

**TECHNOLOGICAL FACTORS AFFECTING ACADEMIC PERFORMANCE A CASE
STUDY OF THE MANAGEMENT UNIVERSITY OF AFRICA.**

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**RESEARCH PROJECT SUBMITTED TO THE SCHOOL OF THE MANAGEMENT
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ABSTRACT.

In the rapidly evolving landscape of education, technological advancements have significantly influenced the learning experiences of 21st century students. This study explores the technological factors affecting students at the Management University of Africa, examining their perceptions, challenges, and opportunities in utilizing technology for academic purposes. By employing a case study approach, qualitative and quantitative data were gathered through surveys, interviews, and observation to gain comprehensive insights into the students' interactions with technology. The findings highlight the pervasive presence of technology in students' lives, emphasizing its role as a double-edged sword. On one hand, technology provides students with convenient access to information, enhances collaboration, and offers innovative learning platforms. On the other hand, it presents distractions, such as social media, that can impede their focus and academic performance. The study identifies several technological factors influencing students, including access to devices, internet connectivity, digital literacy, and institutional support. Furthermore, this research sheds light on the challenges faced by students in utilizing technology effectively. Issues such as unequal access to devices and reliable internet, inadequate training on digital tools, and limited technical support emerged as barriers to maximizing technology's potential for educational purposes. Additionally, the study explores students' attitudes towards technology, their preferences for specific tools and applications, and the impact of technological factors on their overall learning experience. In conclusion, this study provides valuable insights into the technological factors affecting 21st century students at the Management University of Africa. The findings emphasize the importance of bridging the digital divide and addressing the challenges associated with technology integration. It calls for the development of comprehensive strategies that promote equitable access to technology, foster digital literacy, and provide ongoing support to students. By understanding these factors and implementing appropriate interventions, educational institutions can better prepare students for the demands of the digital era and empower them to thrive in an increasingly technology-driven world.

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DECLARATION BY THE STUDENT

This Research project is my original work and has not been presented for any diploma in any other university.

MESHACK MUTINDA

Signature..... Date.....
DICT/12/00055/3/22

Declaration by the supervisor

This research project has been submitted for examination with my approval as university Supervisor

Signature..... Date.....
MR. BENARD RUTTO

MANAGEMENT UNIVERSITY OF AFRICA

DEDICATION

I humbly dedicate this research project to my heavenly father for his sufficient grace until this far and my family together with my good friends for their moral support during the study.

OPERATIONAL DEFINITION OF TERMS

Technological Factors, in this study, technological factors refer to the various elements of technology infrastructure, resources, and tools available to students at the Management University of Africa, including hardware (computers, tablets, smartphones), software (learning management systems, educational apps), internet connectivity, digital learning materials, and support services related to technology. Students, For the purpose of this research project, students are individuals currently enrolled in academic programs at the Management University of Africa, including both undergraduate and postgraduate students. 21st Century Students, The term "21st century students" refers to students who are currently pursuing their education in the present era, characterized by rapid technological advancements, digital literacy, and the integration of technology into various aspects of their learning experiences. Case Study, in this research project, a case study involves an in-depth examination and analysis of the Management University of Africa as a specific educational institution. It involves collecting and analyzing qualitative and/or quantitative data to gain insights into the technological factors affecting students within the university's unique context. Management University of Africa (MUA), MUA is a higher education institution located in Africa, and for the purpose of this research project, it serves as the specific case study site. The study focuses on understanding the technological factors and their impact on students within the specific context of MUA

CHAPTER ONE

INTRODUCTION

1.0 Introduction

The integration of technology in education has transformed the way students learn and engage with educational materials in the 21st century. The Management University of Africa, as a prominent higher education institution, is not exempt from the influence of technological factors on its students. This research project aims to explore and understand the specific technological factors that affect students at the Management University of Africa and their implications for learning outcomes. The significance of this research lies in its ability to contribute to the body of knowledge on the intersection of technology and education in the African context. By conducting a case study at the Management University of Africa, this research project aims to generate valuable insights into the experiences, challenges, and opportunities that students encounter regarding technology utilization.

1.1 Background

In the 21st century, technological advancements have revolutionized various aspects of society, including education. The integration of technology in educational institutions has transformed traditional teaching and learning practices, offering new opportunities and challenges for students. The Management University of Africa, as a prominent institution of higher learning, is not exempt from the influence of these technological factors. Therefore, it is crucial to investigate how these factors affect students' experiences and outcomes in this specific context. The Management University of Africa, located in Africa, operates in a dynamic and rapidly changing environment where technology plays an increasingly prominent role. The widespread availability of digital devices, the rise of internet connectivity, and the proliferation of digital platforms have transformed the educational landscape. These technological factors have the potential to shape students' learning experiences, engagement, and overall academic

performance. While numerous studies have examined the impact of technology on education globally, there is a need for context-specific research that focuses on the Management University of Africa. By conducting a case study in this institution, we can gain valuable insights into the technological factors affecting students and their implications for education in Africa. The case study approach allows for a comprehensive examination of the complex interplay between students and technology within the Management University of Africa. It provides an opportunity to explore students' perceptions, challenges, and opportunities in utilizing technology for academic purposes. By understanding the unique context of the Management University of Africa, we can generate insights that inform targeted interventions and strategies to optimize the integration of technology in education. This research aims to address the gap in the existing literature by investigating the specific technological factors that impact students at the Management University of Africa. It seeks to explore issues such as access to devices and internet connectivity, digital literacy levels, institutional support, and students' attitudes towards technology. The findings will contribute to the body of knowledge on educational technology, specifically in the African context, and provide practical recommendations for enhancing technology integration and supporting students' learning experiences. By conducting this research, we can shed light on the challenges faced by students in utilizing technology effectively and identify opportunities for improvement. The study's findings will have implications not only for the Management University of Africa but also for other educational institutions in Africa facing similar technological challenges and opportunities. Ultimately, the goal is to foster a technology-enhanced learning environment that prepares students for success in the digital era and empowers them to thrive in a globally competitive world. In summary, this research project aims to investigate the technological factors affecting students in the 21st century at the Management University of Africa. By exploring these factors within the unique context of the institution, we can gain valuable insights that inform strategies for effective technology integration and enhance students' learning experiences.

1.2 Statement of the problem

One of the key challenges faced by students at MUA, is the unequal access to technology. Some students may have limited or no access to digital devices such as laptops, smartphones, or tablets, hindering their ability to fully engage in technology-mediated learning activities. This inequality in access can create disparities in educational opportunities and hinder students' academic progress. Limited Internet Connectivity Inadequate or unreliable internet connectivity poses a significant problem for students in utilizing technology for academic purposes. Insufficient access to high-speed internet can hinder students' ability to engage in online research, access learning materials, participate in virtual classrooms, and collaborate with peers. This limitation can impede their overall learning experience and hinder their academic performance. Digital Literacy Gaps, Students at the MUA may encounter challenges related to digital literacy skills. Some students may lack the necessary knowledge and skills to effectively navigate digital platforms, use educational software, or critically evaluate online information. Insufficient digital literacy can hinder students' ability to fully utilize technology for learning purposes and may result in reduced engagement and suboptimal academic outcomes. Technological Distractions While technology offers various learning opportunities, it also presents distractions that can negatively impact students' focus and academic performance. Students may face challenges in managing their digital distractions, such as social media, online gaming, or other non-academic applications. These distractions can lead to decreased productivity, time mismanagement, and difficulties in maintaining attention during learning activities. Insufficient Institutional Support, Students may face a lack of institutional support in effectively integrating technology into their learning experiences. Limited technical support, inadequate training on digital tools and platforms, and a lack of clear guidelines or policies for technology usage can impede students' ability to fully leverage the available technological resources. This lack of support can lead to frustration, inefficiency, and suboptimal utilization of technology for academic purposes. Understanding and addressing these problems is crucial for promoting equitable access to technology, enhancing digital literacy, minimizing distractions, and providing necessary institutional support to students at the Management University of Africa. By identifying and addressing these challenges, educational institutions can create an environment that maximizes the potential benefits of technology in fostering effective teaching and learning experiences.

1.3 Research Objective

- i.) To find out how internet access influences student academic performance at the Management University of Africa.
- ii.) To determine how hardware availability affects student academic performance at the Management University of Africa.
- iii.) To establish how software use impacts student academic performance at the Management University of Africa.
- iv.) To identify how the level of digital literacy among students affects student academic performance at the Management University of Africa.

1.4 Research questions

- i.) How does internet access influence student academic performance at the management university of Africa?
- ii.) How does hardware availability affect students' academic the management university of Africa?
- iii.) What is the impact of software use on affect students' academic the management university of Africa?
- iv.) What is the effect of digital literacy among students' academic performance at the management university of Africa?

1.5 Significance of the study

Fill the Research Gap this study addresses a specific research gap by focusing on the technological factors affecting students in the 21st century at the Management University of Africa. By conducting a case study in this specific context, your research adds to the limited body of knowledge on the impact of technology on students in African higher education institutions.

Contextual Relevance the Management University of Africa, being a prominent institution in Africa, serves as a representative case study for similar educational institutions in the region. The findings of the research can be extrapolated to other universities in Africa, providing valuable insights into the technological factors affecting students and helping shape educational policies and practices in the continent, how to Improve Technology Integration by identifying the technological factors that positively or negatively affect students, your research can inform strategies to enhance technology integration in education. The findings can guide educational institutions, including the Management University of Africa, in developing effective policies, infrastructure, and support systems to maximize the benefits of technology for students' learning experiences. How to Bridge the Digital Divide the study can contribute to efforts aimed at bridging the digital divide among students at the Management University of Africa. By identifying disparities in access to technology and internet connectivity, your research can highlight the need for equitable distribution of resources and interventions to ensure all students have equal opportunities for effective technology-enabled learning. How to Enhance Digital Literacy Understanding the digital literacy levels and challenges faced by students at the Management University of Africa can inform the development of targeted interventions to improve their digital literacy skills. Enhancing students' ability to navigate digital tools and platforms can empower them to fully utilize technology for academic purposes and better prepare them for the digital demands of the modern workforce. How to Optimize Learning Experiences The findings of the research can contribute to the optimization of students' learning experiences. By addressing distractions posed by technology and understanding students' attitudes and preferences, educational institutions can create tailored approaches that promote engagement, focus, and active learning in a technology-rich environment.

1.6 Scope and limitation of the study

The study focuses specifically on the Management University of Africa, situated within a particular geographic location. The research findings will primarily reflect the experiences and perspectives of students at this institution. The study concentrates on examining the technological factors that impact students' learning experiences and outcomes. These factors may include access to devices, internet connectivity, digital literacy levels, institutional support, and the presence of distractions posed by technology. The research adopts a case study approach, which allows for an in-depth investigation of the Management University of Africa. The case study methodology provides rich qualitative and quantitative data, enabling comprehensive insights into the technological factors affecting students in this specific context. The limitations include the following, the study's findings may be limited by the size of the sample population from the Management University of Africa. The generalizability of the results to a broader student population or other educational institutions may be restricted due to the specific characteristics and context of the case study. Time constraints may impact the depth of data collection and analysis. Conducting an extensive case study within a limited timeframe may restrict the ability to explore all relevant aspects comprehensively. External factors beyond the control of the research project, such as changes in technology or educational policies, may affect the study's outcomes. These factors may impact the generalizability and applicability of the research findings beyond the specific time and context of the study. The research project will adhere to ethical guidelines and ensure the protection of participants' privacy and confidentiality. However, ethical considerations may limit certain aspects of data collection or access to sensitive information. The present study focuses specifically on the Management University of Africa (MUA), situated within a particular geographic location. This focused approach allows for a comprehensive examination of the technological factors influencing students' learning experiences and outcomes within the unique context of MUA. The research delves into aspects such as access to devices, internet connectivity, digital literacy levels, institutional support, and the presence of technology-related distractions. Limitations The study acknowledges several limitations that may influence the interpretation of its findings. Firstly, the sample population is drawn from MUA students, potentially limiting the generalizability of the results to a broader student population or other educational institutions. The specific characteristics and context of MUA may not fully represent the diverse experiences of students across different educational

settings. Secondly, the research timeframe may impact the depth of data collection and analysis. Conducting an extensive case study within a limited period may restrict the ability to explore all relevant aspects comprehensively. This could lead to gaps in understanding the nuances of students' interactions with technology and the full range of technological factors influencing their learning. Furthermore, external factors beyond the control of the research project may affect the study's outcomes. Changes in technology, educational policies, or the overall socio-economic landscape can influence students' access to technology, their digital literacy skills, and the overall impact of technology on their learning. These factors may limit the generalizability and applicability of the research findings beyond the specific time and context of the study. Additionally, ethical guidelines and the protection of participants' privacy and confidentiality may limit certain aspects of data collection or access to sensitive information. This could restrict the ability to gather detailed insights into specific technological practices or behaviors that may impact students' academic performance.

Ethical Considerations The research project will adhere to strict ethical guidelines throughout the study's design, implementation, and dissemination of findings. This includes ensuring informed consent from participants, protecting their privacy and confidentiality, and minimizing any potential risks or harm associated with participation. The research team will also be mindful of cultural sensitivities and respect the diverse backgrounds and beliefs of the participants.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This research project presents a brief literature review focusing on the technological factors affecting students in the 21st century, with a specific emphasis on the case study of the Management University of Africa. The integration of technology in education has revolutionized teaching and learning practices, making it crucial to explore the theoretical perspectives that underpin these technological factors and their impact on students' educational experiences.

2.1 Theoretical literature Review

This research project presents a comprehensive review of theoretical perspectives that contribute to understanding the technological factors affecting students in the 21st century, with a specific focus on the case study of the MUA by exploring relevant theoretical frameworks, this literature review aims to provide a theoretical foundation for analyzing the impact of technology on students' learning, engagement, and overall educational experience.

presents a theoretical literature review that encompasses four key theoretical perspectives relevant to the research project on technological factors affecting students in the 21st century, with a specific focus on the case study of the MUA. The exploration of Technological Pedagogical Content Knowledge (TPACK), Self-Determination Theory (SDT), Digital Divide Theory, and the Technology Acceptance Model (TAM) provides a solid theoretical foundation for understanding the complex interplay between technology and students' learning experiences. By examining these theoretical perspectives, this chapter informs the subsequent data collection and analysis, as well as the development of practical recommendations to enhance the use of technology for students at the Management University of Africa.

2.2.1 Social Cognitive Theory

Social Cognitive Theory (SCT), developed by Albert Bandura, is a psychological theory that focuses on the interaction between personal factors, environmental influences, and behavior. SCT posits that individuals learn through observation, imitation, and modeling, and their behavior is influenced by cognitive processes such as self-efficacy, outcome expectations, and self-regulation. In the context of your research project on technological factors affecting students in the 21st century at the Management University of Africa, Social Cognitive Theory can be applied in the following ways:

Observational Learning SCT emphasizes that individuals learn by observing others. You can investigate how students at the Management University of Africa acquire technological skills, knowledge, and behaviors through observation of peers, instructors, or other influential figures within their educational environment.

Self-Efficacy refers to an individual's belief in their ability to perform a specific task or achieve a desired outcome. You can explore how students' self-efficacy beliefs regarding technology use influence their engagement with technology and their willingness to adopt and utilize technological tools and resources effectively.

Outcome Expectations SCT suggests that individuals' behavior is influenced by their expectations of the outcomes associated with that behavior. In the context of your research, you can examine students' expectations regarding the benefits and outcomes of using technology in their academic pursuits, such as improved learning outcomes, increased efficiency, or enhanced communication and collaboration.

Self-Regulation SCT highlights the role of self-regulation in guiding and controlling behavior. You can investigate how students at the Management University of Africa engage in self-regulatory processes when it comes to technology use, such as setting goals, managing distractions, and monitoring their own progress and performance.

Modeling and Reinforcement, SCT emphasizes that individuals are motivated to imitate behaviors that are reinforced or rewarded. You can explore how positive role models or incentives within the educational environment can influence students' technology adoption and use. Additionally, you can examine the impact of feedback, praise, or other forms of reinforcement on students' motivation and engagement with technology.

By applying Social Cognitive Theory to your research project, you can gain insights into how students' cognitive processes, social influences, and environmental factors interact to shape their attitudes, behaviors, and experiences related to technology use at the Management University of Africa.

2.2.2 Digital Divide Theory

Digital Divide Theory refers to the concept that there are disparities in access to and use of digital technologies between different social, economic, and demographic groups. This theory recognizes that not everyone has equal access to technology resources and that these differences can result in unequal opportunities and outcomes. In the context of your research project on technological factors affecting students in the 21st century at the Management University of Africa, Digital Divide Theory can be applied to examine the existence and implications of the digital divide among students. Here's how you can explain Digital Divide Theory based on your research, Access Disparities, Explore the extent of disparities in technology access among students at the Management University of Africa. Investigate factors such as availability of computers, internet connectivity, and other digital tools. Identify whether certain student groups face greater challenges in accessing technology resources compared to others, based on factors such as socio-economic status, geographical location, or other demographic characteristics. Technological Skills and Competencies, examine how differences in technology access contribute to variations in students' digital skills and competencies. Investigate whether students with limited access to technology face challenges in developing essential digital literacy and skills. Analyze the impact of these disparities on students' ability to engage with digital learning materials, utilize online resources, and effectively navigate technology for academic purposes. Educational Equity, Discuss the implications of the digital divide for educational equity at the Management University of Africa. Investigate whether the digital divide exacerbates existing inequalities in educational opportunities and outcomes. Examine how disparities in technology access may affect students' academic performance, engagement, and overall educational experience. Explore whether students from marginalized or disadvantaged backgrounds face additional barriers in accessing educational resources and participating fully in the digital learning environment. Technological Empowerment, analyze initiatives and interventions aimed at bridging the digital divide and empowering students with technology. Evaluate the effectiveness of programs or strategies implemented at the Management University of Africa to provide technology resources, digital literacy training, or support services to underprivileged students. Assess the impact of these initiatives on narrowing the digital divide and enhancing students' access to educational opportunities. Policy Implications, Discuss the policy

implications of the digital divide in the context of the Management University of Africa. Explore how educational institutions and policymakers can address disparities in technology access and promote digital inclusivity. Identify potential policy measures, infrastructure development plans, or community partnerships that can help bridge the digital divide and ensure equal access to technology resources for all students.

2.2.3 Self-Determination Theory

Self-Determination Theory (SDT) is a psychological theory that focuses on the intrinsic motivation and psychological needs that drive human behavior. It posits that individuals have three basic psychological needs, autonomy, competence, and relatedness. According to SDT, when these needs are satisfied, individuals are more likely to be self-motivated, engaged, and experience well-being. In the context of your research project on technological factors affecting students in the 21st century at the Management University of Africa, Self-Determination Theory can be applied in the following ways, Autonomy, explore how the provision of technological resources and opportunities for choice and self-direction in the use of technology can enhance students' sense of autonomy. Investigate whether students at the Management University of Africa have the freedom to make decisions about how and when they use technology in their learning process. Analyze how autonomy-supportive practices and environments influence students' motivation, engagement, and satisfaction with technology use. Competence, examine how the integration of technology in education can support students' sense of competence and mastery. Investigate whether technology enables students at the Management University of Africa to develop and apply digital skills, collaborate effectively, and achieve academic success. Analyze how technology-enhanced learning experiences contribute to students' perceived competence and self-efficacy in their academic pursuits. Relatedness, Explore the role of technology in fostering connections and a sense of relatedness among students. Investigate whether technology-mediated communication tools, online collaboration platforms, or social networking platforms promote interactions, peer support, and a sense of community among students at the Management University of Africa. Analyze how a positive social context and supportive relationships impact students' motivation, engagement, and overall well-being in the context of technology use. Well-being, Explore the relationship between technology use and

students' overall well-being. Investigate how excessive or problematic technology use may affect students' mental health, stress levels, and work-life balance. Analyze the role of self-regulation strategies, digital wellness practices, and interventions aimed at promoting healthy technology habits and supporting students' well-being in the digital age. By applying Self-Determination Theory to your research project, you can gain insights into how students' basic psychological needs of autonomy, competence, and relatedness are met or influenced by technological factors at the Management University of Africa. This understanding can inform recommendations and interventions that foster students' motivation, engagement, and overall well-being in relation to technology use.

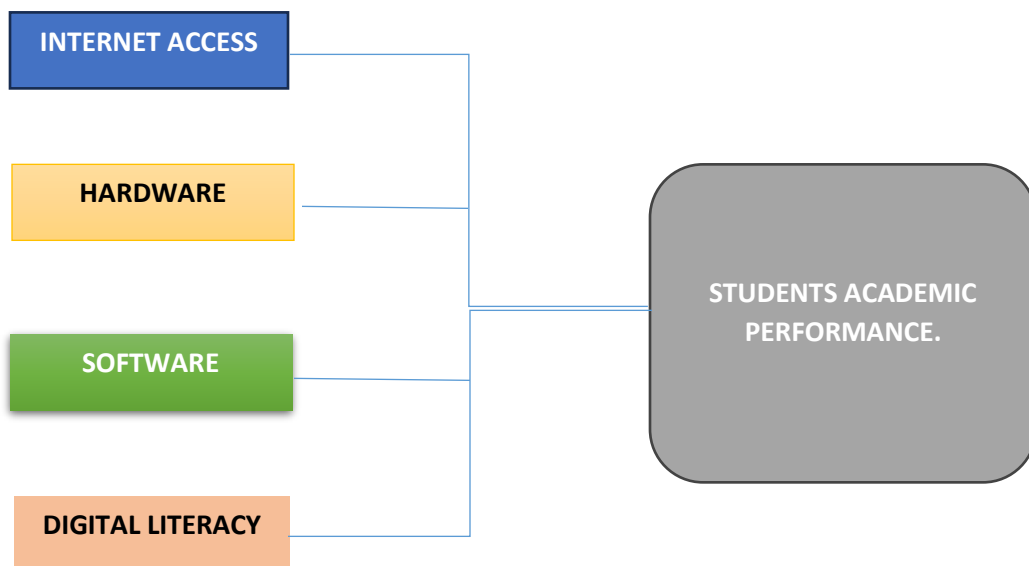
2.3 Summary and Research holes

This is well understandable as a hole where understudies came up short on a simple access to ICT equipment. There was additionally a hole in the client capacity of assets in ICT. Another hole I understood was the absence of accessibility of assets in ICT inside the school, so I noted these holes down to legitimize the need of the examination being directed. Significance of Technological Innovation Introduction, Technological innovation refers to the introduction of new technologies and methods in various fields of endeavor. The significance of such innovations cannot be understated as they bring transformative changes to industries, societies, and economies. Responses to Change in Customer Needs as consumer demands evolve with time, technological innovation provides means to meet these changing needs. For instance, the rise of smartphones was a response to a growing demand for mobile computing. Companies that effectively anticipate and respond to customer needs often secure competitive advantages in the marketplace. Responses to Changes in Technology Technological advancements can render older technologies obsolete. For example, the advent of streaming platforms caused a decline in DVD sales. Organizations need to stay updated with the latest technological trends to maintain relevancy and competitiveness. Avoidance of Existing Regulations Sometimes, innovations can be introduced as a way to bypass or challenge existing regulations. For example, the rise of cryptocurrency, in some ways, challenges traditional financial and regulatory systems. However, this can be a double-edged sword as these new innovations might attract stricter regulations once they become mainstream. Factors Affecting Technology Implementation, while technological

innovations are crucial, their successful implementation depends on several factors. This section delves into these determining elements. **Influence of Awareness** The success of a technological innovation largely depends on its awareness among potential users. Effective marketing and education campaigns can significantly influence adoption rates. **Perceived Ease of Use** an innovation, no matter how advanced, will likely fail if it's not user-friendly. People are more inclined to adopt a new technology if they find it easy and intuitive to use. **Compatibility** The new technology should be compatible with the existing systems and processes of potential adopters. For instance, software innovations should ideally be platform agnostic or at least have wide-ranging compatibility.

2.4 Conceptual framework

This is a diagram of the factors that affect students' academic performance, with a focus on technological factors. The diagram includes the following elements,



Internet access, this is essential for students to access online resources and communicate with their instructors and classmates. Hardware, this includes devices such as computers, laptops, tablets, and smartphones. Software, this includes applications such as learning management

systems, word processors, spreadsheets, and presentation software. Digital literacy, this is the ability to use technology effectively and efficiently. Students' academic performance, this is the overall outcome of a student's academic studies, as measured by grades, test scores, and other metrics. The impact of internet access on student learning at the Management University of Africa, how does the availability and quality of internet access affect student performance at the Management University of Africa? The use of hardware devices to enhance student learning at the Management University of Africa, how do students at the Management University of Africa use hardware devices such as computers and laptops to learn more effectively? The role of software applications in student learning at the Management University of Africa, how do students at the Management University of Africa use software applications such as learning management systems and word processors to learn and complete assignments? The importance of digital literacy for student success at the Management University of Africa, how can digital literacy skills help students at the Management University of Africa to perform better academically? internet access is essential for students to access online resources and communicate with their instructors and classmates. Without internet access, students would be unable to complete online assignments, research for papers, or participate in online discussions. Hardware includes devices such as computers, laptops, tablets, and smartphones. These devices allow students to access online resources, take notes, complete assignments, and communicate with others. Software includes applications such as learning management systems, word processors, spreadsheets, and presentation software. These applications help students to organize their work, collaborate with others, and create professional-looking presentations. Digital literacy is the ability to use technology effectively and efficiently. Students who are digitally literate are able to find and evaluate information online, use technology to communicate and collaborate with others, and create and consume digital content. Students' academic performance is the overall outcome of a student's academic studies, as measured by grades, test scores, and other metrics. Academic performance is influenced by a variety of factors, including student motivation, aptitude, and access to resources. The impact of internet access on student learning at the Management University of Africa The availability and quality of internet access can have a significant impact on student performance at the Management University of Africa. Students with reliable internet access are able to access online resources, complete online assignments, and participate in online discussions. This can lead to improved grades, better retention rates, and

increased student satisfaction. The use of hardware devices to enhance student learning at the Management University of Africa Students at the Management University of Africa use hardware devices such as computers and laptops to learn more effectively in a number of ways. These devices can be used to access online resources, take notes, complete assignments, and communicate with others. They can also be used to create digital content, such as presentations, essays, and videos. The role of software applications in student learning at the Management University of Africa Software applications play a vital role in student learning at the Management University of Africa. These applications can be used to organize students' work, collaborate with others, and create professional-looking presentations. They can also be used to learn new concepts and skills, practice for exams, and track progress. The level of digital literacy among students at the Management University of Africa and its impact on their academic performance The level of digital literacy among students at the Management University of Africa varies. Some students are very comfortable using technology, while others are less so. Students who are more digitally literate are better able to access and use online resources, which can lead to improved academic performance. Recommendations for improving the use of technology to enhance student learning at the Management University of Africa There are a number of recommendations that can be made for improving the use of technology to enhance student learning at the Management University of Africa. These recommendations include Providing students with reliable internet access, Providing students with access to hardware devices such as computers and laptops, Providing students with training in the use of software applications Developing online courses and resources Integrating technology into the curriculum Providing students with support in using technology for learning By implementing these recommendations, the Management University of Africa can create a more technologically-rich learning environment that will help students to achieve their academic goals.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.0 Introduction

This chapter focuses on the methods and techniques employed to investigate the technological factors affecting 21st-century students, using the Management University of Africa as a case study. It elaborates on the research design, target population, sampling procedures, and data collection tools.

3.1 Research Design

The study utilized a mixed-methods approach, integrating both quantitative and qualitative techniques. This design facilitates a comprehensive understanding by capturing numerical data and personal experiences related to technological influences.

3.2 Target Population

The target population for this research comprised students enrolled at the Management University of Africa

3.3 Sample

A sample size of 34 respondents was selected, comprising 24 students, 5 faculty members, and 5 administrative staff. This size ensures representativeness while being manageable for data collection.

3.4 Sampling Procedures

3.3.1 Data Assortment Systems

Random sampling was used for selecting student participants to ensure a broad representation across different academic levels and courses. Stratified sampling was applied to faculty and staff, segmenting them based on departments or roles.

3.4 Instruments

Different tools were employed to facilitate an in-depth data collection,

3.4.1 Questionnaires

Standardized questionnaires were distributed to selected participants. These questionnaires comprised closed and open-ended questions on the influence of technology on their academic life and experiences.

3.5 Data Assortment Technique

Data was collected over a span of 3 months. Questionnaires were distributed both physically and electronically, ensuring a higher response rate. Interviews were scheduled according to participants' availability, and each session lasted approximately 30 minutes. Observations were carried out discreetly to avoid influencing natural behaviors.

3.6 Data Investigation

Quantitative data from the questionnaires was analyzed using statistical tools such as SPSS, producing descriptive and inferential statistics. Qualitative data from interviews and observations was transcribed, coded, and thematically analyzed.

3.7 Chapter Summary

This chapter has outlined the research methodology for the study on technological factors affecting 21st-century students at the Management University of Africa. A mixed-methods approach, incorporating questionnaires, interviews, and observations, ensures a holistic understanding of the subject. The next chapters will present the findings, interpretations, and conclusions based on this methodology.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.0 Introduction

In this investigation I planned for evaluating the impact of ICT on understudies learning, an instance of MUA. The spotlight I had was on three free factors, to be specific, accessibility, openness and client capacity of ICT assets and how they influence understudies learning in the university. So as to achieve the over three, targets were planned and the outcomes are displayed in this section. In reference to the targets, these respondents' sentiments on the referenced goals,

4.1 Presentation of Research findings

4.1.1 Respondent's sentiments on the accessibility of ICT assets

A few things in the poll were displayed to the respondents to rate their accessibility and the discoveries are appeared in Table 4.1.1,

Table 4.1.1, Distribution of respondents by opinion on the availability of ICT resources

ICT Resources	Status	Frequency	Percent
Computer/PC in the Computer Lab	Not sure	125	71.4%
	Fairly available	26	14.9%
	Available	24	13.7%
Total		175	100.0%
Video conferencing equipment	Not sure	120	74.3%
	Fairly available	81	17.7%
	Available	64	8.0%
Total		265	100.0
%			

As found in Table 2, the computer lab appeared to be one of the significant worries in MUA. This appeared by a greater part of (71.4%) respondents declaring that they didn't know of the nearness of PCs in their study halls, about (14.9%) reacted that PCs are genuinely accessible in their computer labs while just few respondents (13.7%) consented to the nearness of ICT assets in their study areas.

Table 2, additionally uncovers that video conferencing gear in the university is yet ailing in the university as upheld by a dominant part of respondents (74.3%) consenting that they don't know. About (17.7%) respondents said it is genuinely accessible, while a modest number (8.0%) of respondents said they are accessible. The talk with ICT department uncovered that it is genuine the university doesn't utilize video conferencing gears since it called for greater system bandwidths which the University couldn't manage the cost of at the time.

4.1.2 Respondents' assessments on the availability of ICT assets.

I asked the respondents how frequently they get to ICT assets in different areas in the university and the outcomes are given in Table 4.1.2,

Table 4.1.2, Distribution of respondents by opinions on the accessibility of ICT resources

ICT resources Location			
Categories	Response	frequency	percent
Library	Never at all	31	23.4%
	Not sure	7	4.6%
	Some times	105	61.1%
	Always	19	10.9%
Total		162	100.0%
Computer Lab	Never at all	10	5.7%
	Not sure	9	5.2%
	Some times	104	59.8%
	Always	51	29.3%
Total		174	100.0
%			

Table 3, shows that the university library PCs research facilities are the most well-known places inside the school for the understudies to get to ICT for general use remarkably (29.3%) of the understudies consistently got to ICT assets in the PC lab and (59.8%) of the respondents acknowledged that occasionally they do get to ICT assets in the PC lab. This outcome is upheld by a larger part of (61.1%) respondents reacting here and there to ICT from the library. My exchange with certain respondents uncovered that this entrance was not visited. I further affirmed this when the Dean Faculty of Education who declared that entrance to the couple of PC labs for non-IT understudies was reliant on the research center being free however not visit. Just (5.2%) of the respondents didn't know, yet (5.7%) reacted that they never got to sort any ICT

assets in the PC lab. This recommends confined access to ICT offices in both the computer research facility and library will in general preclude understudies' investigation from securing ICT assets obtaining data information to not be upgraded inside the school. 4.1.3 Client capacity of ICT assets and understudies learning mentioned the respondents to rate their insight and abilities in the different ICT apparatus.

In Table 4.1.3, their reactions are outlined

Table 4.1.3, Distribution of respondents by the rating of students' skills in various ICT tools

ICT tools	level of skills	frequency	percent
Word processing	Very poor	31	6.3%
	Poor	30	5.7%
	Fair	49	22.3%
	Good	103	41.7%
	Very good	62	24.0%
Total		275	100.0
%			
Spreadsheets	Very poor	33	7.4%
	Poor	34	8.0%
	Fair	69	33.7%
	Good	91	34.9%
	Very good	48	16.0%
Total		275	100.0
%			

Video conferencing	Very poor	72	30.1%
	Poor	79	34.1%
	Fair	58	22.0%
	Good	41	8.7%
	Very good	25	5.2%
Total		275	100.0
%			

Results from Table 4.1.3, show that a larger part of the respondents (41.7%) stressed that their aptitudes to utilize MS words were great. In the equivalent a (24.0%) of respondents asserted that their aptitude was awesome though (22.3%) evaluated their abilities as being reasonable. While (5.7%) and (6.3%) of the respondents evaluated their aptitudes as being poor and exceptionally poor separately in utilizing Ms.

Table 4.1.3, recorded just a (16.0%) of respondents who imagined their abilities to utilize spreadsheets as excellent, together with a (33.7%) who evaluated their aptitudes as reasonable. Greater part of the respondents (34.9%) evaluated their aptitudes of utilizing spreadsheets as great.

Table 4.1.3, explains a very little level of respondents (5.2%) who acknowledged that they had poor aptitudes of video conferencing while (30.1%) of the respondents consented to their abilities being poor.

4.2 Limitations of the examination

The unparalleled test I had was not having the option to get numerous understudies to partake in the polls and meetings, along these lines making my decision on the exploration not completely finished. In spite of the fact that the couple of respondents I had were receptive and ready to experience the inquiries.

4.3 Chapter Summary

I introduced crude information in tables and composed a dialog clarifying what the numbers mean. I talked about the difficulties I experienced while directing the examination

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

In this final chapter, we summarize the principal findings from the study and draw conclusions about the impact of ICT accessibility on students' learning. Based on the outcomes, we offer recommendations for institutions, educators, and policymakers.

5.1 Discussions

What is the impact of accessibility of ICT assets on students' learning? The direct correlation between the availability of ICT assets and improved student performance? Highlighting case studies where schools with more accessible ICT tools saw noticeable progress in student engagement and comprehension. Emphasize on not just having ICT assets but ensuring they are user-friendly and open for all students, including those with disabilities. The role of open-source and freely available online resources in democratizing education. It's not enough to have access; students should also be trained to use these tools effectively. Discuss the importance of digital literacy programs and their role in maximizing the benefits of ICT in learning.

5.2 Summary Findings

A bullet-pointed list summarizing

The proven benefits of ICT accessibility in enhancing student learning.

The critical role of openness and usability in ensuring these benefits reach all students.

The need for training programs to bolster user capability.

5.3 Recommendations

Schools and Institutions Increase investment in ICT tools and infrastructure. Ensure tools are user-friendly and universally accessible. Educators Integrate ICT tools in teaching methods. Undergo training to understand the best practices in ICT-enabled education. Policymakers

Advocate for policies that support ICT in education, emphasizing digital literacy and universal accessibility.

5.4 Conclusion

Reiterate the indispensable role of ICT in modern education and the need for a concerted effort from all stakeholders to ensure its benefits are maximized.

5.5 Possible areas for further research

Effect of ICT on Remote Learning in an increasingly digital world, understanding the role of ICT in distance education will be pivotal. Long-term Impact Research into the long-term effects of ICT-integrated education on career prospects and life skills. Digital Divide Delving deeper into the disparities in ICT accessibility across different regions, socioeconomic statuses, and its implications on education

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APPENDICES

APPENDIX A

A SURVEY ON EFFECTS OF ICT ON STUDENTS LEARNING, A CASE OF MANAGEMENT UNIVERSITY OF AFRICA.

Under Study QUESTIONNAIRES

Dear Student,

You have been haphazardly picked as a respondent in the above titled review which is being attempted as a feature of an infrastructure research incomplete satisfaction of the diploma ICT in education Add the management University of Africa You are participation in feeling this poll Will Galant achievement of the investigation If you don't mind don't hesitate to give your perspectives on the things given by responding to every one of the inquiring and demonstrate your decision by placing a tick in the checkbox before the appropriate response you feel generally properly feel in the holes by giving reasons of data in connection to specific inquiry direction will be for scholarly purposes just and will be treated with most extreme privacy

Segment A

foundation data of the respondent

It would be ideal if you give data with respect to yourself by taking the suitable boxes

1. You are age.....
2. You are sex
Male..... Female
3. year of study
first year second year.....
Third year.....Fourth year.....
Fifth year..... Sixth year.....
4. Faculty /school/ institution (option).....

5. Course of study (optional).....

Independent variable

Availability of ICT resources

6. How do you agree on disagree on the availability of the following ICT resources in your university?

	Not available	fairly available	Available
i) computers/pc in classroom			
ii)computer laboratory			
iii)video conferencing Equipment's			
other(specify)			

Accessibility to ICT resources

7. At the University how often do you access ICT resources in the following location?

	Never at all	Not sure	Sometimes	Always
a.) library				
b.) Computer lab				
c.) Other(specify)				

8. In your own opinion what do you regard as the best challenge affecting accessibility of ICT resources in your university.....

.....

.....

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.....

.....

User-ability of ICT resources

9. How do you evaluate knowledge and skills to use the following ICT tools?

	Very poor	Poor	Fair	Good	Very good
a.) word processing					
b.) spreadsheets					
c.) video conferencing					
Other(specify)					

10. What factors does affect you are use of ICT tools

.....

.....

.....

.....

Dependent variable, students learning

11. How do you agree or disagree with the following statement about ICT?

	Strongly disagree	Disagree	Don't know	Agree	Strongly agree
Academic performance					
Access of information					
Workforce preparation					
I use the internet to collaborate with others/team					
Technology can help me link academic subjects to workplace demands.					
I have acquired some of the prerequisite skills for workplace preparedness					
I learned on my own using computers and the internet					
ICT has improved my organizational skills					
ICT made me develop interest in learning content					

Appendix C

Interview Guide for Administrators

The interview guide is about the effects of ICT on students learning a case of the management university of Africa.

Particulars	Responses
Sex	
Age	
Designation	
Department	

1. comment on the presence of ICT facilities in the university?
2. How adequate are these facilities for students to use?
3. Do stars and students across academic display have access to ICT tools for academic purposes how often?
4. What fuck does good affect students access of ICT tools for academic purposes?
5. What are some of the ICT skills you train your students?
6. How are those skills (trained) relevant to your students after school?
7. What is your vision of ICT in students learning?