

Intention to Use Cloud Accounting System Among Higher Education Student in Malaysia: A Unified Theory of Acceptance and Use of Technology (UTAUT) Model

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Abstract. This study explores the underlying factors among higher education student that explain their intentions to use cloud accounting system in Malaysia. This study is motivated by the fact that higher education student especially in accounting backgrounds are considered as significant players after graduate in using cloud accounting technology. Based on the literature on this field as well as the concept in Unified Theory of Acceptance and Use of Technology (UTAUT) this study establishes a conceptual model with four explanatory variables of UTAUT: performance expectancy, effort expectancy, social influence and facilitating condition. Hence, this paper proposes a conceptual framework of a modified UTAUT model with factors towards user intention to use cloud accounting system in Malaysia. The AIP Proceedings article template has many predefined paragraph styles for you to use/apply as you write your paper.

INTRODUCTION

This study aims to give a current perspective on cloud accounting and analyzing the relationship with higher education's student in Malaysia related technology intention after graduation. This research concludes with a revised results based on the UTAUT (Venkatesh et al., 2003). This study examines the key variables that influence higher education student intention of cloud accounting technology. This study is motivated by the recent demand for further research in the impact of emerging internet-related technologies, including blockchain, artificial intelligence (AI), cloud computing, and big data, on accounting (Kotb et al., 2019; Al-Haybat et al., 2018).

These studies mostly indicate that conventional accounting education does not adequately educate students with the skills and information they need for their future employment (Rezaee & Wang, 2019; Kotb et al., 2019; Handoyo & Anas, 2019; Al-Haybat et al., 2018). This research indicated that students' intention of utilizing new accounting tools and skills is contingent upon their overall perception of accounting work performance. Researcher concentrated on cloud accounting to analyze how performance expectancy (PE), effort expectancy (EE), social influence (SI), and facilitating conditions (FC) affect the intention to use cloud accounting among higher education students. According to Smith, (2017), cloud accounting is commonly seen as having been embraced by organizations globally. Meanwhile Dimitriu & Matei, (2015), state that cloud accounting is tool which related to cloud computing application that manages financial data in a business.

In information technologies tools, cloud accounting is regarded as a revolutionary technology that improves the efficiency of accounting procedures and aids in better organizational decision-making (Moll & Yigitbasioglu, 2019; Ma et al., 2021). Consequently, when students perceive accounting as a decision-support tool, they are more inclined to prefer cloud-based accounting solutions over conventional on-premises accounting information systems. This

tendency highlights the view of cloud accounting as a strategic facilitator for enhancing operational efficiency and corporate performance. A poll by Age indicates that 39% of professional accountants concur that accounting technology enhances performance by minimizing manual tasks and accelerating work processes (Sage, 2020). Furthermore, the majority of professional accountants (56%) assert that cloud accounting enhances productivity by enabling them to operate effectively and efficiently (Bryant, 2019).

LITERATURE REVIEW

What is Cloud Accounting?

Cloud accounting is a technology in computing application utilized for processing financial data (Dimitriu & Matei, 2015). It operates comparably to accounting applications placed on users' PCs. However, the differences exist between traditional method and cloud accounting, locally hosted accounting information systems, including conventional accounting software programs. Cloud accounting functions on remote servers accessible through the internet, enabling users to engage with the system via web browsers. Yau-Yeung et al., (2020) state that the paradigm conforms to the Software as a Service (SaaS) framework, which has been extensively embraced via prominent public cloud service providers

In contrast to conventional accounting software, cloud accounting enables remote access to financial data, permitting users to obtain and manage their accounting information from any place using an authorized, internet-connected device (Dimitriu & Matei, 2015). According to Ma et al., (2021), this simultaneous real-time access to accounting records allows users to enhance data sharing and reduce redundant re-keying and related data entry errors. It will be improving productivity, flexible work practices and help in time management of user.

Cloud accounting in education perspective

The influence of cloud accounting on education field has increased recently especially for accounting student (Kotb et al., 2019; Cambridge, 2018). Despite the increasing significance of cloud accounting, there is a lack of empirical research investigating the aspects that affect its instruction and comprehension among accounting students. Moreover, lack of focus has been directed into the methods employed by accounting educators and academics in developing curricular initiatives to prepare future accountants with essential competencies in cloud accounting. Moreover, while several research on accounting students in higher education examine the influence of new technologies broadly, they fail to explore cloud services in depth (Wells, 2018; Kotb et al., 2019).

For example, Wells (2018) determined that although modern advanced technologies are mentioned, they are not thoroughly clarified, suggesting that students must possess prior understanding of cloud accounting before engaging in their accounting courses. The study emphasized the significance of considering the impact of cloud accounting on higher education students. According Kotb et al. (2019), examined the views of professional and accounting educators in the United Kingdom and Ireland concerning technology advancements in accounting curricula and their impact on the current state of affairs. But it fails to integrate cloud accounting within the curriculum of undergraduate accounting education. In contrast to the limited study on cloud services in accounting education, there is a significant amount of work regarding the adoption of new information technology in other fields (Ali et al., 2018). This research employed the UTAUT as the conceptual framework to investigate factors affecting students' intentions regarding cloud accounting.

A Unified Theory of Acceptance and Use of Technology

Numerous theoretical models have been employed to examine the intention behind technical innovations in cloud accounting among higher education students, including the Technology Acceptance Model (TAM) (Sugahara et al., 2022; Musyaffi et al., 2022) and the Technology Readiness Index (TRI) (Musyaffi et al., 2023).

Upon examining the theories, UTAUT is considered a highly complete framework, as it was formulated through the synthesis of constructs from eight prior models (Venkatesh et al., 2003). The UTAUT framework comprises four fundamental characteristics that influence the behavioral intention to utilize technology. According to UTAUT, PE, EE, and SI impact the behavioral intention to utilize a technology, whereas behavioral intention and facilitating conditions directly affect technology usage.

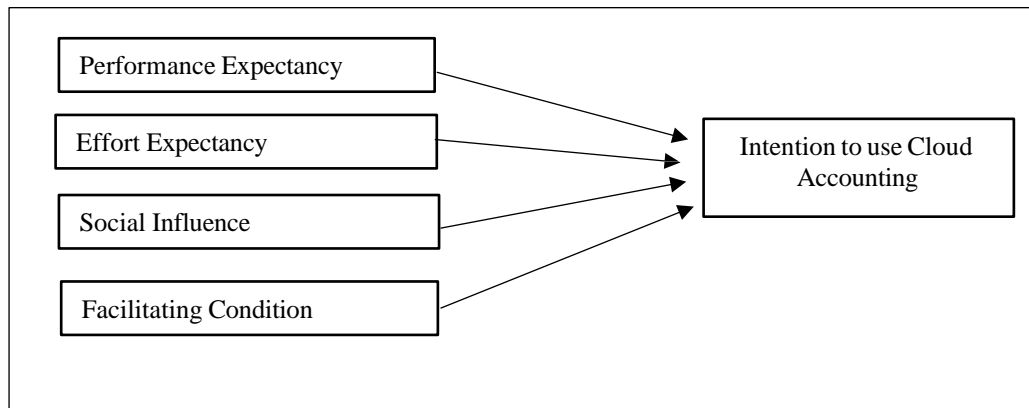


FIGURE 1. Conceptual Model

RESEARCH METHODOLOGY

The population of this study comprised Malaysian higher education students in TVET who employed cloud accounting to acquire knowledge in accounting information systems and computerized accounting courses. The sampling design in this study is non-probability sampling method. Due to the absence of a sampling frame of higher education student who intend to use cloud accounting in the future, non-probability sampling was appropriate for this study. Purposive sampling was adopted in this study since it is difficult to define explicitly the population of who intend to utilized cloud accounting.

This study also used the tool to determine the study's effect size. Power analysis is a conventional method for determining a sample size with continuous variables, utilizing G*Power estimation. The analysis of this study's sample utilized four predictor variables: PE, EE, SI, and FC. The F test for multiple linear regression, assuming a fixed model R^2 variation from zero, with a medium effect size of .15 (Cohen, 2003), a power level of 0.95, and four predictor variables. The minimum sample size necessitates in this study was 85 students. The requisite minimum sample size for this study conforms established by Tabachnick and Fidell (2013), employing the sampling formula $N \geq 50 + 8m$, where m is the number of predictor variables.

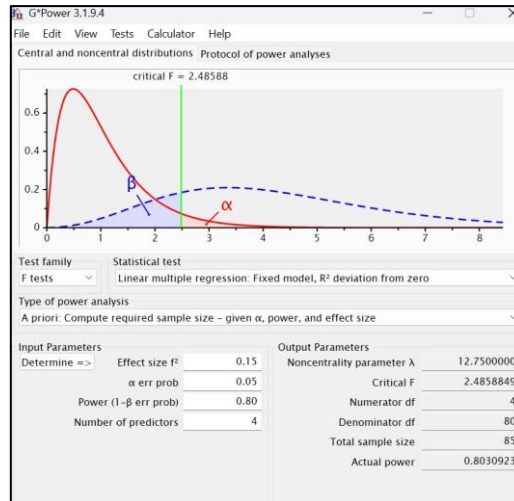


FIGURE 2. Conceptual Model

The scale use in this study ranges from 1 = strongly disagree to 5 = strongly agree. The survey questionnaires were using Google form links and disseminated to the respondents via contact person. The researcher shared the Google form links via WhatsApp and Telegram. Upon initial access to the online questionnaire, students were responding about demographic information including gender, age, experience with cloud accounting, and educational background in Part A. Then, students filled out the Part B concerning the expectation on using cloud accounting as a working tool after graduate. The questions were adopted from Venkatesh et al., (2012), namely PE with 3 items, EE with 4 items, SI with 4 item and FC with 4 items. Then in Part C, measuring intention to use cloud accounting, a total of 3 question items was used. The required minimum number of questionnaires distribute was 85 respondents; nevertheless, the total sample of 111 respondents was obtained. Subsequently, the data obtained were screened using SPSS Version 30 software.

RESULTS AND DISCUSSION

Demographic

The demographic characteristics of the respondents were analyzed, encompassing gender, age, experience with cloud accounting, and educational background. Profile details are presented in Table 1.

TABLE 1. Demographic Characteristics

Variables	Category	Frequency	%
Gender	Male	27	24.3
	Female	84	75.7
Age	< 20 years	6	5.4
	20years - 25 years	102	91.9
	26 years -30 years	3	2.7
Experience use cloud accounting	Yes	48	43.2
	No	63	56.8
Education background	Diploma	111	100
	Degree	-	-

Master	-	-
PhD	-	-

Most of the students who participated in the study included 24.3% (n = 27) male and 75.7% (n = 84) female. The respondents were chosen from the accounting students of Polytechnic Kota Bharu. Furthermore, the predominant age group among students, comprising 91.9%, ranges from 20 and 25 years, while those under 20 years total to 5.4%. The result indicated that 48 (43.2%) students were experience use cloud accounting while the remaining 63 students (56.8%) were not experience in using cloud accounting. For the education background, all the student has diploma.

Normality Test

A normality test was conducted on both the dependent and independent variables to verify that the data fall within the appropriate range. Skewness values ranging from -1.96 to +1.96 serve as guideline in this study to determine the normal distribution. According to Table 2, the results reveal that the skewness of all variables ranged from -0.32 to 1.77. Therefore, the data for each variable was normal.

TABLE 2. Normality Analysis

	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
BI	1.775	.229	2.190	.455
PE	-.263	.229	.098	.455
EE	-.328	.229	.138	.455
SI	.089	.229	.308	.455
FC	-.201	.229	.406	.455

Reliability

The reliability analysis determines the appropriateness of the questionnaire for the investigation. The reliability test, or Cronbach’s alpha, analyzes the internal consistency of variables, with a range from 0 to 1. According to Hair (2016), a Cronbach's Alpha of 0.6 is generally acceptable, while values above 0.80 are considered ideal, as noted by Pallant (2013).

The findings revealed that Cronbach’s Alpha values for intention to use cloud accounting, PE, EE, SI, and FC were 0.304, 0.887, 0.912, 0.913, and 0.918, respectively, all exceeding the minimum threshold of 0.6 (Hair ,2016), except intention use cloud accounting. Table 3 presents the values for intention to use cloud accounting BI, PE, EE, SI, and FC. All of which exhibit a Cronbach’s Alpha beyond the minimum acceptable threshold of 0.6.

TABLE 3. Reliability Test (Cronbach’s Alpha) and the Dimension for Behavioural Intention use Cloud Accounting, PE, EE, SI and FC

Variable	Cronbach’s Alpha	N of Items
Intention use Cloud Accounting	.304	3
PE	.887	3
EE	.912	4
SI	.913	4
FC	.918	4

Correlation Analysis

This study presents Pearson Correlation data that indicate the relationship among PE, EE, SI and FC. Table 4 illustrates the Pearson Correlation findings of this study. The results indicated a strong positive correlation between PE and intention to use cloud accounting (BI), with a value of 0.221 (significant at $p < 0.05$). EE is positively connected with the intention to use cloud accounting at 0.319 (significant at $p < 0.01$). SI and FC exhibited a substantial positive correlation with intention to utilize cloud accounting, with correlation coefficients of 0.309 and 0.477, respectively, at $p < 0.01$. The correlational study indicated that no correlation above 0.9, signifying the absence of multicollinearity (Hair et al., 2016).

TABLE 4. Pearson Correlation

		BI	PE	EE	SI	FC
BI	Pearson Correlation	1				
	Sig. (2-tailed)					
PE	Pearson Correlation	.221*	1			
	Sig. (2-tailed)	.020				
EE	Pearson Correlation	.319**	.812**	1		
	Sig. (2-tailed)	<.001	<.001			
SI	Pearson Correlation	.309**	.824**	.797**	1	
	Sig. (2-tailed)	<.001	<.001	<.001		
FC	Pearson Correlation	.477**	.752**	.811**	.890**	1
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Multivariate Analysis

This study employed multiple regression analysis to evaluate the relationship between the intention to use cloud accounting and the variables of PE, EE, SI and FC. In the ANOVA analysis, the significant value at 5 percent, as indicated in Table 5, demonstrated that the ANOVA values for predicting the intention to use cloud accounting after graduation were $F(4,106) = 11.337$, $p = .001$ ($p < .05$). The findings of this study provide sufficient evidence for verifying a relationship between at least one independent variable and the dependent variable. The findings indicate that both independent factors analyzed; SI and FC significantly affect individuals inclined to use cloud accounting.

TABLE 5. Anova

Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	1.172	4	.293	11.337	<.001
	Residual	2.738	106	.026		
	Total	3.910	110			

Dependent Variable: Behavioural intention uses cloud accounting
 Predictors: (Constant), PE, EE, SI, FC

TABLE 6. Regression Coefficients Analysis

	Unstandardized				
	Coefficients	Std. Error	Beta	t	sig
(Constant)	2.598	.107		24.373	<.001
PE	-.059	.059	-.161	-.996	.322
EE	-.003	.058	-.008	-.049	.961
SI	-.163	.079	-.429	-2.065	.041
FC	.378	.074	.986	5.116	<.001
R	= .547				
R ²	= .300				
R ² Change	= .300				
F statistic	= 11.337 (sig =< .001)				

Adjusted R² indicates the percentage of variables that are independent that can explain the dependent variable. Table 6 shows that when the intention to use cloud accounting is treated as the dependent variable, Model 1 explains 30% of the variance for that intention, which can be explained by variations in PE, EE, SI and FC. In contrast, the remaining 70% of the alterations were influenced by factors not included in this study.

The multiple regression analysis in this study revealed that just two hypotheses were supported. The results shown in Table 6 indicate that PE does not have a significant correlation with the desire to use cloud accounting, as seen by the coefficient $\beta = -.161$, $t(106) = -.996$, $p = .322$. As a result, hypothesis H1 not support. The findings indicate that EE does not have a significant correlation with the intention to use cloud accounting, $\beta = -.008$ ($t(106) = -.049$, $p = .961$). Consequently, hypothesis H2 rejected. Social influence (SI) shows a substantial negative correlation with the intention to utilize cloud accounting, $\beta = -.429$, $t(106) = -2.065$, $p = .041$. As a result, hypothesis H3 is accepted. The last hypothesis, H4, investigated the relationship between facilitating conditions and the intention of using cloud accounting. The finding showed a significant relationship between facilitating conditions (FC) and the intention to use cloud accounting, with $\beta = .986$, ($t(106) = 5.116$, $p < .001$). Thus, hypothesis H4 is supported.

According to Table 6, only the dependent variable of facilitating conditions reveals a positive correlations with the intention to use cloud accounting. Only two factors exhibit a significant value below 0.05; SI and FC. The remaining values exceed 0.05 significantly. Consequently, of the four hypothesized variables as determinants, only two (social influence and facilitating conditions) significantly affect the intention to use cloud accounting among higher education students. According to Table 6, the regression equation is derived as follows.

$$y = 2.598 - 0.059 (PE) - 0.003 (EE) - 0.163 (SI) + 0.378 (FC) + e$$

The regression equation indicates that a one-unit rise in the PE variable, assuming other variables remain constant, will result in a 2.539 increase in the y value representing the intention to adopt cloud accounting. Meanwhile, assuming PE, EE, SI, and FC remain unchanged, the y value indicating the intention to utilize cloud accounting was 2.598.

DISCUSSION

Out of 111 samples, only 48 (43.2%) of the students are experience with cloud accounting. This indicated that the students mostly not familiar with cloud accounting. The results indicate sufficient evidence to support H3 and H4 regarding the relationships between social influence and facilitating conditions with the intention to use cloud accounting; therefore, both hypotheses are accepted. The findings from the study do not provide sufficient evidence to support H1 and H2; hence, these hypotheses are rejected.

The statistical analysis results indicate that facilitating conditions significantly influence the intention to utilize a cloud accounting system, as evidenced by a T-statistic value exceeding 5.116 and a p-value below 0.05. Facilitating conditions refer to the training, resources, and support provided by the vendor for the effective use of the system. The exceptional help offered in utilizing the system significantly encourages new customers to adopt the cloud accounting platform. Furthermore, cloud accounting systems offer numerous advantages for business continuity (Darren, 2021). This study's findings are supported by Chen et al. (2021), which demonstrated a significant influence of favorable conditions on the intention to adopt a cloud accounting system.

The results indicated that social impact did not affect higher education students' intention to utilize a cloud accounting system. Sastararuji et al., (2021) found that the adoption of cloud accounting has emerged as a prevalent practice for maintaining financial data in the business sector. They believe that the use of cloud accounting is crucial for corporate development, thereby minimizing the necessity for external influence to adopt the system. The results of this study align with Al-Azawei and Alowayr (2020), showing that social impact does not influence consumers' use of information technology.

CONCLUSION

Cloud accounting in developing countries, particularly Malaysia, has not been adequately studied. The study examines the UTAUT model in the context of cloud accounting, a field with limited research, and suggests a modification about the intention to utilize cloud accounting among higher education students in Malaysia. This paper's identified that the primary obstacle hindering students' intention to utilize cloud accounting, despite the significant advantages of cloud technology. This study exclusively offers a conceptual framework for analyzing students' intentions for using cloud accounting in their post-graduation careers; subsequent research will focus on the empirical validity and reliability of this model among higher education students from diverse educational backgrounds.

REFERENCES

- Al-Haybat, K., von Alberti-Alhyaybat, L., & Alhatabat, Z. (2018). Educating digital natives for the future: Accounting educators' evaluation of the accounting curriculum. *Accounting Education*, 27(4), 333–357. <https://doi.org/10.1080/09639284.2018.1437758>
- Al-Azawei, A., & Alowayr, A. (2020). Predicting the intention to use and hedonic motivation for mobile learning: A comparative study in two Middle Eastern countries. *Technology in Society*, 62(July), 101325. <https://doi.org/10.1016/j.techsoc.2020.101325>
- Ali, Z., Gongbing, B., & Mehreen, A. (2018). Understanding and predicting academic performance through cloud computing adoption: A perspective of technology acceptance model. *Journal of Computers in Education*, 5(3), 297–327. <https://doi.org/10.1007/s40692-018-0114-0>
- Bryant, (2019). *The Practice of Now 2019: An essential report for accountants*, Sage, 2019
- Cambridge, J. (2018). *Cloud Business and Closing the Gap Between Accounting Theory and Practice: A Case Study of*

Accountingpod. Available at: SSRN: <https://ssrn.com/abstract=3317955> or <http://doi.org/10.2139/ssrn.3317955>.

- Chen, S. C., Li, S. H., Liu, S. C., Yen, D. C., & Ruangkanjanases, A. (2021). Assessing determinants of continuance intention towards personal cloud services: Extending utaut2 with technology readiness. *Symmetry*, 13(3). <https://doi.org/10.3390/sym13030467>
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2013). *Applied multiple regression/correlation analysis for the behavioral sciences*. Routledge.
- Darren, M. R. F. T. N. (2021). Cloud-based client accounting and small and medium accounting practices: Adoption and impact. *International Journal of Accounting Information Systems*, 41
- Dimitriu, O., & Matei, M. (2015). Cloud accounting: A new business model in a challenging context. *Procedia Economics and Finance*, 32, 665–671. [https://doi.org/10.1016/S2212-5671\(15\)01447-1](https://doi.org/10.1016/S2212-5671(15)01447-1)
- Hair, J. F., Hult, G. T. M., Ringle, C. M. et al. (2016). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM) (2nd ed.)*. Los Angeles: SAGE Publications
- Handoyo, S., & Anas, S. (2019). Accounting education challenges in the New millennium Era: Impact of advanced of technology and dynamic business environment. *Journal of Accounting Auditing and Business*, 2(1), 25–46. <https://doi.org/10.24198/jaab.v2i1.20429>
- Kotb, A., Abdel-Kader, M., Allam, A., Hussein, H., & Ellie, F. (2019). Information technology in the British and Irish undergraduate accounting degrees. *Accounting Education*, 28(5), 445–464. <https://doi.org/10.1080/09639284.2019.1588135>
- Ma, D., Fisher, R., & Nesbit, T. (2021). Cloud-based client accounting and small and medium accounting practices: Adoption and impact. *International Journal of Accounting Information Systems*, 41, 1–19. <https://doi.org/10.1016/j.accinf.2021.100513>
- Moll, J., & Yigitbasioglu, O. (2019). The role of internet-related technologies in shaping the work of accountants: New directions for accounting research. *The British Accounting Review*, 51(6), 100833–100820. <https://doi.org/10.1016/j.bar.2019.04.002>
- Musyaffi, A. M., Johari, R. J., Rosnidah, I., Respati, D. K., Wolor, C. W., & Yusuf, M. (2022). Understanding Digital Banking Adoption During Post-Coronavirus Pandemic: An Integration of Technology Readiness and Technology Acceptance Model. *TEM Journal*, 11(2).
- Pallant, J. (2013) *SPSS Survival Manual. A Step-by-Step Guide to Data Analysis Using IBM SPSS*. Open University Press, Berkshire.
- Rezaee, Z., & Wang, J. (2019). Relevance of big data to forensic accounting practice and education. *Managerial Auditing Journal*, 34(3), 268–288. <https://doi.org/10.1108/MAJ-08-2017-1633>
- Sage, —The Practice of Now 2020 Insight and practical advice for today’s accountants and bookkeepers based on the latest independent research, Sage.com, 2020.
- Sastararuji, D., Hoonsoon, D., Pitchayadol, P., & Chiwamit, P. (2021a). Cloud Accounting Adoption in Small and Medium Enterprises: An Integrated Conceptual Framework: Five factors of determinant were identified by integrated Technology-Organization-Environment (TOE) framework, Diffusion of Innovation (DOI), Institutional Theo. *ACM International Conference Proceeding Series*, 32–38. <https://doi.org/10.1145/3447432.3447439>
- Sugahara, S., Kano, K., & Ushio, S. (2022). Effect of high school students’ perception of accounting on their acceptance of using cloud accounting. *Accounting Education*, 33(1), 46–65. <https://doi.org/10.1080/09639284.2022.2114293>
- Tabachnick, B. G., & Fidell, L. S. (2013). *Using Multivariate Statistics (7th Edition)*. Pearson Education.
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS quarterly*, 425-478. <https://doi.org/10.2307/30036540>
- Venkatesh, V.; Thong, J.Y.L.; Xu, X., (2012). Consumer Acceptance and Use of Information Technology: Extending the Unified Theory of Acceptance and Use of Technology. *MIS Q. Manag. Inf. Syst.* 2012, 36, 157– 178
- Wells, P. K. (2018). How well do our introductory accounting text books reflect current accounting practice? *Journal of*

Accounting Education, 42, 40–48. <https://doi.org/10.1016/j.jaccedu.2017.12.003>

Yau-Yeung, D., Yigitbasioglu, O., & Green, P. (2020). Cloud accounting risks and mitigation strategies: Evidence from Australia. *Accounting Forum*, 44(4), 421–446. <https://doi.org/10.1080/01559982.2020.1783047>