IOSR Journal of Computer Engineering (IOSR-JCE)
e-ISSN: 2278-0661,p-ISSN: 2278-8727, Volume 24, Issue 4, Ser. II (Jul. –Aug. 2022), PP 16-22
www.iosrjournals.org

A Propose Mobile Learning Model for Nigerian Army University BIU (NAUB)

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Abstract: *Digital literacy is indeed among the fastest common educational tools, attracting the interest of majority of mobile phone users; mobile platform allows student to develop anytime anywhere through the use of Internet access. Moreover, there is much inadequate study done to look into the aspects that influence students' Behavioral and attitude using active technology in NAUB. The purpose of this research is to look at the effects of mobile learning on students' academic achievement at NAUB University. A data analysis approach was employed to accomplish such, as well as the findings were evaluated using SPSS.Data were taken from 200 respondents at NAUB in order to evaluate the study model utilizing correlated and coefficients analyses. On several characteristics, majority students get to utilize smartphone learning: performance expectancy, effort expectancy, social impact, and technology competency.*

Keywords*: Mobile learning, E-learning, UTAUT*

Date of Submission: 01-08-2022 Date of Acceptance: 13-08-2022

I. INTRODUCTION

1.1 Overview

M - Learning has been traced backwards in time anything beyond the invention of mobiles in recent decades. The word Mobile Learning is used to describe a component of E-Learning, instructional technology, and digital teaching that emphasizes on learners in different contexts and using mobile phones. Mobility e-learning or mobility teaching is still in early and modern Prometheus, despite the enormous expansion and promise of portable smart objects.Mobile learning, ubiquitous learning, personalized collecting, education being portable, differentiated instruction, anywhere learning, and portable learning are only few of the terms used to describe Mobile learning. Any form of finding that occurs while the learner may not be in a settled, prophesied region, or understanding what occurs because when learner utilizes the learning opportunities supplied by smartphone, according to one definition of teaching methods(Mosunmola, 2018).The student gains new benefits from mobile learning, including such individualized teaching that might not be limited by time or location. In modern days with learning, the major keys to achieving progress. Learning has shown to be crucial around the world, even in developing, developing, and developing countries. This is due to the globe's increasing characteristics, which puts nations under the strain of quickly playing catch up with both the rest of the globe in terms of creating technology, entrepreneurship, and empirical studies.Generally, academic institutions distinguish from one area to another since this educational standards in advanced countries is high, whereas teaching in underdeveloped countries is outlined as poor in quality, guideline, and narrow advancement of student achievement in different areas due to the expense of schooling and fewer windows of opportunity after graduating from high school. Moreover, this study will look into how digital literacy that might help NAUB university students achieve success in their courses. Mobile learning can refer to a piece of software that students or lecturers use to study using a device that is typically utilized for university.It moreover caters to a wide range of students, between ensure better lectures to serving as a platform for entirely online courses, as well as a few overlap models such as teaching methods and turn schools. University Learners are mostly in learning mode, since lecturers often hand out teaching material and other resources are provided for learners to achieve through their own, because it isn't a constrained learning experience that is developed in the compulsory and alternative school institutions(Farzin & Dahlan, 2018).

1.2 Problem Statement

Experts are needed to comprehend how or why the mobile engagement may be improved and produced more functionality because online activity is increasingly being driven by mobile devices globally. This study will look into the reasons why NAUB students utilize mobile phones for learning, how well those devices work,

and any complaints people may have about the way mobile apps are being used for learning right now. The use of mobile phones for learning purposes and other mobile learning challenges are becoming more and more prevalent in academic institutions like NAUB.There is a severe absence of trustworthy updates and improvements and specifications intended for the design and development of m-learning that is unambiguously user-friendly. The attitudes of pupils about using technology and their intended conduct the number of studies on m - learning has either examined how successful it is as a teaching tool or methods for creating such solutions(Liliana et al., 2022).

1.3 Objectives

M - Learning, it is hoped, would enhance the disciplines taught to pupils. Our study will be looking into how university graduates utilize mobile devices as educational tools and how they might help them learn by collaborative learning and using social networking apps. Learning using mobile devices makes the communication more convenient and approachable for students.

1. To find out what factors influence learners' acceptance and implementation of m - learning at NAUB.
2. To determine the ultimate impact of mobile technology development in teaching on academic achievement at NAUB.
3. To look at the performance expectancy of NAUB learners to embrace and use teaching methods.
4. Develop an improvement of knowledge for m-learning implementation at NAUB.

II. LITERATURE REVIEW

Several previous research about use of mobile technologies in teaching and linked to m - learning are included in the literature review. Several studies on the acceptance of digital learning have been conducted. The benefits of mobile learning are driving its growth. Moreover, little research has been done on how people adopt teaching methods and what variables impact how they utilize their smartphone or tablet for education. Furthermore, by employing smartphones, m learning projects have investigated only instructional effectiveness.The advancement of small portable gadgets and mobile connectivity has made a significant change in modern choices all around the nation(Dogra, 2019). Due to the obvious important utilization of mobile technologies, nearly every student nowadays has a device. As a result, the invention has a good chance of becoming the next "big thing" in learning management systems. Digital literacy supports conventional methods of instruction via sharing and gathering information, as well as novel classroom practices such as digital training. Portable technology has a lot of promise for enabling more creative teaching practices in this way. Around the same hand, this trend in instructional practices is likely to aid subject matter learning as well as motivate pupils to develop their interaction, issue, innovation, and many other various leveled abilities(Dogra, 2019).

2.1 Mobile learning in education

As technology improves, a new perspective of learning has emerged: m - learning. Digital literacy is intellectually similar to traditional retinal exhibiting mobility, but with a greater demand for rich digital actually leaning content and a student-centered levels of education and training. Experts have been looking at the relationship amongst existing instructional theories and how they'd be linked and seen in teaching methods. Collaborative learning, organized learning, structure, demonstration, and reasoning are some of the modern informative and educational techniques in teaching methods.Mobile Learning is facilitated by the configuration and use of customized smartphones, iPads, and computers that are connected to a device network. Digital Learning enables instructors and learners to go beyond traditional classrooms (classrooms, activity rooms, research institutions, and lecturer’s theaters); particularly in the urban, collapsible preparation, and instruments allow lectures and graduates to be more adaptable and provide modern communication opportunities.Mobile learning is a type of E-learning that has been enhanced. It has the potential to widen when, where, and also how pupils study and accomplish throughout their lives. One of the most significant benefits of M-learning is its ability to improve student performance by allowing ideas and data available at any location worldwide, allowing learners to engage in classroom process without such usual constraints of location and time. Mobile technologies enable more open and highly accessible education than just the comprehensive settings. Contextual adapt to changing performance by providing quick access to information, it can have an immediate impact on students' performances in a classroom process, hence promoting their learning(Alghazi et al., 2021).Mobile learning encompasses a wide range of learning requirements, and it is ideal for allowing students to access knowledge through their own pace. Mobile learning improves two-way interaction by allowing instructors and learners to communicate directly, allowing shy or reticent students to interact more successfully than in learning situations. Furthermore, educators in large groups can use real-time cooperation to provide personalized instruction to all pupils. M - Learning also aids learners who are unable to attend

university courses due to financial, familial, or medical concerns. Finally, M-learning is self-driven and self-trained, allowing for studying without wasting time, about anything at any time(Todoranova et al., 2020).

2.2 The advancement of mobile learning

The term mobile learning refers to the use of mobile or wireless technologies to study or being on the go. Mobiles, particularly effective in reducing, and portable Applications are common examples of digital learning devices; device Personal computers, personal computers, and portable media players can also be included in this category. In a small, handy electronic gadget, the source of truly compressed material has already been merged with various roles. Delayed advancements in technology platforms such as social apps by using Internet technologies (e.g., web pages, media sharing sites, Media platforms such as Facebook, YouTube) or individual interaction regions (e.g., Facebook and Email, WhatsApp) had already made mobiles more influential and indispensable, as well as ensuring more learning benefits.In any event, it is widely assumed that digital literacy entails the use of a portable computer as well as studying in a variety of locations. Developed and modified the development of mobile learning and inclined to use mobile technologies to facilitate education(Aliaño et al., 2019). The term wireless intelligent learning devices, coined by SRI International's Center for Technology in Learning, was used to describe technology allowed learners to apply on remarkable assignments in previously imagined methods.Though students also might not and being in the same appearance, students could share various aspects of human and social skills via smart phones. Learners may quickly browse over a practically limitless quantity of material to address difficulties unique to particular surroundings. The Web has ushered in a period where material has proven to be everything but virtually impossible to obtain and share. Learners must now acquire the skills and instruments necessary to investigate this growing collection of data. Digital literacy allows students to communicate with one another via additional devices like as material updating, mobile Web access, and audio exchanges across distant platforms(Farzin & Dahlan, 2018).

III. METHODOLOGY

This study employs a hybrid method design, which follows the patterns analyzing the research. Methods, tactics, and strategies are combined to increase the breadth and depth of understanding and validation. An explanatory comprehensive research must have been also included in the proposal's concept. The conceptual evaluation, also known as either a functional research, aims to show and explain why particular circumstances arise. Models are compared all around with this strategy to evaluate study hypothesis. The findings enable researchers to evaluate the association between factors and genuine drawing inductions. The experts intended to establish a link between previous concepts of portable education through this study.Following analyzing the variables and assessing the usage of m-learning, UTAUT was utilized to explore the aspects that could influence university students' acceptability of m-learning: Effectiveness Intention and Effort Expectancy. Furthermore, UTAUT to orientation the subjective norm component in order to investigate the impact of students on performance expectancy. Nigerian Army University BIU does not have an m-learning program. Nigerian Army University learning model provides a number of online courses that may be accessed via Slide. As a result, the study looked at the impact of the aforementioned dimensions on behavioral intention to employ m learning(Alghazi et al., 2021).

IV. RESULT

Obvious understanding, dependability, and correlation are used in the data analysis. The Statistical Package for the Social Sciences (SPSS) was used to evaluate quantitative data. The section begins with statistical data and progresses throughout every research subject in the known reference proposal.Approximately 363 of the 360 questions were acceptable. There are no viable questions in the questionnaire form and none are missing. As a result, the result of this study were based on the responses of 360 people. The undergraduates comprised randomly selected enrolled in the program at NAUB University.

Table 1. Statistics of demographics of respondents

Statistics

		Gender	Age	Faculties
N	Valid	360	360	360
	Missing	0	3	3

The demographics of the responders are depicted inside the table below. With 50.28 percent male students and 49.72 percent female students, overall demographic distribution of the population was fairly balanced. Survey students had the greatest proportion of male survey responders, which suggests that out of 360 items, male population is the highest on provided the opinion.

Table 2. Statistic of Gender

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		3	.8	.8	.8
	Female	177	49.0	49.0	49.9
	Male	181	50.1	50.1	100.0
	Total	360	100.0	100.0	

4.1 Age of respondents

The study participants of 360 research questionnaire are given to respondents in groups, with the very first gathering consisting compared with fewer than 20 (9.17 percent) of study participants being the shortest, and the second part consisting of 20-25 (52.22 percent) of 360 learning outcomes to the survey questions being the largest. Furthermore, the fourth age demographic (25–30 years old) has the second-to-highest number of responders (36.16 percent).

Table 3. Statistic of Age

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 20	33	9.1	9.2	9.2
	20-25	188	51.8	52.2	61.4
	25-30	139	38.3	38.6	100.0
	Total	360	99.2	100.0	
Missing	System	3	.8		
Total		363	100.0		

4.2 Faculty of Respondents

The 360 survey, which was sent to students on the basis on faculty, yielded responses. The biggest number of responders came first from faculty of computing (22.50%). The faculty of Arts, management and social science is next, with (20.00%). Then there's the faculty of natural and applied science, which gets responders from all over the world (19.17%). From the faculty of environmental sciences, with responses from (17.50%). With the least percentage of replies, respondents from the faculty of engineering and technology (3.89%).

Table 4. Statistic of Faculties.

Faculties

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	FCOM	69	19.0	19.2	19.2
	FAMSS	61	16.8	16.9	36.1
	FNAS	81	22.3	22.5	58.6
	FEVS	72	19.8	20.0	78.6
	FENG	68	17.4	17.5	96.1
				3.9	100.0
	Total	351	95.3	100.0	
Missing	System	9	4.7		
Total		360	100.0		

4.3 Reliability analysis

The reliability of a variable's values is characterized as dependability. The results of the research's validity test are shown in Table below. The study's validity is determined by how error-free the measurements are, how steady the processes are, and how reliable the findings were indeed.Therefore in work, approximated scales were constructed and theoretical goods were imagined. In a comprehensive assessment of the empirical literature, those levels were deleted. The validity among these measures was demonstrated by current literature. The measuring instruments used to verify the reliability of specific items are discussed in detail. Cronbach's alpha and indeed the internal validity of the components were utilized to create the dependability levels. That measure to which an impose regulations tool generates consistent and predictable outcomes is appropriate corrective measures.

Table 5. Result of internal Consistency Tested by Cronbach's Alpha

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.718	.718	23

No	Items	Cronbach's Alpha
1	I would find mobile learning useful in my learning	.718
2	Using mobile learning, it is easy for me to access course content.	.719
3	Mobile learning is convenient for communication with other course students.	.718
4	Using mobile learning enable me to accomplish learning activities more quickly	.718
5	If use mobile learning, it will creases my learning productivity	.718
6	My interaction with mobile learning would be clear and understandable	.718
7	It would be easy for me to become skillful at using mobile learning	.718
8	I would find mobile learning easy to use	.718
9	Learning to operate mobile learning is easy for me	.718
10	People who influence my behavior will think that I should use mobile learning.	.718
11	People who are important to me will think that I should use mobile learning.	.719
12	The lecturers have been helpful in the use of mobile learning.	.718
13	In general, my university has supported the use of mobile learning.	.718
14	I would find mobile learning is appealing to me if the majority of my friends or classmates used it.	.718
15	I would use mobile learning if my professor has referred the importance and effectiveness of using it.	.718
16	Using the mobile learning is a good idea	.718
17	The mobile learning will make work more interesting.	.719
18	Working with the mobile phone is fun.	.718
19	I like working with the mobile phone.	.718
20	I intend to use mobile learning in the next 12 months.	.718
21	I predict I would use mobile learning in the next 12 months.	.718
22	I plan to use mobile learning in the next 12 months.	.718
23	How often do you access the Internet from your handheld mobile device?	.719

V. Hypothesis Test Result

Based on the findings, it can be concluded that there is a significant relationship between the variables. Additionally, performance expectancy and behavioral intention to use mobile learning show a significant relationship (P=.002), and effort expectancy and behavioral intention to use mobile learning show a significant relationship (P=.047). Despite the fact that there is a strong correlation between social influence and behavioral intention to utilize mobile learning (P=.000), technology competency and behavioral intention to use mobile learning also have a significant correlation (P=.026). According to the study, all of the factors are valid.

Table 6. Hypotheses Result

Hypotheses	P-Value	Decision
H1: Performance Expectancy has a positive effect on Behavioral Intention to use mobile learning.	.002	Accepted
H2: Effort Expectancy has a positive effect on Behavioral Intention to use mobile learning.	.047	Accepted
H3: Social Influence has a positive effect on Behavioral Intention to use mobile learning.	.000	Accepted
H4: Technology Competency has a positive effect on Behavioral Intention to use mobile learning.	.026	Accepted

Unified theory of acceptance and use of technology (UTAUT) model Summary

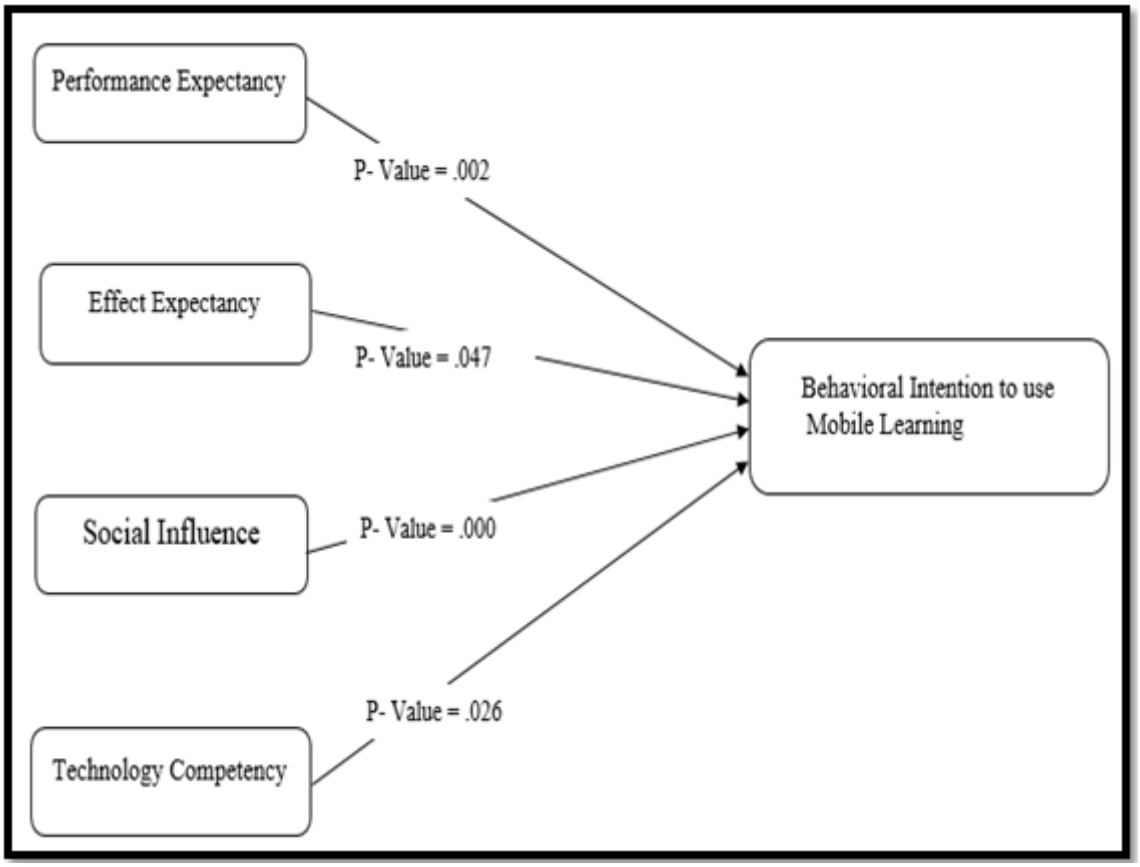

Figure 1. Model Summary

VI. DISCUSSION

The purpose of this research was to assess students' behavioral intentions to be using learning strategies at NAUB. The key conclusion though is that research hypotheses had a substantial positive affect on learners' performance expectancy to utilize mobile learning, whereas the other research theories had a significant effect. Similarly towards the results of relative advantage, acceptability of teaching methods was revealed to be the greatest predictor. This indicates that learners at NAUB University feel that digital literacy is beneficial and will help them complete their learning tasks more successfully and quickly. Learners suggest that portable education will aid them in improving the learning process and achieving higher scores. Learners must consider the quality of educational materials available as an app in order to reinforce this idea.Classmates could also benefit from utilizing mobile devices to help their learning and improving accomplishment since they are utilized to exchange materials, hold discussions, and inspire students, both of which have good effects on learning. Considering students are more likely to utilize mobile devices for non-academic objectives but because inappropriate usage of mobile technologies has detrimental consequences, digital literacy can have a detrimental influence on student's learner's academic productivity. Students spend are more interested on non-academic activity on their mobile devices than on intellectual careers.

VII. CONCLUSION

Based on the research findings and conclusion of the research, the relevant suggestions are made. The current study suggested that future research be conducted in order to modify any use of m - learning. The findings of this research do not capture the whole behavioral intent of adopting mobile learners in NAUB. It's indeed insufficient to analyze one range of participants of the behavioral and emotional adopting mobile study in any inquiry on the usage of mobile learning and achievement. There seem to be several other crucial groups, namely instructors, whom answers must also be chosen. Every meeting is linked to the one before it.The university administration must always be organized with a strong support plan that provides facilities and mobile app connectivity for pupils, personnel learning for instructors, a yearly digital learning arranging, and benefits to encourage a more prevalent adoption of mobile studying inside the institution. It is suggested that perhaps the NAUB university administration invest heavily in m - learning by enhancing the IT architecture for learners in order to encourage the role of mobile learning there at institution.

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