

Behavioural Intention of Financial Accounting Teachers Toward Mobile Learning Adoption in Government Science and Technical Colleges in Gombe State

Suleiman Hayatu,
Bala Suleiman Dalhat
Ahmad Aliyu Deba

Abstract

The study focused on determining the behavioural intention toward m-learning adoption among financial accounting teachers of government science and technical colleges (GSTCs) in Gombe state. In achieving this, five research questions were raised and four null hypotheses were formulated to guide the study. Descriptive survey design was adopted for the study. The study used the four constructs of the unified theory of acceptance and use of technology (UTAUT) model. The total population of 6 teachers was used for the study. A structured questionnaire with five point Likert scale was developed validated and its reliability established using Cronbach alpha. A reliability coefficient of 0.70 was found. The administration of the questionnaire was done by the researcher. Data collected were analyzed using mean, standard deviation, multiple regression analysis and ANOVA. The finding of the study indicated that financial accounting teachers (FATs) show a high positive behavioural intention toward m-learning adoption. Another finding revealed that performance expectancy (PE), effort expectancy (EE), social influence (SI) and facilitating conditions (FC) have significant influence on the behavioural intention (BI) of FATs toward m-learning adoption. Also, the independent variables (PE, EE, SI, FC) explained 85 percent of the variance in the dependent variable (BI). The study concluded that m-learning will not only be effortless in teaching of financial accounting but also improves teachers' performance and consequently the students' performance. The study recommends that government at all levels should consider the adoption of m-learning particularly in GSTCs to supplement teaching of financial accounting. Also, stakeholders in education should ensure frequent training of FATs on how best to utilize mobile devices for teaching through organizing seminars, workshops and conferences.

Key Words: Behavioural Intention, Mobile Learning, Financial Accounting Teachers.

Introduction

Mobile learning (m-learning) refers to any type of learning that takes place within and beyond the conventional learning environment through the use of wireless mobile devices (Abu-Al-Aish, 2014). In other words, m-learning was viewed as ubiquitous, accessible, pervasive, and transparent way of providing of education where the dominant or sole technology is palmtop or handheld (Traxler & Koole, 2014).

However, emerging innovations in information and communication technology (ICT) such as mobile devices software applications, models, podcasts, etc have created new and promising learning environment which

Suleiman Hayatu, Department of Vocational Education, Modibbo Adama University Yola, Nigeria.

Bala Suleiman Dalhat, Department of Accounting and Finance, Abubakar Tafawa Balewa University Bauchi, Nigeria.

Ahmad Aliyu Deba, Department of VTE, Abubakar Tafawa Balewa University Bauchi, Nigeria.

not only facilitates teaching and learning, broadens its scope but also reduces many challenges associated with conventional face-to-face teaching and learning. The availability of wireless network among teachers and students allows them to communicate and access information both offline and online without the use of cables thereby facilitating teaching and learning. Similarly, utilization of mobile devices has become very common in present modern society in almost every stage of human life (Fiallos et al., cited in Rataj & Wojcik, 2020).

Accounting refers to the systematic and meticulous approach to recording, analysing and reporting of entity's transactions (Jaijaram, 2012). In his contribution, Eze (2014) asserts that accounting is a generic terminology that covers both book keeping and accounting aspects of an economic entity, it provides quantitative financial report about an economic entity for both internal and external users in making decision. Financial accounting is one of the core subjects taught in Business Departments of Government Science and Technical Colleges in Gombe State. Financial accounting can be defined as the art of collecting, recording, presenting, analyzing and interpreting financial information for the users of financial statement (Igben, 2009).

Previous studies conducted on the effectiveness of m-learning on learners' achievement and teachers' service delivery shows remarkable improvement (Ogheneovo & Linda, 2015; Suryaningrum et al., 2015; United Nations Educational, Scientific and Cultural Organisation [UNESCO], 2012; Naveed, 2010). Despite effectiveness of m-learning in educational institutions, there are a lot of challenges encountered in the process of its adoption. (UNESCO, 2012; Sarraf et al., 2012). These challenges include inadequate skills among teachers, inadequate internet access and infrastructural deficit among others (Osang et al., 2013). This clearly indicates that policy makers in education must respond to the need for ameliorating these challenges before m-learning adoption in educational institutions most especially science and technical colleges. This is because mobile devices were highly relied upon as teaching and learning tools in educational institutions (UNESCO, 2012; Pollara, 2011).

However, for adoption of m-learning to be a success, the behavioural intention of teachers to accepting the new innovation is inevitable. The few studies conducted on behavioural intention of teachers towards m-learning were mostly conducted in higher institutions of learning thereby neglecting secondary schools most especially government science and technical colleges despite the fact that the two environments and their subjects differ significantly in almost all ramifications. Due to the fact that m-learning is still in its infancy stage most especially in Nigeria, there is no study conducted on the behavioural intention of financial accounting teachers (FATs) toward m-learning in government science and technical colleges at least in Nigeria and Gombe State in particular to the best of the researcher's knowledge as at the time of this study. Therefore, the gap created by previous studies justifies the need for the present study.

Literature Review

In the process of ascertaining the FATs' behavioural intention toward m-learning, the study adopted the constructs of the unified theory of acceptance and use of technology (UTAUT) which include; performance expectancy, effort expectancy, social influence and facilitating conditions. Venkatesh, (2003) defined performance expectancy as the extent to which a person perceives that using a technology or system will

assist him achieved his goal in performing his job, effort expectancy is the extent of ease associated with the usage of the technology or system. Whereas social influence refers to the extent to which a person believes that other important people believe he should use the technology or system, and facilitating conditions refer to the perceived extent to which a persons' resources or organizational and technical infrastructure necessary to support the technologies exist (Thomas et al., 2013).

However, Ajzen (2002) describes behavioural intention as an indication of an individual's readiness to perform a given behaviour. In the words of Ajzen (1991) "intentions are assumed to capture the motivational factors that influence a behaviour". It is therefore presumed that behavioural intention is the immediate antecedent of the actual behaviour. This is the reason behind the argument of Cheon et al. (2012) that the higher the individual's intention to perform a given behaviour, the more likely the individual is to perform the actual behaviour. Based on the above assertion, this study will use behavioural intention as the final dependent variable rather than the usage behaviour. Whereas 'performance expectancy', 'effort expectancy', 'social influence', and 'facilitating conditions' as independent variables as depicted in Figure 1.

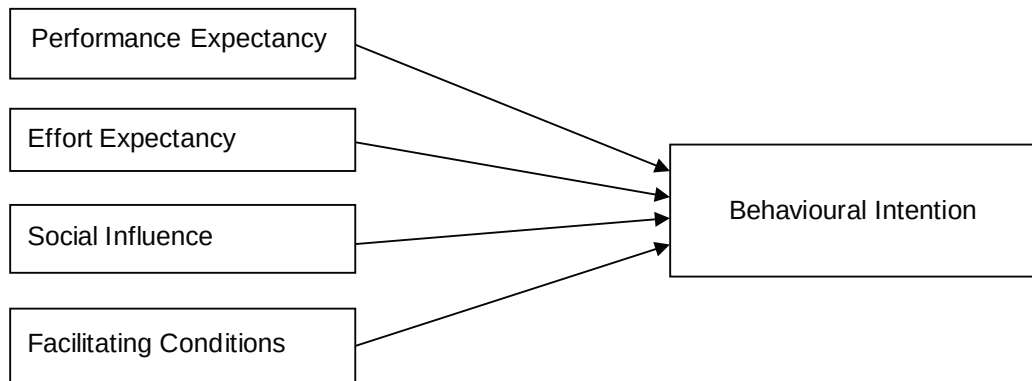


Figure 1: The Research Model

Among the previous studies that reported a high mean score of performance expectancy as well as its significant effect on behavioural intention toward m-learning include that of Chelvarayan et al. (2020); Hamzah et al. (2020); Hoi, (2020); Shorfuzzaman and Alhussein (2016); Al-Hujran et al. (2014); Abu-Al-Aish (2014); Eltayeb and Hegazi (2014); Jackman (2014); Mtebe and Raisamo (2014) and McConatha et al. (2008). On the contrary, Jairak et al. (2009) reported a low mean score and insignificant effect of performance expectancy on behavioural intention toward accepting m-learning in institutions of higher learning in Thailand. Similarly, among the studies on m-learning that reported a high mean score of effort expectancy (ease-of-use) as well as its significant effect on behavioural intention toward m-learning include that of Al-Emran et al. (2020); Kutluk et al. (2015); Al-Hujran et al. (2014); Osang and Ngole (2014); Tagoe and Abakah (2014); and Wei-Han Tan et al. (2011). On the contrary, Ugur et al. (2016) and Donaldson (2011) reported a low mean score and insignificant effect of effort expectancy/ease-of-use on behavioural intention to adopt m-learning.

In the same vein, among the similar studies on m-learning that reported a high mean score of social influence as well as its significant effect on behavioural intention toward m-learning include that of Chaka and

Govender (2020); Welch et al. (2020); Shorfuzzaman, and Alhussein (2016); Al-Hujran et al. (2014); Thomas et al. (2013) and Jairak et al. (2009). On the contrary, Nassuora (2012) and Hamzah et al (2020) reported a low mean score and insignificant effect of social influence on the behavioural intention toward m-learning. Moreover, among the previous studies that reported a high mean score of 'facilitating conditions' as well as its significant effect on behavioural intention toward m-learning include that of Welch et al. (2020); Ugur et al. (2016); Jackman (2014); Mtebe and Raisamo (2014); Thomas et al. (2013) and Donaldson (2011). On the contrary, Al-Hujran et al. (2014) and Jairak et al. (2009) reported a low mean score and insignificant effect of facilitating conditions on the behavioural intention toward m-learning. Moreover, among the previous studies on m-learning that reported the readiness or positive behavioural intention toward m-learning include that of Rataj and Wojcik (2020); Chaka and Govender (2017); Frederick (2015); Altayeb and Hegazi (2014); Osang and Ngole (2014); Mtebe and Raisamo (2014); Tagoe and Abakah (2014); Aljunaid et al. (2013) and Pollara (2011). On the contrary, Lam et al. (2011) reported that many teachers are not willing to use m-learning as teaching strategy.

Research Methodology

The study was carried out in Gombe State. The design of the study is descriptive survey whereby a measurement instrument for data collection was developed by the researcher. The population of the study comprises of all financial accounting teachers in GSTCs in Gombe State, there are 6 teachers of financial accounting available, and therefore, the study used the total population as respondents since is relatively small. According to Best, cited in Harnett and Murphy, (2007) a researcher may use the whole population for his study if the population is relatively small.

Data were collected using a structured questionnaire. In eliciting the responses of teachers on research questions 1 - 4, the study used five point Likert's rating system. The questionnaire items were derived from relevant research studies in the area of mobile learning readiness among teachers and students. Research question 1 consists of items 1 to 10, research question 2 consists of items 11 to 20, research question 3 consists of items 21 to 30, research question 4 consists of items 31 to 40 and finally research question 5 consists of items 41 to 45. The instrument was validated by 3 experts in measurement and evaluation from the Department of Vocational and Technology Education, Abubakar Tafawa Balewa University Bauchi. The reliability of the instrument was established using Cronbach's alpha after a pilot test, the result of the reliability test shows 0.70, this means that the instrument is reliable for the study because it is within the acceptable range of reliability as opined by Cronbach (1951). The administration of the questionnaire was done by the researcher and a trained research assistant. The data generated from the five research questions were summarized in a tabular format and analyzed using, mean, standard deviation, pooled mean and pooled standard deviation. However, in taking decision about research questions 1 – 4, the study concluded that any variable with a mean score ranging from 4.50 – 5.0 is regarded as very high extent (VHE), from 3.50 – 4.49 is regarded as high extent (HE), from 2.50 – 3.49 is regarded as moderate extent (ME), from 1.50 – 2.49 is regarded as low extent (LE), and from 0 – 1.49 is regarded as very low extent (VLE), while research question 5 has the same bench mark but scales of strongly agree (SA), agree (A), undecided (U), disagree (D) and strongly disagree (SD) was used. Four null hypotheses were formulated and analyzed using multiple regression and ANOVA statistics. In taking a decision on research hypotheses, any null hypothesis with a

p-value greater than 0.05 ($P > 0.05$) will be accepted and any null hypothesis with a p-value less than 0.05 ($P < 0.05$) will be rejected.

Research Questions

The following questions were raised to guide the study:

- i. To what extent do FATs perceive that m-learning will improve teaching of financial accounting?
- ii. To what extent do FATs perceive that m-learning will ease teaching of financial accounting?
- iii. What is the extent of social influence on FATs' intention to adopt m-learning for teaching of financial accounting?
- iv. What is the extent to which facilitating conditions necessary for m-learning exist among FATs?
- v. What is the behavioural intention of FATs toward m-learning adoption?

Research Hypotheses

The following null hypotheses were formulated and tested at 0.05 level of significance:

H₀₁: Performance expectancy has no significant effect on financial accounting teachers' behavioural intention toward m-learning adoption.

H₀₂: Effort expectancy has no significant effect on financial accounting teachers' behavioural intention toward m-learning adoption.

H₀₃: Social influence has no significant effect on financial accounting teachers' behavioural intention toward m-learning adoption.

H₀₄: Facilitating conditions have no significant effect on financial accounting teachers' behavioural intention toward m-learning adoption.

Results

The results of the study were presented based on the research questions and research hypotheses. The results of the research questions are presented as follows:

Research Question One

To what extent do FATs perceive that m-learning will improve teaching of financial accounting?

The result of the nine out of the ten questionnaire items used to answer research question one were found to be within the mean score for very high extent and high extent (4.00 to 5.00). Item number six has a mean score of 2.33 which falls under low extent. The cumulative mean score obtained was 4.23 with standard deviation of 0.95. The cumulative mean score falls under the index score for high extent. This means that FATs perceived that m-learning will improve teaching of financial accounting highly as indicated in Table 1.

Table 1 Descriptive Statistics used to answer Research Question One				
Q1	Items	X	SD	Decision
1	M-learning will improve instructional delivery.	4.67	0.82	VHE
2	Teacher-student relationship will be improved using m-learning.	4.33	1.21	HE
3	M-learning will be an effective way of gathering educational resources such as lecture notes, tutorials etc.	4.00	1.55	HE
4	M-learning will increase teachers' interest in teaching.	4.67	0.52	VHE
5	Collaboration among students will be improved using m-learning.	5.00	0.00	VHE
6	M-learning will suit different teaching strategies	2.33	1.59	LE
7	M-learning will improve teachers' productivity or performance.	4.00	1.23	HE
8	M-learning will provide efficiency in teaching.	4.50	0.84	VHE
9	M-learning will help in sharing educational resources such as lecture notes, tutorials etc.	4.50	0.55	VHE
10	M-learning will facilitate classroom management.	4.30	1.21	HE
Cumulative Score		4.23	0.95	HE

Key: X = Mean, SD = Standard Deviation

Research Question Two

To what extent do FATs perceive that m-learning will ease teaching of financial accounting?

All the ten items used to determine research question two fall under the criterion for very high extent and high extent with mean score range from 3.50 to 5.00. The cumulative weighted mean obtained was 4.23 with standard deviation of 1.03. The mean score obtained fall under the range of high extent. This means that the extent of perceived ease-of-use of m-learning on teaching of financial accounting among FATs was high as shown in Table 2.

Table 2 Descriptive Statistics used to answer Research Question Two				
Q2	Items	X	SD	Decision
11	M-learning will ease instructional delivery.	5.00	0.00	VHE
12	M-learning enables gathering of educational resources easily.	4.83	0.48	VHE
13	Learning how to operate mobile devices for teaching will be effortless.	3.83	1.47	HE
14	M-learning will ease evaluation.	3.67	1.37	HE
15	M-learning will ease collaboration among teachers.	4.00	1.67	HE
16	M-learning will ease communication between teachers and students.	5.00	0.00	VHE
17	M-learning applications are easy to use.	3.50	1.64	HE
18	M-learning will ease accomplishment of tasks.	4.33	1.21	HE
19	M-learning will provide feedback to students easily.	4.67	0.82	VHE
20	M-learning will ease mastery of subject matter among teachers.	3.50	1.64	HE
Cumulative Score		4.23	1.03	HE

Research Question Three

To what extent does social influence affects FAT's intention to adopt m-learning for teaching financial accounting?

The mean score of seven of the questionnaire items used to determine research question three falls under the index score for very high extent and high extent. Questionnaire items 25, 26 and 28 that had mean score of 1.67, 1.33 and 1.83 respectively falls under the criterion of very low extent and low extent. The cumulative mean score obtained was 3.48 with standard deviation of 1.04. The cumulative mean score falls under the scale of high extent. This means that the extent of social influence on FAT's intention to adopt m-learning for teaching of financial accounting was found to be moderate as presented in Table 3.

Table 3 Descriptive Statistics used to answer Research Question Three

Q3	Items	X	SD	Decision
21	My colleagues supported the use of mobile device and m-learning apps for teaching.	4.17	1.60	HE
22	My students are supportive of the use of mobile devices and m-learning apps for teaching.	5.00	0.00	LE
23	My friends think that I should use mobile devices and m-learning apps for teaching.	4.50	1.23	HE
24	My family members are helpful in my usage of mobile devices and m-learning apps for teaching.	4.67	0.52	HE
25	My principal supported the use of mobile device and m-learning apps for teaching.	1.67	0.82	LE
26	My parents supported the use of mobile device and m-learning apps for teaching.	1.33	0.52	HE
27	My community supports the use of mobile device and m-learning apps for teaching.	3.50	1.76	HE
28	My supervisors are supportive of m-learning.	1.83	1.17	HE
29	Other people who are important to me think that I should use mobile device and m-learning apps for teaching and learning.	4.33	1.21	HE
30	Other people who influence my behavior supported the use of mobile device and m-learning apps for teaching.	3.83	1.60	HE
Cumulative Score		3.48	1.04	ME

Research Question Four

What is the extent to which facilitating conditions necessary for m-learning exist among FATs?

The mean score of seven of the items used to answer research question four were found to be within the index score of high extent and moderate extent (3.33 to 4.33). Three of the items fall under the benchmark for low extent and very low extent (1.33 to 1.83). The cumulative weighted mean of 3.18 was obtained. And the

cumulative standard deviation of 1.12. The cumulative mean score falls under the range of moderate extent. This means that the extent of the existence of facilitating conditions necessary for m-learning among FATs was moderate as shown in Table 4.

Table 4 Descriptive Statistics used to answer Research Question Four				
Q4	Items	X	SD	Decision
31	I possessed the knowledge necessary for m-learning.	3.33	1.21	ME
32	I possessed the skills necessary for m-learning.	4.33	1.60	HE
33	I have a mobile device required for m-learning.	3.83	1.17	HE
34	My school has adequate infrastructure for m-learning.	1.67	1.17	LE
35	Wireless internet network is affordable to me.	4.17	0.75	HE
36	I can access 3G wireless internet network anywhere.	3.83	0.52	HE
37	M-learning applications are affordable to me.	4.00	1.10	HE
38	My school policies are supportive of m-learning.	1.33	0.52	VLE
39	Mobile devices are affordable to me.	3.50	1.64	HE
40	I can access WiFi wireless internet network anywhere.	1.83	1.51	LE
Cumulative Score		3.18	1.12	ME

Research Question Five

What is the behavioural intention of FATs toward m-learning adoption?

The mean score of the four out of the five items used to answer research question five were found to be within the index score of strongly agreed and agreed (4.00 - 4.50). Only one of the items fall under the benchmark for disagreed (2.33). The cumulative weighted mean of 3.93 was obtained. And the cumulative standard deviation of 1.06. The cumulative mean score falls under the range of agreed. This indicated that FATs agreed of having a positive behavioural intention toward m-learning as presented in Table 5.

Table 5 Descriptive Statistics used to answer Research Question Five				
Q5	Items	X	SD	Decision
41	I always try to use mobile devices and m-learning apps for teaching	2.33	1.51	D
42	I plan to continue using mobile devices and m-learning apps for teaching in the future	4.00	1.27	A
43	I intend to use mobile devices and m-learning apps for teaching in the future	4.33	1.21	A
44	I will accept the use of mobile devices and m-learning apps for teaching	4.50	0.55	SA
45	I predict using mobile devices and m-learning apps for teaching in the future	4.50	0.84	SA
Cumulative Score		3.93	1.08	A

However, the cumulative means of all the four research questions are 4.23, 4.23, 3.48 and 3.18 whereas the corresponding cumulative standard deviations are 0.95, 1.03, 1.04 and 1.12. Therefore, the pooled mean and pooled standard deviation for the four research questions are 3.78 and 1.04 high respectively. Based on this finding, it is clear that FATs show a positive behavioural intention toward m-learning adoption in GSTCs in Gombe state.

Moreover, the results obtained from the research hypotheses are presented as follows:

The reliability statistics presented in Table 6 indicates that the scale has an acceptable internal consistency, with a Cronbach's alpha of 0.70 as opined by Cronbach (1951).

Table 6 Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	Number of Items
.703	.692	5

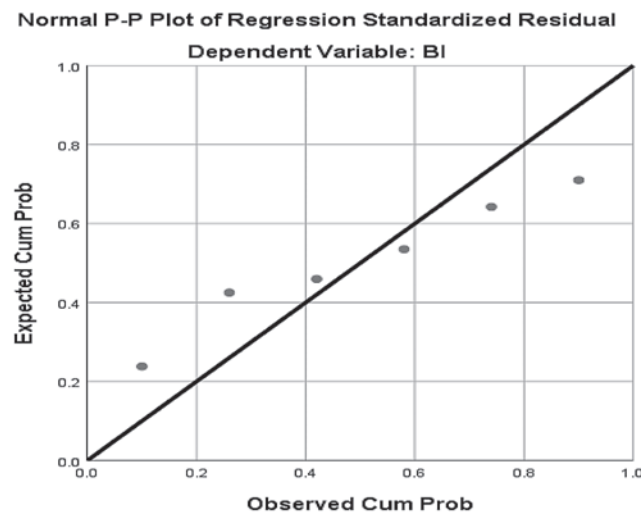


Figure 2: Normal P-P Plot of Regression Standardized Residual

The finding that emerged from Figure 2 revealed that there are no major deviations from the normality because the points lie in a reasonable straight diagonal line from the bottom left to the top right. Moreover, the scatter plot depicts a rectangular shape and there are no much deviations from the centre. This clearly indicates that the assumptions of independence of residuals and homoscedasticity are met. However, as presented in Tables 10, 11, 12 and 13, none of the independent variables show a tolerance value less than 0.1 and Variance inflation factor (VIF) value above 10 except PE with VIF value slightly above 10 (10.031), this indicates that excessive multi collinearity is not a problem as opined by Tabachnick and Fidell (2013).

Table 7 indicates that the four independent variables which include PE, EE, SI, FC correlate positively with the dependent variable which is BI except FC which show a weak negative correlation. The independent variables with the strongest correlation coefficient was PE, followed by EE, then followed by SI while FC has the least correlation coefficient. In the same vein, all the independent variables correlate positively with each other except SI with FC which show a very weak negative correlation coefficient.

Table 7 Summary of Correlational Analysis						
		BI	PE	EE	SI	FC
Pearson Correlation	BI	1.000	.685	.532	.324	-.257
	PE	.685	1.000	.580	.601	.331
	EE	.532	.580	1.000	.509	.528
	SI	.324	.601	.509	1.000	-.069
	FC	-.257	.331	.528	-.069	1.000
Sig. (1-tailed)	BI	—	.067	.138	.266	.312
	PE	.067	—	.114	.103	.261
	EE	.138	.114	—	.151	.141
	SI	.266	.103	.151	—	.449
	FC	.312	.261	.141	.449	—

From Table 8, the dependent variable (BI) shows an R Square of 0.847 representing 85 percent, this clearly indicates that the independent variables (PE, EE, SI, FC) explained 85 percent of the variance in dependent variable (BI).

Table 8 Summary of Regression Analysis ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.921 ^a	.847	.237	1.19305

a. Predictors: (Constant), FC, SI, PE, EE

b. Dependent Variable: BI

The analysis of variance in Table 9 indicated that the independent variables (FC, SI, PE, EE) show a cumulative significant effect on the dependent variable (BI), whereby the probability value (p-value) is less than the level of significance, ($p < 0.05$). This means that the independent variables (PE, EE, SI, FC) have a cumulative significant effect on financial accounting teachers' behavioural intention toward m-learning adoption in GSTCs in Gombe state.

Table 9 Summary of ANOVA Analysis ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	7.910	4	1.977	1.389	.006 ^b
	Residual	1.423	1	1.423		
	Total	9.333	5			

a. Dependent Variable: BI

b. Predictors: (Constant), FC, SI, PE, EE

Null Hypothesis One

Performance expectancy has no significant effect on financial accounting teachers' behavioural intention toward m-learning adoption.

The result of the multiple regression presented in Table 10 indicated that performance expectancy has a standardized coefficient beta of 0.793 and a p-value of 0.000. This clearly indicates that the null hypothesis one which states that performance expectancy has no significant effect on financial accounting teachers' behavioural intention toward m-learning adoption was hereby rejected and the alternative hypothesis upheld, this means that performance expectancy has a significant effect on financial accounting teachers' behavioural intention toward m-learning adoption in GSTCs in Gombe state.

Table 10 Regression Analysis Coefficients for Testing Null Hypothesis One					
Variable	Standardized Coefficients		Collinearity Statistics		Decision
	Beta	p-value	Tolerance	VIF	
PE	.793	.000	.100	10.031	Rejected

Null Hypothesis Two

Effort expectancy has no significant effect on financial accounting teachers' behavioural intention toward m-learning adoption.

The result of the multiple regression presented in Table 11 indicated that effort expectancy has a standardized coefficient beta of 0.429 and a p-value of 0.000. This clearly indicates that the null hypothesis two which states that effort expectancy has no significant effect on financial accounting teachers' behavioural intention toward m-learning adoption was hereby rejected and the alternative hypothesis upheld, this means that effort expectancy has a significant effect on financial accounting teachers' behavioural intention toward m-learning adoption in GSTCs in Gombe state.

Table 11 Regression Analysis Coefficients for Testing Null Hypothesis Two					
Variable	Standardized Coefficients		Collinearity Statistics		Decision
	Beta	p-value	Tolerance	VIF	
EE	.429	.000	.176	5.682	Rejected

Null Hypothesis Three

Social influence has no significant effect on financial accounting teachers' behavioural intention toward m-learning adoption.

The result of the multiple regression presented in Table 12 indicated that social influence has a standardized coefficient beta of 0.328 and a p-value of 0.000. This clearly indicates that the null hypothesis three which states that social influence has no significant effect on financial accounting teachers' behavioural intention toward m-learning adoption was hereby rejected and the alternative hypothesis upheld, this means that social

influence has a significant effect on financial accounting teachers' behavioural intention toward m-learning adoption in GSTCs in Gombe state.

Table 12 Regression Analysis Coefficients for Testing Null Hypothesis Three					
Variable	Standardized Coefficients		Collinearity Statistics		Decision
	Beta	p-value	Tolerance	VIF	
SI	.328	.000	.158	6.329	Rejected

Null Hypothesis Four

Facilitating conditions have no significant effect on financial accounting teachers' behavioural intention toward m-learning adoption.

The result of the multiple regression presented in Table 13 indicated that facilitating conditions has a standardized coefficient beta of 0.328 and a p-value of 0.000. This clearly indicates that the null hypothesis four which states that facilitating conditions has no significant effect on financial accounting teachers' behavioural intention toward m-learning adoption was hereby rejected and the alternative hypothesis upheld, this means that facilitating conditions has a significant effect on financial accounting teachers' behavioural intention toward m-learning adoption in GSTCs in Gombe state.

Table 13 Regression Analysis Coefficients for Testing Null Hypothesis Four					
Variable	Standardized Coefficients		Collinearity Statistics		Decision
	Beta	p-value	Tolerance	VIF	
FC	-.237	.000	.105	9.524	Rejected

However, among the independent variables, the variable with the highest Beta value was PE (0.793) then followed by EE (0.429) then followed by SI (0.328) and the least was FC (-0.237). This means that PE makes the strongest unique contribution in explaining the dependent variable (BI) then followed by EE, then followed by SI while FC has the least unique contribution.

Discussion of Findings

The finding that emerged from research question one reveals a high mean score of performance expectancy on the behavioural intention of FAT toward m-learning. This finding was supported by the finding of hypothesis one which reported that performance expectancy has a significant effect on behavioural intention of FATs toward m-learning. The findings are in agreement with that of Chelvarayan et al. (2020); Hamzah et al. (2020); Hoi (2020); Shorfuzzaman and Alhussein (2016); Al-Hujran et al. (2014); Abu-Al-Aish (2014); Eltayeb and Hegazi (2014); Jackman (2014); Mtebe and Raisamo (2014) and McConatha et al. (2008). On the contrary, the findings contradict that of Jairak et al. (2009) who reported a low mean score and insignificant effect of performance expectancy on behavioural intention toward accepting m-learning in institutions of higher learning in Thailand. This can be attributed to dissimilarities inherent in the two environments.

The finding that emerged from research question two reveals a high mean score of effort expectancy (ease-of-use) on the behavioural intention of FAT toward m-learning. This finding was supported by the finding of hypothesis two which reported that effort expectancy has a significant effect on behavioural intention of FATs toward m-learning. The findings are in conformity with that of Al-Emran et al. (2020); Kutluk et al. (2015); Al-Hujran et al. (2014); Osang and Ngole (2014); Tagoe and Abakah (2014); and Wei-Han Tan et al. (2011). On the contrary, the findings are not in line with that of Ugur et al. (2016) and Donaldson (2011) who reported a low mean score and insignificant effect of effort expectancy/ease-of-use on behavioural intention to adopt m-learning.

The finding that emerged from research question three reveals a moderate mean score of social influence on the behavioural intention of FAT toward m-learning. This finding was supported by the finding of hypothesis three which reported that social influence has a significant effect on behavioural intention of FATs toward m-learning. The findings are in concordance to some extent with that of Chaka and Govender (2020); Welch et al. (2020); Shorfuzzaman and Alhussein (2016); Al-Hujran et al. (2014); Thomas et al. (2013) and Jairak et al. (2009). On the contrary, this finding does not support that of Hamzah et al. (2020) and Nassuora (2012) who reported a low mean score and insignificant effect of social influence on the behavioural intention to use m-learning in institutions of higher learning.

The finding that emerged from research question four reveals a moderate mean score facilitating conditions on the behavioural intention of FAT toward m-learning. This finding was supported by the finding of hypothesis four which reported that facilitating conditions has a significant effect on behavioural intention of FATs toward m-learning. The findings agree to some extent with that of Welch et al. (2020); Ugur et al. (2016); Jackman (2014); Mtebe and Raisamo, (2014); Thomas et al. (2013) and Donaldson (2011). On the contrary, Al-Hujran et al. (2014) and Jairak et al. (2009) reported a low mean score and insignificant effect of facilitating conditions on the behavioural intention to use m-learning in institutions of higher learning.

However, the finding that emerged from the pooled mean and pooled standard deviation, confirms a high positive behavioural intention of FATs of GSTCs toward m-learning adoption in Gombe state. This finding was supported by the finding that emerged from regression analysis and ANOVA which reported that performance expectancy, effort expectancy, social influence and facilitating conditions have a significant effect on behavioural intention of FATs toward m-learning. Also, all the independent variables (PE, EE, SI, FC) explained 85 percent of the variance in dependent variable (BI). This finding supports that of Rataj and Wojcik (2020); Chaka and Govender, (2017); Frederick, (2015); Altayeb and Hegazi, (2014); Osang and Ngole, (2014); Mtebe and Raisamo, (2014); Tagoe and Abakah (2014); Aljunaid et al. (2013) and Pollara, (2011). On the contrary, Lam et al. (2011) reported that many teachers are not willing to use m-learning as teaching strategy.

Conclusion

The overall finding of the study indicates that FATs of GSTCs show a high positive behavioural intention toward m-learning adoption in Gombe State. Therefore, adoption of m-learning in GSTCs in Gombe State will not only makes teaching of financial accounting effortless but will also improves its delivery and consequently improves the performance of students in examinations.

Recommendations

Based on the study's finding and conclusion, the study recommends that government at all levels should consider the adoption of m-learning particularly in GSTCs to supplement teaching of financial accounting. Stakeholders in education should ensure frequent training of FATs on how best to utilize mobile devices for teaching financial accounting through organizing workshops, seminars and conferences. Moreover, curriculum planners and reviewers should ensure the incorporation of instructional delivery activities and experiences that supports m-learning into the existing curriculum for the delivery of financial accounting instructions. Conclusively, there is need for conducting another study on the behavioural intention of school administrators and supervisors toward m-learning adoption.

References

- Abu-Al-Aish, A. (2014). *Toward mobile learning deployment in higher education*. (Unpublished doctoral dissertation), Brunel University, London.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
- Ajzen, I. (2002). Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. *Journal of Applied Social Psychology*, 23(4), 665-683
- Al-Emran, M., Arpaci, I., & Salloum, S. A. (2020). An empirical examination of continuous intention to use m-learning: An integrated model. *Education and Information Technologies*. <https://doi.org/10.1007/s10639-019-10094-2>
- Al-Hujran, O., Al-Lozi, E., & Al-Debei, M. M. (2014). Get ready to mobile learning: Examining factors affecting college students' behavioral intentions to use m-learning in Saudi Arabia. *Jordan Journal of Business Administration*, 10(1).
- Aljunaid, N. M. F., Alzahrani, M. A. R., & Atiquil-Islam, A. Y. M. (2013). Assessing mobile learning readiness in Saudi Arabia higher education: An empirical study. *The Malaysian Online Journal of Educational Technology*, 2(2).
- Chaka, J. G., & Govender, I. (2017). Students' perceptions and readiness towards mobile learning in colleges of education: A Nigerian perspective. *South African Journal of Education*, 37(1), 1-12. <https://doi.org/10.15700/saje.v37nla1282>
- Chaka, J. G., & Govender, I. (2020). Implementation of mobile learning using a social network platform: Facebook. *Problems of Education in the 21st Century*, 78(1), 24-47. <https://doi.org/10.33225/pec/20.78.24>
- Chelvarayan, A., Chee, J. E., Yoe, S. F., & Hashim, H. (2020). Students' perceptions on mobile learning: The influencing factors. *International Journal of Education Psychology and Counselling*, 5(37), 1-9. <https://doi.org/10.35631/ijepc.537001>
- Cheon, J., Lee, S., Crooks, S. M., & Song, J. (2012). An investigation of mobile learning readiness in higher education based on the theory of planned behavior. *Computers and Education*, 59(3), 1054-1064.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika Journal*, 16, 297-334.
- Donaldson, R. L. (2011). *Student acceptance of mobile learning*. (Unpublished doctoral dissertation), Florida State University, USA.
- Eltayeb, H. M., & Hegazi, M. O. A. (2014). Mobile learning aspects and readiness. *International Journal of Computer Applications*, 103(11).
- Eze, C. E. (2014). *Strategies for improving performance in financial accounting in NCE business education programs in colleges of education in South-east Nigeria*. 11th International Conference. Reykjavik.
- Frederick, F. T. (2015). *Investigating the perception and attitude of teachers toward mobile learning in senior secondary schools in Ondo State*. (Unpublished undergraduate project), Adekunle Ajasin University, Akungba Akoko, Nigeria.

- Hamzah, W. W., Yusoff, M., Ismail, I., & Yacob, I. (2020). The behavioural intention of secondary school students to use tablet as a mobile learning device. *International Journal of Interactive Technologies*, 14(13), 161-171. <https://doi.org/10.3991/ijim.v14i13.13027>
- Harnett, D. L., & Murphy, J. L. (2007). *Introductory statistical analysis*. Addison-Wesley Publishing Company, Inc.
- Hoi, V. N. (2020). Understanding higher education learner acceptance and use of mobile devices for language learning: A Rasch-based path modelling approach. *Computers and Education*, 146. <https://doi.org/10.1016/j.compedu.2019.103761>
- Igben, R. O. (2009). *Financial accounting made simple*. ROI Publishers.
- Jackman, G. (2014). Investigating the factors influencing students' acceptance of mobile learning: The Cave Hill campus experience. *Caribbean Educational Research Journal*, 2(2), 14-32.
- Jaijaram, P. (2012). Engaging accounting students: How to teach principles of accounting in creative and exciting ways. *American Journal of Business Education*, 5(1).
- Jairak, K., Praneetpolgrang, P., & Mekhabunchakij, K. (2009). An acceptance of mobile learning for higher education students in Thailand. *The International Journal of the Computer, the Internet and Management*, 17(SP3), 36.1-368.
- Kutluk, F. A., Donmez, A., Gulmez, M., & Terzioglu, M. (2015). *A re-research about usage of mobile devices in accounting lessons*. World Conference on Educational Sciences (WCES), Novotel Athens Convention Centre, Athens, Greece.
- Lam, P., Kwok, M., & Wong, K. (2011). *Support and promotion of mobile learning strategies*. Proceedings of Australian Society of Computers in Learning in Tertiary Education Annual Conference, 758-762.
- McCanatha, D., Praul, M., & Lynch, M. J. (2008). Mobile learning in higher education: An empirical assessment of a new educational tool. *The Turkish Online Journal of Educational Technology*, 7(3), 15-21.
- Mtebe, J. S. & Raisamo, R. (2014). Investigating students' behavioral intention to adopt and use mobile learning in higher education in East Africa. *International Journal of Education and Development using Information and Communication Technology (IJEDICT)*, 10(3), 4-20.
- Nassuora, A. B. (2012). Students acceptance of mobile learning for higher education. *American Academic and Scholarly Research Journal*, 4, 1-5.
- Naveed, Y. (2010). *Mobile learning effectiveness in higher education*. (Unpublished undergraduate project), Linnaeus University, Linnaeus.
- Ogheneovo, A. A., & Linda, R. C. (2015). Challenges and benefits of mobile learning adoption in Delte State Polytechnic. *American International Journal of Contemporary Research*, 5(4).
- Osang, F. B., & Ngole, J. (2014). M- learning implementation: Readiness of the National Open University of Nigeria. *International Journal of Emerging Technology and Advanced Engineering*, 4(11).
- Osang, F. B., Ngole, J., & Tsuma, C. (2013). *Prospects and challenges of mobile learning implementation in Nigeria: A case study of national open university of Nigeria*. International Conference on ICT for Africa.
- Pollara, P. (2011). *Mobile learning in higher education: A glimpse and comparison of student and faculty readiness, attitudes and perceptions*. (Unpublished doctoral dissertation), Louisiana State University, Louisiana.
- Rataj, M., & Wojcik, J. (2020). The mobile learning adoption model tailored to the needs of a private university. *The Electronic Journal of e-Learning*, 18(4), 311-323. <https://doi.org/10.34190/ejel.20.18.4.004>
- Sarrab, M., Elgamel, L., & Aldabbas, H. (2012). Mobile learning (m- learning) and educational environments. *International Journal of Distributed and Parallel Systems*, 3(4).
- Shorfuzzaman, M. & Alhussein, M. (2016). Modelling learners' readiness to adopt mobile learning: A perspective from a GCC higher education institution. *Mobile Information Systems Journal*. <https://doi.org/10.1155/2016/698224>
- Suryaningrum, D. H., Wuryani, E., & Purbasari, I. Y. (2015). The effectiveness of mobile-based learning technology versus face-to-face learning of accounting information systems. *Journal of Business Education and Accreditation*, 7(1).

- Tagoe, M., & Abakah, E. (2014). Determining distance education students' readiness for mobile learning at university of Ghana using the theory of planned behavior. *International Journal of Education and Development using Information and Communication Technology*, 10(1), 91-106.
- Thomas, T. D., Singh, L., & Gaffar, K. (2013). The utility of the UTAUT model in explaining mobile learning adoption in higher education in Guyana. *International Journal of Education and Development using Information and Communication Technology*, 9(3), 71-85.
- Traxler, J., & Koole, M. (2014). *The theory paper: What is the future of mobile learning?* 10th International Conference on Mobile Learning, 289-293.
- United Nation Education, Scientific and Cultural Organization (2012). *Mobile learning for teachers in Africa and Middle East: Exploring the potential of mobile technologies to support teachers and improve practice*. UNESCO.
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27, 425-478.
- Welch, R., Alade, T., & Nichol, L. (2020). Mobile learning adoption at a science museum. In Arai, K., Kapoor, S., Bhatia, R. (eds). *Intelligent Computing SAI 2020. Advances in Intelligent Systems and Computing*, Vol 1228, Springer, Cham. https://doi.org/10.1007/978-3-030-52249-0_49
- Wei-Han Tan, G., Sim, J., Keng-Boon, O., & Phusavat, K. (2012). Determinants of mobile learning adoption: An empirical analysis. *Journal of Computer Information Systems*, 52(3), 82-91.