AKENTEN APPIAH-MENKA UNNIVERSITY OF SKILL TRAINING AND ENTERPRENEURIAL DEVELOPMENT

THE ROLE OF ICT-BASED MOBILE SERVICE IN ACADEMIC MOBILITY OF STUDENTS

ELLIOT DODZI SALLAH

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A PROJECT WORK PRESENTED TO THE DEPARTMENT OF INFORMATION TECHNOLOGY EDUCATION, FACULTY OF APPLIED SCIENCES AND MATHEMATICS EDUCATION OF THE AKENTEN APPIAH-MENKA UNIVERSITY OF SKILL TRAINING AND ENTREPRENEURIAL DEVELOPMENT, IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD MASTER OF SCIENCE INFORMATION TECHNOLOGY EDUCATION

NOVEMBER, 2023

DECLARATION

STUDENT'S DECLARATION

I ELLIOT DODZI SALLAH hereby declare that this project work is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

SIGNATURE…….. DATE……

SUPERVISOR'S DECLARATION

I hereby declare that the preparation and presentation of this project work was supervised in accordance with the guidelines on supervision of the project work laid down by the Akenten Appiah-Menka University of Skill Training and Entrepreneurial Development.

SIGNATURE……. DATE…….

DR. CLEMENT PRINCE ADDO

DEDICATION

This project work is first dedicated to the almighty God who gave me the health and knowledge to come this far it also dedicated to Madam Veronica Akuyo degblor Katahena for her support through my educational ladder, my brother Delali Sallah and his wife and not forgetting Miss Adjavor Dorothy Ama through their support and prayers am able to accomplish the dream l appreciate you all

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ABSTRACT

The global capital market, labor markets, and academic institutions have all been impacted by the rapid pace of globalization and the diversification of international mobility. The main aim of the current study is to investigate the role of ICT-based mobile service in academic mobility of students. The current study used a cross-sectional design and employed quantitative research. Also, a design survey, explanatory research and descriptive research were employed. The target population for the current study comprised of 8,000 students at Ghana Communication Technology University. This study used stratified sampling and snowball sampling technique. The sample size for the current study was 381 students at Ghana Communication Technology University. A close-ended and structured questionnaire was utilized for the present research. It was revealed that most of the students had laptop, desktop, and printer at home. ICT helps easy and continuous access to academic resources and email communication. Moreover, through academic mobility, students can create a global network of contacts that includes academic colleagues, professors, and experts in their subject. Furthermore, institutions may prepare students for a global workforce through internationalization and give them the knowledge and perspectives they need to successfully navigate a diverse and interconnected world.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

The internationalization of education has been facilitated by globalization, for instance, through partnerships, the employment of teachers from diverse backgrounds, the creation of projects, instructional programs, research, and publications that are the result of international collaboration, and academic mobility, which includes the exchange of teachers, students, other staff members, and researchers (Carvalho et al., 2016; Pereira et al., 2017; Petzold & Bucher, 2018; Weibl, 2015; Kompanets & Väätänen, 2018; Perez-Encinas, Rodriguez-Pomeda, & Josek, 2017; Oliveira & Freitas, 2017; Beech, 2018; McAleer et al., 2019; Waters, 2018; Bartha et al., 2019). For instance, Carvalho et al. (2016) and Beech (2018) attract attention to the fact that there is a migration business called international student mobility that includes both arriving and outgoing students. "Through exchanges, students seek linguistic growth, autonomy, and express expectations towards professional training," claim Carvalho et al. (2016).

Additionally, this kind of encounter fosters a high degree of personal appreciation because it gives them a wider view of the future (p. 60). Since the 1999 Declaration of Bologna, which called for a popular European identity of education, and process of Bologna itself, according to Pereira et al. (2017), a global higher education (HE) time is pursued, and has succeeded largely, in establishing a direct equivalence between the numerous systems of HE through the European Credit Transfer System (ECTS). Additionally, the Bologna process promoted increased academic cooperation and may have led to the creation of an international standardization system, which facilitated the acquisition of credentials to handle the difficulties of globalization (Zahavi & Friedman, 2019). This internationalization frequently occurs in accordance with consciously developed institutional policy instruments, including academic

mobility programs (Oliveira & Freitas, 2017). The ERASMUS initiative, later known as ERASMUS, is outstanding in the EU for fostering intellectual mobility (Zahavi & Friedman, 2019; Budraitis et al., 2019; Cairns, 2018; Clemente-Ricolfe & García-Pinto, 2019; Fernández-Rovira, 2019; Dabasi-Halász et al., 2018; Perez-Encinas et al., 2017; Idris et al., 2018).

Though there are other programs, in this discussion we will focus on this one. It is also considered significant and transversal by other authors (Wilkins & Neri, 2018; Wekullo, 2019). In existence since 1987, the ERASMUS Program has undergone various iterations. According to Fernandez-Rovira (2019), Enriquez (2018), Kabanbayeva et al. (2019), it is currently available in the ERASMUS version. The initiative aims to foster intelligent, inclusive, and sustainable growth in strategy of Europe 2020 (Dabasi-Halász et al., 2018; Pereira et al., 2017; Erasmus, 2018). As said by Erasmus (2018), a further goal is to contribute to internationalization and training and education excellence in the EU, fostering creativity, entrepreneurship spirit, and innovation, whereas promoting equality, active citizenship, and social cohesion. Through, among other things, a growing increase in academic mobility, it has helped to improve the quality of HE at the institutional level, the individual level, and public policies' macro level (system policy) (Budraitis et al., 2019).

Given the rise in participation, it's critical to comprehend the motivations behind the internationalization of education, which have changed over time and occasionally had unforeseen repercussions (Zahavi & Friedman, 2019), as well as the goals pursued, the methods employed to achieve them, and the effects it had. This makes it easier to comprehend how mobility translates into possible effects on higher education institutions' internationalization (HEIs). In areas for example mutual gains with regards to knowledge acquisition that would otherwise be hard to attain, both at teaching area or learning level with the emphasis on mobility and of geographical facets, local and historical lifestyles, attitudes' development towards

diversity of culture and involvement or contact with new practices of profession and education, or even the increased likelihoods for successive employability or contribution in projects of research. Technologies that allow users to obtain the necessary information via telecommunications are referred to as information and communication technologies (ICT). It is quite comparable to information technology (IT), nonetheless places a larger emphasis on communication technologies.

Internet, Wi-Fi, mobile phones, and other forms of communication are included. comprising computers, essential business software, storage, audible structures, and middleware that enables clients to interact with, do business with, transfer, and manage data (Petzold & Bucher, 2018). ICT is essential to the development of the new global economic order that will allow for rapid global change. The ICT advanced and evolved at such a rapid rate in the previous age that the developing countries were unable to keep up, were left behind, and because of their interactions with the industrialized nations, trailed behind. ICT provides the motivation for today's society so that understanding and basic principles of this technology are viewed as a crucial component of learning (Oliveira & Freitas, 2017). When combined with real-world circumstances, it helps the student comprehend complex concepts in a relatively easy manner that is delivered through simulations. As a result, it serves as a dynamic, learning-oriented facilitator, encouraging the learner to cultivate and improve higher order thinking (Beech, 2018). The primary requirement for students to benefit from this innovation, but it also depends on their accomplishment and comprehension of these critical technologies and their realization of key technical skills (Bartha et al., 2019).

Traditional teaching methods must be current in order to improve students' academic performance. With the use of computer-assisted instruction (CAI), students can easily navigate the system at home or on their computer while learning and teaching in a time-independent

manner. By giving novices the same amount of time as students receiving traditional instruction, CAI raises learning levels. Additionally, ICT standards make it easier for pupils to learn (Hussain, Suleman, Din & Shafique, 2017). ICT's effect and usage practices have emerged as a contentious topic in all IT-related fields, particularly in education. Educational institutions are implementing ICT-based teaching strategies and incorporating them into related educational programs (Budraitis et al., 2019). With the use of technology, kids can develop familiarity with one another as well as their connections and recognition of one another. As a result of the extensive use of ICTs, high-tech classrooms and facilities, including projectors, radio and TV receiving/transmitting devices, smart communication screens and panels, and systems of teleconferencing, can be anticipated. The National Education Policy (NEP) 1998-2010 also emphasizes the use of ICTs in education.

Consistent with NEP 1998-2010, ICTs can be used creatively to assist students and teachers with a wide range of talents and from varied economic and social backgrounds. ICT usage can improve instruction's quality and educational activities' administration (McAleer et al., 2019). New developments that are being made on a worldwide scale have transformed the world into a tightly knit community. The 21st century learner is more inventive and enthusiastic about assignments involving technology. In all IT-related fields, but particularly in education, the impact and usage of ICT has grown into a topic of controversy. ICT is being used by teachers to modify instructional methods and improve student performance. ICT-based teaching methods and the corresponding instructional programs are being adopted by educational institutions so that students can educate. Utilizing the internet and some smart devices, students are using ICT services. Thus, the study examines the role of ICT-based mobile service in academic mobility of students.

1.2 Statement of the problem

The global capital market, labor markets, and academic institutions have all been impacted by the rapid pace of globalization and the diversification of international mobility (Braunerhjelm et al., 2020). Consequently, the academic mobility within higher education institutions and academia has attracted attention on a regular basis (Kim, 2017). In this context, numerous studies have discovered that researchers' academic mobility can improve their scientific performance, including publications, citations, and international co-authorship (Fangmeng, 2016). Mobility, productivity, visibility, and global collaboration are seen to be intimately tied to one another (Perez-Encinas et al., 2017). Academic mobility has emerged as one of the pillars of global knowledge production and is now a crucial instrument for governments and universities to compete globally (Beech, 2018). Governments are placing more emphasis on the movement of academic scholars through funding and talent attraction programs (Larbi and Ashraf, 2019). Numerous scholars have investigated the results of these financial initiatives in various nations (Sagintayeva and Jumakulov, 2017). According to Patrcio et al. (2017), who researched faculty exchange programs between Portuguese and American universities, academic mobility does certainly enhance students' ability to do quality research and advance their careers. But what influences academic mobility in reality? In previous studies, the relevant elements have typically been addressed in terms of both people (such as gender and age) and organizations (such as scale and quality) (Zahavi & Friedman, 2019). There has also been discussion of other variables, like the researchers' degree levels, their number of publications, and the overall number of citations (Gyorfy et al., 2018). While the mobility of scholars during research visits has not yet been thoroughly researched and discussed, existing studies frequently focus on the mobility of students and highly trained people. Scholars have more extensive research backgrounds, greater academic maturity, and the capacity to rely on experience abroad. As a result, their interactions with and successes based on mobility also

deserve consideration. However, the majority of studies have only examined one element at a time, such as gender, age, institutional repute, or historical research performance, when analyzing the research performance of supported employees.

Few studies have looked at the intricate interactions of variables that contribute to the high research performance that academic mobility is expected to produce. The current study uses students who utilize mobile apps outside the classroom when they move around. Numerous benefits of integrating ICT into the educational process have been highlighted in the literature (McAleer et al., 2019). Thanks to the employment of more appealing, enjoyable, and interesting technologies, ICT use is linked to higher levels of student motivation (Beech, 2018). Similar to this, ICT promote higher learning interaction, more opportunities for collaboration, and improved teacher-student contact (Bartha et al., 2019). Additionally, the ICT fosters initiative and creativity, allows for the individualization and flexibility of education, and increases access to knowledge acquisition (Clemente-Ricolfe & García-Pinto, 2019). Additionally, ICT supports students' focus on higher-level concepts rather than less important chores based on a constructive learning strategy (Oliveira & Freitas, 2017). All of these benefits, along with others, ought to help pupils do better academically and develop their skills. The usage of ICT by students is, however, frequently accompanied by issues. Some potential drawbacks include the possibility for student distraction while using non-learning resources and ICT addiction (Budraitis et al., 2019). Additionally, the abundance of information on the internet can result in considerable time losses and the usage of unreliable resources. All of these drawbacks may be detrimental to students' academic achievement and skill development as well as their personal and social growth. The coexistence of potential benefits and drawbacks has sparked a crucial discussion about how ICT should be used to enhance the learning process. There is no agreement regarding the prevalence (positive, negative, or neutral) of ICT in the acquisition of competencies, despite earlier work evaluating the impact of various ICT modalities on

academic achievement. The next portion of this article provides a detailed analysis of some of the more well-known research conducted to date.

1.3 Objectives of the study

The main aim of the current study is to investigate the role of ICT-based mobile service in academic mobility of students. Specifically, this study seeks:

1. To assess the availability of ICT facilities for students that ensure mobility.
2. To assess the impact of ICT on students' performance.
3. To assess how academic mobility affect students' performance.
4. To assess the reasons for internationalization of higher education institutions.

1.4 Research questions

The research questions are as follows:

1. What is the availability of ICT facilities for students that ensure mobility?
2. What is the impact of ICT on students' performance?
3. How does academic mobility affect students' performance?
4. What are the reasons for internationalization of higher education institutions?

1.5 Significance of the study

In terms of practice, the current study's findings can offer some important insights into the available ICT facilities for students and tutors in their everyday learning. Researchers and academics will use this study as a supporting document for their future studies and academic achievement. Ghana Education Service and Ministry of Education will see ICT's impact on performance of students, how academic mobility affect students' performance, and the reasons for internationalization of higher education institutions. Policy and implementation to support international students to study in Ghana can be considered. Also, supporting Ghanaians to study abroad can be strengthened. In decision making, management of Ghana Communication

Technology University may decide on ICT's impact on performance of students and how academic mobility affect students' performance to support the mission of Ghana Communication Technology University. For it is their mission to promote relevant cutting-edge technology, leadership development and an enterprise culture to deliver value to Ghana and the world.

1.6 Overview of methodology

The current study was conducted in the form of a survey, with data being gathered via a questionnaire. Explanatory research, descriptive research and quantitative research were employed. The current study used stratified sampling and snowball sampling technique. The population for the study was 8,000 with 367 as sample size. The researcher used was statistical package for social sciences (SPSS 26) to analyze data.

1.7 Organization of the study

This thesis was into 5 parts. The current chapter dealt with the background of the study, statement of the problem, objectives of the study, research questions, the significance of the study, overview of the methodology and organization of the study. The second part highlighted on introduction and literature review. The third chapter was the methodology and it contained introduction, research design, population, sample size and sampling technique, data collection, sources of data, data analysis technique, and ethics. The fourth chapter presented, analyses, and discuss data. The last chapter was the summary of findings, conclusions, and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

ICT's impact on learning and academic performance is not clearly demonstrated by empirical data. Research that explains the lack of substantial relationships or that supports a negative association coexists with articles that demonstrate a positive correlation between ICT and academic achievement. The employment of extremely diverse analysis approaches and models is one of the aspects that could help to explain this lack of agreement. Additionally, differences in the study's subject (subjects, nations), which only permit the extraction of limited information on the impact of ICT on academic achievement, can be blamed for the inconsistent results. Additionally, the ICTs themselves have advanced at a rapid rate, which has also had a substantial impact on results over time. ICT has gained enduring significance during the past 20 years. The availability of a vast amount of information and resources online, technological advancements in the ICT sector, and a sustained pliability in organizations and companies have all contributed to an increase in knowledge and information globally (Hasan & Sajid, 2013).

According to Carvalho et al. (2016), information and communications technology (ICT) has quickly become one of the main pillars of contemporary civilization. ICT is viewed by many nations as a resource for acquiring basic competencies, abilities, and concepts, as well as the idea of ICT being integrated into education along with analyzing, writing, and numeracy. However, it is a myth that ICT always refers to "computer systems and computing-related sports." This is fortunately not the case; despite the significant role that computers and their software play in modern data control, ICTs are a phenomenon that is present in other technologies and/or structures as well. Specific ICT-aided instructions in some sectors include internet assisted instructions (IAI), radio assisted instructions (RAI), computer-assisted instructions (CAI), and television assisted instructions (TAI) (UNESCO, 2014).

2.1 Availability and use of ICT at school

There have been numerous reviews of computer applications used in schools for educational purposes in the literature. The effectiveness of using a computer software to teach algebra in American classrooms is assessed by Pereira et al. (2017). According to their findings, the pupils who utilized the computer software performed better than those who were taught using a more conventional approach. These findings are consistent with those made for India by Pereira et al. (2017), who examined the impact of a computer-assisted learning program on the reinforcement of math education. Petzold and Bucher (2018) also examines the situation of India and concludes that using a computer to supplement more conventional teaching techniques has a favorable impact on students' math skills. However, adverse impacts are seen when traditional teaching methods are replaced by computers. More recently, Muralidharan et al. (2019) investigated the effects of an after-school computer-assisted instruction program in urban India. They specifically assess the effects of the arbitrary distribution of a voucher to pay program costs and track an improvement in the marks attained on the evaluation examinations for the Hindi and Mathematics topics, with students who started with lower scores seeing the greatest gains.

Additionally, research indicate that educational software has little discernible effect on students' academic achievement. In their evaluation of the "Fast for World" computer program's effects on students' reading and language abilities in American schools, Weibl (2015) found that there was only a minor improvement in kids' language abilities and no discernible effect on academic performance. A different group of academics has concentrated on the analysis of ICT investment, particularly the accessibility of computers in classrooms. According to Kompanets and Väätänen (2018), increased ICT spending, particularly in the fields of science and English, has a beneficial impact on academic performance in England. In a more recent

study, Tan and Hew (2017) examined secondary school student data from 22 developed economies that took part in PISA 2012 and discovered that a lack of ICT resources in the classroom had a negative effect on student achievement. Numerous studies, however, show that the introduction of computers into the classroom has had little to no impact on student achievement. Perez-Encinas, Rodriguez-Pomeda, and Josek (2017) draw the conclusion that the availability of computers in Israel has no positive impact on test results.

This outcome is also consistent with that found by Oliveira and Freitas (2017), who examined the impact of the "E-Rate" incentive introduced by the US government to encourage the purchase of ICT in schools. Beech (2018) and Cristia et al. (2014) assess the use of computers in Peruvian classrooms and reach the same conclusion: there was no effect on students' academic performance in math and language. In this paragraph, Checchi et al. (2019) examine ICT's impact resources on student achievement in research done in Italy after 156 sixth-grade classes received increased funding for ICT equipment. The average change in test scores is quite minor, the authors conclude, indicating that the intervention was not at all cost-effective. A few earlier studies that analyzed particular policies also discovered detrimental effects of ICT investment on academic performance. In McAleer et al.'s (2019) assessment of the use of a subsidy to pay for computers and software for underprivileged students in the Netherlands, this is the case.

Belo et al. (2016) study whether academic performance is impacted by broadband installation in Portuguese schools. The findings imply that there were considerable negative effects on grades. The introduction of broadband opens up new learning tools, but it also presents a chance for student distraction, demonstrating that schools that limit students' access to pages of diversion do better than those that do not. Several studies specifically use experimental methods to analyze how the 1:1 computer paradigm is implemented in classrooms. According

to this approach, each student will receive a personal electronic device from the educational institutions. It is significant that Uruguay has implemented the Plan Ceibal, which gives each student of school age and each teacher at the public school a portable computer. According to De Melo et al. (2013), Plan Ceibal is unlikely to have had an effect on math and reading. Waters (2018) assess the impact of the 1:1 computer model in three California schools as part of the same line of research. The results indicate that academic achievement in the fields of English and mathematics has improved after the device's second year of use.

Carvalho et al. (2016) assess the program in the United States and discover that after two years of participation, students who take part in the program score higher in the topic of English. Similar to this, Lai et al. (2015) investigates the outcomes of the model's implementation in specific schools for immigrants from Beijing and discover indications of enhancements in academic performance in the discipline of Mathematics. More recently, Mora et al. (2018) examined the effects of the Catalan government's One Laptop per Child program, which was implemented in Spain. Their findings show that the program had a detrimental influence on students' performance in the subjects of Catalan, Spanish, English, and Mathematics, with a higher impact on boys than on girls. Several scholars find that the use of ICT in the learning process has a favorable impact on test scores based on their analysis of the PISA database. In their 2005 analysis of data from all the PISA 2000 participating nations, Fuchs and Woessman demonstrate the beneficial effects of computer use in the educational process.

The Czech Republic's PISA 2006 data is examined by Beech (2018), who found that students who utilize ICT in the educational process do better than students whose usage of ICT is unrelated to the educational process. Similar to this, a recent study by Alderete and Formichella (2016) examines the outcomes of Argentina's "Connect Equality" Program, which involves the distribution of 3.5 million laptops to students and teachers in public high schools. Using PISA

data, the authors discover that program participants exhibit better academic achievement due to the use of computers. In Turkey, Güzeller and Ayça (2014) similarly discover beneficial impacts, albeit of very minor importance, indicating a lack of effective ICT integration in schools. Other studies, however, have not found conclusive evidence of a connection between ICT and academic achievement in PISA for some disciplines. Turkish student data from the PISA 2006 are analyzed by Carvalho et al. (2016). According to the author, there is no conclusive link between computer use and academic achievement in math, science, or reading. There are works relating to the type of ICT use in the earlier literature as well.

According to Biagi and Loi (2013), the PISA exam scores are positively impacted by the volume of computer use as opposed to the intensity of an activity. In particular, the authors find that using computers more frequently for study-related tasks has a negative impact on performance and that using them more frequently for gaming has a positive impact. More recently, Falck et al. (2018) used the Trends in International Mathematics and Science Study (TIMSS) for basic education and came to the conclusion that while using computers to practice skills has negative impacts, using them to search up information has favorable benefits on students' results. According to the authors, these two effects balance one another out and have no overall impact on students' academic performance.

2.2 Availability and use of ICT at home

Studies have been done to determine how having and using a computer at home affects academic performance. The policies put in place in California schools for the free distribution of computers at home are analyzed by Fairlie and Robinson (2013). The findings imply that home computer use has no negative consequences on learning. According to Beuermann et al. (2015), there is no indication of an improvement in academic achievement in Peru following an experiment involving the distribution of portable computers to homes. Pereira et al. (2017)

examine the government bonds made available in Romania in 2008 for the purchase of a personal computer and discover that while the children of households that benefited from a computer improve their computer skills test scores, they perform worse on tests of Mathematics, English, and Romanian. More recently, Fairlie (2016) examined how giving low-income kids in US schools free personal computers for their homes affected the effects by gender. According to the author, boys are more prone than girls to use computers for entertainment rather than for academic purposes. Based on these data, Fairlie (2016) examines how gender differences in academic achievement are affected by the free computer distribution.

There is no proof that using a computer at home has a negative impact on a boy's academic achievement as compared to a girl. A number of research have utilized PISA to analyze the effects of computer use at home, with several studies demonstrating a positive link between using a computer at home and the PISA educational result (Zahavi & Friedman, 2019). Similar to this, Oliveira and Freitas (2017) demonstrates that using the computer at home rather than in school has a stronger favorable impact. Agasisti et al.'s (2017) more thorough examination of ICT use at home reveals that, in the majority of OECD nations, using computers for homework at home frequently is associated with receiving poorer test results overall. A recent study by Baert et al. (2020) analyzes smartphone use and finds that a one-standard deviation increases in daily smartphone use results in a loss of about one point in average exam scores. The authors recommend that policymakers at the very least fund teacher and parent education and awareness campaigns to draw attention to this trade-off between smartphone use and academic performance. The consequences on academic achievement also appear to be strongly influenced by students' familiarity with using ICT.

According to Zahavi and Friedman (2019), students who are more accustomed to using ICT perform better academically in science, particularly if such use is connected to the learning and

teaching process. The evaluation of international exams additionally enables the investigation of the so-called "knowledge gap" (Budraitis et al., 2019) between social classes in the field of education. According to Gui et al.'s (2014) analysis of the Italian instance, using the internet to complete homework did not affect students' learning differently depending on their social backgrounds.

2.3 Advantages of ICT

ICTs have had a significant impact on the education sector of society, which includes both teaching and learning as well as research. Quite a few studies examined the benefits of high-quality education and noted that;

1. How ICT may support and enhance the educational process is the title of the article. Due to two main goals, ICT use in education is prioritized in the UK. a. First, ICT can change the pace of the lesson: It was stated that children wish to develop sufficient skills and abilities from the new opportunities made possible by ICT use. b. Second, according to Cairns (2018), a large number of students in the UK are interested in participating in research and learning how to use new technologies that might improve the quality of teaching and learning in educational settings, which may assist less-experienced people get better results.
2. ICTs' extensive usage has a significant effect on pupils' academic achievement. ICTs help them advance their education, reinforce education integration into the progressively virtual workplace, and improve instructional quality.
3. The long-standing practice of using ICTs in classrooms and other academic settings around the globe attests to their effectiveness and potential for use in education (Clemente-Ricolfe & García-Pinto, 2019).
4. Investments in the country's young help to shape the future of the country and yield the best and highest rate of return (ROI) (HEC, 2016). Higher education institutions have

invested a sizable portion of their budgets in ICTs for more than 20 years, believing that doing so will help the institutions' social and economic development (Fernández-Rovira, 2019). Because these skills are the fundamental prerequisites for lifelong learning, several Asian countries have included a course or educational objectives on computing basics (UNESCO, 2014).

2.4 Internationalization of Higher Education

In each nation, the European Commission wants to establish a uniform framework for higher education. In the scenario of creating a European identity, this framework gives rise to global coordination and command system, reconciling the interests of the various parties involved (Bartha et al., 2019; Zahavi & Friedman, 2019 Bryla, 2015). Though, internationalization goals have not always had the same focal point. The definition of "internationalization of HE" has undergone a significant modification. According to Knight (2013), the initial goal of internationalization in higher education was to promote the sharing and interchange of ideas, cultures, knowledge, and values. Bilateral agreements in the fields of culture and science are often how formalized academic interactions between nations are conveyed. Today's agreements frequently need to take into account trade, economic, and political considerations, which is a substantial change from the initial concept of intellectual exchange (p. 88). Therefore, numerous motivations at all levels—from the macro to the micro—are connected to the causes for internationalization. In terms of general motivations, it mostly involves protecting principles that the community as a whole ought to share. For instance, embracing the concepts of internationalization, economic competition, and talent recruitment; comprehending and thriving in the presence of multiple cultural traditions; (brain-gain as opposed to brain-drain) (Al-Agtash & Khadra, 2019; Payumo et al., 2017). The improvement of HEIs and the qualification of individuals take into account micro-type motives, which are more closely related to institutional and personal objectives (Dabasi-Halász et al., 2018).

Political incentives may be the cause of any of these factors (Rodrguez-Izquierdo, 2018). However, the internationalization process is quite intricate and has multiple components (Du Toit, 2018; Waters, 2018; Perez-Encinas et al., 2017; Knight, 2013).

2.5 Dimensions of Internationalization Assessment

According to Al-Agtash and Khadra (2019), there are four main factors to take into account when evaluating a HEI's internationalization efforts: institutional, teaching, research, and community engagement. However, these factors can vary depending on the individual institution's internationalization goals. The authors claim that the institutional dimension emphasizes the importance of taking into account the organization's vision, mission, and goals as well as its partnerships with external organizations, the organization of the office for international relations, how it organizes events with other HEIs, and the way the institution's core processes reflect its commitment to cultural integration (multilingual performance, tolerance, etc.). The teaching dimension includes evaluations of (i) the creation of curricula, including learning with global significance, particularly multiculturalism and language; (ii) international students' selection, their proportion and diversity; (iii) the global relationships office efficiency and practices; (iv) the international experience of teachers or foreign teachers' participation in teaching; and (v) the international relationships' office operation.

Regarding the research component, it includes the evaluation of faculty research projects, the faculty's participation in global and globally supported projects is item, faculty choice from other countries and their worldwide research, institutional assistance for faculty movement abroad, the quantity of international citations and indexed publications, and research training, which includes student participation in research initiatives. Last but not least, the aspect of community participation has to do with the execution of programs meant to advance the neighborhood and society at large, the presence of lifelong learning facilities with important

courses around the world, relationships with tech firms that guarantee appropriate professional certification, and taking part in activities that help communities access information and knowledge resources and acquire a deeper understanding of one another's cultures. Not just international student mobility is included in this paradigm (Brya, 2015; Kabanbayeva et al., 2019; Caruana, 2014; Kmves, 2014). However, staff of administrative and academic also play a significant part in the rivalry between HEIs, having a significant impact on the institution's standing in the world rankings and the respect accorded to academics (McAleer et al., 2019; Petzold & Bucher, 2018; Knight, 2013).

Because, according to Kmves (2014), "It's impossible to raise the quality level of higher education without the escalation of the institutions' staff mobility rate," Today, we are experiencing a scenario where mobility is required rather than just possible (Petzold & Bucher, 2018). There has been some reinforcement of Beech's observation from 2015 that "foreign students come to regard mobility as a taken for granted" (p. 332). There is an understanding that the requirement for mobility becomes quality defining aspect or, finally, of a given training survival the minute it becomes a criterion for evaluating HEIs and the training they deliver. Before delving further into the facets of mobility, a few internationalization myths are offered to highlight its oversimplified views and even the difficulties in assessing its advantages.

2.6 Academic mobility and its impact on research performance

The movement of scientists in the 1960s can be linked to the development of academic mobility. Early research focused on the movement of scientists internationally (Idris et al., 2018). Studies on the movement of academics have focused mostly on themes like immigration and cross-border relations (Teichler, 2015). The diversity of scientific migration has increased over the past forty years, with scientists' mobility rates being more than three times higher than the average for other foreign migrants (Czaika & Orazbayev, 2018). Researchers are impacted

by mobility since it fosters the production of new information (Kim, 2017). Academics' experiences traveling have varying effects on many aspects of their research performance, and in some situations, traveling can be beneficial up to a certain point (Horta et al., 2019). Mobility contributes to improving scientific performance, according to research on the impact of academic mobility on professional development or scientific performance (Lorenzo & Tartari, 2014). Even taking into account personal traits, highly mobile researchers tend to be more competitive in their scientific and technological output, which will be further boosted when they work in institutions with greater resources and a higher reputation (Tartari et al., 2018).

Researchers with academic mobility do not, however, perform any better than those without a comparable background. Singh (2018) discovered that, on average, PhDs with international education did not produce more scientifically than PhDs with domestic education (regardless of the research field). In this context, Singh emphasized that female PhDs in engineering with international education outperformed their male counterparts in terms of scientific output. It has also been argued how gender differences in academic production exist (Wilkins & Neri, 2018). The academic mobility of scholars is very important to many nations and areas of the world. Academic mobility can be created through talent mobility programs, which are receiving an increasing amount of government funding. For instance, Australia and Europe encourage academic mobility programs through funding and policy (Wekullo, 2019; Zecchina & Anfossi, 2015). With government aid and other scholarship programs, developing nations are sending a lot of students to the United States, Europe, and other wealthy nations and regions. This can speed up personnel mobility and improve human resources (Sagintayeva & Jumakulov, 2017).

It is thought that internationally mobile scientists contribute to the growth of local knowledge and creativity on an economic and cultural level (Sidhu et al., 2015). The analysis of mobility

performance has gotten less attention, despite the economics and sociology of science's primary focus on studies on the factors that influence scientific success (Lawson & Shibayama, 2015). Here, we define mobility performance as the academic production, influence, and cross-national collaboration of researchers following a research visit. As measurement indicators of mobility success, this paper uses the average number of articles published per year, the average number of citations per article, and the average number of cooperating nations. Previous research has shown that a variety of factors can impact mobility performance. The importance of time and country research and development (R&D) expenditures in international academic mobility was highlighted by Cantwell and Taylor (2013). When analyzing the effects of mobility on scientific performance, Fernandez-Zubieta et al. (2015) stressed the importance of taking the identity and employment transitions of researchers into account.

The study by Czaika and Toma (2017), which was done in India, focused on the significant effects of academic position and timing of academic career start on scientific performance. Horta et al. (2018) discovered that not all scholars' experiences with mobility had an impact on their research results and that mobility was not a prerequisite for excellent research performance. The research outputs of these scholars may be impacted by local integration, relationships with host supervisors, various academic positions, and transnational educational experiences.

2.7 Empirical review and hypotheses development

2.7.1 ICT and students' performance

ICT has gained enduring significance during the past 20 years. The availability of a vast amount of information and resources online, technological advancements in the ICT sector, and a sustained pliability in organizations and companies have all contributed to an increase in knowledge and information globally (Hasan & Sajid, 2013). According to Fernandez-Rovira

(2019), information and communications technology (ICT) has quickly become one of the main pillars of contemporary civilization. ICT is viewed by many nations as a resource for acquiring basic competencies, abilities, and concepts, as well as the idea of ICT being integrated into education along with analyzing, writing, and numeracy. Yet, it is a misconception that ICT refers to "computer systems and computing-related sports." This is fortunately not the case; despite the significant role that computers and their software play in modern data control, ICTs are a phenomenon that is present in other technologies and/or structures as well. According to Ellis and Loveless (2013), pedagogy in higher education is inextricably linked to both student academic success and innovative teaching methods. The study confirms that it is important to consider how information and communication technologies may play a part in higher education.

In a separate study, Chan et al. (2013) makes a related observation and emphasize the importance of ICT's crucial role in democratizing higher education and satisfying graduate students' evolving needs. In a related study, Sari and Mahmutoglu (2013) note that a paradigm shift is necessary to encourage the adoption of student-centered approaches in order to bring about a change in teaching practice in a university. According to the authors, the new methodology should strive to make the student an active component in the learning process rather than a passive one through proper and successful tutorial coaching. The use of information and communication technology is crucial in putting students in an active position and in boosting the effectiveness and efficiency of the tutorial support, according to Iniesta-Bonillo et al. (2013). In order to achieve ICT adoption in their university education system, all essential stakeholders that are involved in higher education have worked extremely hard. Governments and university administrations throughout the world have made significant investments in incorporating information technology in their educational institutions, according to a report released by the UNESCO Institute of Statistics in 2013. Overall, many

theoretical and empirical attempts have been undertaken to assess the effects of ICT adoption in the educational system (Castillo-Merino & Serradell-Lopez, 2014). Hence, it is hypothesized that;

H1: ICT will have a positive relationship with students' performance.

2.7.2 Academic mobility and students' performance

Several studies have shown that, both from year to year and even within the same school year, mobile students (those who changed schools) and nonmobile students (those who stayed in the same school) had different accomplishment levels. According to study findings, mobile pupils do worse academically than non-mobile students. After accounting for kindergarten performance, Enriquez (2018) discovered that frequent mobility has a negative impact on sixth-grade pupils' reading success. According to Kabanbayeva et al. (2019), 26% of children who never transferred schools and 41% of highly mobile pupils in the country were low performers. According to Dabasi-Halász et al. (2018), 23% of the kids who moved about frequently had to retake a grade. Children who move frequently are also more prone to exhibit behavioral issues, which could result in missed courses and scholastic challenges (Wood). In research on mobility and student accomplishment carried out by Pereira et al. (2017) in 72 elementary schools in the southeast of the United States, third-grade students were judged on their performance on the California Achievement Test (CAT).

The researchers used the ratio of students who entered and left school during the year to the total number of pupils enrolled to measure mobility. The 11 schools with the highest rates of mobility also had the lowest CAT scores. Researchers looked into two different types of mobility in the studies described above: (a) mobile and nonmobile students who moved from one school year to another, and (b) multiple-time mobile students who moved twice or more during the same school year. A correlation between student mobility and student performance

in both types of mobility was demonstrated by Erasmus (2018) and Budraitis et al. (2019). Geographic mobility and student success were consistently found to be negatively correlated, with the link being especially worse for lower grade levels, according to Zahavi and Friedman (2019). According to those authors, as pupils got older, the mobile population grew smaller. Poverty, inner-city housing, migrant families, or inadequate English proficiency are additional variables that are also linked to student mobility. The Petzold and Bucher (2018) examined the evidence that was available regarding mobility and its effects on school achievement in a report to the House of Representatives.

According to the study, pupils who are extremely mobile are more likely to be low-income, inner-city, immigrant, or English-language learners. Moreover, low performers and grade repeaters are more likely to be highly mobile kids. In Texas public schools, Oliveira and Freitas (2017) looked into the connections between student achievement, district-wide academic performance, and mobility. According to the authors, economically deprived kids perform poorly and move around a lot. Students in lower primary grades were less likely to switch schools than those in prekindergarten through third grade, and 17% of Pre-K-3 pupils did so at least once in the 1994–1995 academic year. Also, the authors found that mobile kids performed worse on math and reading exams than non-mobile pupils, with results ranging from 11% to 21%, respectively. Mao and associates proposed that districts cooperate to keep kids in the same school throughout the academic year. Beech (2018) looked at the connections between movement and socioeconomic position, classroom adjustment, and academic performance. Only 20% of the sixth graders who took part had attended the same school since kindergarten, and those who moved about a lot scored poorly on the reading portion of the Standard Achievement Test.

In Bartha et al. (2019) study of student movement among Chicago's elementary school pupils, Kerbow discovered that the majority of institutions lacked stable cohorts of kids who could be followed over time. He discovered that while reform initiatives intended to raise student success frequently assumed continuity of attendance, schools and individual students may have lost out on the benefits as a result of student mobility. Carvalho et al. (2016) noted high rates of mobility among Chicago's elementary schools and recommended a shared curriculum to lessen the effects on specific pupils. Hence, it is hypothesized that;

H2: Academic mobility will have a positive relationship with students' performance.

2.8 Conceptual framework

Figure 1 shows that ICT and academic mobility are the independent variables and students' performance is the dependent variable.

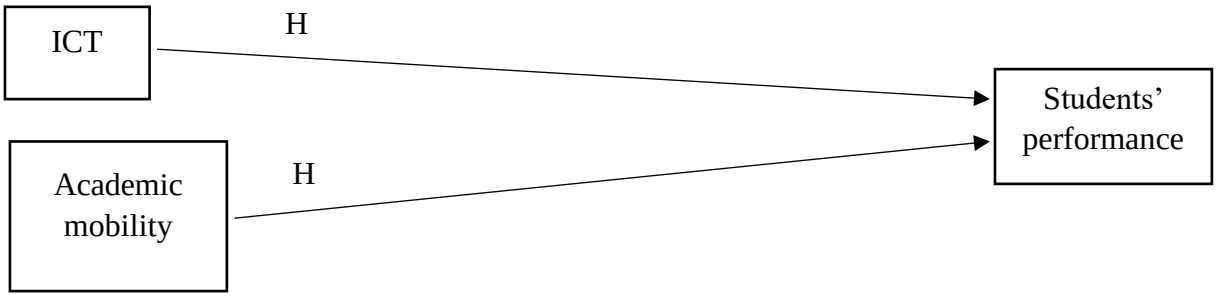

Figure 1 Conceptual framework for the role of ICT-based mobile service in academic mobility of students

Source: Researcher's construct (2023)

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter discusses research design, population, sampling technique and sample size, data collection, sources of data, data analysis technique, and ethics.

3.1 Research design

The research design is the overall approach to combine the many study components logically and coherently, so ensuring successful answer to the research challenge. It serves as the manual for gathering, measuring, and analyzing data. However, it's common for researchers to start their inquiries far too soon, before they've given the information needed to address the study's research questions some serious consideration. This study uses a cross-sectional design. There is no time dimension in cross-sectional study designs, existing differences are prioritized over changes brought on by interventions, and groups are chosen based on existing differences rather than random assignment. The cross-sectional design cannot assess change; it can only measure differences between or from among a variety of individuals, subjects, or events. As a result, researchers adopting this strategy are limited to using a somewhat passive approach when drawing conclusions about causes from data. Cross-sectional studies offer a snapshot of the result and the traits connected to it at a particular moment.

Cross-sectional designs concentrate on analyzing and taking conclusions from actual differences between individuals, groups of people, or events, as opposed to experimental designs where the researcher actively intervenes to cause and evaluate change or to create differences. involves gathering information from and about one specific point in time. Cross-sectional research focuses on identifying correlations between variables at a single point in time, whereas longitudinal studies take several measurements over a prolonged period of time.

Instead of aiming for random selection, groups that have been identified for study are purposefully chosen based on already present distinctions in the sample. Contrary to observational research, cross-section studies are not geographically restricted and are capable of employing data from a large number of people. because the sample is often drawn from the entire population, it is possible to estimate the prevalence of an interesting outcome. Cross-sectional designs are often affordable and quick to carry out because they rely on survey techniques to collect data.

Research design comprised quantitative, qualitative, and mixed-method but the current study employed quantitative research since it attempted to confirm ICT facilities' availability for students that ensure mobility, ICT's impact on students' performance, how academic mobility affect students' performance, and the reasons for internationalization of higher education institutions. The present study employed a design survey, explanatory research and descriptive research. Explanatory research is the type of research purpose that establishes a causal relationship. The current study adopted explanatory research which aims to identify cause-and-effect relationships of intervening variables, dependent, and independent. Descriptive research defines a phenomenon as they are to depict an accurate profile of relevant issues' characteristics and situation.

3.2 Population

The target population for the current study comprised of students at Ghana Communication Technology University. The total population is 8,000.

3.3 Sampling technique and sampling procedure

Sampling is a technique for choosing certain individuals or a small portion of the population in order to draw conclusions about the population as a whole and estimate its characteristics.

Researchers frequently utilize various sampling techniques in market research so they do not have to study the full community in order to gather useful information. Using the probability theory, researchers can select samples from a broader population. This process is known as probability sampling. This sampling technique takes into account every person in the population and creates samples using a predetermined procedure. This study used stratified sampling and snowball sampling technique. Using a technique called stratified random sampling, the researcher splits the population into smaller groups that don't cross over but still accurately represent the whole population. These groups can be set up for sampling, and then a sample can be taken from each group separately. When subjects are challenging to trace, researchers use the snowball sampling technique. Surveying homeless people or unauthorized immigrants, for instance, will be very difficult.

In such circumstances, researchers can track a few categories to interview and extract conclusions using the snowball hypothesis. Few victims will voluntarily answer the questions. However, to get in touch with the victims and gather information, researchers might get in touch with persons they may know or volunteers connected to the cause. It is also a time- and money-efficient method, serving as the cornerstone of every research design. Software for research surveys can employ sampling strategies for the best derivation. The existing research's sample was the representatives of students at Ghana Communication Technology University. The sample size for the study is calculated using Yamane's sample size formula (1967) as shown below;

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

Where n is the sample size, N is the population size which is equal to 8000 and e is the precision level at 95% confidence interval which is 0.05.

$$n = \frac{8000}{1 + 8000(0.05)^2}$$

$$n = 381$$

The sample size for the current study is 381 students at Ghana Communication Technology University. To get a representative sample size, the researcher adopted stratified sampling technique to select representative students from Ghana Communication Technology University. In stratified sampling, respondents are divided into subgroups called strata based on shared factors (such as race, gender, and level of education). A different probability sampling technique is used to randomly sample each subgroup once it has been divided. Students are divided according to level 100, 200, 300, and 400. The researcher also used snowball sampling method (non-probability sampling) to sample each level of students in order to obtain 381. The snowball technique is such that, an employee can send the questionnaire to his colleagues online by avoiding face to face contact. Given this, the researcher utilized Google Forms to give the questionnaire online to participants. The selected participants were asked to forward the questionnaire to their fellow students in the same institution continuously. This helped to eliminate people who were not students in the selected institution in Ghana. Using Google Forms made this sampling technique successful. Also, Google Forms kept the data for reference. This helped the researcher to obtain data from large participants.

3.4 Sources of data

Sources of data emphasize on primary data. The current study used primary data to investigate the availability of ICT facilities for students that ensure mobility, the impact of ICT on students' performance, how academic mobility affect students' performance, the reasons for internationalization of higher education institutions.

3.5 Data collection instrument

A close-ended and structured questionnaire was utilized for the present research. Questionnaire items were taken from the literature review. A questionnaire was utilized to safeguard that each

respondent responded and received to equal questions in a format. This permitted reliable data collection. Introduction to the questionnaire was made to briefly help respondents to understand what the questionnaire was about.

3.6 Data analysis technique

Statistical package for social sciences (SPSS 26) was used to analyze data. The researcher used SPSS 26.0 to enter all raw data. After using a questionnaire to gather data, the researcher organized data for statistical analysis. The researcher key in the response of each respondent in the data view and item description in the variable view of the software. SPSS was used to perform data screening to identify outliers and missing data.

3.7 Ethics

An ethics permit was obtained from each respondent before the questionnaire was distributed. Participants were guaranteed their freedom from any harm due to replying to the questionnaire. Their anonymity and confidentiality were kept strictly and stored securely. The researcher informed and explained the purpose and aim of the study to participants clearly with the absence of intended research nature misrepresentation. The researcher undertook actions to ensure the protection of participants' privacy and maintain their confidentiality and anonymity. This helped to obtain sincere and truthful responses. The researcher ensured the granting of authorization from all participants. The data collection was initiated once authorization was granted. Every participant was contacted through social media since the questionnaire was in the form of Google Forms. This was comprised of a link to directly lead respondents to respond to the questionnaire without difficulties in getting access. To ensure transparency about the study's aim and purpose, the researcher provided the necessary information in the Google Form. Respondents had the right to decline or withdraw at any time even if they had started responding without stating a reason.

Introduction to the questionnaire was made on the first page to briefly help respondents to understand what the questionnaire was about and made them aware that it was voluntary. Also, a brief introduction was made under each variable section for respondents to understand what they were to respond to. The questionnaire was designed based on the objectives in this study. The next button was shown under every section of the questionnaire so, the respondents were supposed to click on Next button to continue to the next section. The questionnaire ended in the last section which contained a thank you message. The respondent had to click on the submit button and confirm. Google Form collected all the responses and kept for a long time in the researchers' private Google account. No issue arose before, during, or after the collection of data.

CHAPTER FOUR

ANALYSES AND DISCUSSION

4.0 Introduction

This chapter presents respondent's demographic information, descriptive statistics, and discussion of findings. The expected responses were 381 but the researcher received 287 responses making 75% response rate (287/381*100).

4.1 Respondents' demographic information

Demographic information of respondents covered their age, gender, and student level.

4.1.1 Age

Figure 2 shows 166 respondents were below 20 years old, 57 respondents were 20-29 years old, 30 respondents were 30-39 years old, and 34 respondents were above 39 years. Responses were received from different range of ages among the students. The more advanced age bands are especially helpful for studying younger age groups because their needs change more often.

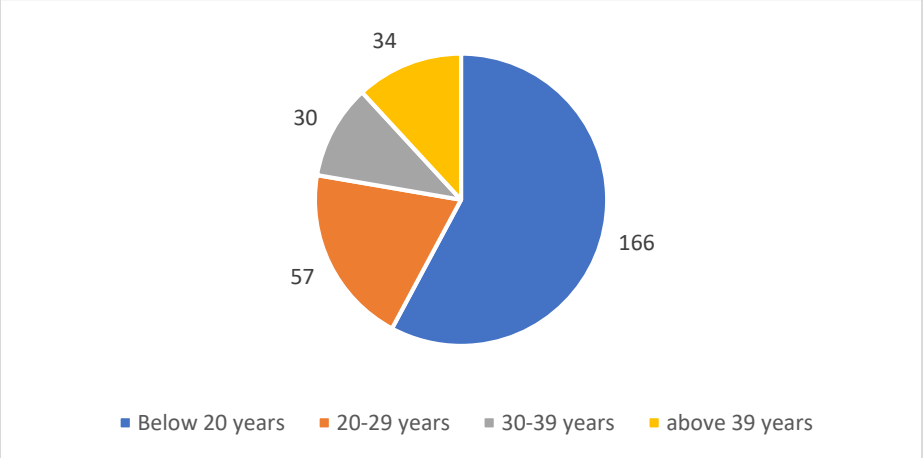

Figure 2 Age of respondents

Source: Field study (2023)

4.1.2 Gender

Figure 3 presents 191 male respondents and 96 female respondents. Gender analysis provides information on the various roles played by men and women in policies, programs, and projects at various levels, as well as on how each gender accesses and controls resources, enjoys societal benefits both material and immaterial, and has needs, priorities, and obligations that are specific to their gender.

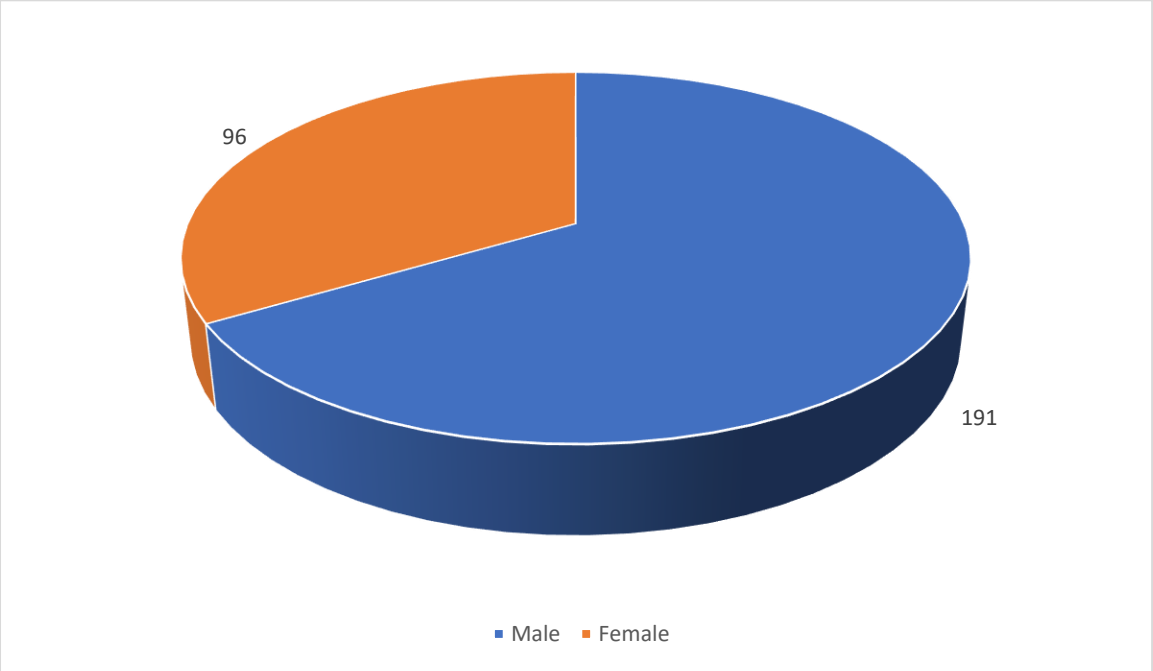

Figure 3 Gender of respondents

Source: Field study (2023)

4.1.3 Student level

Figure 4 demonstrates that 42 respondents were in level 100, 55 respondents were in level 200, 142 respondents were in level 300, and 48 respondents were in level 400.

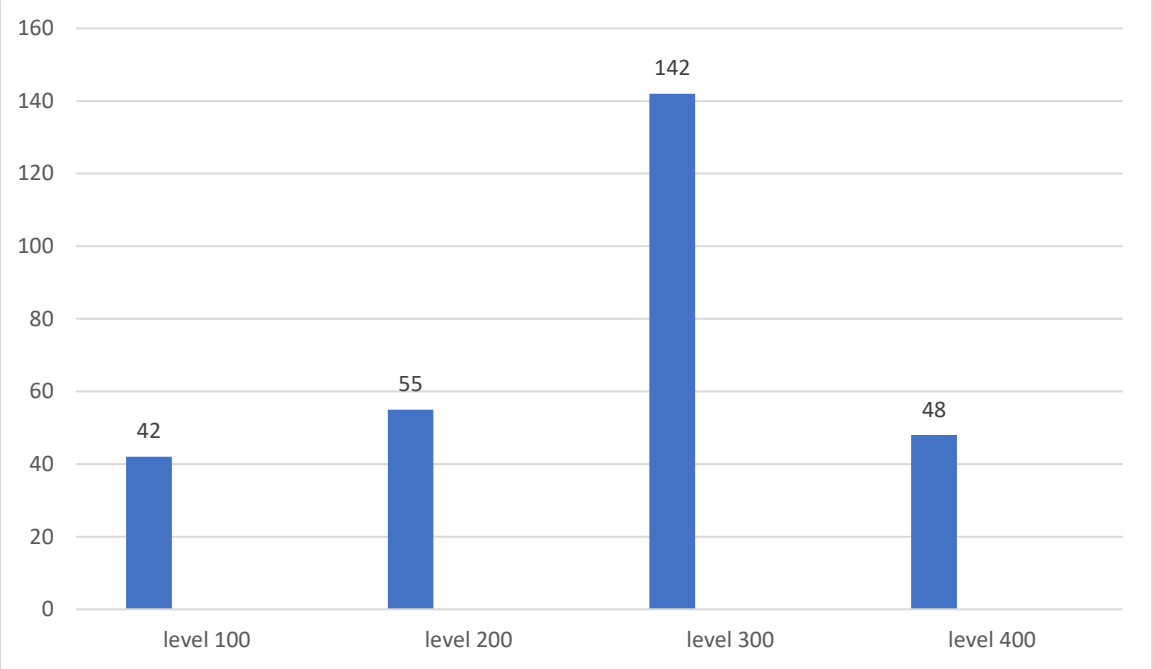

Figure 4 Student level of respondents

Source: Field study (2023)

4.2 Descriptive statistics

Descriptive statistics focused on the availability of ICT facilities for students that ensure mobility, the impact of ICT on students' performance, how academic mobility affect students' performance, and the reasons for internationalization of higher education institutions.

4.2.1 The availability of ICT facilities for students that ensure mobility

In Table 4.1, availability of ICT facilities for students that ensure mobility was assessed. One hundred and eighty-one (63.1%) students had laptop available at home. One hundred and six (36.9%) students had no laptop at home. One hundred and fifty-seven (54.7%) students had computer desktop available at home. One hundred and thirty (45.3%) students had no computer desktop at home. One hundred and eighty-six (64.8%) students had printer available at home. One hundred and one (35.2%) students had no printer at home. Two hundred and fifty-three (88.2%) students had laptop at school. Thirty-four (11.8%) students had no laptop at school. Two hundred and sixty-four (92%) students had computer desktop at school. Twenty-three

(8%) students had no computer desktop at school. Two hundred and seventy-fiver (95.8%) students had internet at school. Twelve (4.2%) students had no internet at school. One hundred and eighty-six (64.8%) students had scanner at school. One hundred and one (35.2%) students had no scanner at school.

Table 4.1 Frequency distribution

Item	True (%)	False (%)
Laptop is available at home	181 (63.1)	106 (36.9)
Computer desktop is available at home	157 (54.7)	130 (45.3)
Printer is available at home	186 (64.8)	101 (35.2)
Laptop is available at school	253 (88.2)	34 (11.8)
Computer desktop is available at school	264 (92)	23 (8)
Internet is available at school	275 (95.8)	12 (4.2)
Scanner is available at school	186 (64.8)	101 (35.2)

Source: Field study (2023)

4.2.2 The impact of ICT on students' performance

In Table 4.2, the impact of ICT on students' performance was examined. One hundred and fifty-four (53.7%) respondents strongly agreed that ICT helps easy and continuous access to academic resources. One hundred and fifty-eight (55.1%) respondents strongly agreed that ICT helps in sending and receiving emails for communication. One hundred and fifty-three (53.3%) respondents strongly agreed that ICT helps in making/designing things on the computer (like posters, invites). One hundred and fifty (52.3%) respondents strongly agreed that ICT helps in using MS Office, etc. for making assignments. One hundred and forty-six (50.9%) respondents strongly agreed that ICT helps in using MS Office, etc. for making presentations. One hundred and forty (48.8%) respondents strongly agreed that ICT helps in using MS Office, etc. for making calculations. One hundred and fifty-one (52.6%) respondents strongly agreed that ICT helps in using educational software to learn some lessons.

Table 4.2 Frequency distribution

Item	SD (%)	D (%)	N (%)	A (%)	SA (%)
ICT helps easy and continuous access to academic resources	7 (2.4)	4 (1.4)	10 (3.5)	112 (39)	154 (53.7)
ICT helps in sending and receiving emails for communication	1 (0.3)	7 (2.4)	12 (4.2)	109 (38)	158 (55.1)
ICT helps in making/designing things on the computer (like posters, invites)	5 (1.7)	8 (2.8)	12 (4.2)	109 (38)	153 (53.3)
ICT helps in using MS Office, etc. for making assignments	4 (1.4)	6 (2.1)	7 (2.4)	120 (41.8)	150 (52.3)

ICT helps in using MS Office, etc. for making presentations	4 (1.4)	5 (1.7)	8 (2.8)	124 (43.2)	146 (50.9)
ICT helps in using MS Office, etc. for making calculations	8 (2.8)	8 (2.8)	15 (5.2)	116 (40.4)	140 (48.8)
ICT helps in using educational software to learn some lessons	8 (2.8)	1 (0.3)	7 (2.4)	120 (41.8)	151 (52.6)

Source: Field study (2023)

Note: SD = Strongly disagree; D = Disagree; N = Neither agree nor disagree; A = Agree; SA = Strongly agree

4.2.3 How academic mobility affect students' performance

In Table 4.3, shows how academic mobility affect students' performance was investigated. One hundred and forty-six (50.9%) respondents agreed that through academic mobility, students can create a global network of contacts that includes academic colleagues, professors, and experts in their subject. One hundred and thirty-five (47%) respondents agreed that it is common to have to become used to a new academic environment, social networks, and cultural customs while moving to a new school or nation. One hundred and twenty-seven (44.3%) respondents strongly agreed that learning a new language or honing existing ones are frequent outcomes of studying abroad. One hundred and thirty-eight (48.1%) respondents strongly agreed that students can immerse themselves in a different cultural and social setting through academic mobility in order to promote personal development, improve intercultural competency, and build a global perspective. One hundred and forty-five (50.5%) respondents strongly agreed that students may gain access to specialized programs, facilities, and resources that are not offered at their current university by moving to a different institution or nation. One hundred and thirty-seven (47.7%) respondents strongly agreed that students who move

around for academic reasons frequently experience various curriculum, pedagogies, and educational systems.

Table 4.3 Frequency distribution

Item	SD (%)	D (%)	N (%)	A (%)	SA (%)
Through academic mobility, students can create a global network of contacts that includes academic colleagues, professors, and experts in their subject.	4 (1.4)	5 (1.7)	9 (3.1)	146 (50.9)	123 (42.9)
It is common to have to become used to a new academic environment, social networks, and cultural customs while moving to a new school or nation.	2 (0.7)	2 (0.7)	21 (7.3)	135 (47)	127 (44.3)
Learning a new language or honing existing ones are frequent outcomes of studying abroad.	3 (1)	23 (8)	21 (7.3)	113 (39.4)	127 (44.3)
Students can immerse themselves in a different cultural and social setting through academic mobility in order to promote personal development, improve intercultural competency, and build a global perspective.	3 (1)	6 (2.1)	13 (4.5)	127 (44.3)	138 (48.1)
Students may gain access to specialized programs, facilities, and resources that are not offered at their current university by moving to a different institution or nation.	5 (1.7)	5 (1.7)	11 (3.8)	121 (42.2)	145 (50.5)
Students who move around for academic reasons frequently experience various curriculum, pedagogies, and educational systems.	0 (0)	7 (2.4)	12 (4.2)	131 (45.6)	137 (47.7)

Source: Field study (2023)

Note: SD = Strongly disagree; D = Disagree; N = Neither agree nor disagree; A = Agree; SA = Strongly agree

4.2.4 The reasons for internationalization of higher education institutions

In Table 4.4, the reasons for internationalization of higher education institutions were evaluated. One hundred and forty-eight (51.6%) respondents agreed that institutions may prepare students for a global workforce through internationalization and give them the knowledge and perspectives they need to successfully navigate a diverse and interconnected world. One hundred and forty-seven (51.2%) respondents agreed that higher education institutions can benefit from internationalization in terms of reputation and respect. One hundred and forty-nine (51.9%) respondents agreed that institutions may establish a lively, multicultural environment that enhances learning for all students by luring students from many nations. One hundred and forty-seven (51.2 %) respondents strongly agreed that internationalization makes it easier for institutions from many nations to collaborate on research. One hundred and thirty (45.3%) respondents strongly agreed that internationalization is frequently viewed as a tactical response to the rising worldwide competition among institutions of higher learning. One hundred and thirty-nine (48.4%) respondents agreed that internationalization develops good diplomatic ties between nations and cross-cultural understanding. One hundred and thirty-nine (48.4%) respondents agreed that today's global issues including poverty, public health, and climate change necessitate cross-border cooperation.

Table 4.4 Frequency distribution

Item	SD (%)	D (%)	N (%)	A (%)	SA (%)
Institutions may prepare students for a global workforce through internationalization and give them the knowledge and perspectives they need to successfully navigate a diverse and interconnected world.	4 (1.4)	7 (2.4)	8 (2.8)	148 (51.6)	120 (41.8)
Higher education institutions can benefit from internationalization in terms of reputation and respect.	4 (1.4)	10 (3.5)	18 (6.3)	147 (51.2)	108 (37.6)
Institutions may establish a lively, multicultural environment that enhances learning for all students by luring students from many nations.	3 (1)	3 (1)	10 (3.5)	149 (51.9)	122 (42.5)
Internationalization makes it easier for institutions from many nations to collaborate on research.	4 (1.4)	1 (0.3)	7 (2.4)	128 (44.6)	147 (51.2)
Internationalization is frequently viewed as a tactical response to the rising worldwide competition among institutions of higher learning.	5 (1.7)	9 (3.1)	16 (5.6)	127 (44.3)	130 (45.3)
Internationalization develops good diplomatic ties between nations and cross-cultural understanding.	2 (0.7)	5 (1.7)	7 (2.4)	139 (48.4)	134 (46.7)
Today's global issues including poverty, public health, and climate change necessitate cross-border cooperation.	4 (1.4)	3 (1)	14 (4.9)	139 (48.4)	127 (44.3)

Source: Field study (2023)

Note: SD = Strongly disagree; D = Disagree; N = Neither agree nor disagree; A = Agree; SA = Strongly agree

4.3 Hypotheses testing

Regression was based on the two hypotheses stated in chapter 2, which are ICT will have a positive relationship with students' performance and academic mobility will have a positive relationship with students' performance.

4.3.1 ICT will have a positive relationship with students' performance

Table 4.5 shows that the results have considerable consequences, as indicated by F Change (1, 285) = 47.184, an Adjusted R Square of .139, and an R Square of .142. ICT had a significant impact, accounting for 14.2% of the variation in students' performance. The remaining variables together had 85.8% impact on students' performance. A significant and meaningful influence of ICT was on students' performance (p =.000, p < .01).

Table 4.5 Model Summary

Model	R	R Square	Adjusted R Square	F Change	df1	df2	Sig.
1	.377[a]	.142	.139	47.184	1	285	.000**

a. Predictors: (Constant), ICT

Source: Field study (2023)

Table 4.6 demonstrated a positive relationship between ICT and students' performance (B =.377, t = 6.869).

Table 4.6 Coefficients

Model		Standardized Coefficients Beta	T	Sig.
1	(Constant)		10.262	.000

ICT		.377	6.869	.000

a. Dependent Variable: students' performance

Source: Field study (2023)

4.3.2 Academic mobility will have a positive relationship with students' performance

Table 4.7 shows that the results have considerable consequences, as indicated by F Change (1, 285) = 162.911, an Adjusted R Square of .361, and an R Square of .364. Academic mobility had a significant impact, accounting for 36.4% of the variation in students' performance. The remaining variables together had 63.6% impact on students' performance. A significant and meaningful influence of academic mobility was on students' performance (p =.000, p < .01).

Table 4.7 Model Summary

Model	R	R Square	Adjusted R Square	F Change	df1	df2	Sig.
1	.603[a]	.364	.361	162.911	1	285	.000**

a. Predictors: (Constant), Academic mobility

Source: Field study (2023)

Table 4.6 demonstrated a positive relationship between academic mobility and students' performance (B =.603, t = 12.764).

Table 4.8 Coefficients

Model		Standardized Coefficients Beta	T	Sig.
1	(Constant)		5.375	.000
	Academic mobility	.603	12.764	.000

a. Dependent Variable: students' performance

Source: Field study (2023)

4.4 Discussion of findings

Discussion of findings covered the availability of ICT facilities for students that ensure mobility, the impact of ICT on students' performance, how academic mobility affect students' performance, and the reasons for internationalization of higher education institutions.

4.4.1 The availability of ICT facilities for students that ensure mobility

Findings revealed that more than half of the students had laptop, computer desktop, and printer available at home. Also, over 50% students had laptop, computer desktop, internet, and scanner at school. Studies have been done to determine how having and using a computer at home affects academic performance. The policies put in place in California schools for the free distribution of computers at home are analyzed by Fairlie and Robinson (2013). The findings imply that home computer use has no negative consequences on learning. According to Beuermann et al. (2015), there is no indication of an improvement in academic achievement in Peru following an experiment involving the distribution of portable computers to homes. Pereira et al. (2017) examine the government bonds made available in Romania in 2008 for the purchase of a personal computer and discover that while the children of households that benefited from a computer improve their computer skills test scores, they perform worse on

tests of Mathematics, English, and Romanian. More recently, Fairlie (2016) examined how giving low-income kids in US schools free personal computers for their homes affected the effects by gender. According to the author, boys are more prone than girls to use computers for entertainment rather than for academic purposes.

Based on these data, Fairlie (2016) examines how gender differences in academic achievement are affected by the free computer distribution. There is no proof that using a computer at home has a negative impact on a boy's academic achievement as compared to a girl. A number of research have utilized PISA to analyze the effects of computer use at home, with several studies demonstrating a positive link between using a computer at home and the PISA educational result (Zahavi & Friedman, 2019). Similar to this, Oliveira and Freitas (2017) demonstrates that using the computer at home rather than in school has a stronger favorable impact. Agasisti et al.'s (2017) more thorough examination of ICT use at home reveals that, in the majority of OECD nations, using computers for homework at home frequently is associated with receiving poorer test results overall. A recent study by Baert et al. (2020) analyzes smartphone use and finds that a one-standard deviation increases in daily smartphone use results in a loss of about one point in average exam scores. The authors recommend that policymakers at the very least fund teacher and parent education and awareness campaigns to draw attention to this trade-off between smartphone use and academic performance.

The consequences on academic achievement also appear to be strongly influenced by students' familiarity with using ICT. According to Zahavi and Friedman (2019), students who are more accustomed to using ICT perform better academically in science, particularly if such use is connected to the learning and teaching process. The evaluation of international exams additionally enables the investigation of the so-called "knowledge gap" (Budraitis et al., 2019) between social classes in the field of education. According to Gui et al.'s (2014) analysis of the

Italian instance, using the internet to complete homework did not affect students' learning differently depending on their social backgrounds.

4.4.2 The impact of ICT on students' performance

Findings revealed that ICT had a positive relationship with students' performance. More than half of the respondents strongly agreed that ICT helps easy and continuous access to academic resources, ICT helps in sending and receiving emails for communication, ICT helps in making/designing things on the computer (like posters, invites), ICT helps in using MS Office, etc. for making assignments, ICT helps in using educational software to learn some lessons, and ICT helps in using MS Office, etc. for making presentations. Also, almost 50% of the respondents strongly agreed that ICT helps in using MS Office, etc. for making calculations. ICT has gained enduring significance during the past 20 years. The availability of a vast amount of information and resources online, technological advancements in the ICT sector, and a sustained pliability in organizations and companies have all contributed to an increase in knowledge and information globally (Hasan & Sajid, 2013). According to Fernandez-Rovira (2019), information and communications technology (ICT) has quickly become one of the main pillars of contemporary civilization. ICT is viewed by many nations as a resource for acquiring basic competencies, abilities, and concepts, as well as the idea of ICT being integrated into education along with analyzing, writing, and numeracy.

Yet, it is a misconception that ICT refers to "computer systems and computing-related sports." This is fortunately not the case; despite the significant role that computers and their software play in modern data control, ICTs are a phenomenon that is present in other technologies and/or structures as well. According to Ellis and Loveless (2013), pedagogy in higher education is inextricably linked to both student academic success and innovative teaching methods. The study confirms that it is important to consider how information and communication

technologies may play a part in higher education. In a separate study, Chan et al. (2013) makes a related observation and emphasize the importance of ICT's crucial role in democratizing higher education and satisfying graduate students' evolving needs. In a related study, Sari and Mahmutoglu (2013) note that a paradigm shift is necessary to encourage the adoption of student-centered approaches in order to bring about a change in teaching practice in a university. According to the authors, the new methodology should strive to make the student an active component in the learning process rather than a passive one through proper and successful tutorial coaching.

The use of information and communication technology is crucial in putting students in an active position and in boosting the effectiveness and efficiency of the tutorial support, according to Iniesta-Bonillo et al. (2013). In order to achieve ICT adoption in their university education system, all essential stakeholders that are involved in higher education have worked extremely hard. Governments and university administrations throughout the world have made significant investments in incorporating information technology in their educational institutions, according to a report released by the UNESCO Institute of Statistics in 2013. Overall, many theoretical and empirical attempts have been undertaken to assess the effects of ICT adoption in the educational system (Castillo-Merino & Serradell-Lopez, 2014).

4.4.3 How academic mobility affect students' performance

Findings revealed that academic mobility had a positive relationship with students' performance. More than half of the respondents strongly agreed that through academic mobility, students can create a global network of contacts that includes academic colleagues, professors, and experts in their subject. Also, they strongly agreed that students may gain access to specialized programs, facilities, and resources that are not offered at their current university by moving to a different institution or nation. Almost half of the respondents strongly agreed

that it is common to have to become used to a new academic environment, social networks, and cultural customs while moving to a new school or nation, learning a new language or honing existing ones are frequent outcomes of studying abroad, students who move around for academic reasons frequently experience various curriculum, pedagogies, and educational systems, and students can immerse themselves in a different cultural and social setting through academic mobility in order to promote personal development, improve intercultural competency, and build a global perspective. Several studies have shown that, both from year to year and even within the same school year, mobile students (those who changed schools) and nonmobile students (those who stayed in the same school) had different accomplishment levels.

According to study findings, mobile pupils do worse academically than non-mobile students. After accounting for kindergarten performance, Enriquez (2018) discovered that frequent mobility has a negative impact on sixth-grade pupils' reading success. According to Kabanbayeva et al. (2019), 26% of children who never transferred schools and 41% of highly mobile pupils in the country were low performers. According to Dabasi-Halász et al. (2018), 23% of the kids who moved about frequently had to retake a grade. Children who move frequently are also more prone to exhibit behavioral issues, which could result in missed courses and scholastic challenges (Wood). In research on mobility and student accomplishment carried out by Pereira et al. (2017) in 72 elementary schools in the southeast of the United States, third-grade students were judged on their performance on the California Achievement Test (CAT). The researchers used the ratio of students who entered and left school during the year to the total number of pupils enrolled to measure mobility. The 11 schools with the highest rates of mobility also had the lowest CAT scores.

Researchers looked into two different types of mobility in the studies described above: (a) mobile and nonmobile students who moved from one school year to another, and (b) multiple-time mobile students who moved twice or more during the same school year. A correlation between student mobility and student performance in both types of mobility was demonstrated by Erasmus (2018) and Budraitis et al. (2019). Geographic mobility and student success were consistently found to be negatively correlated, with the link being especially worse for lower grade levels, according to Zahavi and Friedman (2019). According to those authors, as pupils got older, the mobile population grew smaller. Poverty, inner-city housing, migrant families, or inadequate English proficiency are additional variables that are also linked to student mobility. The Petzold and Bucher (2018) examined the evidence that was available regarding mobility and its effects on school achievement in a report to the House of Representatives. According to the study, pupils who are extremely mobile are more likely to be low-income, inner-city, immigrant, or English-language learners.

Moreover, low performers and grade repeaters are more likely to be highly mobile kids. In Texas public schools, Oliveira and Freitas (2017) looked into the connections between student achievement, district-wide academic performance, and mobility. According to the authors, economically deprived kids perform poorly and move around a lot. Students in lower primary grades were less likely to switch schools than those in prekindergarten through third grade, and 17% of Pre-K-3 pupils did so at least once in the 1994–1995 academic year. Also, the authors found that mobile kids performed worse on math and reading exams than non-mobile pupils, with results ranging from 11% to 21%, respectively. Mao and associates proposed that districts cooperate to keep kids in the same school throughout the academic year. Beech (2018) looked at the connections between movement and socioeconomic position, classroom adjustment, and academic performance. Only 20% of the sixth graders who took part had attended the same

school since kindergarten, and those who moved about a lot scored poorly on the reading portion of the Standard Achievement Test.

In Bartha et al. (2019) study of student movement among Chicago's elementary school pupils, Kerbow discovered that the majority of institutions lacked stable cohorts of kids who could be followed over time. He discovered that while reform initiatives intended to raise student success frequently assumed continuity of attendance, schools and individual students may have lost out on the benefits as a result of student mobility. Carvalho et al. (2016) noted high rates of mobility among Chicago's elementary schools and recommended a shared curriculum to lessen the effects on specific pupils.

4.4.4 The reasons for internationalization of higher education institutions

Findings revealed that more than half of the respondents agreed that institutions may prepare students for a global workforce through internationalization and give them the knowledge and perspectives they need to successfully navigate a diverse and interconnected world, higher education institutions can benefit from internationalization in terms of reputation and respect, institutions may establish a lively, multicultural environment that enhances learning for all students by luring students from many nations, and internationalization makes it easier for institutions from many nations to collaborate on research. Also, almost half of the respondents agreed that internationalization is frequently viewed as a tactical response to the rising worldwide competition among institutions of higher learning, internationalization develops good diplomatic ties between nations and cross-cultural understanding, and today's global issues including poverty, public health, and climate change necessitate cross-border cooperation. In each nation, the European Commission wants to establish a uniform framework for higher education. In the scenario of creating a European identity, this framework gives rise

to global coordination and command system, reconciling the interests of the various parties involved (Bartha et al., 2019; Bryla, 2015; Zahavi & Friedman, 2019).

Though, internationalization goals have not always had the same focal point. The definition of "internationalization of HE" has undergone a significant modification. According to Knight (2013), the initial goal of internationalization in higher education was to promote the sharing and interchange of ideas, cultures, knowledge, and values. Bilateral agreements in the fields of culture and science are often how formalized academic interactions between nations are conveyed. Today's agreements frequently need to take into account trade, economic, and political considerations, which is a substantial change from the initial concept of intellectual exchange (p. 88). Therefore, numerous motivations at all levels—from the macro to the micro—are connected to the causes for internationalization. In terms of general motivations, it mostly involves protecting principles that the community as a whole ought to share. For instance, embracing the concepts of internationalization, economic competition, and talent recruitment; comprehending and thriving in the presence of multiple cultural traditions; (brain-gain as opposed to brain-drain) (Al-Agtash & Khadra, 2019; Payumo et al., 2017).

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.0 Introduction

This chapter presents summary, conclusion, and recommendation.

5.1 Summary of findings

Summary of findings emphasized on the availability of ICT facilities for students that ensure mobility, the impact of ICT on students' performance, how academic mobility affect students' performance, and the reasons for internationalization of higher education institutions.

5.1.1 The availability of ICT facilities for students that ensure mobility

It was found that majority of the students had laptop, computer desktop, and printer available at home. Majority of the students had laptop, computer desktop, internet, and scanner at school.

5.1.2 The impact of ICT on students' performance

It was found that there was a positive relationship between ICT and students' performance. Majority of the respondents strongly agreed that ICT helps easy and continuous access to academic resources, ICT helps in sending and receiving emails for communication, ICT helps in making/designing things on the computer (like posters, invites), ICT helps in using MS Office, etc. for making assignments, ICT helps in using educational software to learn some lessons, ICT helps in using MS Office, etc. for making presentations, and ICT helps in using MS Office, etc. for making calculations.

5.1.3 How academic mobility affect students' performance

It was found that there was a positive relationship between academic mobility and students' performance. Majority of the respondents agreed that through academic mobility, students can create a global network of contacts that includes academic colleagues, professors, and experts in their subject. Also, students may gain access to specialized programs, facilities, and resources that are not offered at their current university by moving to a different institution or nation, it is common to have to become used to a new academic environment, social networks, and cultural customs while moving to a new school or nation, learning a new language or honing existing ones are frequent outcomes of studying abroad, students who move around for academic reasons frequently experience various curriculum, pedagogies, and educational systems, and students can immerse themselves in a different cultural and social setting through academic mobility in order to promote personal development, improve intercultural competency, and build a global perspective.

5.1.4 The reasons for internationalization of higher education institutions

It was found that majority of the respondents agreed that institutions may prepare students for a global workforce through internationalization and give them the knowledge and perspectives they need to successfully navigate a diverse and interconnected world, higher education institutions can benefit from internationalization in terms of reputation and respect, institutions may establish a lively, multicultural environment that enhances learning for all students by luring students from many nations, and internationalization makes it easier for institutions from many nations to collaborate on research. Also, internationalization is frequently viewed as a tactical response to the rising worldwide competition among institutions of higher learning, internationalization develops good diplomatic ties between nations and cross-cultural understanding, and today's global issues including poverty, public health, and climate change necessitate cross-border cooperation.

5.3 Conclusion

The main aim of the current study is to investigate the role of ICT-based mobile service in academic mobility of students. The current study used a cross-sectional design and employed quantitative research. Also, a design survey, explanatory research and descriptive research were employed. The target population for the current study comprised of 8,000 students at Ghana Communication Technology University. This study used stratified sampling and snowball sampling technique. The sample size for the current study was 381 students at Ghana Communication Technology University. A close-ended and structured questionnaire was utilized for the present research. It was revealed that most of the students had laptop, computer desktop, and printer available at home. Majority of the students had laptop, computer desktop, internet, and scanner at school. Also, ICT helps easy and continuous access to academic resources, ICT helps in sending and receiving emails for communication, ICT helps in making/designing things on the computer (like posters, invites), ICT helps in using MS Office, etc. for making assignments, ICT helps in using educational software to learn some lessons, ICT helps in using MS Office, etc. for making presentations, and ICT helps in using MS Office, etc. for making calculations. Moreover, through academic mobility, students can create a global network of contacts that includes academic colleagues, professors, and experts in their subject. Also, students may gain access to specialized programs, facilities, and resources that are not offered at their current university by moving to a different institution or nation, it is common to have to become used to a new academic environment, social networks, and cultural customs while moving to a new school or nation, learning a new language or honing existing ones are frequent outcomes of studying abroad, students who move around for academic reasons frequently experience various curriculum, pedagogies, and educational systems, and students can immerse themselves in a different cultural and social setting through academic mobility in

order to promote personal development, improve intercultural competency, and build a global perspective. Furthermore, institutions may prepare students for a global workforce through internationalization and give them the knowledge and perspectives they need to successfully navigate a diverse and interconnected world, higher education institutions can benefit from internationalization in terms of reputation and respect, institutions may establish a lively, multicultural environment that enhances learning for all students by luring students from many nations, and internationalization makes it easier for institutions from many nations to collaborate on research. Again, internationalization is frequently viewed as a tactical response to the rising worldwide competition among institutions of higher learning, internationalization develops good diplomatic ties between nations and cross-cultural understanding, and today's global issues including poverty, public health, and climate change necessitate cross-border cooperation.

5.4 Recommendation

Recommendation is based on practical and research recommendation.

5.4.1 Practical recommendation

Mobile apps give students access to vital details about their host universities, courses, timetables, and nearby resources, facilitating a smoother transfer. Educational institutions may give mobile students the most recent information, minimizing misconceptions and enhancing their entire experience. Mobile services help international students overcome isolation and language obstacles by facilitating real-time communication between them and their peers, teachers, and support staff. Students may quickly ask for assistance thanks to instant messaging and video conferences, which promotes a sense of community and lessens homesickness. Mobile apps let students to conduct administrative chores including registration, fee payments, and document submission, cutting down on waiting periods and paper work. Administrative

procedures that are streamlined assist institutions by lowering burden and potential errors. In order to help students adjust to their new environment, mobile services can offer virtual tours, language study resources, and cultural orientation. Educational institutions might plan online gatherings and events to encourage communication between domestic and foreign students. Access to study materials, lecture recordings, and digital libraries can all be found through mobile apps, helping students remain on top of their assignments. Students can participate in group projects and conversations regardless of where they are physically located thanks to online collaboration technologies. In order to protect students' health, mobile services can offer information on nearby emergency services, hospitals, and safety precautions. In the event of emergency or unanticipated circumstances, institutions can promptly warn students and provide updates.

5.4.2 Theoretical recommendation

Mobile apps give students access to vital details about their host universities, courses, timetables, and nearby resources, facilitating a smoother transfer. Educational institutions may give mobile students the most recent information, minimizing misconceptions and enhancing their entire experience. Mobile services help international students overcome isolation and language obstacles by facilitating real-time communication between them and their peers, teachers, and support staff. Students may quickly ask for assistance thanks to instant messaging and video conferences, which promotes a sense of community and lessens homesickness. Mobile apps let students to conduct administrative chores including registration, fee payments, and document submission, cutting down on waiting periods and paper work. Administrative procedures that are streamlined assist institutions by lowering burden and potential errors. In order to help students adjust to their new environment, mobile services can offer virtual tours, language study resources, and cultural orientation. Educational institutions might plan online gatherings and events to encourage communication between domestic and foreign students.

Access to study materials, lecture recordings, and digital libraries can all be found through mobile apps, helping students remain on top of their assignments. Students can participate in group projects and conversations regardless of where they are physically located thanks to online collaboration technologies. In order to protect students' health, mobile services can offer information on nearby emergency services, hospitals, and safety precautions. In the event of emergency or unanticipated circumstances, institutions can promptly warn students and provide updates.

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APPENDIX A

QUESTIONNAIRE

Dear respondent, this questionnaire is designed to gather data about the role of ICT-based mobile service in academic mobility of students. Your kind cooperation in this research is very much appreciated. Your anonymity and confidentiality are assured.

SECTION A

YOUR PERSONAL DATA

Please indicate your response to statements by ticking [√] the appropriate box.

1. Age: Below 20 years [ ] 20-29 years [ ] 30-39 years [ ] above 39 years [ ]
2. Gender: Male [ ] Female [ ]
3. Student level: level 100 [ ] level 200 [ ] level 300 [ ] level 400 [ ]

SECTION B

THE AVAILABILITY OF ICT FACILITIES FOR STUDENTS THAT ENSURE MOBILITY

This category contains statements about your co-workers' approval of cyberloafing behaviors. Please indicate your level of agreement to the statements using the 2-point Likert scale below by ticking [√] the appropriate box:

1= True 2= False

S/N	Statement	1	2
1.	Laptop is available at home		
2.	Computer desktop is available at home		
3.	Printer is available at home		
4.	Laptop is available at school		
5.	Computer desktop is available at school		
6.	Internet is available at school		
7.	Scanner is available at school		

SECTION C

THE IMPACT OF ICT ON STUDENTS' PERFORMANCE

This category contains statements about your co-workers' approval of cyber loafing behaviors. Please indicate your level of agreement to the statements using the 5-point Likert scale below by ticking [√] the appropriate box:

1= strongly disagree 2= Disagree 3= neither agree nor disagree 4 = Agree 5 = strongly agree

S/N	Statement	1	2	3	4	5
1.	ICT helps easy and continuous access to academic resources					
2.	ICT helps in sending and receiving emails for communication					
3.	ICT helps in making/designing things on the computer (like posters, invites)					
4.	ICT helps in using MS Office, etc. for making assignments					
5.	ICT helps in using MS Office, etc. for making presentations					
6.	ICT helps in using MS Office, etc. for making calculations					
7.	ICT helps in using educational software to learn some lessons					

SECTION D

HOW DOES ACADEMIC MOBILITY AFFECT STUDENTS' PERFORMANCE

This category contains statements about your co-workers' approval of cyber loafing behaviors. Please indicate your level of agreement to the statements using the 5-point Likert scale below by ticking [√] the appropriate box:

1= Strongly disagree 2= Disagree 3= Neither agree nor disagree 4 = Agree 5 = Strongly agree

S/N	Statement	1	2	3	4	5
1.	Through academic mobility, students can create a global network of contacts that includes academic colleagues, professors, and experts in their subject.					
2.	It is common to have to become used to a new academic environment, social networks, and cultural customs while moving to a new school or nation.					
3.	Learning a new language or honing existing ones are frequent outcomes of studying abroad.					
4.	Students can immerse themselves in a different cultural and social setting through academic mobility in order to promote personal development, improve intercultural competency, and build a global perspective.					
5.	Students may gain access to specialized programs, facilities, and resources that are not offered at their current university by moving to a different institution or nation.					
6.	Students who move around for academic reasons frequently experience various curriculum, pedagogies, and educational systems.					

SECTION E

THE REASONS FOR INTERNATIONALIZATION OF HIGHER EDUCATION INSTITUTIONS

This category contains statements about the reasons for internationalization of higher education institutions. Please indicate your level of agreement to the statements using the 5-point Likert scale below by ticking [√] the appropriate box:

1= Strongly disagree 2= Disagree 3= Neither agree nor disagree 4 = Agree 5 = Strongly agree

S/N	Statement	1	2	3	4	5
1.	Institutions may prepare students for a global workforce through internationalization and give them the knowledge and perspectives they need to successfully navigate a diverse and interconnected world.					
2.	Higher education institutions can benefit from internationalization in terms of reputation and respect.					
3.	Institutions may establish a lively, multicultural environment that enhances learning for all students by luring students from many nations.					
4.	Internationalization makes it easier for institutions from many nations to collaborate on research.					
5.	Internationalization is frequently viewed as a tactical response to the rising worldwide competition among institutions of higher learning.					
6.	Internationalization develops good diplomatic ties between nations and cross-cultural understanding.					
7.	Today's global issues including poverty, public health, and climate change necessitate cross-border cooperation.					