

MOTIVATION TO USE SMART MOBILE GADGETS AND PERCEIVED ACADEMIC PERFORMANCE OF UNDERGRADUATE IN PRIVATE UNIVERSITIES, SOUTH-WEST, NIGERIA

Adeniyi Michael, OMOTADE

University Library

Mountain Top University, Prayer City, Ibafo, Ogun State, Nigeria

omotademichael7@gmail.com

08184690426

&

David O, OKHAKHU

University Library

Lead City University, Ibadan, Oyo State, Nigeria

okhakhudavid@gmail.com

07069436535

ABSTRACT

The aim and objectives of the study is to investigate the influence of motivation to use smart mobile gadgets and perceived academic performance of undergraduate students in Lead City University Ibadan, Oyo State, Nigeria and Mountain Top University, Prayer City Ibafo, Ogun State, Nigeria. Descriptive research was adopted. Population consists of six thousand five hundred and eighty-two (6,582) undergraduate students in LCU, Ibadan and MTU, Ibafo, Ogun State, Nigeria. Three hundred and seventy-seven (377) undergraduate students served as the sample size after Taro Yemman table. Purposive sampling technique was used before multistage and validated questionnaire was used to collect data. Data collected was analyzed using descriptive and inferential statistics. Findings revealed that motivation to use smart mobile gadgets had significant influence on perceived academic performance of undergraduate students in LCU and MTU at ($r=0.442, p<0.001$). The study concluded that motivation to use smart mobile gadgets influenced perceived academic performance. The study recommends that the application and utilization of motivation to use smart mobile gadgets which makes learning and teaching interesting, interactive and collaborative should be promoted among students, lecturers and instructors at all levels of education by the parent institutions

Keywords: Motivation, Use of Smart Mobile Gadgets, Perceived Academic Performance

INTRODUCTION

The advent of Information Communication and Technology in the late 80s has greatly transformed learning from traditional method to the adoption of use of smart mobile gadgets and this has great influence on students perceived academic performance in developed countries like Canada, United Kingdom, United State of America and developing countries like Nigeria, Ghana, Tanzania and so on. Academic performance refers to how far a student, instructor, or institution has progressed toward their short or long-term educational objectives. Academic achievement is defined as the completion of educational milestones such as University diploma and bachelor's certificates. Perceived academic performance of students determines whether an academic institution succeeds or fails (Narad and Abdullah, 2016). Parents, guardians, lecturers, relatives, counsellors, and other participants in the Nigerian educational system are all concerned with student's successes and academic standards (Komolafe and Olorunfemi-Olabisi, 2011).

Motivation is a psychological and physiological construct that initiates and directs a human being's behavior toward goal-oriented activities. Motivation is a process that facilitates, stabilizes and sustains behaviours toward a set objective (Cherry, 2020). Motivation are factors that promote goal-directed conduct in response to the needs that drive humans to accomplish what they do (Pezzulo, Van Der Meer, Lansink and Pennartz, 2014).

However, .motivation to use smart mobile gadgets is the desire and energy in students to be continually interested and committed to make effort to attain a goal through the use of smart mobile gadgets. Smart mobile gadgets is any device that is carried by the individual most of the time, such as a smartphone, tablet, or hand-held device, is considered a mobile device. A mobile device can also communicate over the Internet (Hoffmann, 2015). Smart mobile gadgets were construed as tools of emerging world knowledge, transforming from information standards to new solutions to professional skill and competence acquisition based on systemic vision and continuous updating of current knowledge (Hwang, 2014). Smart technologies in the smart education system are an innovative educational environment of higher school with an emphasis on the application of technologies in scientific and educational activities of lecturers, scientific staff, and students for using it and disseminating wide knowledge (Hwang, 2014). Smart mobile gadget is a physical object that interacts with its environment and has an embedded processor, memory, sensors and/or actuators, and a network connection, such as smartphones ,tablets and so on (Privat,2020). Smart mobile gadget as an interactive technology that provides a more flexible and tailored steps to meet diverse individual needs by being sensitive, manageable, adaptable, responsive, and timely to educators' pedagogical strategies as well as learners' educational and social needs (Innara, Elena, Olga, Tatiana and Nataliya,2019).

Further, the major parameters that motivate the use of smart mobile gadgets for learning and teaching are accessibility and students' ability to utilize internet resources for educational purposes, without being restricted to a particular location. Smart mobile gadgets have the ability to pique students' interest, which leads to improved academic performance The use of smart mobile gadgets motivates students to read more, self-independent in learning and it also improves students' academic performance.

The users of today's smart mobile gadgets are able to browse the Internet, check e-mail, watch and share pictures and videos, interact on social networks, and use a wide range of software-driven applications.

STATEMENT OF THE PROBLEM

Smart mobile gadgets have made incalculable inroads into the lives of students all over the world. Today, you can see students walking to school/class with some of the most expensive and sophisticated smart mobile gadgets, tablets, and ipads, smart phones, laptops and so on that have all the applications, facilities, and software that can connect them to the internet and all forms of social media platforms, other web sites, and so on, where they chat, access, download, upload, exchange, and play different kinds of media contents, most of which are pornographic in nature. The widespread use of smart mobile devices is causing distraction and time waste among undergraduate students. Most of these students' smart mobile gadget usage patterns, both during and after school hours, such as their level of engagement in free night calls, chatting, instant messaging, social networking, and exam malpractices, among other things, have a significant negative impact on their academic performance.

Furthermore, it has been discovered that unstable or unreliable internet connectivity is a critical factor that inhibits students from adopting and maximizing the usage of smart mobile gadgets to enhance their perceived academic performance and students does not have high bandwidth or the strong internet connection that online learning required and many students find fixing basic computer problems troublesome, as they have no knowledge in this area and this has greatly posed severe problem on the perceived academic performance among undergraduates students in Lead City University, Ibadan, Oyo State and Mountain Top University ,Ibafo, Ogun State

The researcher also discovered that both the undergraduates students and lecturers have yet to maximize the benefit of the availability and the adoption of smart devices such as e-library, smart phone, ipads, tablets, digital camera, laptops, emails, internet services, smart boards, tablets, digital classroom and so on s to improve their academic performance.

OBJECTIVES OF THE RESEARCH

The specific objectives were to:

1. examine the perceived academic performance of undergraduate students in the two selected private universities;
2. determine the motivation to use smart mobile gadget (perceived ease of use and perceived usefulness) among undergraduate students in the two selected private universities;

RESEARCH QUESTIONS

1. What is the perceived academic performance of undergraduate students in the two selected private universities?
2. What are motivations to use smart mobile gadgets (perceived usefulness and perceived ease of

use) by the undergraduate students in the two selected private universities?

HYPOTHESES

The following null hypothesis will be tested at 0.05 level of significance

Ho1 There is no significant influence of motivation to use smart mobile gadget on perceived academic performance of undergraduate students in the two selected private Universities.

RESEARCH METHODOLOGY

The descriptive survey research design was used in this study. It has been proven to be one of the most impactful ways in conducting a study of this kind. It is a research for which the purpose is to produce an accurate representation of respondents, events, and situations (Saunders, Lewis and Thornhill, 2007). The sample population comprises of 5,164 students of Undergraduate students of Lead City University, Ibadan (source: central registration unit, 2021) and 1,418 students in Mountain Top University, Ibafo (source: general registration unit, 2021). The total population of this study is 6,582. However some selected undergraduate students of the departments of Computer science, Microbiology, Accounting and Mass Communication (200,300 and 400 level) of Lead City University, Ibadan, Oyo state and Mountain Top University, Prayer City, Ibafo, Ogun state, will considered for the study while the 100 level students were exempted from the study population due to the fact that they have not been admitted A multistage sampling technique was used to select the sample. In the first stage, two universities; Lead City University, Ibadan, Oyo State and Mountain Top University, Prayer City, Ibafo, Ogun State were purposefully selected among the private universities in South-West, Nigeria. The sample for the study was selected using Taro Yamane table sample size.

RESEARCH FINDINGS

Research Question One: What is the perceived academic performance of undergraduate students in the two selected private universities?

Table 1: Perceived Academic Performance of Undergraduate Students

S/N	Items	SA (%)	A (%)	D (%)	SD (%)	Mean
	Levels of skill					
1	My ability to use LMS platform and smart mobile gadgets enhance my perceived academic performance	116 (30.9)	226 (60.1)	17 (4.5)	17 (4.5)	3.17
2	I do not have problem searching for useful information and materials for my course	140 (37.2)	191 (50.8)	21 (5.6)	24 (8.4)	3.19
3	My class presentation and ICT skills attributed to my academic performance	110 (29.3)	192 (51.1)	38 (10.1)	36 (9.6)	3.00

4	My ability to organize time for reading and other activities enhance my perceived academic performance	147 (39.1)	168 (44.7)	30 (8.0)	31 (8.2)	3.15
Levels of knowledge						
1	Memorizing facts, ideas, or methods from my course materials and modules influence my perceived academic performance	159 (42.3)	181 (48.1)	23 (6.1)	13 (3.5)	3.29
2	Applying concepts or theories problems enhance my perceived academic performance	55 (14.6)	238 (63.3)	49 (13.0)	16 (4.3)	2.99
3	Synthesizing and organizing ideas, information or experience into new interpretation enhance my perceived academic performance	55 (14.6)	260 (69.1)	43 (11.4)	18 (4.8)	2.94
Personal factors						
1	My study habit plays an important role in my perceived academic performance	109 (29.0)	239 (63.6)	22 (5.9)	6 (1.8)	3.20
2	My perception on my course influence my perceived academic performance	97 (25.8)	228 (60.6)	37 (9.8)	14 (3.7)	3.08
3	My peer group and fellow students affect my performance	78 (20.7)	248 (66.0)	25 (6.6)	25 (6.6)	2.89
4	I have sponsorship from my parent	143 (38.0)	160 (42.6)	37 (9.8)	36 (01.6)	3.22
						3.10

Table 1 revealed that most of the respondents (91%) agreed that their ability to use LMS platform and smart mobile gadgets enhances their perceived academic performance; this is evidently revealed with the mean score of 3.17, 4.5% disagreed and another 4.5% strongly disagreed. Similarly, with the mean score of 3.19 most of the respondents believe that they don't have problem searching for useful information and materials for their courses. Majority (51.1%) of the respondents agreed that their class presentation and ICT skills attributed to their academic performance, 29.3% strongly agreed, while 10.10 disagreed and strongly disagreed that their class presentation and ICT skills attributed to their academic performance. Furthermore, most of the respondents 39.1% and 44.7% respectively agreed and strongly agreed that their ability to organize time for reading and other activities enhance their perceived academic performance, while 8% and 8.2% respectively disagreed and strongly disagreed that their ability to organize time for reading and other activities enhance their perceived academic performance.

On the level of knowledge, table 4.2 above also revealed that memorizing facts, ideas, or methods from course materials and modules influence perceived academic performance of the respondents, this is revealed in the mean score of 3.2 with less than 10% of the respondents disagreed with the assertion. Similarly, 63.3% of the respondents strongly agreed that applying concepts or theories problems enhance their perceived academic performance, 14.6% strongly agreed, while 13% and 4.3% respectively disagreed and strongly disagreed that applying concepts or theories problems

enhance their perceived academic performance. Also, about 85% of the respondents agreed that synthesizing and organizing ideas, information or experience into new interpretation enhance their perceived academic performance, while about 15% disagreed.

Finally, on the personal factor that influence academic: with the mean score of 3.20 more than 90% of the respondents agreed and strongly agreed that their study habit plays an important role in their perceived academic performance. Also, most (86.4%) of the respondents agreed that their perception on their course influence their perceived academic performance, altogether, 13.6% strongly disagreed and disagreed with the assertion. Furthermore, 66% of the respondents agreed that their peer group and fellow students affect their academic performance, 20.7% strongly agreed, while 6.6% disagreed and equal percentage also strongly disagreed.

Research Question Two: What are motivations to use smart mobile gadgets (perceived usefulness and perceived ease of use) by the undergraduate students in the two selected private universities?

Table 2: Motivation to Use Smart Mobile Gadgets

		SA (%)	A (%)	D (%)	SD (%)	Mean
	Perceived Ease of Use					
1	I find it easy to use smart mobile gadgets for reading	78 (20.7)	248 (66.0)	25 (6.6)	25 (6.6)	3.00
2	My interaction with the smart mobile gadgets for learning is clear and understandable	108 (28.7)	197 (52.4)	42 (11.2)	29 (7.7)	3.02
3	I do not encounter technical problem when using smartphone for learning	143 (38.0)	160 (42.6)	37 (9.8)	36 (9.6)	3.09
4	Smart mobile gadgets interfaces is user friendly and flexible to use	100 (26.6)	175 (46.5)	63 (16.8)	38 (10.1)	2.90
5	Using smart mobile gadgets for learning does not require any special computer literacy skills in order to use.	94 (25.0)	183 (48.7)	45 (12.0)	54 (14.4)	2.84
	Perceived Usefulness					
1	Smart mobile gadgets enables me to take quiz and Continuous Assessment (CA) anywhere and anytime	89 (23.7)	229 (60.9)	36 (9.6)	22 (5.9)	3.02
2	Smart mobile gadgets has save me from buying personal laptop for studies.	123 (32.7)	176 (46.8)	61 (16.2)	16 (4.3)	3.08
3	Using the smart mobile gadgets for learning has enabled me to gain extra skills and experiences outside the classroom	114 (30.3)	186 (49.5)	53 (14.1)	23 (6.1)	3.04
4	Smart mobile gadgets enable me to easily effectively use the LMS for learning	115 (30.6)	192 (51.1)	60 (16.0)	9 (2.4)	3.10

5	Motivation to use smart mobile gadgets enable me to record lectures delivered by my tutors	11 (29.5)	199 (52.9)	55 (14.6)	11 (2.9)	3.09
						3.02

Table 2 above depicts respondents' motivation to use smart mobile gadgets. For perceived ease of use, majority (66%) of the respondents agreed that they find it easy to use smart mobile gadgets for reading, 20.7% strongly agreed, while 6.6% disagreed and equal percentage also strongly disagreed. With the mean score of 3.02, 52.4% of the respondents believe that their interaction with the smart mobile gadgets for learning is clear and understandable, 28.7% strongly agreed. While 11.2% and 7.7% respectively disagreed and strongly disagreed that their interactions with the smart mobile gadgets for learning is clear and understandable. Similarly, the mean score of 3.09 indicates that many (80.6%) of the respondents do not encounter technical problem when using smartphone for learning. In the same vein, most (46.5%) of respondents agreed that smart mobile gadgets interfaces is user friendly and flexible to use, 26.6% strongly agreed, while about 27% of the respondents disagreed that smart mobile gadgets interfaces is user friendly and flexible to use. Finally, under perceived ease of use, majority (48.7) agreed that using smart mobile gadgets for learning does not require any special computer literacy skills in order to use, one-quarter strongly agreed, 12% disagreed and 14.4% strongly disagreed that using smart mobile gadgets for learning does not require any special computer literacy skills in order to use.

On respondents' perceived usefulness of smart mobile gadgets, majority (60.9% of the respondents agreed that smart mobile gadgets enables me to take quiz and Continuous Assessment (CA) anywhere and anytime, 23.7% also strongly agreed, while 9.6% and 5.9% respectively disagreed and strongly disagreed. With the mean score of 3.08, most of the respondents agreed that smart mobile gadgets have save them from buying personal laptop for studies. Furthermore, with the mean score of 3.04 it can be adduce that most of the respondents were of the opinion that using the smart mobile gadgets for learning has enabled them to gain extra skills and experiences outside the classroom though about 20% of the respondents disagreed. Finally, with the mean score of 3.09 the findings of this study revealed that respondent' motivation to use smart mobile gadgets enable them to record lectures delivered by their tutors, 14.6% disagreed and 2.9% disagreed.

TEST OF HYPOTHESIS

The following null hypothesis will be tested at 0.05 level of significance

H₀₁ There is no significant influence of motivation to use smart mobile gadget on perceived academic performance of undergraduate students in the two selected private universities

Table 4a: Model Summary^b

Model	R	Adjusted R	Std. Error of	Durbin-Watson
	Square	Square	the Estimate	
1	.442 ^a	.195	2.53921	1.731

a. Predictors: (Constant), Motivation to Use Smart Mobile Gadgets

b. Dependent Variable: Perceived Academic Performance

Table 4c: Coefficients^a

Model	B	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		Std. Error	Beta			
1	(Constant)	8.839	.704		12.555	.000
	Motivation to Use Smart Mobile Phone	.442	.046	.442	9.521	.000

a. Dependent Variable: Perceived Academic Performance

Table 4b: ANOVA^a

Model		Sum of Squares		Mean Square		Sig.
		Squares	Df	Square	F	
1	Regression	584.518	1	584.518	90.657	.000 ^b
	Residual	2411.397	374	6.448		
	Total	2995.915	375			

a. Dependent Variable: Perceived Academic Performance

b. Predictors: (Constant), Motivation to Use Smart Mobile gadget

From the regression tables above (Tables 4a-4c), results indicated that there is a significant and positive influence of motivation to use smart mobile gadget on perceived academic performance of undergraduate students. This is reflected on the value of the co-efficient of the correlation (R) which is 0.442. This value indicates that the strength of the relationship between the two variables under study is about 44.2% while holding other variables constant. The co-efficient of determination (R²) showed a value of 0.195 which indicates about 19.5%. This result implies that on the average about 19.5% variations in perceived academic performance is systematically explained by changes in motivation to use mobile gadget. Thus, not more than 80.5% variations in the perceived academic performance remain unexplained by this explanatory variable.

The F-value of 90.657 with a corresponding p value of P<0.001, which is less than the 0.05 (5%) significance level (at 95% Confidence interval). This depicts a statistically significant direct influence of motivation to use smart mobile gadget on perceived academic performance of undergraduate students. We therefore reject the null hypothesis of no significant influence of motivation to use smart mobile gadget on perceived academic performance of undergraduate students.

DISCUSSION OF FINDINGS

The main aim and objectives of the study is to investigate the influence of motivation to use smart

mobile gadgets on perceived academic performance of undergraduate students in Lead City University, Ibadan, Oyo State and Mountain Top University, Prayer City, Ibafo, Ogun State. To achieve this general objective, some specific objectives were formulated and part of the specific objective is to examine the perceived academic performance of undergraduate students in Lead City University, Ibadan, Oyo State, Nigeria and Mountain Top University, Prayer City, Ibafo, Ogun State, Nigeria.

The findings of the study revealed that the ability to use smart mobile gadgets enhanced perceived academic performance. This might be that majority of the undergraduate students in Lead City University, Ibadan, Oyo State and Mountain Top University, Prayer City, Ibafo, Ogun State possess high levels of skill to use smart mobile gadgets and access learning management system platforms which have greatly enhanced their perceived academic performance. Also, most of the respondents were of the opinion that their class presentation and ICT skills attributed to their academic performance. Similarly, the study found that ability to organize time for reading and other activities enhance perceived academic performance.

On the level of knowledge, the study revealed that memorizing facts, ideas, or methods from course materials and modules, application of concepts or theories problems and synthesizing and organizing ideas, information or experience into new interpretation enhance perceived academic performance. Furthermore, the study discovered that reading habit and peer group play an important role in perceived academic performance. These findings are supported by the theory of performance of (Elger, 2007) which asserted that to perform is to carry out a difficult chain of tasks that combines abilities and knowledge to yield a useful outcome. This is corroborated by a study of (Shipalana, 2020) that asserted that increased knowledge, memorization and replication, application, comprehension, viewing things in a different manner, and changing a pattern are six quantitatively diverse ways that university students conceptualize, which affects how they approach learning and their perceived academic performance.

The study also established that motivation to use smart mobile gadgets has a great influence on perceived academic performance of undergraduate students. This is premised on the responses gathered from perceived ease of use and perceived usefulness of smart mobile gadgets. The study found that respondents find it easy to use smart mobile gadgets for reading and believe that their interactions with the smart mobile gadgets for learning are clear and understandable. Similarly, it was discovered that respondents hardly encounter technical problem when using smart phone for learning because they believe that smart mobile gadgets interfaces is user friendly and flexible to use, and that smart mobile gadgets for learning does not require any special computer literacy skills in order to use. These results corroborate those of (Iqbal and Bhatti, 2015) who found that most respondents found smart mobile gadgets to be simple to use, which increased their opinion of the device's value for learning activities. However, (Ifeanyi and Chukwuere, 2018) negate finding from previous studies in which it was discovered that users occasionally find it difficult to access academic information on their smart mobile gadgets. This result is consistent with a research conducted by (Ifeanyi and Chukwuere, 2018) in which South African undergraduate students indicated that using a smartphone for academic work is highly helpful.

CONCLUSION

It is obvious that the proliferation of the Information Communication and Technology has affected almost every facet of teaching and learning, especially in Lead City University, Ibadan, Oyo and Mountain Top University, Prayer City, Ibafo, Ogun State. Based on the study's discussion, we can reach the conclusion that motivation to use smart mobile gadgets when used for school-related learning activities have a positive impact on students' perceived academic performance.

RECOMMENDATIONS

The researcher offers some recommendations for higher institutions to take into consideration if they decide to continue learning and teaching in the classroom and through online platforms:

1. There is need for the application and utilization of motivation to use smart mobile gadgets which makes learning and teaching interesting, interactive and collaborative should be promoted among students, lecturers and instructors at all levels of education by the parent institutions
2. There is need to give students the right orientation, inspiration, and training so that they can learn the skills they need to get the most out of online teaching and learning. In order to support their learning, they should be exposed to contemporary information technology applications.
3. Governments, educational authorities, and all decision makers should make sure that the development of skills such as ICT, communication, and presentation skills is a major component of the school curriculum in order to improve students' academic achievement and ensure their success in their chosen careers.

REFERENCES

- Cherry, K. (2020). What is motivation? <https://www.verywellmind.com/>
- Elger, D. (2007). Theory of performance. In S. W. Beyerlein, C. Holmes, & D. K. Apple (Eds.), Faculty guidebook: A comprehensive tool for improving faculty performance (4th ed.). Lisle, IL: Pacific Crest.
- Hoffmann, M. (2015). An exploratory study: Mobile device use for academics. Ed. D. Pepperdine University. Retrieved from EBSCO
- Hwang, G. J. (2014). Definition, framework and research issues of smart learning environments – a context-aware ubiquitous learning perspective. *Smart Learn. Environ.* 1(1), 1-14 (<https://doi.org/10.1186/s40561-014-0004-5>)
- Ifeanyi, I. P., and Chukwuere, J. E. (2018). The impact of using smartphones on the academic performance of undergraduate students. *Knowledge management and e-Learning* 10(3), 290–300

- Innara, L., Elena, S., Olga, L., Tatiana, L., and Nataliya, S. (2019). Smart technologies: perspectives of usage in higher education. *International journal of educational management* 12(1), 21-40 <https://doi.org/10.1108/IJEM-08-2018-0257>
- Iqbal, S., and Bhatti, Z. A. (2015). An investigation of university student readiness towards m-learning using technology acceptance model. *International review of research in open and distributed learning*, 16 (4). <https://files.eric.ed.gov/fulltext/EJ1082185.pdf>
- Komolafe, M. J., and Olorunfemi-Olabisi, F. A. (2011). The input of family type on secondary school students academic performance in Ondo state, Nigeria. *European journal of educational studies*, 3, 481-487.
- Narad, A., and Abdullah, B. (2016). Academic performance of senior secondary school students: Influence of parental encouragement and school environment. *Rupkatha journal on interdisciplinary studies in humanities* 8(2), 12-14
DOI: 10.21659/rupkatha.v8n2.02 P13-19
- Pezzulo, G., van der Meer, M. A., Lansink, C. S., and Pennartz, C. M. (2014). Internally generated sequences in learning and executing goal-directed behavior. *Trends in cognitive sciences* 18(12), 647-657.
- Privat, G. A. (2020). System- architecture viewpoint on smart networked devices. *Microelectronic engineering* 54(1-2), 193-197 DOI:10.1016/S0167-9317(00)80070-2
- Saunders, M., Lewis, P. A., and Thornhill, B. (2007). Research methods for business students. 4th edition, financial times prentice hall, Edinburgh gate, Harlow.
- Shipalana, M. L. (2020). Diffusion of innovation initiatives in the public health sector: Towards enhancement of health care services. *International journal of initiative science and research technology* 15(5). 1574-1579