	-0.00387	0.083857	-0.04609	0.963264	-0.16887	0.161134	-0.16887	0.161134

Discussion

This study examined how students' perceptions of a new educational intervention aligned with the UTAUT model. Digital Islamic law libraries, theology databases, and websites providing Qur'anic translations, Hadith collections, Islamic history books, Islamic philosophy articles, and other scholarly works and branches of knowledge in Islamic studies are examples of this (Alimron A, et al., 2023). The findings confirm that when students of higher education Islamic studies believe the intervention will be helpful and easy to use, and when they experience social encouragement, they are more likely to intend to use it. Interestingly, while this intention partially explains students' actual use of the intervention, other factors seem to be at play as well. Additionally, the study supports the UTAUT's prediction that factors like technical support, categorized as facilitating conditions, have a positive influence on students' actual use of the educational tool. Future research could explore these additional mediating factors to gain a more comprehensive understanding of how UTAUT variables influence student behavior. It might also be fruitful to test both the original and adapted UTAUT models in the context of Islamic education, incorporating factors like gender and prior experience to see how they influence student technology use.

Concluding Remarks

This study applies the theoretical framework of UTAUT to examine the extent to which students of higher education Islamic studies utilize an optional intelligent educational intervention. The study employs a sample of 316 students at the college of Islamic litigation and judicial systems at the Islamic university of Medina. The study results show that the impact of performance expectancy, effort expectancy, and social influence on student satisfaction with the intervention is positive and strongly significant. The study further shows that whereas student behavioral intention to use the intervention taken in conjunction with facilitating conditions strongly influences actual use of the intervention, such intention is significantly driven by performance expectancy, effort expectancy, and social influence. Though the results reported in this study suggest that student intention to use the intervention tends to mediate the impact of performance expectancy, effort expectancy, and social influence on actual use, full mediation can’t be established. This corroborates the statistical output that when student intention to use the electronic synthesizer of Sunna is allowed along with performance expectancy, effort expectancy, and social influence to explain student actual use, the

model collapses onto a meaningless parameter estimate for student intention to use. This suggests that many mediating mechanisms other than student intention to use may possibly help explain the relationship between the UTAUT constructs of performance expectancy, effort expectancy, and social influence and student actual use. This lack of full mediation is also consistent with [1] the adapted version of UTAUT (Dečman, 2015) where student previous education and gender are employed as mitigating influences, and [2] the unmodified or original UTAUT (Venkatesh et al., 2003) where student gender, age, and experience are hypothesized as mediating the relationship between UTAU constructs of performance expectancy, effort expectancy, and social influence, and student intention to use the intervention. Future research may be recommended to revisit the subject of this study with student samples from higher education Islamic studies while adhering to adapted and unmodified UTAUT frameworks.

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