Heliyon 9 (2023) e13141

Contents lists available at ScienceDirect

Heliyon

journal homepage: www.cell.com/heliyon

Research article

Understanding perceptions of academics toward technology acceptance in accounting education

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ARTICLE INFO

Keywords:
Technology acceptance model
Social influence
Self-efficiency
Behavioral intention
Accounting education
Less developed countries

ABSTRACT

Utilizing technology acceptance model (TAM), this paper investigated perceptions of academics at Yemeni universities toward the intention to adopt and integrate technology into accounting education. This model has yet to be widely validated in less developed countries (LDCs) such as Yemen. Thus, there is a need to promote its cross-cultural validity. An extension of the TAM has been employed by considering not only perceived usefulness and ease of usage but also social influence and self-efficiency. The hypotheses were tested using SmartPLS on a sample of 138 academics. The results show that the proposed expanded TAM model could predict the acceptance of technology in the context of accounting education in Yemen, a less developed nation. This paper exhibits that the proposed expanded TAM interpreted 59.4% of the variance in the behavioral intention of IT usage. Furthermore, the model paths demonstrated that perceived usefulness, ease of usage, attitude, and self-efficiency were all significant in determining behavioral intention. However, social influence had not shown any significant impact on behavioral intention. Academics' perceptions of technology adoption and integration into education are essential in implementing technology-related innovations. Therefore, this paper would be helpful in education policymaking on technology adoption and integration in accounting education in Yemen and other similar countries.

1. Introduction

Information technology (IT) applications are now an essential part of organizations' daily life. Further, IT is recognized as a critical contributor to economic management, job creation, economic development, and social progress [1,2]. In light of this, university education has become in a position where it is forced to adapt to external conditions created by the widespread adoption of IT [3]. Universities have become accountable for providing their graduates with relevant job skills that would enable them to compete in the labor market [4].

In the accounting context, the accounting profession, accountants, and accounting education providers all face challenges as the effect of IT grows within economies worldwide [5]. These forces of technology have altered the accounting profession. IT in accounting has become a daily routine, as it is nearly impossible to execute accounting tasks without it [6–8]. The accountant's role expanded and became more complex with the advancement of IT, which has required the teachers' attention [9,10]. Literature generally suggests that IT is critical and should be included in the universities' accounting curriculum to reflect business environment changes and increase graduates' employability [10–12]. This request aligns with International Accounting Accreditation Standard A7 [13], which directs accounting programs to build skills and knowledge in the IT integration area. The need to review and update accounting

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https://doi.org/10.1016/j.heliyon.2023.e13141
Received 27 April 2022; Received in revised form 30 December 2022; Accepted 18 January 2023
Available online 21 January 2023
2405-8440/

curricula comes to provide the students (accountants) with knowledge about key elements of IS (versus the general ledger) and their relations and provide skills to satisfy the needs of employers. In other words, students should be given hands-on preparation for seeing the general ledger at work and internal controls to assist them in recognizing the significance of protecting these processes [14]. However, university accounting curricula in less developed countries (LDCs) such as Yemen still lag behind. For example, Al-Hattami [10] revealed that most Yemeni universities did not adopt or integrate any IT-related topics into their accounting curriculum.

IT mechanism and its broad adoption by many organizations raise concerns about whether educational institutions in LDCs, such as Yemeni universities, would adopt or integrate the technology into their accounting education. If universities integrate technology into their accounting programs, they will gain a competitive advantage and better serve their graduates (future accountants). The key to performing so is ensuring that accounting academics are ready to face this challenge [11]. In this regard, the foundation must be laid to define the behavioral intention of faculty members (accounting academics) to adopt and integrate technology into accounting education.

Many technology acceptance models have been developed to explore and understand the individual's attitude toward a particular technology and intent to adopt it. The technology acceptance model (TAM) of Davis [15] is deemed one of the most influential technologies acceptance models for explaining behavioral intention [16–21]. TAM proposed that the user's behavioral intention can be interpreted by perceived usefulness, perceived ease of use, and attitude toward usage. TAM has gained pro minence mainly because of its portability to different contexts and samples. In addition, it is a credible model for describing the intention of teachers' technology adoption [20,22–24].

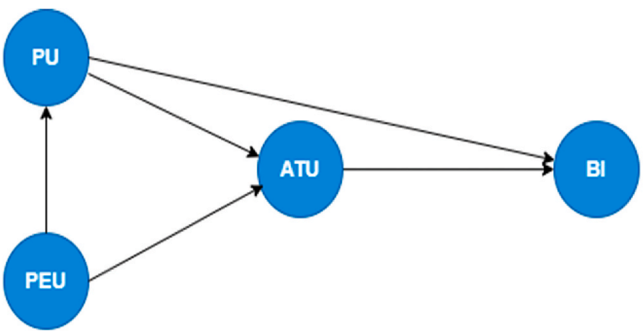
The TAM model has been adopted and extended to show its validity in numerous developed countries. As an example of expanding the TAM, it was found that social influence and self-efficiency are essential factors influencing user intention to use new technology [1, 25]. However, this model has yet to be widely tested within LDCs [26]. Further, most TAM validations have focused on university students instead of academics/teachers, which is considered a research flaw [22]. Scherer et al. [20] stated that TAM is appropriate at different levels of education and in different countries. Granić and Marangunić [22], in their systematic literature review, also noted the significance of further validating the TAM in various contexts and countries in order to promote its cross-cultural validity. However, no study has employed the TAM to explore the behavioral intention of academics to adopt and integrate technology into accounting education, particularly in Yemen. In this vein, the present paper expands TAM's interpretive power into a new context.

The next section explains the background and hypotheses of the research. Section 3 defines the method. Section 4 discusses the analysis and results. Section 5 highlights the discussion. Section 6 summarizes theoretical and practical applications. Section 7 mentions the limitations. The last section provides the conclusion.

2. Background and research hypotheses

TAM was established based on perceived usefulness and ease of use that impact attitude and behavioral intention [15]. Several studies revised TAM to improve its generalizability [20,25,27]. Salloum et al. [21] stressed that TAM should be expanded by including more dimensions. Thompson et al. [28] further argued that, given the new cutting-edge technologies, perceived usefulness and ease of use are only some of the appropriate dimensions determining technology acceptance. Therefore, extensions for the TAM were suggested (e.g., TAM 2 by Venkatesh and Davis [29], and standardized theory of acceptance and use of technology (UTAUT) by Venkatesh et al. [30]). One of the well-received significant revisions was the inclusion of the "social influence" dimension to predict the behavioral intention of using new technology [1,30]. Besides, self-efficiency is another crucial factor to consider when accepting using technology [24,25,31,32].

This paper suggested its hypotheses based on the TAM's theoretical constructs. The study hypotheses are graphically summarized in Fig. 2.



PU=Perceived Usefulness; PEU=Perceived Ease of Use; ATU=Attitude toward Using; BI=Behavioral Intention

Fig. 1. TAM (adapted from Ref. [15]**).**

2.1. Perceived ease of use (PEU)

PEU is “the degree to which a person believes that using a particular technology would be free from effort” [15]. TAM claims that PEU will impact PU and ATU (Fig. 1). Fathema et al. [33] clarify this impact/relationship as follows: i) When users find a technology to be “simple to use,” they consider it to be “useful.” ii) users acquire a positive attitude towards technology if they find it simple to use. This impact/relationship was empirically stressed in the past research on education using technology [18,19,21,31,34–39]. However, empirical evidence in the context of accounting education in LDCs like Yemen is still absent. Thus, this paper covers this gap by examining TAM’s employability in the Yemeni context through the following hypotheses:

H1. PEU positively impacts PU.

H2. PEU positively impacts ATU.

2.2. Perceived usefulness (PU)

PU is “the degree to which a person believes that using a particular system would enhance his or her job performance” [15]. TAM states that PU will impact ATU and BI (Fig. 1). Fathema et al. [33] describe this impact/relationship as the users acquiring a positive attitude and an intention to employ a technology if they find it useful. This impact/relationship was empirically confirmed in the prior studies on education using technology [17–19,21,24,35,37–40]. However, such an impact/relationship is still undiscovered in the context of accounting education in LDCs like Yemen. Therefore, this study assumes that:

H3. PU positively impacts ATU.

H4. PU positively impacts BI to adopt and integrate technology into accounting education.

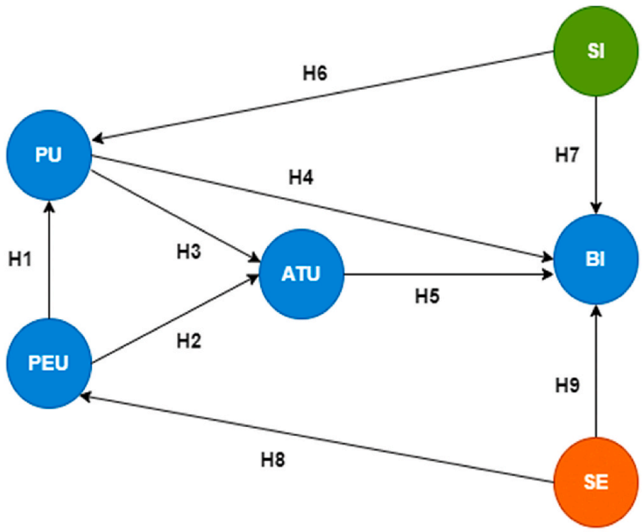
2.3. Attitude toward using (ATU)

ATU indicates how favorable or unfavorable a teacher is about using IT in the teaching process [41]. Behavioral Intention (BI) is “the degree of a teacher’s willingness to use technology” [37]. TAM states that ATU will impact BI (Fig. 1). Fathema et al. [33] imply this impact/relationship by that the users acquire an intention to employ a technology if they have a positive attitude towards it. This impact/relationship was empirically proved in the previous research on education using technology [17–19,34–39,42,43]. In the context of the current study, the following can also be assumed:

H5. ATU positively impacts BI to adopt and integrate technology into accounting education.

2.4. Social influence (SI)

SI is “the degree to which an individual perceives that important others believe he or she should use the new system” [30]. People expect that SI is the most critical and widespread factor in accepting new technology. Numerous authors have supported the positive



PU=Perceived Usefulness; PEU=Perceived Ease of Use; ATU=Attitude toward Using; BI=Behavioral Intention; SI=Socail Influence; SE=Self-Efficiency

Fig. 2. Proposed research model.

impact of SI on PU and BI (e.g. Refs. [1,44,45]). Consequently, in the present paper context, it can also posit the following hypotheses:

H6. SI positively impacts PU.

H7. SI positively impacts BI to adopt and integrate technology into accounting education.

2.5. Self-efficiency (SE)

SE is "the degree to which an individual believes that he or she has the ability to successfully perform a specific task/job, using the computer" [46]. In the education context, SE implies a faculty member's judgment or confidence in his or her ability to operate/navigate/work using technology [21,33]. Overall, highly self-efficiency users develop stronger perceptions of PEU and BI for a particular technology or system [31,33,47,48]. While there is support from a body of literature for this argument in different e-education contexts (e.g. Refs. [24,40,49–52]), no study investigates such an effect within the context of accounting education in LDCs like Yemen. However, SE is likely to play a significant role in adopting and integrating technology into accounting education, as in technology adoption in general. Therefore, it is assumed that:

H8. SE positively impacts PEU.

H9. SE positively impacts BI to adopt and integrate technology into accounting education.

3. Method

The study is quantitative research employing a closed questionnaire managed and distributed online. In Yemen, there are about ten public universities (Hodeidah, Sana'a, Albaydaa, Hajja, Emran, Hadramawt, Ibb, Dhamar, Aden, and Taiz), and some private universities and community colleges that are dispersed throughout the country [10]. However, the study targeted the accounting academics in eight Yemeni universities [two private (university of science and technology and Al-Razi university) and six public (Hodeidah, Sana'a, Albaydaa, Aden, Dhamar, and Taiz)], and some community colleges affiliated with public universities. This is due to the presence of great response and interest in the field of accounting education at these universities and colleges. As the statistics for the total population of academics are unreachable, the total population was not reported in this study. This study was based on the opinions of accounting academics. Academics' perception of IT adoption and integration in education is a significant factor in implementing technology-related innovations [53]. An online questionnaire was sent to targeted accounting academics through Google Forms with a random sampling technique to gather data. The online questionnaire is a suitable and safe method as social distancing is advised to avoid the risk of contracting the novel Covid-19 pandemic [54,55]. The questionnaire via a link was distributed on March 4, 2022, and remained open until March 31, 2022. Most of the responses came in the first week; of the 142 responses received, 138 were analyzable.

Table 1
List of variables and their items.

Variable	Item	
Perceived usefulness (PU1: adapted from Ref. [15], PU2 and PU3: by the author)	PU1	Adopting and integrating technology into accounting education would make education better.
	PU2	Adopting and integrating technology into accounting education is very much useful for students.
	PU3	Using technology in accounting education would improve my job performance and increase my productivity.
Perceived ease of use (adapted from Refs. [15,23])	PEU1	Learning to operate technology (computer and software) is easy for me.
	PEU2	I find it convenient to use technology (computer and software) in accounting education.
	PEU3	Overall, I find using technology (computer and software) in accounting education possible and easy.
Social influence (adapted from Refs. [10,52])	SI1	My friends, students, and practitioners in the job market think that I should use technology (computer and software) in accounting education.
	SI2	Overall, my university should support adopting and integrating technology into accounting education.
Self-efficiency (adapted from Refs. [40,47])	SE1	I could do my accounting education tasks using technology (computer and software) if someone showed me how to do it first.
	SE2	I could do my accounting education tasks using technology (computer and software) if I had a built-in guide for assistance.
	SE3	I could use technology in accounting education if it would be used by others.
Attitude toward using (adapted from Refs. [16,64])	ATU1	I like the idea to adopt and integrate technology into accounting education.
	ATU2	Adopting and integrating technology into accounting education would make education more interesting.
	ATU3	I have positive perceptions about technology usage in accounting education.
Behavioral intention (adapted from Refs. [26,30])	BI1	To meet the era's demands, I intend to use technology (computer and software) in accounting education.
	BI2	I would recommend that others use technology (computer and software) in accounting education.
	BI3	I predict I would use this technology in the future.

Notably, the participants who filled out the survey gave verbal consent. Moreover, they participated voluntarily and anonymously in the study, and only those who agreed to participate received the questionnaire link. This research is free of any human experiment and does not require ethical approval because it is a social science study. Hence, no ethical approval was needed for the intuition. The questionnaire's items were adapted from the prior research with minor adjustments in proportion to the context of the study (Table 1). These items are based on a 5-point Likert scale. Besides, six of the participants' essential demographic characteristics, namely gender, age, educational level, years of experience, and job place, were included (Table 2).

The paper uses SmartPLS for the analysis, which frequently prevails in information systems and education research [2,48,56–59]. The main advantage of SmartPLS is that there are no strict requirements concerning sample size and the assumption of normality for survey data [60,61]. Because SmartPLS does not require normally distributed data like covariance-based SEM (CB-SEM), it employs bootstrapping to drastically reduce estimation bias [62]. Moreover, SmartPLS is advisable in models that include many measurable and latent variables and indirect correlations; the multiple regression approach would not be suitable [63].

4. Analysis and results

SmartPLS evaluates the study model in two phases, measurement and structural. In the first phase (measurement), the model's reliability and validity are investigated. First, the results in Fig. 3 confirmed the item reliability, i.e., all items had loadings above 0.6 [62]. The results also assured construct reliability (Table 3) with Cronbach's Alpha (CA) and composite reliability (CR) above 0.7 [62]. Second, the results assured convergent validity (Table 3) with an average variance extracted (AVE) above 0.5 [61]. The results also confirmed discriminant validity (DV) using the Fornell-Larcker criterion and cross-loading (see Tables 4 and 5). Once the measurement phase is met, the next is to check the variance inflation factor values (VIF) for issues of collinearity and common method bias (CMB) [65]. Table 4 demonstrates that all VIF scores were lower than 3.3, indicating that problems of collinearity and CMB are absent in this study [65].

The relationships between paths (hypotheses testing) were examined in the structural phase, employing 5000 subsamples procedure [62]. This covers estimates of the path coefficients (β) and the value of R^2. The β (beta and significance) imply how strong and acceptable a supposed relationship is, while R^2 implies how well the data support the proposed model [66]. Table 6, Fig. 3, and Fig. 4 clarify the results of the structural phase from the SmartPLS outputs. PEU had a significant positive impact on PU and ATU (H1: $\beta = 0.325$, p-value = 0.000; H2: $\beta = 0.366$, p-value = 0.000). PU significantly impacted ATU and BI (H3: $\beta = 0.398$, p-value = 0.000; H4: $\beta = 0.336$, p-value = 0.000). ATU significantly influenced BI (H5: $\beta = 0.421$, p-value = 0.000). SI had a significant positive influence on PU but not on BI (H6: $\beta = 0.383$, p-value = 0.000; H7: $\beta = -0.017$, p-value = 0.851). Finally, SE significantly and positively impacted PEU and BI (H8: $\beta = 0.499$, p-value = 0.000; H9: $\beta = 0.184$, p-value = 0.005). Consequently, the results support "H1, H2, H3, H5, H6, H8, H9" and do not support H7, as shown in Table 6. Concerning the constructs' variances (R^2), PEU and PU interpreted 44.6% of the variance in ATU. Furthermore, PU, ATU, SI, and SE explained 59.4% of the variance in BI. This indicates that the resulting model could anticipate and interpret BI among Yemen academics.

5. Discussion

The current research fully supports the TAM theory. According to the results, the attitude was the most important determinant of behavioral intention. Among all path coefficients to BI in the model, the path coefficient from ATU to BI was the greatest. This emphasizes the importance of developing users' positive attitude toward using technology in accounting education. Teachers' attitude is also supported by Lawrence and Tar [41], who reported that the teachers' attitudes regarding technology impact their acceptance of technology's utility and integration into education. Mailizar et al. [34] also concluded that attitude toward technology acceptance is the most significant construct in predicting technology acceptance in education. Therefore, if universities and policymakers want to promote technology acceptance and integrate it into accounting education, academics should have a strong positive attitude toward it.

Perceived usefulness had a significant indirect impact on BI through ATU. Additionally, PU had a significant direct effect on BI. According to this result, academics would be willing to embrace technology in accounting education if they believe it would benefit

Table 2
Profile of participants (N = 138).

Question	*Categories*	*N*	*%*
Gender	Female	31	22.5
	Male	107	77.5
Age	Less than 25	0	0
	25–35	63	45.7
	36 and above	75	54.3
Education	Bachelor	34	24.6
	Postgraduate	104	75.4.
	Other	0	0
Expertise	Less than 5	52	37.7
	5–10	44	31.9
	Over 10	42	30.4
Job place	Private university	33	23.9
	Public university	105	76.1

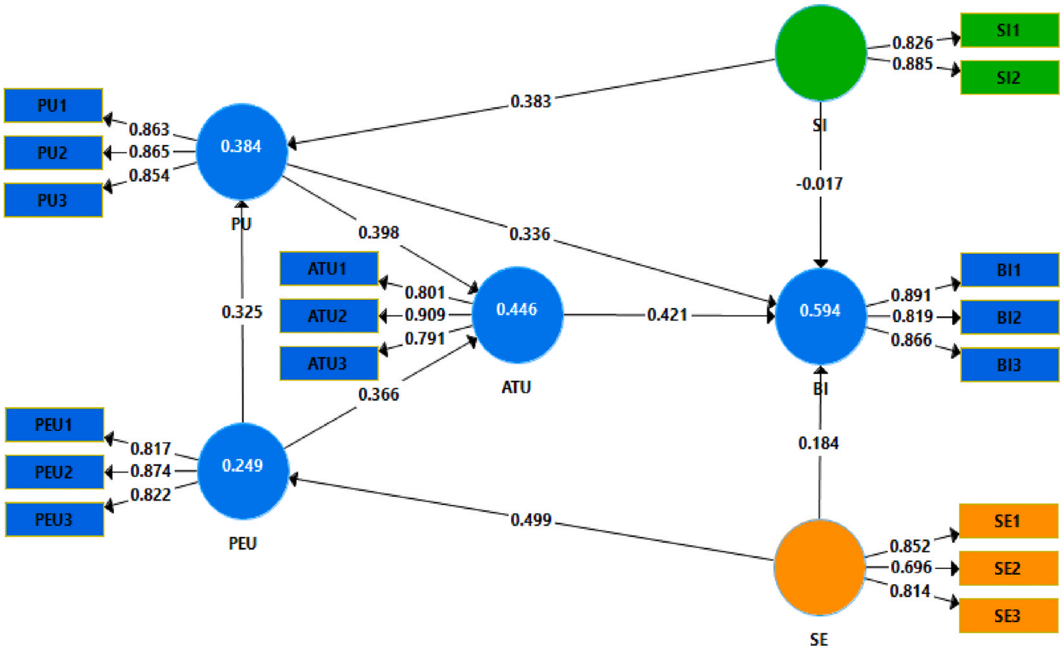


Fig. 3. PLS Algorithm results.

Table 3
Reliability and convergent validity.

Factor	Item	Loading	CA	CR	AVE
PU	PU1	0.863	0.826	0.896	0.741
	PU2	0.865			
	PU3	0.854			
PEU	PEU1	0.817	0.790	0.876	0.702
	PEU2	0.874			
	PEU3	0.822			
SI	SI1	0.826	0.701	0.846	0.733
	SI2	0.885			
SE	SE1	0.852	0.727	0.832	0.624
	SE2	0.696			
	SE3	0.814			
ATU	ATU1	0.801	0.783	0.874	0.698
	ATU2	0.909			
	ATU3	0.791			
BI	BI1	0.891	0.822	0.894	0.739
	BI2	0.819			
	BI3	0.866			

Table 4
Discriminant validity and VIF.

Variable	Fornell-Larcker criterion[a]						VIF
	PU	PEU	SI	SE	ATU	BI	
PU	**0.861**						1.654
PEU	0.527	**0.838**					1.385
SI	0.555	0.529	**0.856**				1.389
SE	0.352	0.499	0.541	**0.790**			1.000
ATU	0.591	0.576	0.668	0.510	**0.835**		2.178
BI	0.640	0.496	0.550	0.507	0.701	**0.859**	–

[a] Each value marked in bold must be the highest among its other column values to achieve Fornell-Larcker criterion [61].

Table 5
Cross loadings.

		PU	PEU	SI	SE	ATU	BI
PU	PU1	**0.863**	0.418	0.515	0.334	0.422	0.546
	PU2	**0.865**	0.512	0.461	0.304	0.587	0.587
	PU3	**0.854**	0.425	0.460	0.272	0.507	0.514
PEU	PEU1	0.355	**0.817**	0.458	0.348	0.461	0.268
	PEU2	0.556	**0.874**	0.527	0.48	0.552	0.491
	PEU3	0.383	**0.822**	0.326	0.410	0.418	0.467
SI	SI1	0.456	0.540	**0.826**	0.494	0.565	0.395
	SI2	0.493	0.383	**0.885**	0.440	0.581	0.536
SE	SE1	0.418	0.523	0.557	**0.852**	0.537	0.538
	SE2	0.127	0.205	0.343	**0.696**	0.398	0.267
	SE3	0.179	0.349	0.310	**0.814**	0.216	0.303
ATU	ATU1	0.440	0.367	0.536	0.389	**0.801**	0.652
	ATU2	0.638	0.578	0.672	0.493	**0.909**	0.632
	ATU3	0.365	0.492	0.435	0.385	**0.791**	0.456
BI	BI1	0.560	0.433	0.45	0.449	0.62	**0.891**
	BI2	0.580	0.362	0.533	0.430	0.533	**0.819**
	BI3	0.512	0.482	0.439	0.429	0.652	**0.866**

Cross loadings: each loading marked in bold must be greater than all values in its column and row [62].

Table 6
Path analysis.

Path	β	t-value	*p-value*	Supported?
H1: Perceived ease of use positively impacts Perceived usefulness (PEU - > PU)	0.325	3.653	0.000	Yes
H2: Perceived ease of use positively impacts Attitude toward using (PEU - > ATU)	0.366	4.269	0.000	Yes
H3: Perceived usefulness positively impacts Attitude toward using (PU - > ATU)	0.398	5.368	0.000	Yes
H4: Perceived usefulness positively impacts Behavioral intention (PU - > BI)	0.336	4.453	0.000	Yes
H5: Attitude toward using positively impacts Behavioral intention (ATU - > BI)	0.421	4.643	0.000	Yes
H6: Social influence positively impacts Perceived usefulness (SI - > PU)	0.383	4.667	0.000	Yes
H7: Social influence positively impacts Behavioral intention (SI - > BI)	−0.017	0.188	0.851	*No*
H8: Self-efficiency positively impacts Perceived ease of use (SE - > PEU)	0.499	8.185	0.000	Yes
H9: Self-efficiency positively impacts Behavioral intention (SE - > BI)	0.184	2.839	0.005	Yes

Notes:-The threshold of the t-value is >1.96.-The threshold of the p-value is< 0.05.

them. This result is consistent with [19,33,37,38], and [17]. Notably, PU was the second most vital determinant of BI with β = 0.336, 0.398. This indicates that PU is of great interest among accounting academics. In other words, PU is an essential driver of academics' decision to accept technology and integrate it into accounting education either directly or indirectly via ATU. Therefore, it is necessary to encourage academics to accept technology integration into accounting education by promoting PU. Otherwise, they may refuse to accept technology integration into their education if they find that would not benefit them.

ATU and PU were found to be significantly impacted by perceived ease of use. On the other hand, PEU was found to indirectly affect behavioral intention to utilize technology via ATU and PU. These results correspond to TAM's original theoretical basis [15]. These results also align with past related literature [19,21,33,35,39,50,67]. This means that accounting academics would not be willing to accept and use technology, regardless of how helpful the technology is and their attitude towards it, if they consider it difficult to use.

In line with prior research, self-efficiency was also found to be a significant construct in determining BI [40,47,48]. Additionally, SE was found to be a significant determinant of PEU [18,48,49]. This finding indicates that academics with high self-efficiency find technology easier and are willing to adopt it in accounting education compared to those with low self-efficiency. As IT progresses, more and more students learn about it and prefer integrating technology into their learning. Thus, pressure is mounting on academics in universities to use technology efficiently in education [48]. Therefore, it is needful to provide technical support and training for academics to improve their technological efficiency in using technology. In return, the academics' self-efficiency would help in technology literacy and promotes the willingness to integrate technology into accounting education.

Lastly, the paper revealed that social influence has a significant impact on PU and an insignificant impact on BI. This result partially supports Buabeng-Andoh and Baah [44], who concluded SI to be a significant predictor in determining PU and BI. This result also supports Altalhi [52], who reached that SI has no impact on BI. The unpopularity of technology usage among accounting academics in Yemeni universities could explain this result. Those academics do not anticipate any encouragement to use technology from their universities, friends, students, or practitioners in the job market.

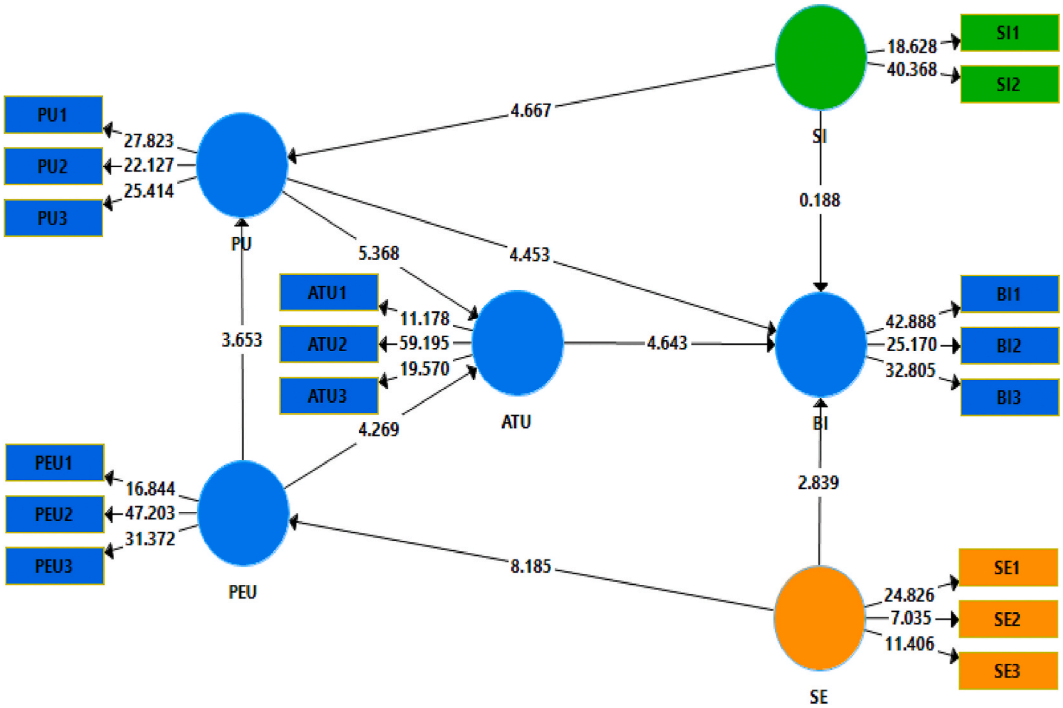


Fig. 4. Bootstrapping results with 5000 subsamples.

6. Implications

6.1. Theoretical implications

This study introduces two main theoretical implications. First, this research is one of the few that has applied the TAM model in the context of LDCs and within Arabic culture, determined here in Yemen. Notably, to our knowledge, this paper is one of the exclusive papers that employed the TAM to explore the behavioral intention of Yemeni academics to adopt and integrate technology into accounting education. Consequently, the study results might pave the way for further research into TAM of technology acceptance in the accounting education context. It could be an essential reference for researchers interested in further research. They will be capable of adding value to the gaps identified by this paper or using its limitations. Second, when TAM is expanded to comprise social influence and self-efficiency, the interpretive strength of the model is increased with 59.4% of behavioral intention. However, the initial TAM model explained about 40% of behavioral intention [68].

6.2. Practical implications

University academics significantly impact the behavioral intention to use technology for educational purposes [33,37]. As such, the results of this paper could be helpful to them and policymakers alike. Knowledge and understanding of technology acceptance enable academics and policymakers to design an education curriculum that better promotes technology usage (computer and software) in accounting education. According to the results of this paper, TAM constructs had a favorable effect on academics' behavioral intention. Accordingly, the positive impact of PU, PEOU, and ATU on BI could provide university academics and policymakers with insights on what factors to consider in adopting and integrating technology into accounting education. The results further revealed that TAM-expanded constructs positively impacted the academics' behavioral intention. Accordingly, efforts should be made to promote SE of academics by providing computers, educational accounting software, and training. Although SI had no significant direct impact on BI, it indirectly impacted BI via PU. Thus, this factor should also be considered in adopting and integrating technology into accounting education.

7. Limitations

This paper has limitations that should be recognized and addressed in the future. First, this research is new in its context. It, therefore, provides a unique opportunity for future research in the same context to promote generalization. Second, the research participants were dominated by males 77.5%. This is owing to some problems and impediments in accessing women's groups in Yemen, which are caused by the country's culture and social structure [10]. Thus, this unequal gender representation may produce a slightly biased result. Third, the current research did not consider the impacts of participants' demographic characteristics. Hence, this research can be expanded to examine if academics' demographic characteristics impact their technology acceptance. Fourth, the current paper included only two external factors: social influence and self-efficiency. As other external factors are related to behavioral intention, such as facilitating conditions [30] and management commitment [1], more research is recommended to consider such factors. Fifth, this paper showed that social influence has no significant direct influence on behavioral intention. Hence, further research is needed to investigate this issue. Sixth, the sample was gathered in an Arabic nation (Yemen); this may limit circulating the results to other nations because of cultural differences in terms of the use of technology. Seventh, for the instrument used, the study employed 6 factors with 17 items, meaning every factor is measured with about three items. Therefore, future research should employ more items to be a more accurate measurement. Lastly, although the sample size is relatively sufficient to test the model and employ SmartPLS, larger sample sizes should be used in future research. The sample size could be increased by targeting all accounting academics in all universities of Yemen.

8. Conclusion

The research path proposed in this paper is timely due to the need for more literature on teachers' use of IT in Yemen. This paper investigated the perception of Yemeni universities' academics toward the intention to adopt and integrate technology into accounting education. The results of this paper robustly support the theory of TAM in the context of accounting education. Prior studies widely tested the TAM model within developed countries. Relatively, fewer studies have been done to offer the TAM theory in the context of comprehension of the technology usage by academics in LDCs. This paper promotes TAM usage and additive constructs applied to the model in the context of accounting education in Yemen and other similar countries. The results imply that the TAM with two exterior constructs can be applied to examine determined factors influencing academics' intention to adopt and integrate technology into accounting education. The results supported the TAM applicability and showed that the behavioral intention's total explained variance is high (59.4%). These results could avail educational institutions and assist policymakers in revising their policies and better designing an education curriculum that could help promote technology usage (computer and software) in accounting education. This would, in return, ensure the success of the educational process and the productivity of faculty members (accounting academics).

Author contribution statement

Hamood Mohammed Al-Hattami: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper. </p>

Funding statement

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Data availability statement

Data will be made available on request.

Declaration of competing interest

The authors declare no competing interests.

Appendix A. Supplementary data

Supplementary data related to this article can be found at https://doi.org/10.1016/j.heliyon.2023.e13141.

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