Chapter One

Introduction

1.1 Background to the Study

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 learning management system which has immense 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.

Students are the most valuable asset of every educational institution, without students universities and colleges are nothing. Academic performance of students is intimately related to a country's economic and social growth. Perceived academic performance of students is a key feature in education. It is considered to be the center around which the whole education system revolves, different researchers have viewed perceived academic performance from various angles. Perceived academic performance is a single-item measure asked students how they would rate their overall academic performance; 'failing', 'below average', 'average', or 'above average'. Perceived academic performance is the assessment of a student's ability in a variety of academic areas. Academic attainment is critical for young people's effective social development. Students who do well in school have a better chance of adjusting to adulthood and achieving professional and financial success. Academic achievement, often known as 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 secondary school diplomas and bachelor's certificates. Perceived academic performance or achievement of students determines whether an academic institution succeeds or fail [1]. Student academic achievement has a direct influence on a country's socioeconomic growth [2]. Parents, guardians, lecturers, relatives, counsellors, and other participants in the Nigerian educational system are all interested about student's successes and academic standards.[3]

Furthermore, Psychological, economic, social, personal, and environmental factors, stress, traits anxiety, states anxiety all have an impact on students' performance. Most prior research on academic performance has focused on variables such as lecturers' education, classroom atmosphere, and teaching style, rather than the impact of online learning on undergraduate students' perceived academic performance.

Furthermore, the worldwide pandemic situation caused by coronavirus disease 2019 (COVID-19) has resulted in population confinement, which has resulted in an increase in stress. Faced with this situation, majority of universities in Europe with some universities and colleges in developed countries like Nigeria had to adapt not only to the changes brought about by the pandemic's causes, but also to a new methodological model—online learning teaching—for which not all teachers and students were prepared. This could lead to an increase in stress as a result of the uncertainty caused by this period of transition.

However, parents with a higher degree of education are more concerned about their children's academic success [4]. They discovered a favorable correlation between parents' educational levels and their children's academic achievement. It has been noted in the literature and generally

accepted that parents who are involved with their children's education tend to have children who do better in school. Parents who take an active part in their children education usually have children who are self-confident, socially adjusted, and tend to excel academically.

The teachers and lecturers are critical to a student's academic achievement As a result, students and lecturers share the responsibility for student achievement, and the first step in embracing this responsibility is for both sides to have a greater understanding of the processes that drive student achievement. The lecturers' experience and academic qualification plays a crucial role in the perceived academic performance of an undergraduates students.

In formal classroom settings, they've been regularly employed to assess students' performance. It aids in the establishment of the authenticity of the degree or diploma given by any institution of higher education. When using CA and Examinations to determine a student's level of knowledge, the examiner must take into account the reliability and validity of the test instruments utilized. Cumulative grade point average is determine by the students' performance in the continuous assessment and examination. The CGPA is used to measure a student's present status overall (including all degree-related courses) and, if relevant, in a minor. Graduation rate this is usually determined by the level of student's performance, faculty members and other relevant stakeholders. It also refers to a student's capacity to finish a degree or certificate program in a set amount of time. A high graduation rate usually reflects students' work and effort, teachers' dedication to education, and a variety of support services.

The researcher is considering performer theory of Don Elger to underpin perceived academic performance. This theory of academic performance was established in 2007 by Don Elger, University of Idaho**.** The Theory of Performance (ToP) develops and relates six foundational

concepts (italicized) to form a framework that can be used to explain performance as well as performance improvements. To perform is to produce valued results. A performer can be an individual or a group of people engaging in a collaborative effort. Developing performance is a journey, and level of performance describes location in the journey. Current level of performance depends holistically on 6 components: context, level of knowledge, levels of skills, level of identity, personal factors, and fixed factors. Three axioms are proposed for effective performance improvements. These involve a performer's mindset, immersion in an enriching environment, and engagement in reflective practice. To perform is to carry out a sophisticated set of activities that combines skills and knowledge to achieve a worthwhile outcome[5]. From this theory of performer the researcher is considering level of skills, level of knowledge and personal factors as indicator to measure perceived academic performance of an undergraduate students in Lead City University, Ibadan Oyo State and Mountain Top University, Ibafo, Ogun State. Level of skills denote how Individuals, groups, and organizations utilize skills to explain particular behaviors that they accomplish in a variety of situations and it helps in making assumptions, persisting, being humble, setting goals, observing. An action is applicable in a wide number of performance scenarios. Levels of knowledge depict facts, information, concepts, theories, or principles gained by a person or organization via experience or education and it can be transmitted or acknowledged as a result of human encounters, these are the six levels of knowledge, remembering, understanding, applying, analyzing, evaluating and creating. While personal factors are component that comprises factors related to an individual's personal circumstances, students' performance are impacted by the quality of his or her home**.** These factors has greatly influenced undergraduate students' perceived academic performance. in Lead City University, Ibadan, Oyo State and Mountain Top University, Ibafo, Ogun State. Students who are eager to

learn should persevere when confronted with challenges in the classroom. Perseverance is essential because learning does not always result in immediate gratification.

However, it has been discovered that the origin and the adoption of information communication technology started from developed countries like America, France, China, United kingdom and other developed countries as a result the smart mobile gadgets and it metrics are not their problem bur it has greatly contributed immensely to teaching and learning which aid their academic performance. Many researchers have sought to construct adaptive learning systems on the web in recent decades, due to the prominence of the World Wide Web. In industrialized countries, such web-based adaptive learning systems are known as adaptive instructional hypermedia or adaptive hypermedia learning systems[6]. While most of the Africa countries are still lacking behind in the adoption of smart mobile gadgets in online learning. In Tazania most of the tertiary institutions are still crawling in the adoption of smart mobile devices, they lack competent and skill expert in the area of ICT and this has crippled the transition of teaching and learning from traditional system to modern learning smart learning gadgets and technology.

With the advent of modern technologies and information explosion coupled with the advent of new pedagogies in the digital era, the use of technologies to facilitate learning and engage learners has become a universal phenomenon and this has greatly ameliorated the learning and educational system tremendously. This has a significant impact on undergraduate students' academic performance in developed and developing countries from a variety of perspectives, including grading, academic publication and research policy, the quantity and quality of courses offered by the university, educational system and funding, and so on.

The first independent variable is motivation to use smart mobile gadgets, many academics in the domains of computer science and education have worked to make learning systems smart. Researchers have been developing intelligent tutoring systems (ITSs) that use artificial intelligence approaches in educational technologies ever since early 1980s. However, smart mobile gadgets refers to the use of current technologies and gadgets to make learning more engaging and productive, examples of such learning gadgets include an auto-tracking camera that detects and tracks movement, smart phone, laptop, tablets, Ipads, internet connectivity and so on. These are just a few of the ways that this disruptive wave of technology has taken the globe by storm and is poised to revolutionize education. Smart mobile gadgets is an active devices that are sensitive, manageable, adaptive, reactive, and timely to educators' pedagogical tactics and students' educational and social needs, providing a more adaptable and customized approach to satisfy various individual's needs[7]. Learners and students must be actively provided with the appropriate learning assistance, supportive tools, or learning ideas in the right location, at the right time, and in the correct form in smart learning environments. refers to the use of current technologies and gadgets to make learning more engaging and productive, examples of such learning gadgets include an auto-tracking camera that detects and tracks movement, smart phone, laptop, tablets, Ipads, internet connectivity and so on. These are just a few of the ways that this disruptive wave of technology has taken the globe by storm and is poised to revolutionize education. They are distinguished from feature phones by their stronger hardware capabilities and extensive mobile operating systems, which facilitate wider software, internet (including web browsing over mobile broadband), and multimedia functionality (including music, video, cameras, and gaming), alongside core phone functions such as voice calls and text messaging

Conversely, the rate of adoption of Information Communication Technology in which smart mobile devices is part of, is very high in most facet of Nigeria learning system.

However, smart mobile gadgets involves Internet of thing, Smart connected devices, smart devices. Internet of Thing devices are software-defined devices that combine a product, a program, analytics, and the Internet/networking into a single package. They add greater value to the world than smart or linked devices do. This is due to the fact that they are more accessible, upgradeable, automated, and future-proof. Smart cities, smart factories, and smart homes are just a few examples. Smart connected devices are Bluetooth, LTE, Wi-Fi, wired, and other forms of connectivity are used to control or monitor smart connected devices remotely. A smart lamp, smart security camera, smart refrigerator, or smartphone are all examples.

Smart devices are smart gadgets that can be programmed using an intuitive user interface and have some automation. There is no requirement for network connectivity, which in turn aided online learning amid Covid-19 pandemic in which Lead City University, Ibadan and Mountain Top University, Ibafo, Ogun State, were part and still part of the usage of ICT to enhance academic performance of the undergraduate students. Several theories and models have been used to underpin studies, particularly in the areas of acceptance, perception, and use of electronic systems; however, the Technology Acceptance Model stands out. Technology Acceptance Model (TAM) has been widely used[8]. The Technology Acceptance Model 1 (TAM 1) was chosen based on this background and the model constructs that will help guide the study and it was established on the premises of the usage of technologies that is perceived usefulness and perceived ease of use that enhances academic performance.

However, the researcher is using Perceived usefulness, Perceived ease of use as the main metrics to measure motivation to use smart mobile gadgets in this study.

Perceived usefulness, the use of smart mobile gadgets encourages learning activities; it helps students to conduct research at their own pace, they are able to retrieve relevant and up to date information for their assignments, projects and their academic work materials without necessarily visiting the library physically. Also, it enables students to read ahead of time before class to have a fair idea of lessons yet to be taught which enhance their perceived academic performance, it also helps to measure the usage of smart mobile gadgets One of the benefit of the use of smart mobile gadgets is the ability to allow users to study anywhere and at any time, making learning more attractive and this has been seen in the performance of undergraduate students in Lead City University, Ibadan, oyo state and Mountain Top University, Ibafo,Ogun State. Smart mobile gadgets greatly enhance interaction between lecturers and students, thereby, paving way for lecturers and students to learn whiles on the move as compared to the traditional face-to-face mode of teaching and learning.

However, perceived ease of use "Perceived ease of use (perceived sophistication) has been discovered to be an important determinant of technology usage, both directly and indirectly, and technology users have been shown to try to minimize their cognitive effort on their behaviors."[9]. Perceived ease of use (perceived complexity) has been discovered to be an important determinant of technology usage, both directly and indirectly, and technology users have been shown to try to minimize their cognitive effort on their behaviors. Students develop the desire to use smartphones in their learning activities if they are perceived to be simple to use. They sometimes find it difficult to access academic material on their smart mobile devices butt the study shows that most of thes do not encountered much difficulty in using smart mobile gadgets.

Most of the undergraduate students of Lead City University, Ibadan, Oyo State and Mountain Top University, Ibafo, Ogun State have fully embraced the application, availability and

adoption of smart mobile gadgets in their learning system, they make use of laptop, tablets, smart phone, internet and other smart mobile devices to improve their perceived academic performance.

However the outbreak of covid-19 pandemic in the late 2019 has necessitated the closure of universities and colleges globally and suspended classroom teaching due to the novel coronavirus pandemic and switched to online teaching and this necessitated the need for the researcher to focused the study on Use of Smart Mobile Gadgets, Online Learning Environment and Perceived Academic performance of Undergraduate students of Lead City University, Ibadan, Oyo State and Mountain Top University, Ibafo, Kilometer 12, Lagos – Ibadan Expressway, in Ogun State. Hitherto, in recent years, the use of smart mobile gadgets in universities for teaching and learning has expanded considerably. Many colleges throughout the world are quickly adopting smart mobile gadgets into their school programs in order to improve teaching and learning. These gadgets are common ways in the system of higher education in many European nations (the United Kingdom, Germany, Italy, Hungary, and the Czech Republic). The rate at which universities in Nigeria are adopting these gadgets, as well as their availability and level of use for teaching and learning, is unclear.

However. for Nigerian universities to succeed in the same way that universities in developed countries do, the proprietors of the private Universities and government need to provide smart mobile gadgets in universities in attempt to optimize and upgrade the educational system, accomplish the National Educational philosophy, and prepare a staff to meet the needs of the 21st century which will in turn enhance academic performance of students.

The second independent variable in this research work is characteristics of learning management system (LMS), the concept of a learning management system arose directly from e-Learning, the

first learning management systems (LMSs) appeared in the higher education sector was first introduced in the late 1990s[10]. In the online learning environment, LMS is also one of the useful solutions for both students and instructors. LMSs are tools for student communication and interaction with lecturers.

The LMS will assist lecturers in providing learning materials as well as interactive features such as thread discussions, shared files, and forums .The Learning Management System (LMS) has been implemented in a number of universities around the world to better connect students and lecturers outside of the traditional classroom. It is a digital software-enabled environment designed to handle user important issue in education and also deliver educational learning content to students. It is refer to as an internet system that allows teaching–learning activities to be carried out utilizing software systems and processes. The initial plan was for the learning management system (LMS) to be voluntarily adopted first by the identified 'early adopters, who would then be able to provide assistance for their colleagues, and that student demand could provide primary incentive for the remainder of the academic population. It was feared that mandating the use of WebCT early on would alienate and disenfranchise many employees, but that over time, these employees would become more comfortable with the thought and voluntarily decide to integrate online teaching into their education system. This environment's benefits include being student-centered, self-directed, interactive, adaptable, and self-paced, all of which are thought to lead to long-term and successful learning[11]. This new learning environment is built on information and communication technology (ICT), and it employs a variety of asynchronous and synchronous devices[12].

Also, learning management system allows students to access electronic resources and interact with learning systems from any location and at any time, but it also actively delivers students

with the necessary learning guidance, hints, supportive tools, or learning suggestions in the right place, at the right time, and in the right form. Essentially, an online learning system can be seen of as a technology-enhanced learning system capable of assisting individuals to learn in the real world while also having access to digital world resources. For online learning environment system to thrive and to take pace anywhere, anytime, any location the following tools and platform must exist internet connectivity wired or wireless, computer, laptop, tablets, smart phone, and the platform may be through Google classroom, telegram, what Sapp, e-mail, Gmail, facebook,, Lecture Management System (LMS) and so on.

Conversely, Learning management is defined as the delivery of training and education via networked interactivity and distribution technologies. Any of the terms (online learning, free learning, machine-mediated web-based learning, mixed learning, m-learning, and forex) encompass the ability to study from anywhere, at any time, in any rhythm, and with any method[11]. The concentration of innovation learning has evolved from web-based to mobile learning, and from mobile to context-aware ubiquitous learning[13]. From the aspect of context-aware ubiquitous learning, contexts include the interactions between students and surroundings; and as such, smart learning environments can be viewed as the technology-supported learning environments that make adaptations and provide adequate support (e.g., guidance, feedback, hints or tools) in the right places and at the right time based on individual learners' needs, which might be determined via analyzing their learning behaviors, performance and the online and real world contexts[14]. Through online classroom environments, Learning Management Systems (LMS) strengthen the learning process. A basic LMS fosters an inclusive learning environment for educational pursuits by interposing structures that encourage online collaborative-groupings, specialized training, discussion and debate, as well as communication among other LMS users.

The presence of an Instructor within an LMS creates an interactive learning environment. With the use of an LMS, students can maintain their independence, enthusiasm, and motivation. Involved parties in the educational community must look for scientific studies to back up their contributions in LMS platforms to help scholars learn mathematics and other academic subjects[15]. The theory of Diffusion of innovation is considered appropriate for this study, the theory of Diffusion of Innovations attempts to explain how, why, and at what rate new ideas and technology spread across cultures. He defined diffusion as the degree to which an innovation is conveyed to members of the social system over time through specific channels. The adopter's perception of the innovation influences both the decision to accept and the rate of adoption of the innovation[16] . Based on structural equation modeling, it is demonstrated that the characteristics of Learning Management system (LMS) embedded in Innovation Diffusion Theory and Personal Innovativeness in Information Technology which positively influence the use of learning management system (LMS) tool[17]. Rogers' Diffusion of Innovation Theory attempts to explain how new ideas or innovations are adopted, and it proposes that there are five characteristics of an innovation that influence adoption: relative advantage, compatibility, complexity, rialability, and observability are all factors to consider[18].

The early adopters of learning management system (LMS) in Lead City University, Ibadan and Mountain Top University, Ibafo,Ogun State were the lecturers, instructors and students and this was practically demonstrated during the Covid-19 lockdown as online learning management system was utilized for teaching and learning which in turn influenced the perceived academic performance of students.

The researcher is identifying relative advantage, compatibility, observability as an indicators to measure the characteristics of learning management system{LMS), it becomes more than just a

platform for delivering learning materials; it must also be properly utilized. The quality of a product is largely determined by how users interact with that as well, and how frequently (and if) they return for even more. Relative advantages include face-to-face learning that is supported, as well as blended learning solutions that facilitate and improve on traditional pedagogical skills. LMS can also save institutions of learning time and money by allowing for the simple management of large amounts of information in a user-friendly, web-based environment. Compatibility this is the degree to which an innovation was designed to meet the information needs of users given, the techniques match prospective adopters' needs and values with the technology to facilitate its adoption .Leaning management system reports provide a more comprehensive picture of their strengths, weaknesses, as well as performance issues which may be impeding their on-the-job proficiency. Online learning simulation results, assessment data, and course completion times, all make a contribution to the big picture. While Observability in this study is the degree to which the results of Learning management system are visible to users. The outcomes of an innovative idea are less likely to be observed, innovative products like learning management systems were adopted than innovative ideas. Another indicator of characteristics of learning management system is complexity, this is the degree to which an innovation is perceived to be difficult to understand and to use

However studies have shown that students in developed and developing are using online learning to progress themselves in their academic coursework and professional training. Digital learning has now emerged as a critical resource for students and institutions all around the world. For many educational institutions, this is a whole new form of teaching that they have had to adapt to. Online learning is being used not only to study academics, but also to learn extracurricular activities for students. In fact, distant education currently plays an important role in providing

education to millions of people in developing countries. Open distance education universities alone enroll more than 7 million students in Bangladesh, India, Iran, Pakistan, South Africa, and Turkey. Many of these mass providers are gradually turning digital, and newer forms of e-learning, such as massive open online courses (MOOCs), are also on the rise[19]. In Nigeria majority of educated people uses online services and most universities have embraced teaching and learning online. Lead City University, Ibadan, Oyo State and Mountain Top University, Ibafo, Ogun State undergraduate students have fully adjusted themselves with the use of smart mobile gadgets and learning management system platforms and this has aided them in their academic performance and progress in their various field of studies.

However, the researcher have perceived some challenges which are likely to be faced by the undergraduate students of Lead City University, Ibadan, Oyo State and Mountain Top University, Ibafo, Ogun State in the metric to measure online learning management system among such obstacles is erratic power supply, it is evidently cleared that most of the towns and cities do not have regular supply of electricity as this is likely to pose a serious challenge to the utilization of online learning gadgets to achieve greater academic performance.

Another significant problem with online classes is access to the internet. While internet coverage has increased by leaps and bounds in recent years, a constant connection with adequate speed remains a challenge in smaller cities and villages. There may be a lack of consistency in learning for the students if students or lecturers do not have a regular connection to the internet. This is harmful to the educational process. The researcher also perceived the problem of sense isolation, being in the companionship of their colleagues can teach students a lot. However, there are little physical encounters between students and teachers in an online class. This frequently leads to a sense of isolation among the students. In this case, it is critical that the school allow for

other ways of communication between students, classmates, and lecturers. This includes online messaging, emails, and video conferencing, which allow for face-to-face engagement and reduces feelings of isolation. The adoption of Information Communication and Technology in learning necessitated the researcher into the impact the motivation to use of smart mobile gadgets, characteristics of learning management and perceived academic performance of undergraduate students of Lead City University, Ibadan, Oyo State and Mountain Top University, Ibafo, Ogun State amid Covid-19 pandemic.

1.2 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, stream, 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. Instead of focusing on their classroom work, they prioritized the use of smart mobile gadgets in their classes, dormitories, and even on the football field. 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 smart mobile gadget and effective use of learning management systems as a learning tool 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 great 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 technologies and o learning management system, smart devices such as e-library, smart phone, ipads, tablets, digital camera, laptops, emails, internet services, smart boards, tablets, digital classroom, smart board, smart tables, LMS tools among others to improve their academic performance.

1.3 Aim and Objectives of the Study

The main aim and objectives of the study is to investigate the influence of motivation to use smart mobile gadgets and characteristics of learning management system on perceived academic performance of undergraduate students in Lead City University, Ibadan, Oyo State and Mountain Top University, Ibafo, Ogun State amid Covid-19.

The specific objectives were to:

i examine the perceived academic performance of undergraduate students in the two selected

private universities;

ii determine the motivation to use smart mobile gadget (perceived ease of use and perceived usefulness) among undergraduate students in the two selected private universities;

iii identify the characteristics of learning management system (relative advantage, compatibility and observability) on perceived academic performance;

iv examine the influence of motivation to use smart mobile gadgets on perceived academic performance;

v determine the influence of characteristics of learning management on perceived academic performance of undergraduate students in the two selected private universities; and

vi ascertain combined influence of motivation to use smart mobile gadgets, perceived characteristics of learning management system on perceived academic performance of undergraduate students in the two selected private universities

1.4 Research Questions

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

3. What are characteristics of learning management system as perceived by the undergraduate students in the two selected private universities?

1.5 Hypotheses

The following null hypothesis will be listed 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

Ho2 There is no significant influence of characteristics of learning management system on perceived academic performance of undergraduate students in the two selected private universities

Ho3: There is no combined significant influence of motivation to use smart mobile gadgets and characteristics of learning management system on perceived academic performance of undergraduate students in the two selected private universities.

1.6 Significance of the Study

Although a significant number of studies have been carried out on smart technology and online learning as well as on academic performance but very few is known to have ever focused on the motivation to use smart mobile gadgets, characteristics of learning management system and

perceived academic performance of undergraduate students. Therefore, the study is very unique as it tries to assess the importance of motivation to use smart mobile gadgets and characteristics of learning management system on perceived academic performance of undergraduate students amid Covid-19 era which is characterized by new norms. This study will enable the librarians and the technical staff in the library to update and upgrade their Information, Communication and Technology skills that will make them relevant in meeting the information needs of students in this era of information age. It will also enable libraries to provide quality information service delivery to students by subscribing to online information resources like ProQuest, Jstore, AGORA and virtual facilities that will make the students to the university learning management system platform which will help in meeting the need, aspiration and expectation of students which will enhance their perceived academic performance.

The researcher have also found out that this study will be of immense benefit to students in several ways, through the use of smart mobile gadgets and learning management system, students can at anywhere, anytime study online effectively without physically present at the venue or classroom and access online information resources ,as well as their course programs through learning management system platform, the barrier of location and challenges of road transport to the library or lecture venue is overcome. Technology offers imaginative and resilient solutions to handle uncertainty in moments of crisis and helps students to interact and even work globally without the need for face-to-face communication.

Also, motivation to use of smart mobile gadgets and characteristics of learning management system approaches will save students and lecturers from tough times. In terms of time and place, it is student-centered and provides a lot of versatility. The online learning helps students to tailor their procedures and processes based on learners' needs. Another crucial significant of

motivation to use of smart mobile gadgets and characteristics of learning management system to educational body, is that it will make the policy makers like ministry of education, National University Commission and so on to formulate policies that will make it mandatory for all levels of education in Nigeria to enforce the use of information technology gadgets as part of their learning facilities which will in turn improved the academic performance of student and also Information Communication and Technology should also be part of the curriculum in the schools

1.7 Scope of the Study

The study focuses on motivation to use smart mobile gadgets and characteristics of learning management system on perceived academic performance of undergraduate students in the two selected private universities in the South West of Nigeria. The two universities were among universities where learning took place amid Covid-19, in the two universities, lecturers, parents and students embraced and cooperated with the online classes.

The study is limited to the undergraduate students of Lead City University, Ibadan, Oyo State and Mountain Top University, Ibafo, Ogun State. The aim is to examine the effect of Covid-19 on motivation to use o smart mobile gadgets and characteristics of learning management system on perceived academic performance of undergraduates from the two selected private universities in South West, Nigeria.

1.8 Limitation of the Study

The following are the limitations of the study:

i. The study was limited to the undergraduate students in the selected departments only in the institutions studied that is, Lead City University, Ibadan, Oyo State and Mountain Top University, Ibafo, Ogun State, Therefore, the results gotten from the study cannot be fully generalized to cover all the students in the institutions under study.

ii. The study was also limited to Computer science, Microbiology, Accounting and Masscommunication students under the degree programme only without the inclusion of those in post graduate programmes. Therefore, the result from this study should also be considered in this context and not to be generalized to post graduate programme students.

iii The outbreak of coronal pandemic during the study restricted some decision which researcher would have taken earlier

1.9 Operational Definition of Terms

Perceived academic performance: Refers to the assessment of a student's accomplishment in a variety of academic topics. Classroom performance, graduation rates, and standardized test scores are commonly used by lecturers and education administrators to assess accomplishment.

Levels of Skills: a person's knowledge of a particular subject.

Levels of Knowledge: the nature and depth of knowledge, skill, and ability in a particular subject.

Personal Factors, This is the background of an individual's life and living, such as home, emotional condition, needs, interests, motivation attention.

Smart Mobile Gadgets: is an active technology that is sensitive, manageable, adaptive, reactive, and timely to educators' pedagogical tactics and students' educational and social needs.

Perceived Usefulness: the extent to which a person believes that using a specific system will improve their job performance

Perceived Ease of Use: the degree to which a person believes that using a specific system will be easy.

Learning Management System: A Learning Management System (LMS) is a software application that is used to administer, document, track, report, automate, and deliver classroom instruction, training courses, or learning and development programs.

Relative Advantage: The extent to which an innovation is regarded as superior to the idea, program, or product it replaces.

Compatibility: How well the innovation aligns with the potential adopters' values, experiences, and needs.

Observability degree with which the innovation or its findings can be seen by others who are likely to adopt it.

Complexity: The degree to which an innovation is perceived as complicated to understand or apply is referred to as its complexity. People are less likely to adopt difficult-to-use or complicated products.

Endnotes

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Chapter Two

Literature Review

This chapter presents a review of related literature to provide a conceptual and theoretical background for the study. The review is done to highlight the current situation in the area of research and identify gaps in previous studies with the aim of showing the justification of conducting the present study. The review is presented under the following sub-headings:

2.1 **Conceptual Studies**

2.1.1 Concept of Perceived Academic Performance

2.1.2 Motivation to Use Smart Mobile Gadgets

2.1.3 Overview of Characteristics of Learning Management System

2.2 **Theoretical Review and Framework**

2.2.1 Theory of Performance

2.2.2 Technological Acceptance Model (TAM)

2.2.3 Diffusion of Innovation Theory

2.3 **Review of Empirical Studies**

2.1 Conceptual Studies

2.1.1 Concept of Perceived Academic Performance

Over the years, some educators have argued that entry standards are the most important determinants of success in universities; others maintain that non-academic factors must also be considered. This implies that there is considerable evidence that the views and expectations about success held by lecturers and students are not always consistent. The schools were established with the aim of impacting knowledge and worldwide institutions have come to be recognized as centers of knowledge accumulation and knowledge transfer with students being

the most essential asset for any educational institute[1]. Stakeholders in Nigerian educational system ranging from; parents, guardians, lecturers, family members, counsellors, and many others, are so much concerned about students' achievements and academic standard. Reason for this is probably because success in education is highly instrumental to the development of a nation[2]. However, as students' progress from admission to graduation, a complex interaction of some factors such as personal, social, academic and institutional factors tend to influence the quality of their educational experiences. The issue of poor academic performance of students in Nigeria has therefore become a source of concern to most parties involved in the delivery of quality education within the country. This unhealthy situation has led to the widely acclaimed fallen standard of education in Nigeria.

However, perceived academic performance has been discovered to reflect their actual academic performance, with students who score higher in self-perceived academic competence achieving higher grades[3]. Only students who perceived themselves to be failing academically, and not those who had actually received a fail had positive associations with stress, meaning that there was a positive association found between negatively perceived academic performances and stress this indicates that perception and appraisal are more significant antecedents of stress than the actual negative event itself[4]. Perceived academic performance refers to the level of knowledge, skills, and competencies that students have acquired in the academic field.

Studies in the past have identified study habit, student's self-concept, teacher's qualification, teaching method, school environment and government as factors influencing students' academic performance and the primary environment of the students is the home and it stands to exert tremendous impact on students' achievements. Some research also reveals that there exist a relationship between academic achievement and some demographic characteristics. There exists

a positive relationship between age and academic performance[5]. The age does not significantly contribute to academic performance of university students in distance learning. There is also gender differences in the academic performance of male and female students[6]. Identified a link between family income and high school students' academic success[7]. While the researcher asserted that perceived academic performance of students is linked to their home location and household income. Perceived academic performance refers to the information obtained as measured by a teacher's marks and/or educational goals set by students and instructors to be met during a certain time period[8]. Academic accomplishment, often known as perceived 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 benchmarks such as secondary school diplomas and bachelor's degrees. Perceived academic performance also indicates and evaluates the amount to which an educational institution, teachers, and students have achieved their educational goals. Perceived academic performance is defined as a student's measured and observable behavior over a period of time[9]. He went on to say that it is made up of a student's results in assessments such as class exercises, class tests, mid-semester mock exams, and end-of-semester exam[9], Student's perceived academic performance is determined by their performance in exams, examinations, and course work[10].

This study therefore aimed at investigating the effect of use of smart mobile gadgets, online learning environment and academic performance of undergraduate students in Lead City University, Ibadan, Oyo State and Mountain Top university, Ibafo, Ogun State amid Covid-19 with a view to understand some of the factors for success which may lead to innovative ways of providing a more successful academic atmosphere in the universities.

2.1.2 **Motivation to Use Smart Mobile Gadget**

The start of the 21st century brought a technological revolution that we are still riding today.

Transitioning from the fourth industrial revolution to the fifth, we have grown so acclimated to the quick speed of invention that we continue to demand ever more effective and more efficient technology solution.

Following the disruption brought about by the internet and touchscreen smartphones, artificial intelligence and smart mobile gadgets are now poised to lead the next phase of global innovation. Teachers should also make any required modifications to accommodate the changes so that students in the twenty-first century are prepared for this rapidly changing environment. Smart gadgets and social networking platforms are rapidly being used in schools around the country.

The word “SMART” refers to technology for self-monitoring, analysis, and reporting.

Smart mobile gadgets is a technology that uses artificial intelligence, machine learning, and big data analysis to give consciousness to objects that were previously thought to be immovable [11]. The below were given as the benefits of smart mobile.

Convenience: It is a technology that uses machine learning and big data analysis to give awareness to objects that were originally believed to be inanimate.

Ensures sustainability: With the urgent need to 'go green' and save the planet while avoiding high energy costs, the industrial and domestic sectors are working hard to implement smart technology. Given that we frequently do not optimize our energy use and instead waste it by

neglecting to turn off domestic appliances, smart technology could indeed play a critical role in assisting in energy conservation.

Security: Traditional, manually operated security systems are less reliable than smart technology. Door sensors, alarm systems, security cameras, and video buzzers are examples of smart security devices that can alert building owners to potential threats to their property. Aside from alerting the owners, law enforcement agencies are also notified, and protective measures such as blocking help to select or locking rooms are implemented.

Efficiency: Data is used by smart technology to understand how improvements can be made. It monitors and analyzes what is going on in order to provide better results in the future. This means that processes and systems will become more efficient, and you will become more productive. Smart mobile gadgets focuses on automating repetitive work, reducing lost or wasted time

Saves money and times: Smart technology automates repetitive work and eradicates lost or wasted time[11]. A 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 and tablets[12]. Smart mobile devices are used for a variety of purposes throughout the day, including communication, productivity, learning, entertainment, utilities, social networking, and gaming[13]. Other research has found that interactive lessons delivered via tablets and smartphones improve student learning and engagement[14-15]. Other studies found that spending a reasonable amount of time studying with smart devices had a negative impact on students' Grade Point Averages (GPAs) [16]. Mobile technologies have enormous potential to enable more innovative educational methods. Concurrently, these patterns in educational methods are likely to aid not only subject content learning, but also the development of

communication, problem-solving, creativity, and other high-level skills among students[17]. A smart mobile device is ready to improve students' academic performance in schools. Students are expected to take helps to structure in school by focusing on their studies and avoiding contact with the outside world[18]. Smart mobile gadgets, on the other hand, assist students in their roles by removing distractions and disruptions to the students' academic work. Previously, fixed telephones were the norm in schools, with few interruptions and interruptions, but with the invasion of smart mobile gadgets and the willingness of parents and guardians to maintain contact with their children, this is no longer the case.

Smart mobile gadget is 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[19]. 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[20]. Smart mobile gadget in the academic setting includes smart learning environments, smart classrooms, and connected devices. Intelligent tutoring systems (ITSs), adaptive learning systems, technology-enhanced learning, web-based learning, mobile learning, and context-aware ubiquitous learning using sensing technologies are all examples of smart learning environment[21]. 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

To function, smart mobile gadget requires a connection to other devices, which is typically accomplished via the Internet. Smart devices may also include applications that allow users to control their devices more effectively and easily, and they may be linked to an external

provider[22]. E-books, smart phones, ipads, phablets, digital cameras, laptops, emails, internet services, smart boards, tablets, digital classrooms, smart boards, and smart tables are some examples of smart devices. These devices can be used separately or in conjunction to improve or make learning more interesting[23]. Some of these devices should be available in Nigerian universities to increase and improve perceived academic performance of undergraduate students, but the researcher is unsure of which ones are available and how they are used for teaching and learning, despite the significant benefits of doing so. Students can access electronic resources and interact with learning systems from any location and at any time in such environments. They also actively do provide relevant learning guidance, hints, supportive tools, or learning recommendations in the appropriate place, at the appropriate time, and in the appropriate form[24].

It is proposed that 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[20]. Held that the capabilities of lecturers, scientific officers, and students in the smart education system change the outcome of the formation of a new learning environment that blurs the lines between scientific research and educational activities[20]. As a result, it is possible that when students are exposed to the use of smart technology, they will put forth more effort in their studies. Smart mobile gadgets in online learning is not simply about technology – it's about what technology can do for students and teachers to make learning deeper, more immediate and more powerful. Many forms of technologies are being used to assist students to bring learning into the 21st century. An example of this is the use of blogs, wikis and the use of web apps such as Google Docs. These tools allow students to work together in an online environment and comment on each other's work. Learning is no longer strictly

focused on materials from a textbook. Instead, learning is dynamic and a fun process. It was revealed that there is a high rate of the adoption of mobile learning across the globe and there is evidence in developing nations complementing mobile learning to its convention mode of teaching and learning. In effect, this has enhanced online education

programs been offered by tertiary institutions[25]. Smart mobile gadgets are faster communication among students, as well as between students and faculty, may contribute to more efficient studying and collaboration[26].

2.1.3 Overview of Characteristics of Learning Management System

The Learning Management System, also known as LMS in the higher education community, is an online platform that integrates lecturers and students. It allows for the easy sharing of classroom materials or activities. It is also a portal that allows students and lecturers to interact outside of the classroom, holding discussions in forums that would otherwise take up too much of the time that should be spent teaching and learning. LMS is also recognized in different institutions as Learning Environment or Instructional Management System. Learning management system (LMS) can also ascribe to an application which is used for monitoring, managing learning, and administering a system, and is most commonly found in a learning environment[27] Learning management system have been proposed as physical environments that are enhanced with online, context-aware, and adaptive devices to encourage better and faster learning[28]. In learning management system from any location and at any time, but it also vigorously provides the required learning guidance, hints, and supportive tools[29], explained also that, regardless of whether they are in school or not, such an environment can

always seamlessly provide the most needed tasks or support to learners by taking multiple personal factors (e.g., preferences, learning needs, personal schedule) and environmental factors (e.g., location of the real-world target) into account[29]. This type of situation is normally located within a learning management system (LMS) framework, which includes not only information deposit areas for learner engagement, but also available instructional tools such as assignment submission and evaluation areas, grade interface, bulletin board discussions, chat sessions, small group areas, in-course private mail, and so many online learning environments give extra plug-in social learning resources such as video conferencing. This environment could be synchronous, asynchronous, or a combination of synchronous and asynchronous experiences and engagements[30].

Learning management system helps students to learn and to be more creative in physiology[31]. Students who have learned to use multimedia approaches have more to learn and collect than students who are trained in traditional ways[32.] A review of learning management system applications and their influence on learning and creativity shows that this approach for teaching can contribute to the efficiency of training[33]. The emergence of new teaching and learning theories has translated the education from being a teacher to a student-focused one. Moreover, the growth and development of new communication gadgets allowed contemporary men to utilize modern teaching and learning techniques and to get rid of time and space boundaries.

E-learning is available in six distinct ways. The following are six types: The following

. E-learning in both physical and virtual environments (face-to-face)

ii. E-communications and presence-less e-learning (self-learning)

iii. Remote e-learning and e-communication (asynchronous)

iv. E-learning and virtual and e-communications (synchronous)

v. e-learning (asynchronous mixed/hybrid) with infrequent presence and e-communication

vi. E-communication and presence e-learning (mixed/hybrid)[34].

This study is focusing on characteristics of learning management with virtual presence and with E-communication here instant feedback from students can be achieved and assignments can be taken. The below are the attributes of learning management system:

i. Relative advantage, this is the extent to which a specific user group believes a learning management system is superior than the concept it replaces, as determined by factors important to that user group, such as financial gain, social standing, practicality, or satisfaction. The more quickly an innovation is likely to be adopted, the larger the apparent relative advantage it has.

ii. Compatibility is an idea that is perceived to be incompatible with conventional notions will not be embraced,, unless it is compatible with the existing values and prior experiences of the person who must make the decision to adopt the new idea. Compatibility has a considerable, advantageous impact on a learning system's adoption.

The efficiency of learning management system nonetheless differs between ages. The common agreement among children, in particular youngsters, is that a regulated environment is necessary since children get distracted more readily.

iii. Simplicity and usability, this reflects how challenging users find it to grasp and apply LMS invention. Innovations that are easier to grasp are adopted faster than those that demand the adopter to acquire new knowledge and abilities.

iv.. Trialability, this is the extent to which a new idea can be tested out on a small scale. An innovation that can be tested redces uncertainty for the person who is thinking about it.

v. Observable results, individuals are more inclined to adopt an innovation if they can quickly see its benefits. Visible outcomes reduce ambiguity and encourage peer discussion of a novel concept because friends and neighbors of an adopter frequently inquire about them[35].

2.2 Theoretical Framework

Several theories have been used by different researchers to examine use of smart mobile gadgets, online learning environment and perceived academic performance of undergraduate students of Lead City University, Ibadan, Oyo State and Mountain Top University, Prayer City,Ibafo,Ogun State.

However, the theoretical framework of this study anchors mainly on the Motivation System Theory of Academic Performance, Technology Acceptance Model 1 (TAM1), and Diffusion Theory, as discussed below.

2.2.1 Theory of Performance

This theory of academic performance was established in the University of Idaho, United State of America**.** The Theory of Performance (ToP) develops and relates six foundational concepts (italicized) to form a framework that can be used to explain performance as well as performance improvements. To perform is to produce valued results. A performer can be an individual or a group of people engaging in a collaborative effort. Developing performance is a journey, and level of performance describes location in the journey. Current level of performance depends holistically on 6 components: context, level of knowledge, levels of skills, level of identity, personal factors, and fixed factors. Three axioms are proposed for effective performance improvements. These involve a performer's mindset, immersion in an enriching environment, and engagement in reflective practice. To perform is to carry out a sophisticated set of activities that combines skills and knowledge to achieve a worthwhile outcome[36.] Performance Components.

The overall system performance, such as a home entertainment system, is determined by the system's components and their interactions. Similarly, an individual's or an organization's degree of performance is determined by the components listed in the table below.

Table 2.1

Component	Description	Exemplars	Classification Rules
Level of Identity	As individuals mature in a discipline, they take on the shared identity of the professional community while elevating their own uniqueness. As an organization matures, it develops it mission, its way doing business, and its uniqueness.	A student uses disciplinary slang to describe engineering design activities. A teacher examines his performance through the lens of student learning. A college dean holds herself accountable for her leadership. A research team evolves its identity as a performance organization.	associated with maturation in a discipline or culture associated with maturation in life internalized by person or organization—the individual or organization takes on the shared identity
Levels of Skills	Skills describe specific actions that are used by individuals, groups, or organizations in multiple types of performances.	making assumptions persisting being humble setting goals observing	describe an action action is relevant in a broad range of performance contexts
Level of Knowledge	Knowledge involves facts, information, concepts, theories, or principles acquired by a person or group through experience or education.	Facts/information—names of states, conversion factor between feet and inches Concepts—democracy, chair, force, Principles/theories—relationships between the tilt of the earth and the seasons; law of conservation of energy	derives from human experiences can be communicated or recognized
Context of Performance	This component includes variables associated with the situation that the individual or organization performs in.	The performance of an academic department is coupled with the organizational effectiveness of the host college. Learning of a student is coupled with the organization of a class.	relates to circumstances associated with the performance applies to multiple performance within the context—not a personal factor.
Personal Factors	This component includes variables associated with the personal situation of an individual.	Performance of a teacher is impacted when he or she is ill Performance of a dean is impacted when his or her spouse dies A student's performance is impacted by the quality of his or her home environment	involves life situation of an individual
Fixed Factors	This component includes variables unique to an individual that cannot be altered.	Performance in basketball is impacted by height Genetic factors influence performance	involves an individual immutable; cannot be altered

Source: Elger D. (2007)

The researcher is using this theory to underpin his study on perceived academic performance and level of skills, level of knowledge and personal factors are used to measure perceived academic performance of an undergraduate students in Lead City University Ibadan, Oyo state and Mountain Top University, Ibafo, Ogun State

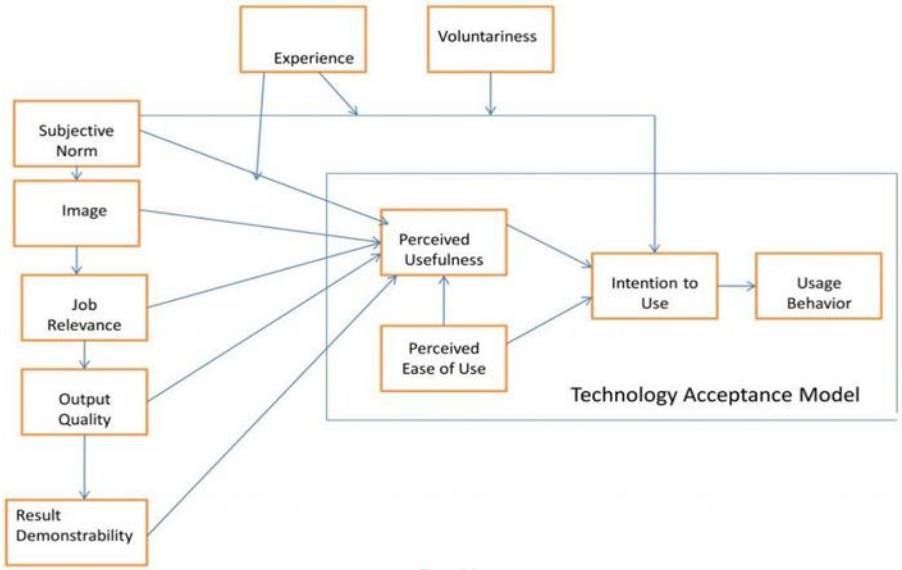
2.2.2 Technology Acceptance Model (TAM) 1

Technology Acceptance Model is one of the most popular research models for predicting individual user use and acceptance of information systems and technology[37]. TAM has been extensively researched and validated by numerous studies that look at the individual Technology acceptance behavior in various information system designs. Technology Acceptance Model proposed two factors to determine whether a computer system or smart mobile gadgets is accepted by its potential users: (1) perceived usefulness and (2) perceived ease of use. The emphasis on the potential user's perceptions is a key feature of this model. That is, even if the creator of a given technological product believes the product is useful and user-friendly, the product will not be accepted by its potential users except if the users share those beliefs.

The model is an extension to the technology acceptance model (TAM). It was developed by Venkatesh and Davis . The model outlined perceived usefulness and usage intentions as it related to the processes of social influence and cognitive instrument. In numerous empirical TAMs studies, Venkatesh and Davis revealed that perceived usefulness is based on usage intentions. Understanding the divers of the perceived usefulness construct is critical because it influences the usage of smart mobile gadgets in online learning settings, user intentions and how these variables impact changes over time as system usage increases. The determinants of perceived usefulness enabled institutions to create organizational interventions that would enhance user adoption and usage of new technologies, despite the fact that the original TAM model was built on the factors of perceived ease of use. As a result, Venkatesh and Davis released a research in 2000 to expand TAM, looking at how the perceived usefulness and usage intention components change over time while using an information system.

Figure 2.2.2 shows a graphic overview of Venkatesh and Davis's proposed model, "Theoretical constructs involving social influence processes (subjective norm, voluntariness, and image) and cognitive instrumental processes (job relevance, output quality, result demonstrability, and perceived ease of use)".

Figure 2.2



Source: Original Technology Acceptance Model (Venkatesh and Davis, 1986).

Perceived usefulness – This was defined by Fred Davis as the degree to which a person believes that using a particular system would enhance his or her job performance, it has been discovered in a study on determinants impacting learners' satisfaction and performance with smartphones at North-West University in South Africa that one of the usefulness of smartphones is the ability to study anywhere and at any time, making learning more appealing[38]. The findings of the study, smartphones enable students to communicate with their classmates as well as their course masters/tutors. Students also use smartphones to explain the Share facts, illustrations, and

concepts with colleagues. Another study also discovered that smartphones aid students' learning activities in a variety of ways, including the downloading of study materials, live lecture recording, accessing lecture slides at a convenient time, assisting with research work, and completing assignments[39]. Among goal directed users, the relationship between perceived usefulness and behavioral intention was strong[40]. This principle has greatly improved the perceived academic performance of undergraduate students of Lead City University, Ibadan and Mountain Top University, Ibafo, have intention of usage of the application of smart mobile gadgets for online learning management system to enhance their academic performance. Majority of the students make use of smart devices like laptop, personal computer, iPad, tablet, smart phone and so on with internet connection coupled with their skills in the usage of information technology and communication gargets.

Perceived ease-of-use is the degree to which a person feels that adopting a specific system will be free of effort[41]. If the technology is simple to use, the hurdles will be overcome. No one has a favorable opinion of anything if it is difficult to use and has a complex interface. It has been discovered to be an important determinant of technology usage, both directly and indirectly, and technology users have been shown to try to minimize their cognitive effort on their behavior[37]. It has revealed that the majority of students agreed that accessing academic material on their smartphones can be difficult at times. As a result, it has an impact on their academic performance[42]. The researcher findings revealed that more than 80% of undergraduate students at Lead City University in Ibadan and Mountain Top University in Ibafo found it simple to utilize modern information communication gadgets for online learning during Covid-19, which has considerably improved their academic performance.

2.2.3 Diffusion of Innovation Theory

Diffusion innovation theory was developed by E.M. Rogers in 1962, is one of the oldest social science theories. It originated in communication to explain how, over time, an idea or product gains momentum and diffuses (or spreads) through a specific population or social system.

The concept of knowledge spread underpins the Diffusion of Innovation Theory (DOI). Diffusion of Information is used in reference to technology adoption in this study, adoption of a technology-based product could also be referred to as acquiring a technology-based appliance such as a mobile phone or subscribing to a technology-based infrastructural service; and that in technology acceptance literature, adoption of a technology-based product could also be referred to as acquiring a technology-based appliance such as a mobile phone or subscribing to a technology-based infrastructural service[43]. The theory's strength is that adopters and non-adopters of an innovation can be studied to determine the factors influencing their adoption behaviour[44]. Some of these influences include: the essence of the innovation, channels of communication, social group characteristics, and so on. The perception of the usefulness of LMS is positively related to their use. students' perception of LMS usefulness influences their use[45]. In addition, an Individual usage of a technology-based product describes a person's real use of the technology for personal or research-related goals, which is the foundation of this study's concept of smart technologies. Rogers discovered that innovations with these five characteristics – high relative advantage, trialability, observability, and compatibility, and low complexity – are more likely to succeed than innovations that do not[46]. He elucidated that : Relative advantage is the degree to which an innovation appears to be superior to any other options available to a potential adopter, as measured by economics, comfort, satisfaction, and social prestige. It is Emerson's "better mousetrap" abstraction, and it has been identified as the most important predictor of an innovation's adoption. The cost and social status motivation

aspects of advancement are relative advantage components. While innovators, early adopters, and the early majority are more motivated by status to adopt innovations, the late majority and laggards see status as less important. Furthermore, Rogers classified innovations into two types: preventive and incremental (non-preventive). A preventive innovation is a new idea that an individual adopts now in order to reduce the likelihood of some undesirable future event. Because preventive innovations are typically adopted slowly, their relative advantage is inherently unpredictable. However, incremental innovations produce positive results in a short period of time. When faculty members are faced with new demands, they will turn to technology. Lecturers will use technology if they see its value in their instruction. To successfully integrate technology into teaching and learning, teacher education faculty must recognize the importance of providing beneficial experiences for both themselves and their students.

Compatibility is the degree to which an innovation is perceived to be consistent with the user's existing values, prior experiences, and needs. Developments exist among many other innovations and are based on potential adopters' previous experiences with other innovations as well as their personal values and beliefs. Some innovations may be viewed as part of a larger group of innovations known as a technology cluster, and potential adopters may evaluate them in the context of the group rather than individually. When an innovation is compatible with an individual's needs, lack of certainty decreases and the rate of adoption increases. As a result, even naming the innovation is an important component of compatibility. The name of the innovation should be impactful to the potential adopter. Whatever the innovation means should also be completely obvious. While the degree with which the innovation or its findings can be seen by others who are likely to adopt it is referred to as observability. Potential adopters are less likely to adopt an innovation if they are unaware of it or do not see it being used by their

peers. Is there a sound made when a tree falls in a forest? The degree to which an innovation is perceived as complicated to understand or apply is referred to as its complexity. People are less likely to adopt difficult-to-use or complicated products. Observability is the primary motivator for technology adoption and diffusion. Observability, like relative advantage, compatibility, and trialability, is positively correlated with the rate of adoption of an innovation..

However, diffusion of innovation theory was propounded on the premises on how innovation are spread within group of individuals, is a theory that seeks to explain how, why, and at what rate new ideas and technology spread. It is centered on the condition that increase or decrease an innovation or a new idea will be adopted by members of a given cultures. The theory believed that innovation are not adopted by everyone at the same time. Instead they tend to adopt in time sequence and can e classified into adopter categories based upon how long it takes for them to begin using new innovation. The adopter categorization is the innovativeness and it is refers to the degree to which an individual is relatively early in adopting innovation than other members of a social system. LMS attributes can also be regarded to as innovations if they are perceived as 'new' by an individual. Diffusion, as defined by the Diffusion Information Theory, is the process by which an innovation is transmitted over time. People first acquire knowledge about the innovation, then form an attitude toward the innovation, and eventually decide whether or not to implement the innovation[47]. The adopter categorization on the basis of innovativeness are Innovator, Early adopter, Early majority, Late majority and Laggards

Adopter categorization on the basis of innovation

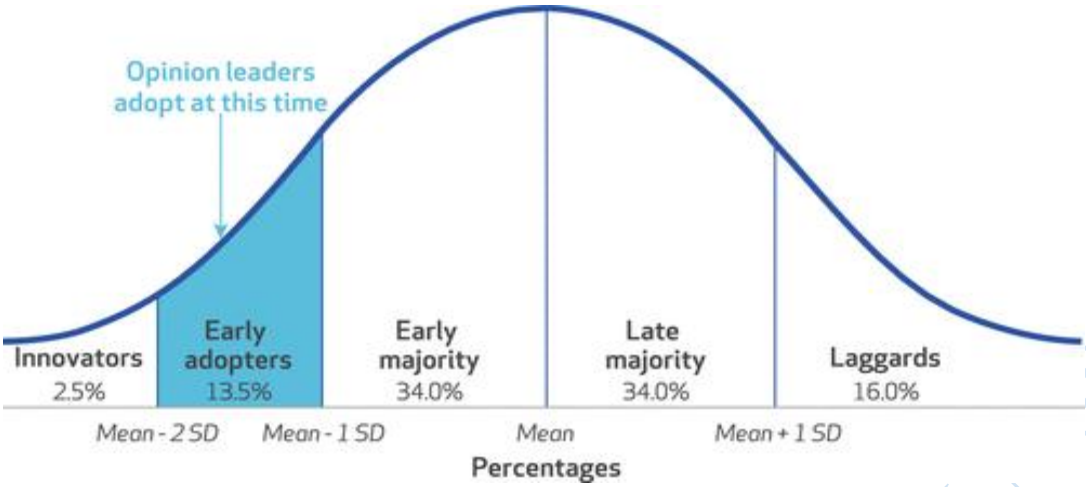


Figure 2.3

Source: RESEARCH ARTICLE

DIFFUSION OF INNOVATION

HEALTH AFFAIRSVOL. 37, NO. 2 (2018) DIFFUSION OF INNOVATION

The researcher's investigation revealed that the undergraduates students of Lead City University, Ibadan, Oyo State and Mountain Top University, Ibafo, Ogun State, are among the early adopter of smart mobile gadgets and other innovative technology that facilitated teaching and learning such as smart phone, Ipad, Laptop, Palmtop, tablet and connection devices like Bluetooth, internet Wi fi and so on assisted students to use LMS platform and this has greatly enhanced the stud ents' academic performance in their various field of study during Covid-19 and after the lock down.

2.3 Review of Empirical Studies

2.3.1 Perceived Academic Performance of students

The quality of undergraduate students' performance is influenced by a variety of factors. A number of variables must be examined while determining the elements that influence academic achievement quality. There are those students who dedicate the majority of their time to their studies, particularly during test seasons, but who nevertheless do poorly on their final examinations. This can be related to a variety of reasons, including excessive stress. Variations in student performance might be explained by factors such as parental support and parenting style (single or dual parenting) [47]. The researcher perceived few obstacle, Students in Liberia's primary and secondary schools as well as higher education institutions are most concerned about life difficulties (poverty) and school access, according to one of the study's most striking findings (distance to and from school). It is undeniably consistent with Liberia's very high poverty rate with nearly two-thirds of the population living in extreme poverty[48]. This could mean that some students arrive at school famished and with insufficient recess money. Furthermore, some students are on their own, which means they must pay for certain school expenses. Although teachers' demand in Tanzania are increasing, research h suggests that teacher morale and standing are deteriorating[49]. Morale is declining, which has major ramifications for professor recruitment and retention, as well as lecturer performance, hiring of incompetent people who call themselves academics devalues their job in the eyes of the public.

Academic levels of skill is a key factor influencing perceived academic performance. Academic level of skills refers to students' beliefs and attitudes toward their abilities to achieve higher performance, and also belief in their ability to complete academic tasks and learn the materials successfully[50, 51]. Levels of skill lead to improved performance by increasing commitment, effort, and perseverance[52]. It has also been discovered that students with high self-perceived competence scores are more persistent, more likely to adopt mastery and/or performance

approach goals, less anxious, process the learning material at a deeper level, and achieve better study results. However, this study warns that if not accompanied by a mastery goal orientation, high self-perceived competence (e.g., perceived level of understanding) can lead to overconfidence, resulting in lower persistence levels and poorer study results[53]. Goal orientation emphasizes the reason why a person participates in an activity or performs a task[54]. Students have Personal goal orientation, which serves as a reason for participating in or avoiding attainment – related behaviors, according to goal orientation. Students who are focused on displaying their capacity to others and defining their competence in regards to others are thought to have an affect academic performance goal orientation, while those who primarily want to avoid appearing incomplete are thought to have a performance approach goal orientation, are thought to have a performance-avoidance goal orientation. Conversely, students with a learning objective Orientation is centered on learning and improvement. Define their competence in terms of their previous performance[55]. Individuals who focus on a learning target strive to comprehend the task, seek out difficult tasks, and perceive failure and success input as a source of knowledge to be used in improving future performance, according to researchers[56]. Individuals focusing on a performance goal also aspire to showcase their abilities to complete tasks well connected toward others, seek positive decisions from others, and regard effective performance as an evidence of high ability. Finally, people concentrate on avoidance – performance goal orientation as a desire to avoid unfavorable decisions from others. Responsive Environment For the purposes of this study, research management strategies will be the component of learning strategies that will exemplify the effect of the "personal factor" component of Don Elger performer theory. Levels of skill, levels of knowledge, personal factors geared towards responsive environment, Students' collaborative effort with their peers, eagerness to seek help, needs, home, attention, emotion are

all components of a personal factors. Students use these strategies to self-regulate both individual and environmental resources for academic tasks[36]. Establishing and maintaining well-defined, quiet, and organized study areas is part of study-environment management. Positive mood maintenance, subconscious, persistence management, and consciousness are all effort management strategies. Seeking assistance from teachers, tutors, peers, and peer groups are examples of support strategies[57]. Research revealed that, effective resource-management strategies are positively related to college academic performance[58]. Four scales were used to represent the responsive environment component: Time and study environment, Effort regulation, Poor learning effort seek.

One of the key reasons of educational disparity continues to be one's socioeconomic background. To put it another way, educational performance is heavily influenced by one's parents' socioeconomic position[59]. Without appropriate and long-term human and material resources, curriculum planning and physical growth would always fail to achieve the intended objectives. Higher education's capacity to generate excellent graduates is mainly determined on the amount and quality of teacher's available[60]. The Nigerian public universities had large enrolments without adequate competent instructors, resulting in a worsening staff/student ratio, which is detrimental to student learning and academic research[61]. Fear; anxiety; confidence; concentration; health and wellbeing; social factors: peer group; family background; religion; home problems e.g. Crosnoe, Johnson, and Elder identified 32 factors that could affect students' success in general, and they include: fear; anxiety; confidence; concentration; health and wellbeing; social factors: peer group; family background; religion; home problems e.g. Parental breakups; learning infrastructure; personal or family crises; economic factors: financial difficulties and stress, environmental factors: good learning environment; class size; environmental condition (peace in

the locality crisis e.tc); teaching and training method, personal factors: lack of reading habit and reading plan; unwillingness to assume full responsibility; playing and wasteful time spending; interest in a course; lack of self-discipline; procrastination ; lack of desire, decision and determination; bad attitude towards school; lack of initiative and use of imagination; poor literacy skills of students; lack of self-discipline; lack of maturity; laziness or apathy; inadequate or poor exam preparation, academic factors: lack of provision of a bridge between theory and practical; heavy course workload[62]. This study therefore adopt these Crosnoe et al., factors in examining the performance and success of students in Lead City University, Ibadan, Oyo State and Mountain Top University, Ibafo, Ogun State. Students are no longer passive participants of knowledge and educational resources thanks to advances in information and communication technology. The student can be a "co-producer" of the pedagogy provided. Students who use ICT on a regular basis seem to be more likely to shape the educational material of specific instructional modules. This shift in status is accompanied by increased student investment, which increases students' motivation to learn about the topics covered. Digital skills, in general, impact the intensity of Information communication technology use, and conversely. It is widely accepted that the impacts of ICTs on student achievement are proportional to their intensity of use; sporadic and infrequent usage does not improve academic performance. However, intensive use for educational purposes (looking up bibliographic records references, using translation app, participating in forums and chats, etc.) encourages students.

The attitude of students towards their learning have been found to have a significant relationship with academic performance. There is a statistically significant link between students' attitudes regarding their education and their academic performance[63]. The learning of students has an indirect influence on academic achievement[49]. Notwithstanding, It was confirmed that students'

attitudes about mathematics had a direct influence on their academic achievement[64]. However, the students' math's scores were unaffected by their good views regarding mathematics[65]. The personal motivation of students has a significant impact on their academic achievement. Both intrinsic and extrinsic motivation have a beneficial impact on students' academic achievement, the researchers were of opinion that motivation system theory is a better predictor of academic success than extrinsic drive[66].

Similarly, motivation has an essential influence in a student's academic achievement, according to the findings[66]. They discovered that both intrinsic and extrinsic motivation had a statistically significant link with academic achievement in their study. Students' motivational characteristics, such as self-exploration, altruism, and career focus, as well as how they manage social pressure, have a positive impact on their academic performance, according to the researchers. To assess the perceived academic performance of undergraduate students the researcher used theory of performance of Don Elger where it was pointed out that student's performance could be measured through levels of skill, level of knowledge, personal factors, levels of identity and fixed factors[36]. For the this study the researcher considered levels of skill, levels of knowledge and personal factors as predictors of perceived academic performance the two selected private universities.

The students' variables that impact their academic success are a mixture of various indications, according to the research examined. The major elements that impact a student's academic success include their interest in a topic, regular studying, class attendance, self-motivation, self-efficacy, responsive environment, and attitude toward learning all these revolved the three predictors used according to this review. All the literature reviewed without exception discovered that there is a link between these characteristics and academic achievement. This means that, all other things

being equal, if a student has a favorable attitude about these circumstances, his or her academic performance will increase. Teachers plays crucial role towards the perceived academic performance of students. A study conducted revealed that in Kenya, a study on teacher variables impacting academic accomplishment discovered that instructors' experience, age, gender, and professional qualification showed no statistically significant link with student academic performance[67]. In Nigeria there is also no statistical link between teacher effectiveness and academic success, in line with the findings[68]. The use of a teacher-centered and student-centered approach has a favorable impact on academic performance[69]. They came to the conclusion that a student-centered strategy is more effective than a teacher-centered one. Teacher experience and professional training have a substantial influence on students' performance. And several studies have proved that teachers had a significant influence on their pupils' academic achievement. However, it should be noted that little is known about the precise instructor characteristics that influence students' perceived academic success.

However, in North Carolina, the United States, a study was conducted on the correlation between teachers and student mathematics ability revealed that the quality of a lecturer's subject-matter knowledge is a critical element determining test scores. In this example, teacher competency made a significant contribution to education l quality[70]. In Kenya, the caliber of lecturers and teachers, as well as their communication and leadership, have a significant impact on school quality. This is seen to be the sole way to distinguish across schools with equal degree of physical provision in terms of performance, In Lead City University, Ibadan and Mountain Top University, Ibafo, investigation shows that both lecturers and students worked as team to achieve academic performance, the two Universities' competent and qualified lecturers has led to the

perceived academic performance of their undergraduate students which was made possible through their levels of skill, levels of knowledge and personal factors.

As previously mentioned, teacher variables that have a major impact on students' academic success include: Teachers teaching experience, completing of syllabus, paying attention to weak students, assignments, students' evaluation, teacher effectiveness, teacher and student centred method of teaching, professional training, teacher to student ratio and qualification of teachers. It was also noticed that teacher's age and gender have no effect on students' academic performance. It was discovered that without effective and appropriate human and material resources, curriculum planning and physical expansion would fail to produce the desired results. The ability of higher education institutions to produce quality graduates is heavily reliant on the quantity and quality of available teachers. Nigerian public universities have a high enrolment without enough qualified instructors, resulting in a deteriorated staff/student ratio that is detrimental to achievement and educational research. Parents with a higher degree of education are more concerned about their children's academic success[48]. They discovered a favorable correlation between students' educational levels and their children's perceived academic achievement, the same result was found by Muthoni in Kenya when she discovered that a student parent's level of education is favorably connected to his or her success in Kenyan institutions[71]. Similarly, the perceived academic performance is linked to the level of education of the parents[72]. Several studies on the factors influencing student academic performance have been conducted, and the majority of the studies have consented that previous knowledge is the most significant variable on learning outcomes. Prior knowledge has two dimensions: conceptual knowledge and metacognitive knowledge. While the conceptual focuses on pre-university knowledge, metacognitive refers to students' efforts and cognitive ability. It was also observed by the parents

with a higher level of education inspire their children to study hard. He discovered that a parent's educational level has some bearing on their children's academic performance. Although the parents' educational degree has an influence on academic success, it is not a key deciding factor. There are other significant elements that impact academic success, such as the learning environment and facilities[73]. On the other hand, the degree of education of parents has little statistical influence on their children's academic performanc[74]. The influence of a parent's educaional degree on their children's academic achievement appears to be equivocal. While some research revealed a strong positive link, others contend that it is not the primary determinant of perceived academic performance.

Furthermore, research have revealed that there is no statistically significant link between parental education and academic achievement. As a result, there is a vacuum in the literature, which the researcher attempted to fill. It was investigated that the effect of parents' economic factors on university students' academic performance, the family has a significant impact on the students' psychological, emotional, social, and economic well-being. The researchers observed that the state of the home has an impact on the individual because parents are the first socializing agents in the individual's life. As a result, an individual's family background and the context of his family environments influence his retention to life situations and level of performance. Furthermore, the study discovered that income, professions, house type, parental education level, and living area all have a significant impact on academic achievement[72]. The findings confirm that the ability of parents to financially care for their children influences their attitude and motivation to achieve academic success. Parents' educational attainment and occupation reflect their viewpoint of learning importance, which influences their encouragement and involvement in their children's academic performance.

School based factors are factors within the school which influence perceived academic performance. Similarly, in Nigeria, instructional materials have a significant impact on academic performance. He asserted that the use of instructional materials facilitates the smooth delivery of a lesson and it enhances teaching and learning. The utilization of instructional resources can help students better comprehend a subject's idea[75]. As a result, students who are taught using instructional resources do better than students who are taught without them. The distance between a school and the students' academic performance has been shown to have a substantial influence on their academic performance[76]. He stressed that the greater the distance between a school and a student's home, the more exhausted and hungry the kid becomes, resulting in poor academic performance.

As the literatures above show, there are several school variables that influence perceived academic success. However, it has been demonstrated that instructional materials, discipline, effective teaching, self-efficacy, goal orientation, responsive environment, anxiety, analytical skill, students level of understanding and the school atmosphere are significant school variables that directly impact perceived academic success. Perceived academic performance is vital since working people will require higher degrees of education in the future to work in technologically demanding occupations[77]. To acquire a job nowadays, you need a post-secondary education.

Academically successful adolescents have higher self-esteem, are less prone to abuse alcohol or engage in substance abuse, and have lower levels of despair and anxiety. They are also more socially inclined. Positive self-esteem and self-confidence are essential components of scholastic achievement. Positive results were seen in the areas of conduct, academics, and social relations for parents who were interested in their child's education and family activities. Children who master basic reading, writing, and math skills are less likely to drop out of school and are more

likely to develop the critical thinking skills required to graduate from high school and post-secondary education. It's also vital to be confident in these fundamental academic skills in order to locate and keep employment that pay well, offer benefits, and provide prospects for promotion. Individuals that are more organized, prepared, and have an organizational strategy and planner performed better in school and will continue to do so in the workplace. Perceived academic achievement is achieved by organization, time management, priority, attention, and motivation. When it comes down to it, organizing skills may be just as crucial as reading, writing, and mathematics in the development of a well-rounded, self-sufficient person.

Achievement is influenced by non-academic sports and the performing arts. They include self-assurance in one's talents, the ability to effectively manage stress, and the ability to concentrate and shut out distractions. Critical thinking, decision-making, and conflict resolution skills are necessary for success in any field. Academic attainment is critical for young people's effective social development. Students who do well in school have a better chance of adjusting to adulthood and achieving professional and financial success. Given the specialized nature of many employment these days, young individuals entering the workforce will require a solid foundation of knowledge. . In a study carried out on Soft Skills and Studeny' Academic achievement, the study revealed that, students' academic achievement is heavily influenced by their soft skills of self discipline, problem - solving abilities, communication, self-motivation, emotional stability, and willingness to learn. It is therefore critical that the school curriculum include provisions to guarantee that these skills are instilled in students, as they will be useful not only in enhanced academic achievement, as well as their chosen professions[120].

2.3.2 Motivation to Use Smart Mobile Gadget and Perceived Academic Performance

In order to comprehend the ideas, theories, and models that affect the adoption of mobile devices, this research reviewed and examined literature on theoretical models. According to empirical studies, behavioral intention, which is jointly predicted by perceived usefulness and perceived ease of use, determines how a person actually uses a system. Intention to utilize a certain system is directly and considerably influenced by perceived utility[78]. Davis et al. developed the technology acceptance model (TAM) to assess and forecast the level of user acceptance of information technology (IT) systems, as well as to understand why people accept or reject using IT systems. Davis et al. further divide individuals' TAM beliefs into perceived usefulness and perceived ease of use. These two factors include users' attitudes toward new technologies, which influence their proclivity to use such technologies[79]. Examining these variables might provide empirical evidence to aid in efficient tourism development planning while also improving travelers' experiences. Since the introduction of TAM, some academics have studied and improved the original model's explanatory power. Davis et al., perceived usefulness and perceived ease of use both have a direct impact on usage intention via the influence of usage attitude. If users can interact with a technological system, the system is said to be interactive. They are better able to operate the system if they perceive their effectiveness towards and ability to control the technology system as being very good. The perceived ease of use influences usage attitude positively. Numerous studies conducted in the last 10 years have demonstrated that perceived usability significantly affects behavioral intention to use, either directly or through its influence on perceived usefulness[79]

Another drawback of TAM is that, while it offers insightful information into how users accept and use technology, it only focuses on the factors that determine use (perceived usefulness and ease of use) and does not reveal how these factors are formed or how they can be manipulated to

encourage users' acceptance and usage[80]. The result is that professionals are unable to know which levers to press in order to change these beliefs and, via them, the use of technology, without a greater grasp of the determinants of perceived ease of use and perceived usefulness[81].

The extent to which a person believes a new invention would require no effort is known as perceived ease of usage[82]. If a technology is simple to understand, adaptable, and fit with the users' needs and ideals, people will regard it as being easy to use. It is a construct based on a person's evaluation of the effort required to use a specific smart mobile device, the simplicity of the platform design, the system's flexibility, and compatibility with the user's values. It is also based on how easily academic work and other important tasks can be completed using the device.

Consumers' perceptions of how well mobile services can be incorporated into their daily lives are taken into account when defining perceived usefulness in the uptake of mobile services. The subjective likelihood that a potential user will perform better at work after utilizing a certain system is known as perceived usefulness. The capacity to establish a means-end relationship (i.e., the ability to use the given thing as a means to a desired end) defines something's perceived usefulness.

The perceived usefulness of anything is its capacity to establish a relationship between means and ends (i.e., the provided thing as a method to a particular conclusion) or to offer a foundation for making judgments. Consumers' motives for using a product are explained by implies knowledge[83]. Perceived usability directly influences perceived usefulness, which in turn influences behavioral intent to use the technology and, eventually, actual use[84]. This is corroborated by earlier study, which experimentally identified perceived usefulness and simplicity of use as crucial determinants of the use of smart mobile devices and technologies. When users can use their mobile devices anytime, anyplace, irrespective of their location, they

are more likely to accept smart mobile gadgets advancements. Therefore, the benefits that can be expected from a technology depend on how simple it is to utilize it to improve perceived academic performance. The potential impact of mobile devices on university education and their impact on lifelong learning possibilities is still unknown, and the field of study is evolving. Given their affordable, popular, and practical functions, it is not remarkable that academics have regarded utilizing mobile devices like smartphones in learning. The ease and flexibility provided by mobile learning would be an appealing factor for learning via smartphones, particularly through apps. It reduces the obstacles associated with traditional techniques or activities used in schools and universities[108]. However, university students frequently use their smartphones for personal communication rather than learning. A recent study of college students, smart was perceived as beneficial prior to study, but students later viewed smart mobile devices as damaging to their academic objective[109]. In their study, they demonstrated that when students use mobile learning devices, such as smartphones, during learning time, their achievement increases significantly. This is because their time spent on task completion will boost as they use the device, discovered that students were continuously using their smart gadgets cameras to photograph abstract concepts learned in class so that they could later relate them to concrete ideas[110]. Similarly, it was found that respondents in their study believed that mobile phones had improved their productivity and, ultimately, their learning performance[111.] Students were downloading courses online and reading e-books to improve their learning[112] . Despite the fact that many recent studies have shown that smartphone use improves learning, found the opposite. Students were observed using their phones for gaming and other recreational opportunities rather than for learning. Physical, technical, and psychological limitations have been identified as preventative maintenance mass adoption of smart noble gadgets for academic performancet[111].

It was discovered that students were increasingly adopting smart gadgets for personal use rather than educational purposes[113].

Despite widespread of motivation to use smart mobile gadgets among tertiary students, the level to which this technology has aided their academic performance remains unclear. Smart gadgets capabilities are no longer available. Texting and calling are no longer the only options; instead, a wide range of activities must be considered. This exploratory study was conducted based on existing literature to determine the extent of smartphone use in terms of learning by students at one Malaysian university, as well as to investigate the relationship between smartphone use for related learning activities and students' academic performance.

Furthermore, in a study carried out in Israel on Assessment of the Intention to Use Mobile Health Applications Using a Technology Acceptance Model in an Israeli Adult Population, it was revealed that Mobile health applications (mHealth apps) have now gained global popularity. However, determining the extent to which they are used over time remains a significant challenge. The Technology Acceptance Model (TAM) predicts attitudes toward technology utilization based on perceived ease of use and usefulness. These factors work together to predict behavioral intention to use the technology, which predicts actual use and the findings shows Sixty-one percent of participants said they used mHealth apps on their mobile phones, with 81% using mHealth apps from health care providers. Participants in Generation Y were more confident in using mHealth apps and were less particularly worried about making compromises the privacy and security of their health records. Besides that, mHealth app users' responses to TAM-related questions were significantly higher than nonuser TAM components, which taken into account for 51% of the amount of variance in mHealth app intention[116]. It was found that motivations for mobile phone use included ‘fashion and position’, ‘emotion and sociality’,

'relaxation', 'mobility', 'instantaneity', and 'relief from work'[117]. In a study carried in Ghana it was asserted that motivation to use smart mobile gadgets was viewed as the devices is progressively becoming such a compelling educational tool for enhancing distance education teaching and learning. Its application guarantees flexible course delivery, allows students to use online learning platforms, course resources, and interact digitally. The purpose of this research was to look into the use and impacts of smartphones as a learning tool in the distane learning education at the University of Ghana. The study used the Technology Acceptance Model (TAM) and had a total of 294 respondents[118]. Based on the findings, distance learning students prefer to use a smartphone in their active learning. The findings also showed that smartphones played important roles in academic activities for distance learning students at the University of Ghana[118].

2.3.3 Characteristics of Leaning Management System and Perceived Academic performance

Different LMS platforms have been the subject of previous studies about how users see them. Many of the generic elements found in these many LMS platforms, including technological devices, coordinators, test or assessment choices, forums, and communication options, share features with other LMS platforms[85]. The LMSs set themselves apart from competitors with what were described to as micro-detailed capabilities, like the capacity to hold synchronous meetings or downloading lectures in audio format. According to a report, despite the fact that LMSs are strengthening their fundamental abilities, they still have a limited set of features.[91]. Many social networking platforms have been employed as LMSs recently, due to its social and educational components, studied the Facebook group as an LMS in their empirical investigation. They discovered that because the LMS features could be easily included into the platform,

students were happy with the Facebook group. The Facebook group, on the other hand, did not allow all the file formats needed by the students, and the platform was seen by the students as having less privacy and being risky for them to use as an LMS because of this[86]. Taking five institutions in Africa as an example, researchers looked into the reasons why e-learning management systems adoption failed in developing nations[87]. They discovered that the high percentages of ICT illiteracy among some of the student population and usability concerns with learning management systems were the most likely causes of failure. Due to the population being students enrolled in a formal qualification at the School of Computing at Unisa, these difficulties were not factors in the current study. Since they attend the School of Computing, these students ought to be ICT literacy and familiarity are prerequisites.

Diffusion is the process of gradually spreading an innovation or intervention among the participants in a social system[88]. The adopter's impression of the innovation has an impact on both their decision to adopt it and its rate of adoption. This impression is based on the innovation's most important traits, including relative advantage, compatibility, complexity, trialabili and observability. This investigation focuses on the relative advantage compatibility and observability of the innovation because they have received the greatest attention from previous research and have been found to have the strongest effects on the adoption of new technologies.

Relative advantage, The adoption of ICT may help some segments of society avoid feeling alienated from the new digital environment because they recognize that the new digital world is superior to the previous environment, according to a study on the factors influencing the adoption of ICT by new refugees[89]. Additionally, it was thought that innovation may be realized in terms of money, social standing, and satisfaction, all of which would encourage a person to try

something new. Whether or not the user is aware of the objective advantage, relative advantage is a perceived advantage[90]. Since this is the first online learning management system that the institution has implemented, relative advantage refers to the degree to which the students think the LMS would have been better than the conventional learning mechanisms. Additionally, students would embrace innovation if they believed it would improve their lives in terms of economic benefit and social standing.

Compatibility, an idea that is perceived to be incompatible with conventional notions will not be embraced unless it is compatible with the existing values and prior experiences of the person who must make the decision to adopt the new idea[91]. Findings supported the notion that compatibility has a considerable, advantageous impact on the adoption of a cutting-edge learning system[92].

Furthermore, the compatibility characteristics of LMS provide useful learning tools such as file sharing, forums, study guides, syllabus, chat, and assignment management, among others. Connect is a web-based study program that includes an eBook with standardized tests and practice problems at the end of each chapter, as well as interactive learning tools such as audios and videos. Using Connect, instructors can create numerous assignments and tasks and track students' progress through each task and through the course enhanced the perceived academic performance of students.

Observability is defined as "the extent to which an innovation's results are evident to others. The most important motivator for technology adoption and proliferation is role modeling (or peer observation). The requirement to construct an LMS such that new users can perceive its benefits from those who have already used and benefited from it is symbolized by the observability attribute. Therefore, using the concept of observability in the design of an LMS

should provide an answer to the following question: Will the advantages of the suggested LMS be obvious to people who have not embraced or used it? Peers' awareness of innovation and conservation is sparked by technological observation. A person is far more likely to embrace a technology if they observe, hear about, or otherwise learn that other people are utilizing it. The findings show that distance learners and instructors in overall use the LMS for their teaching and learning activities, and the increasing adoption level of LMS implies a desire to have a school management system in Malaysian universities[93]. Universities are turning their attention to academic users of LMS in order to correctly assess what benefits have already been obtained from Information Communication and Technology investments[94]. The accessibility of course materials provided by characteristics of LMS has a beneficial effect on students' ability to learn both in and outside of the classroom. Students' learning abilities have enhanced in courses where LMSs are accessible. This progress in learning can be attributed to the educational environment provided by LMS, as well as instant access to course material and results, which allows students to pursue understanding a more efficient manner.

It was revealed from the findings that the students who were taught using an LMS (Moodle) performed better than those who were exposed to the CAI4ME Package. It was discovered that female students performed better than male students in both approaches, despite the fact that male students had a higher gain score. Based on their findings, the researchers recommend that educational lecturers learn and use LMS packages[117].

2.3.4 **Motivation to use smart mobile gadget, Characteristics of learning management system and perceived academic performance**

It has been claimed that smart mobile devices allow students to collaborate on social media platforms, e-mails, play online games, and watch television channels[95]. The study also concluded that it distracts students from their studies and can become distracting for other students and members of the class around them. Similarly, smart mobile devices prevent students from making calls to cheat during exams, but students in a crowded classroom or examination hall may be able to use their smart mobile devices to access information online to cheat in exams[95]. It was also discovered that the incorrect use of smartphones could be through the interaction of text messages with other students, the search for answers on the Internet, the use of the advanced calculator, phone applications, and reading notes saved on their phones to help with the test[96].

However, an ICT-based teaching method is online learning. ICT facilities in the form of a web LMS, monitoring program, modular and multimedia supplements provide carrying capacity for this program. Learning that is structured with the goal of using an electronic system or smart mobile devices to support a learning process is known as online learning. Learning management system is a mixed method of course delivery that blends online and face-to-face modes. The implementation, management and improvement of online learning are presumed to have (positive) effects on student perceived academic performance. Students' motivation is boosted when they use online learning. When students are motivated, they are more likely to participate in the e-learning process[95].

The benefits of the smart mobile devices on learning are that it provides portability, collaboration, and motivation, which improves the educational performance of students, parents, and teachers[97]. Students can use their smart mobile devices to retrieve course information from class to class, Its portability benefits a wide range of learning environments, including field trips, classrooms, and off-campus learning. Students' use of social media on their mobile phones and other smart mobile devices, such as Whatsapp, Facebook, and Twitter, allows them to easily form groups to distribute and share knowledge and information, which could lead to more successful collaborative learning. The use of mobile devices may improve numeracy and literacy while encouraging autonomy and collaborative learning. Mobile devices and learning management system features can also be used to highlight areas where learners require assistance and support. In addition to these pedagogical affordances, mobile devices and learning management characteristics have the potential to overcome resistance to E-learning by using ICT, which could bring less enthusiastic learners on board. The medium's appeal would then promote greater focus, self-esteem, and self-confidence in the educational context. It was discovered that the benefits of the motivation to use smart gadgets outweigh the benefits of the LMS. Most LMSs require qualified human resources, adequate financial resources, and adequate time to mobilize them. As expected, this will have a negative impact on both the teacher's and students' teaching and learning methods. Furthermore, such challenges can reduce the expected benefits. An LMS cannot directly place students in the field of practice or expose them to the risks and so on of a real-life setting. Hand-held devices, on the other hand, are extremely useful for fieldwork.

Motivation to use smart mobile gadgets and characteristics of learning management system are significantly influencing the academic scene in higher education institutions, and blended learning initiatives are the platforms where communication and collaboration are facilitated by

such technology-driven resources. Collaborative learning, with its various models and domains, is relatively new, which may explain why there is little agreement on its description in higher education.

Several scholars from various disciplines have applied the theory of perceived attributes to investigate and investigate why innovations are adopted.

This section discussed some previous studies that used the Theory of Perceived Characteristics of Innovation to explain how early adopters evaluate an innovation based on their impressions of its characteristics. It was investigated the diffusion of ICTs in agricultural information communication by many agricultural academics and extension workers in Kenya. The study aimed to map and audit ICT in Kenya's general populace agricultural sector, determining its nature, types, distribution, and extent of use in agricultural information communication. It also evaluated the demand for and utilization of ICTs by agricultural researchers and extension workers in the acquisition and dissemination of knowledge. It investigated institutional and government policies and their impact on ICT diffusion in the agricultural sector[114]. It investigated government and institutional policy initiatives and their impact on ICT diffusion in the agricultural sector. It investigated the funding, general upkeep, and sustainable development of ICTs in agriculture and identified knowledge gaps, constraints, and issues experienced in utilising ICTs in agriculture. Using a quantitative approach, the study discovered that the relative advantage was low by many respondents, particularly extension workers, due to a lack of ICTs, which prevented them from acquiring the necessary skills to use ICT. It was conducted in a research on the Individual Variables Impacting the Diffusion of Process Innovations from Industrial production to Health Services. Eleven factors influencing the diffusion and viability of innovation in the health care sector were identified. relative advantage, compatibility, complexity,

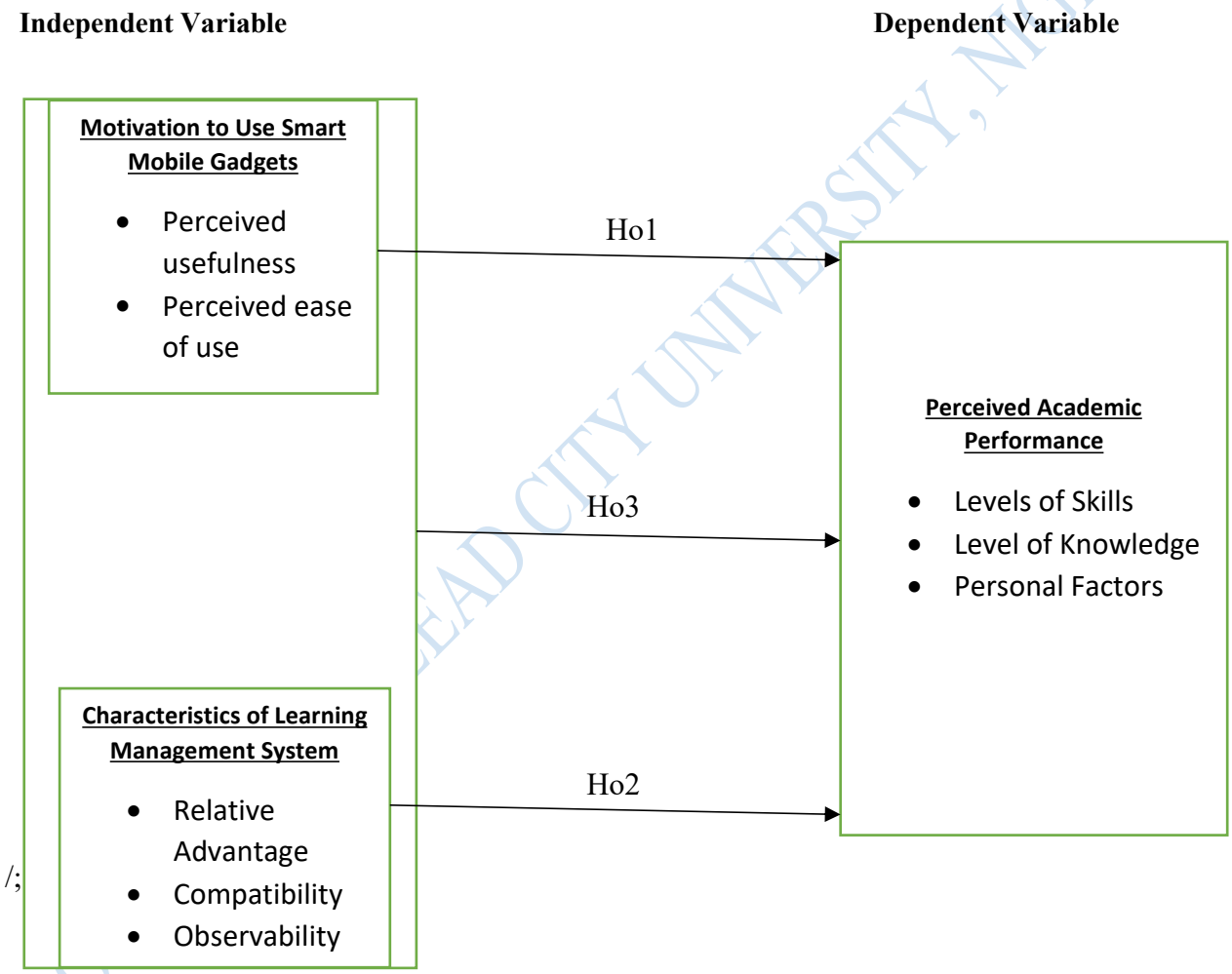
trialability, and observability, potential for re-invention, fuzzy boundaries, reduced risk, relevance, the nature of knowledge required, and support were the factors[115]. The study's goal was to see if these factors aid in understanding DOI from production to health care settings. A qualitative research approach was employed. Eight hospital personnel were interviewed in semi-structured interviews to help devise and implement strategies to enhance patient flow in the imaging department. The general conclusion was that computer simulation facilitated process implementation because it: assisted in assessing relative advantage, presented information in a manner that corresponded with individual preferences, was simple and user friendly, allowed for experimentation, was visual, could be adapted to the department, could accommodate the dynamic nature of departmental systems, offered minimal risk, was relevant to the research participant. The major findings were that observation, trialability, and low risk appeared to be the most influencing factor for individual DOI choices for the health centre and innovation studied.

2.3.5 Impact of Covid-19 pandemic on academic activities in Nigeria

Following the COVID-19 pandemic, all schools in Nigeria were closed from March 27, 2020, as one of the Federal Government measures to limit the spread of the disease. This translated to a contextualized state-wide school closure across the 36 states in the country. In response, different states' Ministries of Education have been releasing modalities for radio and TV schooling and internet-based learning for students in public primary and secondary schools. Though these efforts could be effective, with experience from developed countries, it can amount to a far-reaching negative impact on the education system in developing low-income countries like Nigeria[98]. COVID-19 pandemic is 5 revolutionizing digital and online education globally,

primary and secondary school learners in rural and under-served communities remain behind due to lack of skills and resources to adapt or transition to the new learning avenues. In addition, university students who may have the skills to undertake internet-based learning face poor internet infrastructure and a lack of reliable electricity supplies[99]. Thus, learning remotely (including ratio, TV schooling, and online learning apps for primary and secondary learners, virtual libraries and online classes in the universities) is practically not feasible in most Nigerian communities. Poorly resourced institutions and socially disadvantaged learners where limited access to technology and the internet, as well as students' inability to engage in an online environment, undermine Government response[100]**.** Learning within the homes could also be a challenge or present challenges for learning. Such depends on parents' educational attainment and other commitments, leaving a greater percentage of the learners' population behind. These problems constitute considerable concerns from all stakeholders in education[101]. Hence, even though most states in the country are currently responding through radio and television, a good fraction of the learners are still experiencing some challenges in their education. This has prompted the adoption of online learning among different institutions of learning in developed and developing nations, including Lead City University, Ibadan, and Mountain Top University, Ibafo, and it has a significant impact on students' perceived academic performance at all levels.

2.4 Conceptual framework



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The Conceptual Model of the Independent variables (Motivation to Use Smart Mobile Gadgets and Characteristics of Learning Management System) and Dependable Variable (Perceived Academic Performance)

SOURCES: DAVIS, F.D , 1989, ROGER, E.M. 1995, ELGER, Don, 2007.

According to the conceptual model of this study the dependent variable of this study is perceived academic performance. Perceived academic performance in the context of this study will be measured using Theory of performance[36]. Perceived academic performance (Dependent variable) will be measured using three relevant measures or metrics in this study which includes level of skills, level of knowledge and personal factors. The independent variables are motivation to use smart mobile gadgets and characteristics of learning management, motivation to use smart mobile gadgets is measured with perceived usefulness and perceived ease of use[39.42]. While characteristics of learning management is measured with relative advantage, compatibility and observability[46].

The conceptual model depict the combined influence of motivation to use smart mobile gadgets and characteristics of learning management system on perceived academic performance of undergraduate students in Lrad City University, Ibadan,Oyo State and Mountain Top University, Ibafo,Ogun State. With these variables this study will identify the influence of motivation to use smart mobile gadgets on perceived academic performance of undergraduate students in the two selected private universities in hypothesis one, influence of characteristics of learning management system on perceived academic performance of undergraduate students in the two selected private universities in hypothesis two and also the combined influence of motivation to use smart mobile gadgets and characteristics of learning management on perceived academic performance of undergraduate students in Lead City University, Ibadan, Oyo State and Mountain Top University, Ibafo, Ogun State, Nigeria as hypothesis three, where recommendation that will enhance the perceived academic performance of undergraduate students was drawn.

2.5 Summary of Gaps in Literature

Universities are established with the goal of influencing knowledge, and global institutions have come to be acknowledged as centers of knowledge accumulation and transfer, with students being the most important asset for any education institution.

The reviewed literature revealed that perceived academic performance has many metric to be used to measure it base on the researchers area of studies, in this study researcher underpin his study on perceived academic performance by using Don Elger's theory of academic performance in which six components were given which includes levels of skill, levels of knowledge personal factors, fixed factor and level of identity[39]. The researcher used levels of skills ,level of knowledge and personal factors as constructs to measure perceived academic performance and result yielded positive result. The most recent technologies, such as smart mobile gadgets, which are already accessible in some universities, appear to have supplied more valuable interactive learning, improving teaching and learning in the twenty-first century. Smart mobile gadgets was viewed as as techniques of emerging world knowledge, transforming from upper section to innovative approaches to professional skill and competence acquisition based on systemic vision and continuous updating of current knowledge[102]. Learning with smart mobile gadgets can

make learning easier for both lecturers and students once they understand how to use the devices effectively. Students who are taught using smart technology may want to share ideas and collaborate on their studies even after their lectures are over. It may instill in students a good mindset toward learning. Perceived ease of use and perceived usefulness was used to measured students motivation to use smart mobile gadgets which is supported by Technology Acceptance Model1 from Davis and ventakesh[79].

However, in many European countries (the United Kingdom, Germany, Italy, Hungary, and the Czech Republic), these technologies are standard approaches in the university system and it was noted that most Africa counties are still behind in the adoption of smart mobile gadgets in their learning and teaching. The rate at which universities in Nigeria are adopting these smart mobile gadgets, as well as their availability and extent of use for teaching and learning, is not clear. For Nigerian universities to flourish like universities in developed nations, the government must provide smart mobile gadgets in universities in order to improve the educational system, accomplish the National Philosophy of Education, and prepare students to meet the challenges of the twenty-first century.

Furthermore, it was also discovered that an online learning environment that exemplifies interaction can make a course participating and enjoyable, the absence of this interaction can create feelings of isolation, eventually leading to students' dissatisfaction with online courses which in turn have negative influence on the students' perceived academic performance

Online education opens up new avenues for leveraging technology to create interactive and immersive learning environments for students. The reviewed literature have shown that students who are taught using smart mobile gadgets may also want to share ideas and collaborate on their studies even after their lectures are over. It may instill in students a positive attitude toward

learning. Teaching in an online learning environment is very distinct from face-to-face classroom instruction, and some teachers find the transition difficult.

Hitherto, the reviewed literature shows that there are many factors that influences perceived academic performance of an undergraduate students[103]. Academic success is widely judged by parents, lecturers, faculty members, the school board, the cumulative grade point average (CGPA), tests or ongoing evaluations, and graduation rate, but there is no universal consensus on the best way to assess it[103]. Furthermore, because data on whether individual characteristics effectively predict academic performance are unclear, aspects such as exam anxiety, surroundings, motivation, and emotions, stress and so on must be taken into account while constructing school accomplishment models.

Academic socialization is the process through which parents mould their children's abilities, habits, and attitudes toward school to improve their academic achievement. The environment that parents create and the discussions that they have with their children have an impact on their offspring. Parents' socioeconomic status can have an impact on their children's academic socialization. Parents with a higher degree of education are more likely to present their children with more engaging learning environments. Furthermore, a new study reveals that the quality of a child's relationship with his or her parents influences the development of academic self-efficacy in adolescents, which affects their academic achievement[104]. It was discovered that without effective and appropriate human and material resources, curriculum planning and physical expansion would fail to produce the desired results. The ability of higher education institutions to produce quality graduates is heavily reliant on the quantity and quality of available teachers. Nigerian public universities have a high enrolment without enough qualified instructors,

resulting in a deteriorated staff/student ratio that is detrimental to achievement and educational research.

The researcher found out that smart mobile technology has not been fully integrated into the Nigerian universities. However, the available smart mobile gadgets in the Nigerian universities have helped to improve the quality of teaching and learning. Smart gadgets have also become viable innovation for improving students' desire to participate in lectures, makes learning easy both for lecturers and students, and as well encourage students to share ideas and engage collaboratively in studying after the lecture.

However, the use of smart mobile gadgets and online learning environment has greatly influences the academic performance of undergraduate students in developed and developing countries. It has been discovered that most undergraduate students are fully addicted to the use of mobile technology and instead of them to use it for their educational goal and advancement but they concentrated their attention on social media platforms that has little or no relevance to their academic pursuit[105]. Tools in LMSs that active learning are being used relatively lesser than course management software. Furthermore, some instructors are still fearful or even skeptical of creating learning activities in LMS that they believe will have a negative effect on students' exam results[106]. Study revealed that that LMSs only focus on organizing and structuring learning materials, whereas instructors require more learning tools or media to develop learning activities based on pedagogy elements[107].

2.6 Appraisal of literature reviewed

Previous research papers relating to the current subject under inquiry were examined, compared, and contrasted in this section. The researcher used textbooks, seminar papers, and journal, articles, conference proceedings from the internet in the procedure. The examined works included an abstract as well as other relevant publications on the subject. The idea of research, the concept of motivation to use smart mobile gadgets, Characteristics of Learning management system and perceived academic performance, and more were all critically reviewed in this chapter. Covid-19, as well as the difficulties students face in using smart mobile gadgets and learning system platforms from study and research in the two Nigerian private universities. Publications on the aforementioned issues from both domestic and foreign sources were examined. The theoretical and conceptual framework were also examined in the review. This was accomplished through a review of the Theory of Performance. Technological Acceptance Model, Diffusion of Information Theory as they pertain to the current study. Both local and international publications concerning the aforementioned topics were reviewed.

The review also delved into theoretical and conceptual framework. This was done by reviewing the Theory of performance as related to the present study. This theory was developed by Don Elger in the year 2007 and it was stated clearly in this theory of performance six components were identified as a variable to measure academic performance those components are levels of skill, level of knowledge, personal factors, fixed factors, personal identity and context of performance To perform is to produce valuable outcomes. A performer can be an individual or a group of people who work together to create something. This concentrated on levels of skill that involves ICT and presentation skills, ability to search for an information, level of knowledge and personal factors, the findings revealed that they contributed immensely to the perceived academic performance of undergraduate students in Lead City University,Ibadan, Oyo State and

Mountain Top University, Ibafo, Ogun State. The researcher also make use of Technology Acceptance Model (TAM1). This theory was developed by Davis in the year 1989. Technology Acceptance Model is one of the most popular research models for predicting individual user use and acceptance of information systems and technology[37]. TAM has been extensively researched and validated by numerous studies that look at the individual technology acceptance behavior in various information system designs. Technology Acceptance Model proposed two factors to determine whether a computer system or smart mobile gadgets is accepted by its potential users: (1) perceived usefulness and (2) perceived ease of use. The emphasis on the potential user's perceptions is a key feature of this model. Individual behaviors are determined by their intentions to execute those behaviors, these intentions are in turn influenced by two factors, their attitudes and beliefs about the consequences of the behavior determine the individual perceived ease and perceived usefulness of technologies. The extent to which a person believes a new invention would require no effort is known as perceived ease of usage[82]. While the degree to which the user finds the technology useful in meeting their needs that what have been able to achieve by using the technology that is, what the important people in the li The conceptual framework revealed that availability and accessibility of smart mobile gadgets does not automatically imply its use. However, perceived ease of use and perceived usefulness will greatly enhance its adoption thereby resulting in positive impact of student's research. It was empirically reviewed and revealed that the Technology Acceptance Model (TAM) predicts attitudes toward technology utilization based on perceived ease of use and usefulness. These factors work together to predict behavioral intention to use the technology, which predicts actual use and the findings shows Sixty-one percent of participants said they used mHealth apps on their mobile phones, with 81% using mHealth apps from health care providers. Participants in Generation Y

were more confident in using mHealth apps and were less particularly worried about making compromises the privacy and security of their health records. Besides that, mHealth app users' responses to TAM-related questions were significantly higher than nonuser TAM components, which taken into account for 51% of the amount of variance in mHealth app intention[116]. Theory of performance that viewed individual's performance and improvement was supported wiyh a study carried out on Soft Skills and Students' Academic achievement, the study revealed that, students' academic achievement is heavily influenced by their soft skills of self discipline, problem - solving abilities, communication, self-motivation, emotional stability, and willingness to learn. It is therefore critical that the school curriculum include provisions to guarantee that these skills are instilled in students, as they will be useful not only in enhanced academic achievement, as well as their chosen professions[120] Furthermore, diffusion of innovation is the process of gradually spreading an innovation or intervention among the participants in a social system[88]. The adopter's impression of the innovation has an impact on both their decision to adopt it and its rate of adoption. This impression is based on the innovation's most important traits, including relative advantage, compatibility, complexity, trialabili and observability. This investigation focuses on the relative advantage compatibility and observability of the innovation because they have received the greatest attention from previous research and have been found to have the strongest effects on the adoption of new technologies. Tese attributes of diffusion theory was used to elucidate the characteristics of LMS which has proven in this study as a variable that enhanced perceived academic performance. Universities are turning their attention to academic users of LMS in order to correctly assess what benefits have already been obtained from Information Communication and Technology investments[94]. The accessibility of course materials provided by characteristics of LMS has a beneficial effect on students' ability to learn

both in and outside of the classroom. Students' learning abilities have enhanced in courses where LMSs are accessible. This progress in learning can be attributed to the educational environment provided by LMS, as well as instant access to course material and results, which allows students to pursue understanding a more efficient manner.

It was revealed from the findings that the students who were taught using an LMS (Moodle) performed better than those who were exposed to the CAI4ME Package. It was discovered that female students performed better than male students in both approaches, despite the fact that male students had a higher gain score. Based on their findings, the researchers recommend that educational lecturers learn and use LMS packages[117].

However, since the beginning of the COVID-19 pandemic, educational institutions around the world have had to adopt a non-face-to-face method to continue with academic programmes, seeking the use of various technologies to permit asynchronous and asynchronous communication between learners and educators. Different resources, such as educational platforms, social networks, instant messaging, and video conferencing applications, LMS, have been used. Which have both positive and negative impact on the perceived academic performance of students in developing and developed countries. Although classes have not been disrupted, there is interest in studying how this contingency period has affected students, in addition to the effects on mental health that the general population is experiencing due to fear of contagion, confinement, and economic difficulties. Under certain studies, students reported high levels of anxiety and stress due to a lack of technology access or the internet, this same inability of academic system to adopt this mode, and the dread of losing the educational year . These consequences are exacerbated in students who lack sufficient monetary and material resources to take their classes through this mode . Furthermore, students believe that this modality

necessitates more effort on their component and that teachers lack the necessary skills to instruct using this type of technology[121].

Motivation to use smart mobile gadgets and characteristics of LMS is more than just having a place to study or a computer and some relevant mobile gadgets. More importantly, it necessitates specific skills and self-efficacy in online learning. Numerous studies have identified the significance of student motivation in the online learning setting.

Overall, motivation to use smart mobile gadgets and characteristics of LMS has shown to positively correlate with perceived academic performance of undergraduate student in Lead City University,Ibadan Oyo State and Mountain Top University, Ibafo Ogun Stat

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Chapter Three

Methodology

This chapter describes the methodology adopted in the study. It gives a detailed description of the various approaches to be used for the study. It also describes the design of the questionnaire, which is the main instrument that will be used to collect the data for the study.

3.1 Research Design

The descriptive survey research design was used in this study. It determines the interrelationship among variables on the dependent variables and 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[1]. It has an advantage of providing reliable responses from a wide range of population.

The design was preferred because variables would not be manipulated. It simply tries to describe the variables and their relationships and their impacts on both, as it is natural. Applied social research uses the survey technique also since it is still most commonly employed. The method of survey is based on a questionnaire and is the most frequent approach used in the field. The survey is best suited for this study as in a short period the huge student population can be measured.

3.2 Population of the study

The target population, also known as the universe population, is a collection of elements, such as individuals, objects, or items, drawn from a sample for measurement. A population is a group of people from whom samples are taken for measurement. A population should share at least one characteristic. A sample, on the other hand, is a subset of people, items, or events drawn from a larger population and analyzed to draw conclusions[2].

The population for the study 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, 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 were not admitted during Covid-19 lockdown.

Table 3.2 Distribution of study population

No of undergraduate	LCU	MTU	Total
Female	2,925	652	3,577
Male	2,239	766	3,005
Total	5,164	1,418	6,582

Sources: L C U Central Registration Unit 2021 and M T U General Registration Unit 2021

3.3 Sample Size and Sampling Techniques

In this study, two sampling techniques were used: multistage and purposive sampling techniques. Multistage sampling technique will be adopted in the study. Multistage sampling technique is a sampling technique in which the researcher draws a sample from a population in smaller and smaller groups (units) at each stage. It is frequently used in national surveys to collect data from a large, geographically dispersed group of people. Furthermore, in the first stage,, two universities: Lead City University, Ibadan, Oyo State and Mountain Top University, Ibafo Ogun State were purposefully selected among the private universities in Oyo State and Ogun State. In the second stage purposive sampling was used purposely to select the participants and

departments which are Computer science, Microbiology, Accounting and Mass Communication (200,300 and 400 level) of Lead City University, Ibadan, Oyo state and Mountain Top University, Ibafo, Ogun State. The departments were based on the fact that those selected departments existed in both the selected private universities. In the third stage, multistage sampling technique was adopted to select the sample of 377 (Sampling of 293.5 in LCU and 83.5 from MTU) from the population of 6,582 undergraduate students using Taro Yemmane formula. As this would help in the accurate collection of data and in the proper follow up of the respondents.

Table 3.3: Distribution of Sample Size

No of undergraduate	Population	Sample Size
LCU	5,164	293.5
MTU	1,418	83.5
Total	6,582	377

Sources: L C U Central Registration Unit 2021 and M T U General Registration Unit 2021

Sample Size

For the purpose of this study the researcher chose to determine the sample size using Taro Yamane formula:

$$n = \frac{N}{1 + N(e)^2}$$

n= Sample size
N= Population size = 6,582
E= Margin of errors= 0.05

Hence:

$$n = \frac{6582}{1 + 6582(0.05)^2}$$

$$n = \frac{6582}{1 + 6582(0.0025)}$$

$$n = \frac{6582}{1 + 16.455}$$

$$n = \frac{6582}{17.455}$$

$$n = 377.1$$

The below data was also collected from the Lead City University, Ibadan and Mountain Top University, Ibafo, Ogun State

Table 3.3 Sample size of the category of the respondents

Department	Sample Size			
	200L	300L	400L	Total

Microbiology	24	21	20	65
Accounting	37	33	25	95
Mass Communication	45	32	23	100
Computer Science	55	30	32	117
Total	161	116	100	377

Source: Field Work 2021

However, 377 questionnaires was administered to the selected respondents which the researcher is considered to be sufficient for the study.

3.4 Description of Research Instrument

The word research instrument refers to any tool one may use for the collection of data, for the measurement of data and for analysis of data related to the study issue.

In the disciplines of social sciences and health science, research tools are commonly employed. These technologies are also available in education related to patients, employees, instructors and students.

Questionnaire is one of the most widely used tools to collect data in especially social science research, arts humanities and education. The main objective of questionnaire in research is to obtain relevant information in most reliable and valid manner.

Questionnaire is the main instrument to be used for data collection for this study. The questionnaire is titled – Use of Smart Mobile Gadgets and On Perceived Academic Performance Questionnaire. The questionnaire will be divided into two sections A and D Section A of the questionnaire is designed to capture the demographic variables of the respondents such as gender, age, class, name of University, Department, and level of study. Sections B –D of the questionnaire will address Motivation to use smart mobile gadgets, characteristics of learning management system and perceived academic performance and is subdivided in the questionnaire as follow:

• Section B – Perceived academic performance – Perceived Ease of Use and Perceived Usefulness

Perceived academic performance has four main components that aims to reveal four -point Likert type scores correspond to Strongly Agree (SA), Agree (A), Disagree (D), Strongly Disagree (SD}

• Section C – Motivation to use smart mobile gadgets(Levels of skill, Levels of knowledge and Personal factors) on perceived academic performance were measured using Likert type, 4-point scale: Strongly Agree (SA); Agree (A); Disagree (D); Strongly Disagree (SD).

• Section D – Characteristics of learning management system on perceived academic performance of undergraduate students in Lead City University and Mountain Top University. Characteristics of learning management system (Relative advantage, Compatibility and Obsevability) to be measured using Likert type, 4-point scale: Strongly Agree (SA); Agree (A); Disagree (D); Strongly Disagree (SD), The questionnaires were adapted

3.5 Validity of Research Instrument

Validity of content is defined as a degree to which objects represent the universe of content to which the instrument is generalized in an instrument[3]. In the area of IS, validity of content is suggested during the development of the new instrument. In order to achieve content validity the adapted measuring instrument (questionnaire) was given to my supervisor for necessary correction so as to ensure the reliability and validity of the research instrument. Based on the criticism and corrections of the experts, the questionnaire was modified to achieve the research objectives.

3.6. Reliability of Research Instrument

Reliability of the research instrument has to do with the ability to elicit the same information from all respondents of the same category. Reliability is the level of accuracy and stability, consistency of instrument in measuring what has been designed to measure.

The researcher subjected the questionnaire to a reliability test to check the internal consistency of all terms measuring each variables in the study. For the purpose of this study, the questionnaire was pre-tested using thirty-five (35) undergraduate students in Christopher University, Mowe, Ogun state that shares similar characteristics with the target respondents. To test the reliability he questionnaire, the Cronbatch Alpha reliability method was used at 0.05 levels of significance. The reliability test result recealed the following results section by section yielded results on perceived academic performance (r=0.72), Motivation to Use Smart Mobile Gadgets (r=0.74),Characteristics of Learning Management System (r=0.81). These Cronbatch alpha values are within the range accepted for reliability of research instruments.

3.7 Administration of Instrument and Methods of Data Collection

Data was collected through the use of questionnaire designed for the purpose. The researcher along with three other research assistants administered the questionnaire to the respondents. The research assistants undergo training for a day by the researcher on how to administer and retrieve the questionnaire in order to achieve a high response rate. The data collection lasted for two weeks.

3.8 Data Analysis

This is the process of systematically applying statistical and/or logical techniques to describe and illustrate, condense and recap, and evaluate data. An essential component of ensuring data integrity is the accurate and appropriate analysis of research findings. The Statistical Package for data analysis (SPSS) was used to analyze the data through the questionnaire. Descriptive statistics such as frequencies, percentages, mean and standard deviation were used for analysing the research questions. The hypothesis was analyze using simple regression analysis method so as to show relationship between dependent and independent variable The hypothesis was analyzed by using simple regression analysis method so as to show relationship between dependent and independent variables of the study.

Endnotes

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CHAPTER FOUR

Results and Discussion of Finding

Data presentation is a way of arranging data obtained via various data collection methods to allow the researcher perform analysis and derive new meanings from it.

This chapter presents the results of analysis of the data generated from the field to guide the findings of the study. A statistical approach was used in bringing together the views and opinions

of the respondents from questionnaires distributed to them. The data collected is presented in simple table and questions presented in the questionnaire will be analyzed using simple percentage while hypotheses were analysed with the aid of simple regression.

Though estimated sample size was 377, a total of 400 questionnaires was sent out to cater for attrition, however, a total of 376 were returned completely filled, which translate to 94.25% response rate. Hence, the analysis of data is based on the returned questionnaires.

4.1a Data Presentation

This sub-section presented the socio-economic characteristics of the surveyed respondents via frequency and percentage analyses.

Table 4..1a: Questionnaire Administration and Return Rate

Institution	Frequency (F)	Percentage (%)
Lead City University	293	77.93
Mountain Top University	83	22.07
Total response rate	376	100%

Source: Field work 2021.

Table 4.1a presents the return rate on number of questionnaire across the two private universities. A total number of four hundred (377) copies of the questionnaire were administered to respondents at the two private universities. However, three hundred and seventy-six (376) copies were duly completed and usable giving 99.73% response rate. Table 4.1a shows that most of the respondents 77.93% (293) were Lead City University. In addition, 22.07% (83) were from Mountain Top University.

Table 4.2: Demographic data of respondents

Variables	Category	Frequency (F)	Percentage (%)
Gender	Single	347	92.29
	Married	29	7.71
Sex	Male	193	51.33
	Female	183	48.67
Age	14-20 years	176	46.81
	21-27 years	158	42.02
	28-34 years	27	7.17
	35-41 years	15	

			7.17
	LCU	293	4.00
	MTU	83	
Name of University			22.93
			22.07
	Social science	152	
	Sciences	141	
Faculty			40.43
	CBAS	48	37.50
	CHMS	35	12.77
			9.31
	Microbiology	65	
Department	Accounting	95	17.29
	Mass communication	99	25.27
	Computer science	117	26.33
			31.12

Source: Field Work 2021

Table 4.2 shows that majority of the respondents 347 (92.29%) of the respondents are single, 29 (7.71%) respondents are married, Majority of the undergraduate students in the two selected private Universities in South West, Nigeria were single

Evidence given on table 4.1 shows that 193 (51.33%) of the respondents were male while 183 (48.67%) of the respondents were female. Table 4.1 shows clearly that the majority of undergraduate students in Lead City University, Ibadan, oyo State and Mountain Top University, Ibafo, Ogun State were female

On the respondents age group, 176 (46.81%) of them are between the age of 14-20 years, 138 (42.02%) are between the ages 21 and 27, 7.17% of the respondents are between ages 28 and 34, while 4% are of 35 years and above. Large number of students in the two selected private universities in South West, Nigeria were within the age of 14-20 years and 21-27 years

Also, table 4.1 shows that majority of the respondents (77.93%) of the respondents are students of Lead City University (LCU), while the remaining 22.07% of the respondents are from Mountain Top University (MTU).

Concerning the respondents' course of study, 65 (17.29%) are microbiology students, 95 (25.27%) are accounting students, 99 (26.33%) are mass communication students, and the remaining 117 (31.12%) respondents are studying computer science.

4.2 Analysis of Research Question

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

?**Table 4.3:** Perceived Academic Performance of Undergraduate Students

	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	78	248	25 (66)	25	2.89

	my performance	(20.7)	(66.0)		(66)	
4	I have sponsorship from my parent	143 (38.0)	160 (42.6)	37 (9.8)	36 (01.6)	3.22
						3.10

Decision rule 1.00-1.49= Strongly Disagreed, 1.50-2.49=Disagreed, 2.50-3.49=Agreed, 3.50-4.00= Strongly Agreed

Strongly Disagreed= SD, Disagreed= D, Agreed= A, Strongly Agreed= SA

Table 4.3 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, while10.10 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 motivation to use smart mobile gadgets (perceived usefulness and perceived ease of use) by the undergraduate students in the two selected private universities?

Table 4.4: Motivation to Use Smart Mobile Gadgets

	Items	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

Decision rule 1.00-1.49= Strongly Disagreed, 1.50-2.49=Disagreed, 2.50-3.49=Agreed, 3.50-4.00= Strongly Agreed

Strongly Disagreed= SD, Disagreed= D, Agreed= A, Strongly Agreed= SA

Table 4.4 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 interactions 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 tha t 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 has 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.

Research Question Three: What are characteristics of learning management system as perceived by the undergraduate students in the two selected private universities?

Table 4.5: Characteristics of learning management system as perceived by t the undergraduate students in the two selected private universities

S/N	Items	SA (%)	A (%)	D (%)	SD (%)	Mean
	Relative Advantage					
1	LMS better than using workbooks or paper and pencil tests for learning and academic programmes	147 (39.1)	168 (44.7)	30 (8.0)	31 (8.2)	3.15
2	LMS is more interesting than other educational platforms I have used as part of a course sources of information	159 (42.3)	181 (48.1)	23 (6.1)	13 (3.5)	3.29
3	Using learning management system made learning about my course a better experience than I would have otherwise	73 (19.4)	238 (63.3)	49 (13.0)	16 (4.3)	2.98
4	I had more fun learning about my course because of using LMS platform	55 (14.8)	260 (69.1)	43 (11.4)	18 (4.8)	2.94
5	LMS offered me real advantages over the way I usually take classes.	109 (29.0)	239 (63.9)	22 (5.9)	6 (1.6)	3.20
	Compatibility					
1	LMS fit right into the way I like to take courses	97 (25.8)	228 (60.6)	37 (9.8)	14 (3.7)	3.20
2	LMS platform helped me to learn more about technology while also learning about my course	78 (20.7)	248 (60.0)	25 (6.6)	25 (6.6)	3.09
3	Using this platform made what I was learning in class seem easier to me.	108 (28.7)	197 (52.4)	42 (11.2)	29 (7.7)	3.01
4	The name “LMS” made me want to use the platform for my academic and training programs	143 (38.0)	160 (42.6)	37 (4.8)	36 (9.6)	3.02
	Observability					
1	Other students seemed interested in LMS when they saw me using it	100 (26.6)	175 (46.5)	63 (16.9)	38 (10.1)	3.09

2	I was influenced by the benefits of LMS	94 (25.0)	183 (48.7)	45 (12.0)	54 (14.4)	2.90
3	My course lecturers seemed to like using LMS platform for assignment, announcement, lecture notes and so on.	123 (32.7)	176 (46.8)	61 (16.2)	16 (4.3)	3.24
						3.08

Decision rule 1.00-1.49= Strongly Disagreed, 1.50-2.49=Disagreed, 2.50-3.49=Agreed, 3.50-4.00= Strongly Agreed

Strongly Disagreed= SD, Disagreed= D, Agreed= A, Strongly Agreed= SA

On the relative advantage, about 16% of the respondents disagreed that LMS better than using workbooks or paper and pencil tests for learning and academic programmes, while 39.1% strongly agreed and 44.7% agreed to the proposition. Majority (48.1%) of the respondents agreed that LMS is more interesting than other educational platforms they have used as part of a course sources of information, 42.3% strongly agreed, while 6.1% disagreed and 3.5% strongly disagreed. Similarly, most (69.1%) of the respondents agreed that they had more fun learning about their course because of using LMS platform, 14.8% strongly agreed, while 11.4% and 4.8% disagreed and strongly disagreed respectively. Finally, with the mean score of 3.2, about 93% of all the respondents agreed that LMS offered them real advantages over the way they usually take classes, about 7% disagreed.

On the compatibility of LMS, with the mean score of 3.20, most (60.6%) of the respondents agreed that LMS fit right into the way they like to take courses, 25.8% also strongly agreed, while 9.8% and 3.7% disagreed and strongly disagreed respectively. Similarly, 52.4% of the respondents agreed that using this platform made what they are learning in class seem easier to them, 28.7% strongly agreed, 11.2% disagreed and 4.8% strongly disagreed. Finally, 38% of the

respondents strongly agreed the name “LMS” made me want to use the platform for my academic and training program, 442.6% also agreed, while 9.8% and 9.6% disagreed and strongly disagreed respectively.

On observability, 48.7% of the respondents believed they were influenced by LMS platform, 25% strongly agreed, while 12% disagreed, 14.4% strongly disagreed that they have been influenced by LMS platform. Lastly with the mean score of 3.24, respondents almost unanimously agreed that their lecturers seems to like using LMS system for assignments, announcement, lectures and so on, 16.2% and 7.1% disagreed and strongly disagreed respectively.

4.3 Test of Hypotheses

The following null hypothesis will be listed 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

Table 4.6a: Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.442[a]	.195	.193	2.53921	1.731

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

b. Dependent Variable: Perceived Academic Performance

Table 4.6b: ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
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 gadgets

Table 4.6c: Coefficients[a]

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

Smart Mobile Phone

a. Dependent Variable: Perceived Academic Performance

From the regression tables above (Tables 4.6a-4.6c), 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 (R^2) 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.

Ho2 There is no significant influence of characteristics of learning management system on perceived academic performance of undergraduate students in the two selected private universities

Table 4.7a: Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.418[a]	.175	.173	2.57068	1.875

a. Predictors: (Constant), Characteristics of Learning Management System

b. Dependent Variable: Perceived Academic Performance

Table 4.7b: ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	524.381	1	524.381	79.351	.000[b]
	Residual	2471.534	374	6.608		
	Total	2995.915	375			

a. Dependent Variable: Perceived Academic Performance

b. Predictors: (Constant), Characteristics of Learning Management System

Table 4.7c: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	11.127	.500		22.233	.000
	Characteristics of Learning Management	.309	.035	.418	8.908	.000

System

a. Dependent Variable: Perceived Academic Performance

From the regression tables above (Tables 4.7a-4.7c), results indicated that there is a significant and positive influence of characteristics of learning management system on perceived academic performance of undergraduate students. This is reflected on the value of the co-efficient of the correlation (R) which is 0.418. This value indicates that the strength of the relationship between the two variables under study is about 41.8% while holding other variables constant. The co-efficient of determination (R^2) showed a value of 0.175 which indicates about 17.5%. This result implies that on the average about 17.5% variations in perceived academic performance is systematically explained by changes in characteristics of learning management system. Thus, not more than 82.5% variations in the perceived academic performance remain unexplained by this explanatory variable.

The F-value of 70.351 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 positive influence of characteristics of learning management system on perceived academic performance of undergraduate students. We therefore reject the null hypothesis of no significant influence of characteristics of learning management system on perceived academic performance of undergraduate students.

Ho3: There is no combined significant influence of motivation to use smart mobile gadgets and characteristics of learning management system on perceived academic performance of undergraduate students in the two selected private universities.

Table 4.8A: Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.507[a]	.257	.255	2.43981	1.819

a. Predictors: (Constant), Combined Effect

b. Dependent Variable: Perceived Academic Performance

TABLE 4.8b: ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	769.616	1	769.616	129.289	.000[b]
	Residual	2226.299	374	5.953		
	Total	2995.915	375			

a. Dependent Variable: Perceived Academic Performance

b. Predictors: (Constant), Combined Effect

Table 4.8c: Coefficients[a]

Model	Unstandardized Coefficients	Standardized Coefficients	T

		B	Std. Error	Beta	
1	(Constant)	7.127	.500		22.2
	Combined Effect	.409	.035	.418	8.9

a. Dependent Variable: Perceived Academic Performance

From the regression tables above (Tables 4.8a-4.8c), results indicated that there is a significant and positive influence of motivation to use smart mobile gadgets and characteristics of learning management system on perceived academic performance of undergraduate students. This is reflected on the value of the co-efficient of the correlation (R) which is 0.507. This value indicates that the strength of the relationship between the variables under study is about 50.7% while holding other variables constant. The co-efficient of determination (R^2) showed a value of 0.257 which indicates about 25.7%. This result implies that on the average about 25.7% variations in perceived academic performance is systematically explained by changes in motivation to use mobile gadgets and characteristics of learning management system. Thus, not more than 74.3% variations in the perceived academic performance remain unexplained by this explanatory variables.

The F-value of 129.289 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 positive influence of motivation to use mobile gadgets and characteristics of learning management system on perceived academic performance of undergraduate students. We therefore reject the null hypothesis of no significant combined influence of motivation to use mobile gadgets and characteristics of learning management system on perceived academic performance of undergraduate students.

4.3 Discussion of Findings

The main aim and objectives of the study is to investigate the influence of motivation to use smart mobile gadgets and characteristics of learning management system on perceived academic performance of undergraduate students in Lead City University, Ibadan, Oyo State and Mountain

Top University, 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 and Mountain Top University, Ibafo, Ogun State.

The findings of the study revealed that the ability to use smart mobile gadgets and Characteristics of LMS platform enhanced perceived academic performance. This might be that majority of the undergraduate students in Lead City University, Ibadan, Oyo State and Mountain Top University, 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 Don Elger which asserted that to perform is to carry out a difficult chain of tasks that combines abilities and knowledge to yield a useful outcome[1]. This is corroborated by a study 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[2].

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 is clear and understandable. Similarly, it was discovered that respondents hardly encounter technical problem when using smartphone 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, 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[3]. However, 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[4].

The researcher also sought to find out the perceived usefulness 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, Ibafo, Ogun State. Findings revealed that smart mobile gadgets enables respondents to take quiz and continuous assessment (CA) anywhere and anytime and that smart mobile gadgets have saved them from buying personal laptop for studies. Furthermore, the study adduced that using the smart mobile gadgets for learning has enabled them to gain extra skills and experiences outside the classroom. This result is consistent with a

research in which South African undergraduate students indicated that using a smartphone for academic work is highly helpful[4].

As regard characteristics of learning management system as perceived in the two selected private universities. The findings, LMS is better than using workbooks or paper and pencil tests for learning, and it is more interesting than other educational platforms they have used as part of a course sources of information. Additionally, it was discovered that LMS offers real or relative advantages over the way classes are being taken. This finding is in line with the study that revealed that relative advantage is the degree to which an innovation is thought to be superior to the idea it replaces. Economic metrics can be used to gauge relative advantage, but other key considerations include social standing, comfort, and contentment. If an innovation offers a significant amount of objective advantage, the degree of relative advantage is frequently not a major concern. What matters, though, is whether a person views the innovation favorably. The perceived relative advantage of an innovation increase the more quickly it will be adopted[4]. This is supported with the study on the use of LMS in a higher education environment, claims that information technology improves academic performance. In his study, two sets of students took the very same course taught by the same professor, the first without connectivity to LMS and the second with access to LMS. His research found that using an LMS improved academic performance[5].

On the compatibility of LMS, it was discovered that LMS fits right into the way the respondents like to take courses and that using this platform made what they are learning in class seem easier. This finding is in line with the study that revealed that compatibility is the degree to which an invention is viewed as being consistent with the current values, prior experiences, and needs of a potential user[4]. This finding also supported the study that asserted that the possibility that

someone will embrace an innovation increases as more people are exposed to its effects. Because friends and coworkers of an adopter frequently inquire about innovation evaluation information, such visibility encourages peer debate of a novel idea[6].

Test of hypothesis one revealed that there is a significant and positive influence of motivation to use smart mobile gadget on perceived academic performance of undergraduate students ($p<0.001$, $r=0.442$). This result implies that increase in motivation to use smart mobile will produce substantial increase in the perceived academic performance of undergraduate students. Further test of hypothesis also revealed significant and positive influence of characteristics of learning management system on perceived academic performance of undergraduate students ($r=-0.418$, $p<0.001$). Finally, results of the third test of hypothesis indicated that there is a significant and positive influence motivation to use smart mobile gadgets and characteristics of learning management system on perceived academic performance of undergraduate students ($P<0.001$, $r=0.507$)

Endnotes

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Chapter Five

Conclusion

5.1 Summary of Findings

The study investigated Motivation to Use Smart Mobile Gadgets, f Learning Management System Characteristics and Perceived Academic Performance of Undergraduate Students in Lead City University, Ibadan, Oyo State and Mountain Top University, Ibafo, Ogun State. The study adopted a survey research design that aims at assessing the influence of independent variables on dependent variable. Self-administered questionnaires were administered to 376 respondents.

1. Majority of the respondents (78%) were students of Lead City University (LCU), while the remaining 22% of the respondents are from Mountain Top University (MTU), while department of Computer Science has the highest with 117 (31.12%) among departments of respondents,

2. On the respondents age group, 46.81% of them are between the age of 14-20 years, 42.02% are between the ages 21 and 27, 7.17% of the respondents are between ages 28 and 40, while 4% are of 35 years and above.

3. Evidence given on table 4.1 shows that 193 (51.33%) of the respondents were male while 183 (48.67%) of the respondents were female and Similarly, table 4.1 also shows that majority of the respondents 347 (92.29%) of the respondents are single, 29 (7.71%) respondents are married

4. Concerning the respondents' course of study, 65 (17.29%) are microbiology students, 95 (25.27%) are accounting students, 99 (26.33%) are mass communication students, and the remaining 117 (31.12%) respondents are studying computer science.

5.Majority of the student believes that their levels of skill, Levels of knowledge and personal factors plays a crucial role in their perceived academic performance. Table 4.2 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

6. These findings clearly revealed that the undergraduate students in Lead City University, Ibadan, Oyo State and Mountain Top University,Ibafo, Ogun State, perceived ease of use and perceived usefulness of smart mobile gadgets has greatly influenced their motivation to use smart mobile to enhance their perceived academic performance, this evidently shown in table 4.3, 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 also 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

7 Respondents' responses to questions on the characteristics of learning management system as perceived in the two selected private universities, revealed that these attributes of relative advantage, compatibility and observability enable the students to utilized and realized the benefit of learning management platform on their academic programmes

8. Majority rarely lack information literacy skills as a challenge and Unfriendly attitude of library staff is never a challenge encountered by undergraduate students in the use of smart mobile gadgets and learning management platform

9. There is significant influence of motivation to use smart mobile gadgets on perceived academic performance of undergraduate students at ($r=0.442$, $p<0.001$).

10. there is a significant and positive influence of characteristics of learning management system on perceived academic performance of undergraduate students ($r=-0.418$, $p<0.001$)

11 There is a significant and positive influence motivation to use smart mobile gadgets and characteristics of learning management system on perceived academic performance of undergraduate students at ($r=0.507$, $p<0.001$)

5.2 Conclusion

It is blatant 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, Ibafo, Ogun State. With reference to the findings of this study, it was revealed that levels of skill, level of knowledge and personal factors have positive influence on the perceived academic performance of undergraduate students.

It was also found out that the undergraduate students of Lead City University, Oyo State and Mountain Top University, Ibafo, Ogun State finds it easy to use a smartphone in their academic activities which enhanced their perceived usefulness of using a smart mobile gadgets for learning activities. The findings can be attributed to the fact that since part of their course is deliver via digital mode, there is the tendency that, they were fueled to learn how to use a smart mobile gadgets to access the learning management system which is a common platform for course delivery.

Also, the study found a positive usefulness of the motivation to use smart mobile gadgets and characteristics of learning management system in the students learning activities such as easy sharing and accessing of lecture materials online, easy communication with colleagues and course masters, being able to carry smart mobile gadgets any anywhere and at any time because of its portability.

Also, smart mobile gadgets can be frozen at the peak of learning moments and many others. The researcher is hereby recommending that there should be constant strong Wi-Fi connection, constant power, and the library, departments and faculties of the Lead City University, Ibadan, Oyo State and Mountain Top University, Ibafo,Ogun State should orient students on how they

can effectively utilize their smart mobile gadgets and characteristics of learning management system for their academic activities with minimal distractions.

Based on the study's discussion, we can reach the conclusion that motivation to use smart mobile gadgets and characteristics of learning management system when used for school-related learning activities, have a positive impact on students' perceived academic performance. When students use smart mobile gadgets and characteristics of learning management system for learning activities, information is typically transmitted in only one direction because there is no direct teaching involved. The students realized they needed some information, searched for it on their smart mobile gadgets, entered the answer into whatever project they were working on, and continued on their way.

5.3 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:

i. There is need for lecturers and instructors to be given the opportunities to attend both local and international seminars/workshops and training on current trend in ICT so as to acquire necessary skills and abilities to efficiently facilitate online distribution of learning content using smart mobile devices and learning management system platforms.

ii. 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.

iii. Parents should also provide a supportive emotional environment for their children so that they can benefit from face-to-face online instruction and learning. These would enable the students to get the most out of online learning.

iv. Parents should try as much as possible to provide support ranging from making available the necessary electronic gadgets (such as laptops and android phones), access to electricity power supply (generating sets and solar panels) and sufficient data for strong and consistent internet connection

v. An institutional framework that supports an equal learning environment should also support the features of the learning management system. The general goal of LMS systems is to increase student engagement with course material by enabling the use of mobile devices like smartphones, laptop, ipads and so on

vi. 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.

vii. There is the need to sensitized academic librarians and lecturers to publish impactful publication on smart mobile gadgets, learning management system characteristics and perceived academic performance in a relevant journal publication.

viii. ICT application and usage of mobile gadgets and online platform should be introduced into the educational curriculum which will make students an independent learners

ix. Finally, from this study there is need for all categories of institutions of learning to embrace and promote the application and utilization and motivation to use smart mobile gadgets and characteristics of learning management which will directly make learning and teaching interesting, interactive and collaborative among students, lecturers with needed skills to enhance their perceived academic performance

5.4 Contribution to knowledge

The study has filled a research gap by empirically exhibiting the influence of motivation to use smart mobile gadgets, learning management system characteristics on perceived academic performance of undergraduate students in Lead City University, Oyo State and Mountain Top University, Ibafo, Ogun State amid Covid-19 pandemic. The study has also revealed that effective usage of smart mobile gadgets and learning management system characteristics enhanced the perceived academic performance of undergraduate students and it makes learning and teaching interesting and collaborative.

The theories used in this study that is the theory of Technological Acceptance Model, Diffusion of Innovation theory and theory of performance all helps in making the students to realize the benefit of motivation to use smart mobile gadgets and learning management characteristics on their academic performance, it makes students to become an independent learner and be self-confident. The theories also makes students and lecturers to understand some basic fundamental principles that motivate them to use smart mobile gadgets. That is the perceived ease of use and perceived usefulness of information gadgets, they are very crucial in the attainment of set goal and objectives

All in all the study has made the students to know the relevance of motivation to use smart mobile gadget and learning management in all facet of their academic pursuit which will always enhance their academic performance. Empirically, the finding has obtained data that has never been previously use. This data is available for future researchers who might find some facet beneficial for adaption or comparism.

5.5 Suggestions for further studies

The following suggestions are hereby made for further studies:

1. There is need to carry out a study on Smart technology and utilization of characteristics of LMS among undergraduate and postgraduate students of private universities in South-west, Nigeria.

2. The present study was carried out to investigate the motivation to use smart mobile gadgets learning management system and perceived academic performance of undergraduate students in Lead City University, Ibadan Oyo State and Mountain Top University, Ibafo, Ogun State, South West, Nigeria amid Covid-19 pandemic, the researcher found out that there is need to carry out a comprehensive comparative research work on the utilization and attitude of undergraduate students in Nigeria universities towards smart mobile gadgets and learning management system on their perceived academic performance

3. Motivation to use smart mobile gadgets, Characteristics of learning management system on perceived academic performance among undergraduate and postgraduate students in South-west public universities in Nigeria needed the attention of scholars

4 There is need for study on developments of LMS technology and mobile gadgets to include more sophisticated tools and devices to enable genuine synchronous communication, such as videoconferencing applications and peer-to-peer messaging on students perceived academic performane

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APPENDIX

DEPARTMENT OF INFORMATION MANAGEMENT

LEAD CITY UNIVERSITY, IBADAN, OYO STATE

Dear respondent,

This questionnaire is designed to collect data for a Master degree on Motivation to Use Smart Mobile Gadgets and Characteristics of Learning Management System on Perceived Academic Performance of Undergraduate Students of Lead City University, Ibadan, Oyo State and Mountain Top University, Ibafo, Ogun State Amid Covid-19. Your kind assistance in completing the questionnaire as possible would be appreciated.

Please note that all information would be treated confidentially and use strictly for research purposes only.

Thank you for your usual co-operation.

Adeniyi Michael, OMOTADE

SECTION A DEMOGRAPHIC INFORMATION

Instructions: Please answer questions ticking in the appropriate box or circling appropriate number or fill in the gap.

1. Name of University _____
2. Faculty/College_____
3. Department_____
4. Program of study (a) Diploma (b) JUBEB (c).B.Sc (d) Masters € PhD
5. Marital Status Single ( ) Married ( )
6. Age 14-20 ( ) 21-27 ( ) 28-34 ( ) 35- 41 ( )
7. Genders: (a) Male (b) Female

SECTION B Perceived Academic Performance

Keys Strongly Agree(SA) = 4, Agree(A) =3, Disagree(D) = 2, Strongly Disagree(SD) =1

	What is thee perceived academic performance of undergraduate students in the two selected private universities?	SA 4	A 3	D 2	SD 1
	Levels of skill				
1	My ability to use LMS platform and smart mobile gadgets enhance my perceived academic performance				
2	I do not have problem searching for useful information and materials for my course				
3	My class presentation and ICT skills attributed to my academic performance				
4	My ability to organize time for reading and other activities enhance my perceived academic performance				
	Levels of knowledge				
1	Memorizing facts, ideas, or methods from my course materials and modules influence my perceived academic performance				
2	Applying concepts or theories problems enhance my perceived academic performance				
3	Synthesizing and organizing ideas, information or experience into new interpretation enhance my perceived academic performance				
	Personal factors				
1	My study habit plays an important role in my perceived academic performance				
2	My perception on my course influence my perceived academic performance				
3	My peer group and fellow students affect my my performance				
4	I have sponsorship from my parent				

SECTION C: MOTIVATION TO USE SMART MOBILE GADGETS

	What are motivation to use smart mobile gadgets (perceived usefulness and perceived ease of use) by the undergraduate students in the two selected private universities?	SA 4	A 3	D 2	SD 1
	Perceived Ease of Use				
1	I find it easy to use smart mobile gadgets for reading				
2	My interaction with the smart mobile gadgets for learning is clear and understandable				
3	I do not encounter technical problem when using smartphone for learning				
4	Smart mobile gadgets interfaces is user friendly and flexible to use				
5	Using smart mobile gadgets for learning does not require any special computer literacy skills in order to use.				
	Perceived Usefulness				
1	Smart mobile gadgets enables me to take quiz and Continuous Assessment (CA) anywhere and anytime				
2	Smart mobile gadgets has save me from buying personal laptop for studies.				
3	Using the smart mobile gadgets for learning has enabled me to gain extra skills and experiences outside the classroom				
4	Smart mobile gadgets enable me to easily effectively use the LMS for learning				
5	Motivation to use smart mobile gadgets enable me to record lectures delivered by my tutors				

SECTION D: CHARACTERISTICS OF LEARNING MANAGEMENT SYSSTEM

S/N	**What are characteristics of learning management system(Relative Advantage, Compatibility, Observability) as perceived by the undergraduate students in the two selected private universities**	SA 4	A 3	D 2	SD 1
	Relative Advantage				
1	LMS better than using workbooks or paper and pencil tests for learning and academic programmes				
2	LMS is more interesting than other educational platforms I have used as part of a course sources of information				
3	Using learning management system made learning about my course a better experience than I would have otherwise				
4	I had more fun learning about my course because of using LMS platform				
5	LMS offered me real advantages over the way I usually take classes.				
	Compatibility				
1	LMS fit right into the way I like to take courses				
2	LMS platform helped me to learn more about technology while also learning about my course				
3	Using this platform made what I was learning in class seem more easy to me.				
4	The name "LMS" made me want to use the platform for my academic and training programs				
	Observability				
1	Other students seemed interested in LMS when				

	they saw me using it				
2	I was influenced by the benefits of LMS				
3	My course lecturers seemed to like using LMS platform for assignment, announcement, lecture notes and so on.				

Bio-data

Personal Data

Full Name:	Adeniyi Michael, OMOTADE
Sex:	Male
Date of Birth:	28th December, 1973
Place of Birth:	Ijero Ekiti
Local Government Area:	Ijero Ekiti
State of Origin:	Ekiti State
Nationality:	Nigerian
Language:	English, Yoruba
Marital status:	Married
Name of Next of Kin:	Mrs Oluwaseyi Elizabeth OMOTADE
Address of Next of Kin:	7, Dorcas Ogunmola Street, Campbell, Dalemo – Alakuko, Ogun State
Cell No:	+2348060080632, +2348184690426
E-mail Address:	omotademichael7@gmail.com

EDUCATIONAL BACKGROUND/ QUALIFICATION

Lead City University, Ibadan, Oyo State	Masters in Library and Library Science	2019-2022
Bayero University, Kano	B.A Library Science	1994-1998
Bayero University, Kano	Diploma Library Science	1990-1992
University of Lagos, Akoka, Yaba Centre for Information Technology And Systems	Diploma in Desktop Publishing and Graphics Design	2009
WASSCE (Private)	G. C.E	2007

Agbado District Comprehensive High School, Oke-aro, Ogun State | WAEC | 1988

PROFESSIONAL MEMBERSHIP

Librarians' Registration Council of Nigeria (LR CN) 2012

Nigerian Library Association (NLA) Lagos Chapter 2005

WORKING EXPERIENCE

Mountain Top University, Ibafo, Ogun State — Principal Library Officer II
2016 TO DATE

Duties and Responsibilities

- Cataloguing and classification of library materials
- Indexing and abstracting of serial publications
- Preservation and conservation of library material
- Assisting lecturers, students and researchers whenever there is need
- Bibliographic entries of information on koha platform
- Supervision of library users
- Other duties assign to me by my superior

Lagos State University, External Campus, Jibowu, Yaba, Lagos — Librarian

2005 to 2016

Duties and Responsibilities

- Organising and coordinating of library activities
- Processing and acquisition of library materials
- Updating of library document
- Cataloguing and classification of library materials
- Reporting and updating of library activities to my superior
- Preservation and conservation of library materials

Research Interest

- Information Resources Management
- IT Adoption and Use
- Library Administration and Services

Publications

Motivation to Use Smart Mobile Gadgets, Learning Management System Characteristics on Perceived Academic Performance of Undergraduate Students in Mountain Top University, Ibafo, Ogun State

Organization, Use and Services of Central Medical Library Yaba, Lagos (B.A Project)

Workshop / Seminar Attended with Dates

- ✓ Training on Capacity Building Result for Faculty and Staff - Institute for National Transformation. Sponsored by Mountain Top University, Ibafo, Ogun State 2021
- ✓ Seminar on Drug Usage and Abuse 2022 Sponsored by Mountain Top University
- ✓ Sensitization workshop on Information Resources available online and their benefits as well as their service provider- Sponsored and organized by the NUC 2017

Extra-Curricular Activities

Working, Reading, Sports, Travelling

Skills/ Strenghts //Competencies

Windows Operating Systems, Microsoft Office Suite

Team work, Strategy, Planning and Coordination

Personal Qualities:

- ❖ Leadership
- ❖ Ability to work independently
- ❖ High degree of initiative and sense of quality
- ❖ Management time and resources
- ❖ Effective communication skills both written and verbal
- ❖ Team player results oriented
- ❖ Proactive and creative
- ❖ Attention to detail

References:

Dr Adeyemi Akinola

Reader's Service Librarian

Mountain Top University, Ibafo, Ogun State

07066116149

Dr Ezekiel Sodiya

Chemical Science Department

Mountain Top University, Ibafo, Ogun State

08033469940

Mrs Adenike Jacob

Finance Department

Nigerian Bottling Company (Coca Cola)

Oyingbo, Lagos

08035534545

_____ _____

Signature Date

University Compliance Certificate

This is to certify that this thesis by OMOTADE, Adeniyi Michael with matric number LCU/PG/001219 of the department of Information Management Lead City University, Ibadan, Oyo State, is in full compliance with the approved university format and style.

_____ _____

Signature Date