

**AKENTEN APPIAH-MENKA UNIVERSITY OF SKILLS TRAINING AND  
ENTREPRENEURIAL DEVELOPMENT**

**ASSESSING THE RELATIONSHIP BETWEEN COMPUTER LITERACY OF  
ADMINISTRATORS, TECHNOLOGY INTEGRATION AND DIGITAL WORKPLACE  
CONTINUANCE INTENTIONS IN COLLEGE ADMINISTRATION, AND  
ORGANIZATIONAL EFFECTIVENESS.**

**BY**

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## CANDIDATE'S DECLARATION

I hereby declare that this dissertation is the result of my own original work and that no part of it has been presented for another degree at this university or elsewhere.

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

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## **ABSTRACT**

This study aims at assessing the relationship between computer literacy of administrators, technology integration and digital workplace continuance intentions in college administration, and organizational effectiveness in the Colleges of Education in Ghana. The study adopted the quantitative research method approach to conduct a research on the administrators in the Colleges of Education in Ghana. The instrument used to collect data for the study was a questionnaire while the data were prepared and analyzed using a statistical package for the social sciences (SPSS 25). In all, 278 administrators responded to the questionnaire. Data analysis results shows that, there is a positive relationship between technological integration and organizational effectiveness, digital workplace continuance intention has a positive effect on organizational effectiveness and also, it was found that, computer literacy has a direct impact on the intention to use digital technologies. The Technology Acceptance Model was adopted for this study. The results also showed that computer literacy moderate the relationship between technological integration, digital workplace continuance intention and organizational effectiveness. The findings suggests that computer literacy is an important factor to consider when implementing digital technologies among administrators in Colleges of Education in Ghana.

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This research work is dedicated to my son, Michil Akyedie Gyan.

Mummy loves you so much, you are my inspiration, son.

## TABLE OF CONTENTS

<b>CANDIDATE’S DECLARATION</b> .....	<b>ii</b>
<b>ABSTRACT</b> .....	<b>iii</b>
<b>ACKNOWLEDGEMENT</b> .....	<b>iv</b>
<b>DEDICATION</b> .....	<b>v</b>
<b>TABLE OF CONTENTS</b> .....	<b>vi</b>
<b>CHAPTER ONE</b> .....	<b>1</b>
1.1 Background of the Study.....	1
1.2 Statement of the Problem .....	5
1.3 General Objective of the Study .....	7
1.4 Purpose of the Study .....	7
1.5 Research Questions .....	8
1.6 Significance of the Study .....	8
1.7 Scope of the Study.....	9
1.8 Limitation of the study .....	10
1.9 Overview of Methodology .....	10
1.10 Definition of key terms .....	11
1.11 Organization of the study .....	11
<b>CHAPTER TWO</b> .....	<b>13</b>
2.0 Introduction .....	13
2.1 Conceptualizing Technology Integration in College Administration .....	13
2.1.1 The Role of Administrators in Technology Integration .....	17
2.1.2. Challenges and Barriers of Technology Integration in College Administration.....	18
2.2. The Concept of Digital Workplace Continuance Intention of College Administration.....	20
2.2.1 Benefits of Digital Workplace Continuance Intention of College Administrators .....	22
2.2.2 Challenges of Digital Workplace Continuance Intention of College Administration .....	24
2.3 Organizational Effectiveness in College Administration.....	24
2.3.1 Factors Influencing Organizational Effectiveness .....	25
2.4 Computer Literacy and Technology adoption.....	26
2.4.1 Definition and Dimensions of Computer Literacy .....	27
2.5.1 Technology Integration and Organizational Effectiveness .....	29
2.5.2 Digital Workplace Continuance Intention and Organizational Effectiveness .....	30

2.5.3 Computer Literacy as a Moderator.....	32
6.0 Theoretical Review .....	35
6.1 The Technology Acceptance Model (TAM).....	35
6.2 The Theory of Planned Behaviour (TPB) .....	37
6.3.3 Moderating Variable: Computer Literacy .....	39
Figure 2.2: Conceptual Framework.....	39
<b>CHAPTER THREE .....</b>	<b>41</b>
3.0 Introduction .....	41
3.1 Research Philosophy .....	41
3.2 Research Approach .....	42
3.3 Research Design.....	42
3.4 Population of the Study .....	43
3.5 Sample and Sampling Technique .....	43
3.6 Data Collection Technique.....	44
3.7 Data Collection Procedure .....	45
3.8 Validity and Reliability .....	46
3.9 Data Analysis Procedure .....	47
3.10 Ethical Considerations.....	48
<b>CHAPTER FOUR.....</b>	<b>49</b>
<b>DATA ANALYSIS AND PRESENTATION OF RESULTS.....</b>	<b>49</b>
4.0 Introduction .....	49
4.1 Respondents Characteristics.....	49
4.2 Descriptive Analysis .....	51
4.2.1 Computer Literacy.....	51
4.2.2 Technological Integration .....	52
4.2.3 Digital workplace continuance intentions .....	54
4.2.4 Organisational Effectiveness .....	55
4.4 Regression Analysis .....	60
4.4.1 Effect of Technology Integration on Organisational Effectiveness .....	60
4.4.2 Effect of Digital Workplace Continuance Intensions on Organisational Effectiveness ..	61
4.4.3 Moderation role of Computer Literacy in the nexus between Technology Integration, Digital Workplace Continuance Intensions and Organisational Effectiveness.....	61
4.5 Discussions of Findings .....	63

<b>CHAPTER FIVE .....</b>	<b>64</b>
<b>SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION.....</b>	<b>64</b>
5.1 Introduction .....	64
5.2 Summary of Findings .....	64
5.3 Conclusion.....	65
5.4 Recommendations .....	65
5.5 Future Research.....	66
<b>REFERENCES.....</b>	<b>67</b>
<b>APPENDIX I .....</b>	<b>82</b>
QUESTIONNAIRE.....	82

## LIST OF TABLES

4.1 Respondents' Demographics.....	50
4.2 Computer Literacy .....	52
4.3 Technology Integration .....	53
4.4 Digital Workplace Continuance Intentions .....	55
4.5 Organizational Effectiveness .....	56
4.6 Correlation Analysis .....	59
4.7 Regression Results.....	62

## **LIST OF FIGURES**

2.1 Technology Acceptance Model .....	36
2.2 Conceptual Framework .....	39

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.0 Introduction**

This particular section serves as the initial and foremost part that explains the study's objectives, scope, and contributions. To facilitate reader comprehension of these aspects, the subsequent sections will address the study's background, problem statement, research goals, inquiry points, study importance, boundaries, and the overall structure of the research.

### **1.1 Background of the Study**

In today's digital age, computer literacy and technological integration in the workplace have become crucial factors in the success of organizations across various sectors, including higher education (Atkinson et al., 2020). With the increasing reliance on digital tools and platforms, administrators in college settings must possess a certain level of computer literacy to effectively navigate and leverage these technologies. Because of the rapid expansion of computer information systems in recent years, it is now essential to acquire a sufficient level of computer literacy (Kong, 2014). Consequently, the computer literacy of administrators has emerged as a vital factor in ensuring successful technological integration and sustaining a digital workplace environment for organizational effectiveness.

Computer literacy has an impact on the activities that members of an organization are capable of doing as well as how they coordinate and integrate their efforts (Li et al., 2010). Computer literacy, therefore, according to (Arno, 2012) is the ability to use computers effectively for the purposes of production, communication, and cooperation in a literate society.

Computer literacy can also be termed as the ability to use computer programs and other digital technologies to complete tasks efficiently and effectively (Hargittai, 2002).

It encompasses a wide range of competencies, including basic computer operations, software utilization, information retrieval, data analysis, and digital communication. Therefore, the ability to use computer technologies effectively and efficiently ultimately produce the best result which, in effect impact an organization's effectiveness.

Since computer literacy has become a major tool for organizational effectiveness, it is necessary to integrate it in college administration. Chen et al. (2021), establish that employees who possessed digital literacy had a higher level of technology acceptance and a positive attitude towards digital tools. Technological integration in college administration involves the strategic incorporation of digital tools, systems, and platforms into various administrative functions. Also, Hung et al. (2006) define technology integration as the extent to which technology is incorporated into the operations and processes of an organization. This integration aims to streamline processes, improve communication, enhance data management, and facilitate informed decision-making. Examples of technological integration in college administration include student information system, learning management systems, electronic records management, online admissions systems, online communication platforms, data analytics platforms and others. When administrators embrace and utilize technology effectively, it can lead to improved efficiency, reduced costs, and enhanced decision-making capabilities, ultimately contributing to the overall effectiveness of the organization.

However, computer technology cannot be considered successful if users do not sustain its usage or the system experiences underutilization and neglect.

Therefore, digital workplace continuance intentions pertain to the willingness of administrators to persistently utilize and sustain digital technologies in their daily work routines (Choi et al. 2019). It encompasses the individual's perception of the benefits derived from technology usage and their intention to persist with its adoption and utilize in the workplace. The continuance intention of administrators is crucial as it reflects their motivation and commitment to sustaining the integration of technology, thereby influencing the overall success of technological initiatives within the organization.

It is essential to understand the factors that influence administrators' intentions to continue using digital tools and technologies over time. By assessing the continuance intentions, it can identify the perceived benefits, challenges, and barriers that impact the long-term adoption and utilization of digital workplace technologies.

The effectiveness of an educational institution's administration significantly relies on the integration and workplace continuance utilization of technology and other resources by administrators. When administrators are computer literate and embrace technological advancements, they can optimize administrative processes, improve efficiency, and enhance communication with stakeholders. Effective technological integration empowers administrators to make data-driven decisions, support faculty and staff, provide timeless information to students, and adapt to changing educational landscapes.

Assessing the relationship between computer literacy, technological integration, and digital workplace continuance intention of college administration is essential for understanding the factors that contribute to the effectiveness of Colleges of Education (CoE) in Ghana.

Previous research, (Johnson & Skarphol, 2018; Anderson et al., 2021; Atkinson & Kydd, 2020; Mensah & Fofie, 2020; Choi & Kim, 2019) have predominantly focused on computer literacy, technological integration, and digital continuance intentions in the context of classroom instructions and other areas, paying less attention to the administrative aspects of colleges of education in Ghana.

Computer literacy therefore, is the knowledge and proficiency of college administrators in using computer hardware and software. This construct is crucial as it forms the foundation for administrators to effectively engage with digital workplace tools and technologies (Van Braak, 2004).

According to Zhao et al. (2003), technology integration encompasses the strategic incorporation of technology into administrative tasks, processes, and decision-making. College administrators who can effectively integrate technology enhance the efficiency and effectiveness of their daily activities, contributing to the overall organizational digital transformation.

Digital workplace continuance intention however focuses on the willingness and commitment of college administrators to persistently use digital tools and technologies in their administrative roles. It is influenced by factors such as perceived usefulness, ease of use and satisfaction according to (Bhattacharjee, 2001).

Cameron (1986) describes organizational effectiveness as the capacity of an education institution or organization to achieve its goals efficiently. The integration of technology and the continuity of its use by administrators can lead to improved productivity, streamlined processes, and enhanced decision-making, contributing to organizational effectiveness.

Therefore, this study aims to bridge this gap by investigating the relationship between computer literacy of administrators, technological integration, digital workplace continuance intention, and organizational effectiveness in the colleges of education in Ghana context which has not been looked at by much researchers.

Also, the study intend to provide insights into the critical factors influencing the role of college administrators in digital workplace continuance intention and its implications for organizational effectiveness. Understanding these relationships is vital for educational institutions and organizations striving to thrive in the digital age.

In summary, this research seeks to contribute to the existing literature by exploring the relationship between computer literacy, technological integration, digital workplace continuance intentions, and organizational effectiveness in college administration.

The findings of this study will guide administrators in Colleges of Education in Ghana in effectively leveraging digital technology to improve administrative processes, enhancing performance, and foster a successful digital workplace environment.

## **1.2 Statement of the Problem**

The rapid advancement of technology has transformed the way educational institutions operate, leading to increased reliance on computer systems and digital tools. In the setting of college administration, administrators play a vital role in integrating technology into their work processes and ensuring the effective functioning of the digital workplace.

The CoE in Ghana, like many other educational institutions, faces the challenge of effectively integrating technology into its administrative processes and digital workplace to enhance organizational effectiveness.

This is as a result of inadequate training and support for college administrators. Lack of internet connectivity, inadequate digital tools, and proper maintenance of digital technological tools. There is absence of proper training and ongoing support in using technology and this hinders administrator's ability to utilize it effectively and as a result reducing their intention to continue using digital tools.

The Ministry of Education in 2021 installed free Wi-Fi in all the 46 colleges of education across the country to enhance digitalization of academic and educational activities. Colleges had access to this services for about six months and that was all. Efforts of college management to get access to the free internet services has yielded no positive result till date. College management has therefore not taken the initiative to provide this internet services to its members due to the cost involved.

These affects effective technology integration and digital workplace continuance intention in the use of computer technology for college administration. This study aims to assess the complex relationship between the computer literacy of college administrators, their technology integration practices, and the continuance intention of adopting digital workplace tools, and how these factors collectively influence the overall organizational effectiveness of CoE in Ghana.

Also, it can be noted that administrators in the CoE in Ghana gives less attention to technology integration in the management of these institutions as well as digital workplace continuance intention.

Some of these administrators have limited computer knowledge and as a result do not see the need to integrate technology in their work come to think its continuance intention. Twomey et al., (2006) indicated that, school administrators should play a critical role in the successful integration of technology in their schools.

Therefore, the main problem to be investigated primarily in this study is assessing the relationship between computer literacy of administrators, technology integration, and digital workplace continuance intention in the context of college administration in the CoE in Ghana. By doing so, this research aims to add to the existing body of knowledge by shedding light on the factors that influence organizational effectiveness through computer literacy, technology integration and digital workplace continuance intention. This findings will have practical implications for college and educational institutions, providing insights into how to optimize technology usage, support administrators in acquiring necessary computer literacy skills, and create a more efficient and effective digital workplace environment.

### **1.3 General Objective of the Study**

The general objective of this research is to assess the relationship between computer literacy of administrators, digital workplace continuance intentions in college administration and organizational effectiveness.

### **1.4 Purpose of the Study**

The purpose of the study includes;

1. to determine the effect of technology integration in college administration on organizational effectiveness.
2. to examine the effect of digital workplace continuance intentions in college administration on organizational effectiveness.

3. to assess whether computer literacy moderates the relationship between technology integration, digital workplace continuance intentions in college administration, and organizational effectiveness.

### **1.5 Research Questions**

The following questions were posed to achieve the research objectives:

1. Does technology integration in college administration affects organizational effectiveness?
2. How does digital workplace continuance intentions in college administration affect organizational effectiveness?
3. Does computer literacy of administrators moderates the relationship between technology integration, digital workplace continuance intentions in college administration, and organizational effectiveness?

### **1.6 Significance of the Study**

This part describes the importance of the study and also addresses the benefits that may be derived from the study. Significantly, it is with the hope that this study will provide and unearth a comprehensive information on the relationship between computer literacy of administrators, technology integration and digital workplace continuance intention of college administrators and organizational effectiveness. The study will serve as a reference material for future researchers who will undertake research on similar topic.

This research will also have the potential to contribute to existing research in relation to the integration of computer technology in college administration and digital workplace continuance intention of administrators.

However, this study will also enable administrators to have a firm understanding of the barriers in order to address them in a way that will lessen, if not entirely remove, them.

### **1.7 Scope of the Study**

The study focused on college administrators within the colleges of education institutions in Ghana. It examines the level of computer literacy among administrators, which refers to their proficiency in using digital tools and technologies. The study investigates the extent of technology integration in the college administrative processes, indicating how various technologies are adopted and utilized. It explores the digital workplace continuance intention, which pertains to the administrators' willingness and plans to sustain their use of digital tools and technologies.

The study delves into the relationship between computer literacy, technology integration, and digital workplace continuance intention. It seeks to understand how the computer literacy of administrators influences their adoption and integration of technology in administrative tasks.

It explores how these factors, computer literacy, and technology integration, impact the intentions of college administrators to continue using digital tools in the workplace. The study ultimately assesses how these elements collectively affect the organizational effectiveness of the college administration.

## **1.8 Limitation of the study**

Certain limitations which the researcher will have little or no control influenced this work or its generalization. Some of which includes the possibility of some respondents not willing to give correct information for fear that the confidentiality in their work will be compromised. Limited time prevented the research from being carried out in all tertiary institutions across the country. And also, combining the study with work and other personal activities was a great limitation.

## **1.9 Overview of Methodology**

The research methodology employed for this study involves a quantitative approach, allowing for a comprehensive analysis of the research objectives. Questionnaire items involving measurement scale of 5-point Likert scale on computer literacy, technology integration, digital workplace continuance intention, and organizational effectiveness were administered to respondents. Data was analyzed using SPSS version 25. The population of the study consists of 298 administrators of CoE in Ghana out of which 278 responses to the measurement scale were received. A simple random probability sampling technique was employed. The validity and reliability test was done by running a Cronbach analysis test using the responses on the data instrument.

### **1.10 Definition of key terms**

**Computer Literacy:** This is a term used to describe a person's ability to effectively use and understand computers and digital technologies.

**Technology Integration:** This is the process of incorporating various technological tools, resources, and methods into education, business, or other environments to enhance and facilitate specific tasks, processes, or activities.

**Digital Workplace Continuance Intention:** This refers to an individual or organization's intention to continue using and maintaining a digital workplace environment.

**Colleges of Education:** These are institutions of higher learning in Ghana established by Colleges of Education Act 2012, Act 847. These institutions train teachers for all levels of education in Ghana in affiliation with mentoring public universities.

### **1.11 Organization of the study**

The study is organized into five (5) chapters. The first chapter, chapter one - introduction, covers the background to the study, statement of the problem, general objectives for the study, purpose of the study, research questions, significance of the study, limitations of the study, overview of the methodology, definition of key terms and organization of the study.

Chapter two, the literature review discusses the conceptualization of technology integration in college administration, the role of administrators in technology integration, challenges and barriers of technology integration in college administration and the concept of digital workplace continuance intention.

It also reviews literature on the benefits of digital workplace continuance intention of college administration, challenges of digital workplace continuance intention, organizational effectiveness in college administration, the factors influencing organizational effectiveness, computer literacy and technology adoption and definition and dimensions of computer literacy. Also, the chapter discussed the empirical and theoretical review of the variables as well as the conceptual framework for the study.

Chapter three, the methodology discusses the research philosophy, the research approach, the design, population of the study, sample and sampling technique for the study and data collection technique. It also discuss the data collection procedure, the research validity and reliability, the data analysis procedure and the ethical considerations of the study.

Chapter four presents the data analysis and presentation of results. It entails the respondent characteristics, the descriptive analysis for computer literacy, technology integration, digital workplace continuance intentions and organizational effectiveness.

The chapter also presents the correlation analysis, the regression analysis, analysis on the effect of technology integration on organizational effectiveness, digital workplace continuance intention on organizational effectiveness and the moderation role of computer literacy in the relationship between technology integration, digital workplace continuance intention and organizational effectiveness. It also presents the regression results of the study.

Finally, the chapter five of the study presents the summary of findings, conclusion, recommendations and suggestions for future research.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This literature reviewed the relationship between computer literacy of college administrators, technology integration and digital workplace continuance intention of college administration and organizational effectiveness in college administration. The purpose of this study is to determine the effect of technology integration in college administration on organizational effectiveness, examine the effect of digital workplace continuance intentions in college administration on organizational effectiveness and to also assess whether computer literacy of administrators moderates the relationship between technology integration, digital workplace continuance intention in college administration, and organizational effectiveness.

This chapter entails a review of literature on the variables (computer literacy, technology integration and digital workplace continuance intention). By assessing the theoretical and empirical evidence, this study aims to contribute to the existing literature and provide practical implications for policymakers, administrators and researchers.

#### **2.1 Conceptualizing Technology Integration in College Administration**

Conceptualizing technology integration in college administration provides a framework for effective planning and implementation, considering the specific needs and challenges of colleges of education in Ghana. It involves understanding the various dimensions, strategies, and implications of incorporating technology into administrative functions.

Technology integration in college administration encompasses the utilization of various digital tools, systems, and software in administrative processes. The adoption of learning management systems and data analytics platforms has reshaped administrative operations, offering opportunities for efficiency improvements and enhanced service delivery. These integrations are imperative for colleges of education looking to stay competitive and meet the ever-evolving needs of students and stakeholders (Gupta & Bostrom, 2018; Islam & Daim, 2020).

Technology integration therefore involves embedding technology seamlessly into administrative processes, curriculum delivery, communication, and collaboration (Zhao & Frank, 2003). It encompasses adopting, implementing, and utilizing technology to enhance administrative functions (Ertmer et al., 2012). The concept of technology integration in college administration recognizes the potential of digital solutions to transform traditional administrative practices and address the evolving needs and challenges of higher education institutions (Oblinger & Oblinger, 2005). It goes beyond simply adopting isolated technology tools and focuses on integrating them into the broader administrative environment to create a seamless and interconnected digital infrastructure (Picciano, 2017).

Technology integration in college administration helps to streamline administrative processes, that is, digital technologies can automate routine administrative tasks, such as student registration, scheduling, grading, and record-keeping (Bates & Sangra, 2011).

By implementing integrated systems, colleges can reduce manual efforts, minimize errors, and enhance efficiency in administrative operations. Also, using email, messaging platforms, video conferencing, and share document repositories facilitate real-time information exchange, virtual meetings, and collaborative work, regardless of physical location.

Technology tools enable improved communication and collaboration among administrators, faculty, staff and students (Keengwe & Kidd, 2010).

Administrative processes and decision support systems are some dimensions of technology integration where technology is integrated into tasks such as student enrollment, financial management, and human resources functions of college administration (Beard, 2018). Data analytics and business intelligence tools are used for informed decision-making. (Mishra et al., 2022).

Strategies like change management and professional development supports the integration of digital technologies into college administration. (Lipp, 2007; Bower, 2008). Streamlining administrative processes, reducing manual tasks, and improving productivity are some ways of enhancing efficiency in the integration of digital technology in college administration (Kou, 2017), and leveraging data for better decision-making, planning, and resource allocation for data-driven decision-making.

Technology integration enhance data-driven decision-making in college administration by allowing administrators to collect, analyze, and utilize data for informed decision-making (Bates & Sangra, 2011). Through data management systems and analytics tools, colleges can gain insights into student performance, enrolment trends, financial operations, and resource allocation, leading to evidence-based decision-making.

Furthermore, technology integration ensures security and privacy of Institution's data by safeguarding sensitive data. Colleges must implement cyber security protocols, data encryption, access controls, and regular system audits to protect confidential information and maintain student privacy.

Successful technology integration in college administration requires a comprehensive approach whereby there should be clear vision and strong leadership to implement crucial diving technology integration initiatives (Bates & Sangra, 2011). Administrators should articulate the goals, benefits, and long-term strategies of technology adoption and foster a culture that embraces innovation and changes. Also, there should be provision of adequate technological infrastructure, including hardware, software, networks, and support systems, is essential (Bates & Sangra, 2011).

Colleges need to invest in reliable and scalable infrastructure to support the integration of technology tools across various administrative functions. Providing training and professional development opportunities for administrators and staff is critical (Keengwe & Kidd, 2010). It ensures they have the necessary skills and knowledge to effectively utilize digital tools and platforms, maximizing the benefits of technology integration. Similarly, regular evaluation of technology integration initiatives is essential to assess their effectiveness and identify areas for improvement (Picciano, 2017). Feedback mechanisms, surveys and performance metrics can help colleges refine their strategies and ensure the ongoing success of technology integration efforts.

Technology integration in college administration aims to leverage digital tools and platforms to streamline processes, enhance communication and collaboration, enable data-driven decision-making, and improve student services. By embracing technology integration and implementing a comprehensive strategy, educational institutions can unlock the potential of digital solutions to support administrative excellence, foster innovation, and meet the evolving demands of higher education in the digital age.

### **2.1.1 The Role of Administrators in Technology Integration**

Administrators play a crucial role in fostering successful technology integration within educational institutions. Administrators serve as a catalyst for effective technology integration by providing leadership, guidance and support to both staff and students. They play a pivotal role in establishing a vision for technology integration, aligning it with instructional goals, and creating an environment conducive to its implementation (Johnson & Skarphol, 2018).

Administrators play a major part in the implementation of policies, and promoting professional development to ensure the successful integration of technology tools. To effectively integrate technology, administrators must be offered professional development opportunities. Professional development programs should focus on enhancing technological skills, knowledge and their ability to integrate technology seamlessly (Pruitt-Adams et al., 2020).

Beard (2018), highlights the importance of administrators in driving technology integration efforts where it was indicated that administrators' vision, commitment, and support significantly influence the adoption of technology in administrative processes. Bichsel (2018), also highlights the role of administrators in fostering data-driven decision-making through technology and indicated that, administrators utilize data analytics tools to inform strategic planning and resource allocation.

Furthermore, Bower (2008), emphasizes the need for professional development and training programs for administrators to enhance their digital skills and effectively lead technology integration efforts. Administrators are required to maintain collaborative efforts among faculty, and IT staff because effective collaboration ensures a holistic approach to technology integration, aligning administrative processes with academic goals (Kou, 2017).

Collaborative approaches can create a conducive environment for comprehensive technology integration in colleges of education in Ghana.

However, Chen (2017) discusses the challenges administrators face, including resource constraints and cultural resistance to technology integration. Understanding these challenges is crucial for effective technology integration.

Fullan (2014), indicated that administrators serve as visionaries, setting the tone for technology integration. Their leadership style, commitment, and vision significantly impact the adoption and success of technology initiatives. Effective administrators prioritize ongoing professional development for educators, fostering a culture of continuous learning (Ertmer et al., 2012).

All these researchers reviewed literature on the role of administrators in technology integration outside the borders of Ghana in different categories of fields, this research therefore seek to find out the role of administrators in technology integration in the colleges of education in Ghana.

### **2.1.2. Challenges and Barriers of Technology Integration in College Administration**

The successful integration of technology in college administration faces various challenges and barriers. Administrators need to address these challenges proactively to ensure effective implementation.

Some common challenges include resistance to change, which is one of the primary barriers to technology integration in college administration among administrators. Many individuals are reluctant to adopt new technologies due to fear of job loss, lack of technological skills, and the perception that technology may disrupt established processes, (Alshammari et al., 2020; Bingham & Al-Bahrani, 2018; Tondeur et al., 2017).

Also, there is mostly the problem of insufficient technological infrastructure, including outdated hardware and software, inadequate network connectivity, and limited technical support, poses a significant barrier to technology integration (Huynh et al., 2016; Ngafeeson, 2015; Pardo & Siemens, 2014). Insufficient training opportunities also hinder individuals' ability to effectively use and leverage technology to support administrative processes (Bingham & Al-Bahrani, 2018; Selwyn, 2015; Tondeur et al., 2017; Knezek & Christensen, 2016).

Furthermore, financial constraints and limited resources can hinder the successful integration of technology in college administration. Insufficient funding for technology initiatives, including hardware and software procurement, professional development, and ongoing maintenance, prevents institutions from adopting and sustaining innovative technological solutions (Rosenberg & Smith, 2018; Selwyn, 2015).

Administrators must develop strategies to mitigate these barriers, such as fostering a positive attitude towards technology adoption, providing ongoing technical support, and creating a collaborative culture that embraces innovation (Lim et al., 2019).

Recognizing these barriers is essential for educational institutions to develop strategies that promote successful technology integration, enhance administrative processes, and support positive educational outcomes in the colleges of education context.

All these barriers are general challenges on technology integration in financial, educational, and health institutions outside the borders of Ghana. But in the context of colleges of education in Ghana, few research have been conducted to identify the challenges college administrators are facing when it comes to technology integration in their various offices, a gap this research seeks to address.

Clarke (2022), researched on ICT integration on pre-tertiary school administrators in the (Birim Central Municipality) in Ghana. Where the study indicated the various challenges administrators face at the pre-tertiary level in a one particular Municipality in Ghana.

Alhassan et al. (2018), also revealed some factors affecting the adoption of ICT by Administrators in the University for Development Studies Tamale, where they gathered responses from only 100 respondents in a single tertiary institution. Here, there is a gap in the challenges of ICT integration of college administration from other tertiary institutions in the country, especially colleges of education. This research therefore, seek to attend to more than 100 respondents in the CoE in Ghana to gather their responses on the various challenges they face on integration of ICT in their administrative practices.

## **2.2. The Concept of Digital Workplace Continuance Intention of College Administration**

Digital workplace continuance intention refers to employees' willingness and commitment to continue using and integrating digital technologies in their daily work routines. The concept of digital workplace continuance intention is particularly relevant in the context of college administrations, as they play a crucial role in managing and coordinating various administrative tasks and processes within educational institutions. "As the physical office is more than just a collection of chairs, desks, meeting rooms, telephones and other such objects, the digital workplace is more than just the multifarious technology environment that enables work. It implies a complex set of practices that involve elements of organizational culture, ways of working, leadership approaches, human interactions with co-workers and technology and more". (Baptista et al., 2020; Coetzee, 2019; Dery et al., 2017; Koffer, 2015).

In recent years, there has been a significant shift towards digital transformation in the higher education sector, driven by the increasing availability and advancement of digital technologies.

College administrators have started adopting digital tools and platforms to streamline operations, enhance collaboration, improve communication, and provide better services to students, faculty, and staff. However, the successful implementation and long-term sustainability of digital workplace technologies require as strong intention to continue their usage and integration within the administrative practices.

Factor like job satisfaction plays a crucial role in shaping employees' intention to continue working in an organization. High levels of job satisfaction among college administrators have been positively associated with their continuance intention (Noor et al., 2017). Factors contributing to job satisfaction include a supportive work environment, meaningful work, opportunities for growth and development, and work-life balance, (Brown, 2019).

Organizational commitment reflects the degree of identification and attachment an individual feels toward their employing institution. Strong organizational commitment has been found to positively impact workplace continuance intention among college administrators (Yu et al., 2018). Components of organizational commitment, such as effective commitment, normative commitment, and continuance commitment, have been investigated in relation to continuance intention (Suleiman & Sohail, 2019).

Also, effective leadership and supportive supervision contribute significantly to workplace continuance intention. Administrators who perceive their supervisors as supportive and transformational leaders exhibit higher continuance intention (Hussin et al., 2020). Leadership behaviours that foster trust, provide support and encourage employee development positively impact employee retention in the higher education context (Wright, 2021).

Furthermore, government policies and initiatives, such as the e-government project and the Free Senior High School policy, have been influential in shaping the digital landscape in Ghana's education sector. These initiatives may indirectly impact the continuance intention of college administration (Mensah & Fofie, 2020).

The concept of digital workplace continuance intention circles around the sustained and purposeful use of digital technologies in the workplace (Chin et al., 2016). For college administrators, this translates to the consistent utilization of technology tools and platforms in their daily activities. Continuance intention is a critical factor in realizing the long-term benefits of technology integration in college administration.

Perceived organizational support measures how much employees believe their employer values and cares about their efforts. According to Noor et al. (2017), higher levels of perceived organizational support have been linked to greater continuance intention among college administrators. Factors contributing to perceived organizational support include fair treatment, rewards and recognition, and opportunities for professional development (Al-Kahtani, 2021).

### **2.2.1 Benefits of Digital Workplace Continuance Intention of College Administrators**

Continued use of digital workplace tools can lead to increased efficiency in administrative tasks, reducing manual efforts and streamlining processes. Digital workplace tools enable seamless collaboration among administrators, facilitating communication and knowledge sharing across departments and campuses. Access to real-time data and analytics through digital tools can empower administrators in making data-driven decisions, leading to improved outcomes (Fathema et al., 2015; Cohen & Latham, 2014; Bawa et al., 2017).

To foster and sustain the digital workplace continuance intention of college administration, it is important for educational institutions to develop comprehensive strategies. These strategies should encompass user training and support programs, effective change management initiatives, continuous evaluation of technology adoption, and regular updates to address emerging needs and challenges.

Furthermore, creating a culture of innovation, collaboration, and openness to technological advancements can contribute to the long-term success and adoption of digital workplace solutions within college administration.

Comprehensive training programs and on-going technical support can enhance administrators' digital literacy and confidence in using digital workplace tools (Venkatesh et al., 2003). According to Chang & Teng (2008), involving administrators in the decision-making process and seeking their feedback on digital workplace tools can boost their sense of ownership and increase their intention to continue using them. Emphasizing the importance of system usability and user experience during the design and development of digital workplace tools can promote positive user perceptions and increase continuance intention (Fathema et al., 2015).

Digital workplace continuance intention of administrators in college administration have significant implications for the successful integration of digital technologies in higher education institutions. By understanding the factors that influence administrators' intention to continue using digital tools, organizations can design effective strategies to promote their sustained usage.

Research has indicated various benefits organizations and institutions are likely to have when there is digital workplace continuance intention in their administrative systems. Most of these research focus are on students, bankers, lecturers, etc. (Dramani et al., 2022; Fathema et al., 2015; Chang & Teng, 2008).

Much is not known on digital workplace continuance intention of college administration in the CoE in the Ghanaian context. This therefore, is a gap this research seek to fill.

### **2.2.2 Challenges of Digital Workplace Continuance Intention of College Administration**

Challenges like managing the transition to digital workplace tools within college administration can affect continuance intention (Zhang et al., 2019) lack of technological readiness and skills can similarly hinder administrators intention to continue using workplace tools (Kim & Malhotra, 2005). Also, security and privacy concerns related to digital tools may create doubts and affect continuance intention (Straub & Watson, 1995). College administrators may face information overload with the increasing use of digital tools, impacting their willingness to continue using them (Teo et al., 2015). Some administrators may exhibit resistance to change when adopting digital workplace tools, leading to lower continuance intention (Venkatesh et al., 2003). Insufficient training and support from the organizational can hinder administrators' continuance intention, leading to underutilization of digital tools (Nouri & Shahri, 2018). And also, technical issues, system failures, or complex user interfaces can negatively impact administrators' experience and decrease their intention to continue using the tools (Chang & Teng, 2008).

### **2.3 Organizational Effectiveness in College Administration**

Organizational effectiveness is a critical aspect of college administration as it directly influences the achievement of institutional goals and objectives. Understanding the factors that contribute to organizational effectiveness in higher education institutions is essential for administrators to enhance overall performance, student outcomes, and stakeholder satisfaction.

### **2.3.1 Factors Influencing Organizational Effectiveness**

Effective leadership and governance are essential for organizational effectiveness in college administration. Administrators who exhibit strong leadership skills, provide a clear vision, and foster a positive organizational culture contribute to improved institutional performance (Kim, 2017). Additionally, according to Hartmann (2020), effective governance structures, including shared decision-making processes and transparent communication channels, have been associated with higher levels of organizational effectiveness.

Strategic planning helps administrators prioritize resources, allocate funding efficiently, and focus efforts on key priorities (Pohl, 2019). Higher education institutions with well-developed strategic plans and effective goal alignment processes tend to exhibit higher levels of organizational effectiveness (Hausman, 2018).

Effective human resource management practices, such as recruitment, selection, training, performance, evaluation, and staff development, significantly impact organizational effectiveness in college administration.

Administrators who invest in developing and supporting their staff through appropriate HR practices contribute to a more engaged workforce and improved outcomes (Beard, 2020). Effective HR management enhances employee satisfaction, reduces turnover, and improves overall institutional performance (Bhattacharya et al., 2019).

## **2.4 Computer Literacy and Technology adoption**

Computer literacy plays a vital role in individuals' ability to adopt and effectively use technology in various contexts. Computer literacy and technology integration in college administration have become vital aspects of higher education in this 21<sup>st</sup> century.

The incorporation of technology into administrative processes can enhance efficiency, communication and decision making within the institution.

Studies have highlighted the significance of computer literacy among college administrators, (Li & Wang, 2019) found that administrators' computer literacy positively correlated with their ability to use technology effectively in their daily tasks, resulting in improved organizational effectiveness. (Hirtz et al., 2018) also examined the impact of technology-integrated administrative system in a higher education setting and observed that such systems streamline administrative tasks, reduce paperwork, and improve data management, leading to higher productivity and cost savings.

However, Bates (2019), emphasized that technology integration in college administration must be accompanied by appropriate training and professional development for administrators. This ensures that administrators can fully utilize the potential of technology and adapt to new innovations.

Colleges have recognized the importance of computer literacy and technology integration, resulting in various initiatives to promote these skills like college based workshops and training session to equip administrators with the necessary digital capability.

As technology continue to evolve, staying updated with the latest advancements and providing adequate training to administrators will remain essential for successful technology integration in CoE in Ghana.

### **2.4.1 Definition and Dimensions of Computer Literacy**

Computer literacy comprises skills related to basic computer operations, software usage, digital communication, information retrieval, and critical thinking (Lim et al., 2019). Computer literacy is very crucial for effective administrative roles in educational institutions. College administrators, who play a vital role managing academic and administrative affairs, must possess adequate computer literacy skills to navigate and utilize various technology tools and platforms.

Computer literacy refers to the ability to use and operate computer systems and software effectively. In the context of college administrators, computer literacy plays a pivotal role in various aspects of their work, including communication, data management, decision-making, and information dissemination. College administrators who possess robust computer literacy skills can streamline administrative processes, enhance productivity, and adapt to technological advancements.

Several studies have explored the correlation between computer literacy and job performance among college administrators. A study by Poon & Koehler (2016), revealed that administrators' computer literacy positively influenced their ability to adapt to technological changes and effectively use digital tools for decision-making and problem solving.

Higher levels of computer literacy among administrators have been associated with improved efficiency, decision-making, communication, and problem-solving skills (Wang & Lin, 2018).

Several factors influence the computer literacy levels of college administrators. Factors influencing computer literacy among administrators include individual characteristics, access to training and support, organizational culture, and attitudes towards technology, (Ertmer et al., 2012; Lim et al., 2019).

A study by Drent and Meelissen (2008), identified gender, age, prior experience, and training as significant factors affecting computer literacy. They found that younger administrators and those with prior experience in using technology demonstrated higher computer literacy levels. Moreover, the availability of training programs and professional development opportunities was found to positively impact computer literacy levels among administrators.

Professional development programs, training workshops, mentoring, and continuous support are effective approaches for enhancing computer literacy among administrators (Wang & Lin, 2018). To enhance computer literacy among college administrators, various strategies have been proposed. Sang et al. (2019), highlighted the importance of providing targeted training programs tailored to administrators' specific needs and roles.

These programs should focus on basic computer skills, software applications, data analysis tools, and cyber security. Additionally, implementing a supportive organizational culture that encourages administrators to embrace technology and providing ongoing technical support were identified as crucial elements for improving computer literacy (Aggarwal & Kaur, 2018).

Computer literacy is an essential skill set for college administrators in the digital age. The reviewed literacy demonstrates that computer literacy positively impacts job performance and the ability to adapt to technological changes. Factors such as age, gender, prior experience and training opportunities influence administrators' computer literacy levels.

To enhance computer literacy, target training programs, a supportive organizational culture, and ongoing technical support are crucial.

By recognizing the importance of computer literacy, promoting technology integration, and fostering continuance intention, educational institutions can maximize the benefits of technology in college administration and enhance overall organizational effectiveness.

## **2.5 Empirical Literature Review**

### **2.5.1 Technology Integration and Organizational Effectiveness**

Computer Literacy is a fundamental aspect of administrators' ability to effectively integrate technology within the workplace. Zhang et al., (2020) conducted a study in which they demonstrated that effective technology integration positively impacts administrative efficiency and decision-making processes. Gamage and Fernando (2017), found a positive correlation between technology integration and organizational effectiveness in higher education settings and highlighted that institutions that effectively implement technology to support administrative functions are better equipped to handle challenges and adapt to changes, leading to enhanced organizational performance.

Also, Becker and Riel (2017), in his longitudinal research on a group of manufacturing firms found that technology adoption led to substantial improvements in production processes and overall efficiency. Similarly, Chen and Huang (2019), explored the impact of cloud computing adoption on the efficiency of service-oriented organizations, revealing that cloud integration positively influenced productivity and service delivery.

Hernandez et al. (2018), investigated the implementation of collaboration tools in a multinational corporation, revealing that such technologies enhanced communication, coordination, and knowledge sharing among employees, positively affecting organizational effectiveness. Jackson and Wang (2020), studied the impact of data analytics integration on managerial decision-making. They found that organizations that effectively integrated data analytics tools were better equipped to make informed, data-backed decisions, leading to improved organizational effectiveness. Chen and Huang (2019), investigated the influence of mobile technology integration on employee productivity and work flexibility.

Their findings suggested that employees with access to mobile technology demonstrated higher performance and job satisfaction.

However, Choi and Lee (2018) highlighted that overreliance on technology without considering human judgment and intuition might lead to suboptimal decisions. And also, Cao and Sun (2017), cautioned that improper technology integration might hinder communication, leading to reduced efficiency and potential miscommunication issues.

The various opinions from the literature review on the relationship between technology integration and organizational effectiveness reveals a complex and multifaceted relationship between technology integration and organizational effectiveness, which this research seek to uncover in the colleges of education context.

Overall, technology integration can lead to improved productivity, communication, decision-making, and employee performance, ultimately enhancing organizational effectiveness.

### **2.5.2 Digital Workplace Continuance Intention and Organizational Effectiveness**

A digital empowered administrative can positively impact various aspects of organizational effectiveness, such as communication, decision-making processes, and resource management. The link between digital workplace continuance intention of college administration and organizational effectiveness is a critical aspect of this review. Continuance intention according to Bhattacharjee (2001), is influenced by several factors, including individual characteristics, perceived usefulness, ease of use and satisfaction with technology. College administrators' intention to continue using digital tools is crucial for the sustained benefits of technology integration within the organization.

Organizational effectiveness in the context of higher education institutions encompasses various aspects, such as improved decision-making processes, resource allocation, stakeholder satisfaction, and adaptability to changing environments. Continued use of digital tools enhance the efficiency of administrative task, leading to better allocation of resources and more time for strategic planning and decision-making (Alalwan et al., 2017; Afshan et al., 2021).

Smith and Johnson (2019), investigated the relationship between digital workplace continuance intention and organizational effectiveness in higher education settings.

They establish a significant positive correlation between administrators' intention to continue using technology and overall organizational effectiveness. Raza et al. (2019) revealed that administrators' intention to continue using digital workplace technologies significantly influences their long-term effectiveness. Factors such as perceived usefulness, ease of use, and satisfaction with technology are strong determinants of continuance intention.

As higher education institutions increasingly adopt digital technologies to streamline administrative processes, it becomes essential to explore how the continued use of digital tools influences administrative staff's intention to continue using them and how this impacts the overall effectiveness of the organization. Prior research highlights the importance of perceived usefulness, ease of use, system quality, social influence, and individual attitudes towards technology. The "Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT)" are commonly employed frameworks to understand the adoption and continuance intention of digital tools (Davis, 1989; Venkatesh et al., 2003). According to Zhu et al. (2019), digital workplace continuance intention significantly impacts the efficiency and effectiveness of various administrative processes.

They highlighted that continuous use of digital tools contributes to enhanced collaboration, reduced paperwork, streamlined workflows, and better data management. Moreover, when staff members perceive digital workplace tools as beneficial, they are more likely to embrace them and integrate them into their daily tasks (Teo & Noyes, 2011).

Chen et al. (2021), explored the factors influencing administrators' continuance intention in the digital workplace. They found that technology integration that aligns with administrators' task and responsibilities positively influences their intention to continue using technology in their administrative roles. Successful technology integration in college administration is contingent on various factors, including support from top management, infrastructure availability and training opportunities for staff.

### **2.5.3 Computer Literacy as a Moderator**

The moderating role of computer literacy in the relationship between technology integration, digital workplace continuance intention and organizational effectiveness has been explored in different literature context.

Administrators with higher computer literacy are better equipped to overcome challenges related to technology use, leading to increased motivation and intention to continue using digital tools (Yildirim & Kocak, 2019). On the other hand, administrators with lower computer literacy may face barriers that hinder their intention to continue using technology, potentially impacting organizational effectiveness (Liaw et al., 2007). Institutions should invest in computer literacy training programs and ongoing support for college administrators to build their confidence and competence in using digital tools (Hsu & Chang, 2014).

Moreover, fostering a positive technology adoption culture and addressing administrators' attitudes toward technology can further support successful technology integration and improve organizational outcomes.

Computer literacy plays a crucial role in moderating the relationship between technology integration, digital workplace continuance intention, and organizational effectiveness among college administrators. Strengthening computer literacy levels can facilitate successful technology adoption, sustained use, and ultimately contribute to improved organizational performance and effectiveness in higher education institutions.

In the context of college administration, computer literacy is essential for administrators to effectively navigate and utilize various technological tools. According to Khan et al. (2018), the adoption of technology in higher education institutions and the computer literacy of administrators are significantly positively correlated. Administrators with higher computer literacy are more likely to explore and implement advanced technological solutions, contributing to improved organizational performance.

A study by Liu et al. (2018) demonstrated that technology integration acts as a bridge between computer literacy and organizational effectiveness. Institutions that prioritize technology integration as a strategic goal are more likely to experience positive outcomes in terms of improved decision-making, resource allocation, and overall efficiency.

Computer literacy, as the ability to utilize computers and related technologies effectively (Katz, 2006), can significantly moderate the relationship between technology integration and digital workplace continuance intention. Administrators with higher levels of computer literacy are more likely to perceive digital tools as user-friendly, reducing any perceived barriers to usage (Davis, 1989).

Conversely, administrators with lower computer literacy may experience challenges in adopting and adapting to new technologies, affecting their continuance intention and organizational effectiveness. Also, the impact of computer literacy on organizational effectiveness has been widely investigated across various fields (Laudon & Laudon, 2016). In the context of higher education administration, computer-literate administrators are better equipped to handle complex tasks, collaborate efficiently, and make informed decisions, ultimately contributing to improved organizational effectiveness.

A high level of computer literacy among administrators is positively associated with a smoother adoption and sustained use of digital workplace technologies (Igarria & Iivari, 1995). It helps to reduce barriers to technology use, foster a positive attitude, and enables administrators to harness the full potential of these tools.

According to Venkatesh et al. (2003), while computer literacy plays a crucial role in moderating technology integration, continuance intention and organizational effectiveness, providing adequate training and support to college administrators can mitigate its potential negative effects. Offering training programs for administrators can enhance their computer literacy levels and increase their confidence in using digital tools in their workplaces.

As higher education institutions continue to embrace technology, understanding and addressing computer literacy levels among administrators becomes paramount for achieving successful technology adoption and improved organizational outcomes.

## **6.0 Theoretical Review**

Several theoretical frameworks have been employed to understand computer literacy, technology integration and digital workplace continuance intention among college administrators in college administration.

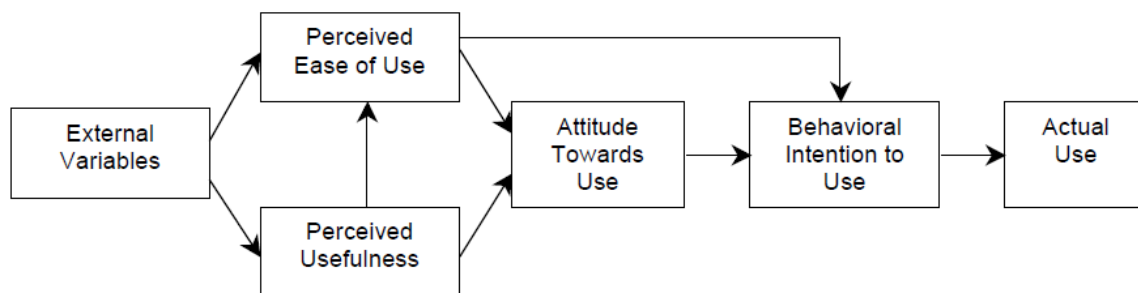
Notable frameworks include the Social Exchange Theory, which emphasizes the reciprocal relationship between employees and the organization, and the Job Embeddedness Theory, which focuses on the contextual factors that influence employees' attachment to their organization (Suleiman & Sohail, 2019). Technology Acceptance Model (TAM), which focuses on users' perceptions of usefulness and ease of use and the Unified Theory of Acceptance and Use of Technology (UTAUT), which emphasizes the role of social influence and facilitating conditions (Al-Fahad, 2009).

The theory to be adopted for this work is the Technology Acceptance Model (TAM). It is a behavioral psychology theory which was discovered by (Davis, 1989), using two existing theories, which were, Theory of Planned Behavior (TPB) (Ajzen, 1991) and Theory of Reasoned Action (TRA) (Fishbein & Ajzen, 1975).

### **6.1 The Technology Acceptance Model (TAM)**

Technology Acceptance Model (TAM) has been used by several researcher as well as field practitioners to assist in making prediction with regards to user acceptance of information technologies (Haghighinasab, 2009). The introduction of TAM by (Davis, 1989) has been adapted by the Theory of Reasoned Action (TRA) model and ICT model as may be accepted by users. The goal of TAM is to enable clarification regarding the elements of ICT usage which has the capability of giving a broader range of end-user computing technologies and user populations, while being

both cost-conscious and theoretically justified. TAM was found to be a simpler and easier to use. According to Wang et al. (2003), it is also a dominant model to uncover what determines user acceptance of IT. While both models were found to satisfactorily predict an individual's attitude (satisfaction) and behavioural intention, it also support other relevant model to enable a larger set of measures.



**Figure 2.1 - Technology Acceptance Model**

**Source: Davis (1989)**

The Two Important Variables in TAM are as follows:

1. Perceived ease of use (PEOU) which consider the extent to which a person accepts and believe that the usage of a particular system would be free of effort. College administrators often handle various administrative tasks and perceived ease of use in computer literacy usage can streamline these tasks, making them more efficient and reducing the time and effort required (Al-Adwan et al., 2018). Perceived ease of use for college administrators in computer literacy usage is a critical consideration when implementing technology solution in CoE in Ghana. It influences administrators' willingness to embrace technology, therefore shaping their ability to manage administrative tasks efficiently and make informed decisions.

Factors such as training, technical support, and user-friendly interfaces play a vital role in shaping perceived ease of use (Al-Fahad, 2009).

2. Perceived usefulness (PU) which also considers the extent to which an individual is sure on the usage of a particular system as that may bring an enhancement to his or her performance (Hsu et al., 2006). Perceived usefulness refers to administrators' subjective assessment of how digital technologies enhance their job performance and effectiveness. Studies have shown that administrators who perceive digital technologies as useful are more likely to exhibit higher levels of digital workplace continuance intention (Wu et al., 2012). Perceived usefulness is influenced by factors such as ease of use, compatibility, and the extent to which the technology meets administrators' needs (Al-Fahad, 2009).

TAM helps senior managers responsible for leading educational change through technological applications to predict and inform attitudes that can improve their leadership and administration. The application of Technological Acceptance Model can contribute towards the changing processes and how activities are modified as well as the conduct of individuals when it comes to the usage of ICT.

## **6.2 The Theory of Planned Behaviour (TPB)**

The theory of planned behaviour is effective in predicting individuals' intentions and behaviours in various contexts. According to Davis (1989), the theory proposes that individual's intentions are influenced by three key factors: attitudes towards the behaviour, subjective norms, and perceived behavioural control. These components collectively shape an individual's intention to engage in a specific behaviour, which in turn affects their actual behaviour.

College administrators' attitudes towards technology integration are central to understanding their intentions and behaviours related to digital workplace adoption. Positive attitudes towards technology can lead to a higher intention to integrate it into administrative processes. Venkatesh et al. (2003) emphasized the importance of identifying perceived benefits and drawbacks of technology integration to shape positive attitudes. Factors such as perceived usefulness, ease of use and compatibility with existing practices are critical in influencing attitudes.

Subjective norms and social influence is about the perceived social pressure and influence from significant context regarding the adoption of technology. Understanding the social norms can help clarify how support from peers and superior affects administrators' intentions to adopt technology in the digital workplace. Positive subjective norms are likely to contribute to higher intentions for technology integration and digital workplace continuance intention.

An individual's perception of their behavioural control shows their confidence in their capacity to carry out a specific behaviour successfully. For college administrators, perceived behavioural control is linked to their knowledge and ability in using technology effectively. Administrators with higher self-efficacy in technology usage are more likely to exhibit a positive intention to integrate technology in their work (Compeau & Higgins, 1995). Training and support programs can play a significant role in enhancing administrators' perceived behavioural control.

In applying theory of planned behaviour to college administration, it offers a comprehensive framework to analyse the interplay of attitudes, subjective norms, and perceived behavioural control in shaping college administrators intention to integrate technology in the digital workplace. By identifying these underlying factors, institutions can develop targeted interventions and support systems to encourage technology adoption and digital workplace continuance among administrators.

### 6.3 Definition of the variables

#### 6.3.1 Independent Variables:

##### 1. Technology Integration

Technology Integration is the process of incorporating technology into various aspects of business and organizational activities.

##### 2. Digital Workplace Continuance Intentions

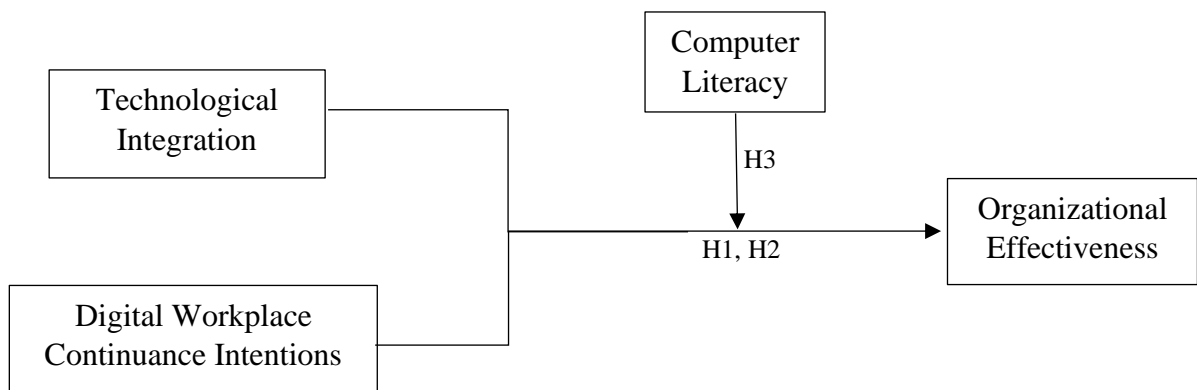
Digital workplace continuance intention is the willingness and commitment of an organization to persistently use technology in their daily activities over time.

#### 6.3.2 Dependent Variable: Organizational Effectiveness

Organizational effectiveness pertains to the ability of an organization to achieve their objectives efficiently and with positive outcomes.

#### 6.3.3 Moderating Variable: Computer Literacy

This variable refers to the level of knowledge, skills and familiarity that administrators have in using computer systems and software to perform their duties.



**Figure 2.2: Conceptual Framework**

**Source:** Researcher's Construct (2023)

This framework is intended to address the following research questions:

1. Will technology integration in college administration affects organizational effectiveness?
2. How will digital workplace continuance intentions in college administration affect organizational effectiveness?
3. How will computer literacy of administrators moderate the relationship between technology integration, digital workplace continuance intentions in college administration, and organizational effectiveness?

#### **6.4 Hypothesis Formulation**

Based on the framework, the following hypotheses can be formulated:

- 1. Hypothesis 1:** There is a positive relationship between technology integration in college administration and organizational effectiveness.
- 2. Hypothesis 2:** Digital workplace continuance intentions in college administration will have a positive effect on organizational effectiveness.
- 3. Hypothesis 3:** Computer literacy will positively moderate the relationship between technology integration and digital workplace continuance intentions in college administration and organizational effectiveness.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0 Introduction**

This chapter presents the methods and procedures employed in the study to achieve the specific objectives. This comprises, in particular, the research philosophies, the research approach, the design, population, sample and sampling technique, data collection process, validity and reliability, data analysis procedure, and ethical considerations.

#### **3.1 Research Philosophy**

The Positivism research philosophy was employed for this work. This is because it is a research philosophy that emphasizes the use of scientific methods to understand and explain social phenomena objectively. Researchers adopting this philosophy aims to uncover casual relationships and generalizable laws through empirical observations and data analysis (Bryman, 2008). Positivists believe in the existence of an objective reality that can be measured and studied through rigorous and systematic research methods.

In the context of this research relationship between computer literacy of administrators, technology integration, digital workplace continuance intention, and organizational effectiveness in college administration, positivism focuses on quantitatively measuring variables and testing hypotheses to establish casual relationships on college administration.

### **3.2 Research Approach**

Quantitative research method approach was employed to collect data from administrators of Colleges of Education in Ghana. This approach helped the researcher to assess their level of computer literacy, technology integration and digital workplace continuance intentions in college administration and organizational effectiveness. This approach was adopted because it considers the measurement and comparison of number of responses received of which there are available numerical and statistical variables of the processes in data collection process. (Johnson & Onwuegbuzie, 2004; Merriam, 1998). Also, it aims to quantitatively measure and analyze numerical data to examine relationships, patterns, and trends in the research topic.

The researcher used the quantitative research approach in order to establish a clear and objective understanding on the subject of study. Quantitative data was gathered through surveys/questionnaires with the believe that it will provide valuable insights into the statistical associations between these variables.

### **3.3 Research Design**

A survey research design was employed for the study. The survey assessed computer literacy levels, technology integration practices, and digital workplace continuance intention. Pinsonneault and Kraemer (1993), define survey as a way of gathering information about the characteristics, actions, opinions or attitudes of a group of people. Surveys help in gathering large quantities of descriptive data and are suitable for studies that have individuals as units of analysis (Bhattacharjee, 2012). Surveys also provide an unbiased representation of the population. As the survey design is less expensive and easy to administer, it was selected to enable the researcher gather data from administrators of all the CoE in Ghana.

### **3.4 Population of the Study**

The population for the study consist of administrators of Colleges of Education (CoE) in Ghana. In all, there are 46 public CoE in Ghana located across the various regions in the country (Anselm et al., 2020).

Administrators according to the Scheme of Service for Colleges of Education in Ghana, are classified under the Senior Staff 'B' Category ranging from Chief Administrative Assistant, Principal Administrative Assistant, Senior Administrative Assistant and Administrative Assistant carrying out a wide range of administrative and secretarial duties of executive nature including, organization of training programmes for staff, supervision of personnel, covering of meetings, training and supervision, preparation and typing of reports, keeping of confidential files, maintenance of discipline, execution of specific duties assigned by superiors.

### **3.5 Sample and Sampling Technique**

Sampling is a procedure of selecting a part of a population on which a research or study can be conducted and (Fraenkel & Wallen, 2009) explained this as the population which is been considered.

Simple random sampling, a probability sampling method was employed to ensure the representation of diverse college administrators opinions. Simple random sampling selection means that each unit or respondent has an equal chance of being selected for the study. The sample size was determined based on the SPSS statistical analysis to achieve adequate levels of confidence and precision in the results.

This method is used in other to help gather extensive and enough data required from participants. Having employed this sampling technique, the study population became the sample and thus all the administrators in the forty-six CoE in Ghana were studied.

### **3.6 Data Collection Technique**

Questionnaire was the instrument employed to sample the opinion of the participants. The survey questionnaire contains questions that will answer the statement of the problem. A structured survey/questionnaire was designed to collect data from college administrators. The survey assessed administrators level of computer literacy, the extent of technology integration in their daily tasks, and their intention to continue using digital tools in the workplace. A 5-point likert-scale (1-strongly disagree, 2-disagree, 3-neutral, 4-agree and 5-strongly agree) questions was employed to capture the quantitative data. The administrators' opinions are very significant for this study as it would help the researcher know their level of computer literacy, technology integration in their work, the digital continuous intention of these administrators and the organizational effectiveness.

Questionnaires are a series of quantitative questions used to obtain a wide range of useful information from respondents (Rahman, 2017).

The questionnaire consists of sub-themes such as administrators' level of computer literacy, effect of technology integration in their administrative duties, digital workplace continuance intention of administrators in college administration and organizational effectiveness. The questionnaire contains five (5) sections, namely, Sections A, B, C, D, and E.

Section A presented the demographic profile of the respondents chosen for this study. This section consists of four (4) general questions that focused on the subjects' background. Section B consists of seven (7) questions which focus on the computer literacy level of college administrators.

Section C consists of nine (9) questions and they seek the extent to which technology is integrated in college administration. Section D has seven (7) questions and focuses on digital workplace continuance intention of college administration. Section E focuses on organizational effectiveness on technology usage.

The questionnaire consists of four-point scale response items requiring Strongly Disagree, Slightly Agree, Slightly Disagree and Strongly Disagree and Likert-scale items in which the respondents were asked to tick one option that best reflects their opinions.

The section B of the questionnaire on the computer literacy level of administrators was adapted from (Son, 2008), section C which focuses on technology integration on college administration was adapted from (Anup & Sanjaya, 2016), Technology-Enabled Learning Implementation Handbook and section D which focuses on digital workplace continuance intention of college administration was adapted from (Dramani et al., 2022).

### **3.7 Data Collection Procedure**

Procedure for data collection is very important for every research. The questionnaires were designed with a Google Form and administered to the sample population through the national WhatsApp platform for colleges of education secretaries and administrators, an online medium.

The researcher also administered some of the questionnaires personally to some respondents in some colleges. The purposive and convenience sampling technique was used to select the administrators who were willing to give out information for the interview.

The respondents were selected based on two criteria, the willingness to participate and capability of giving effective responses to the study. The researcher established a good rapport with respondents throughout the distribution and collection periods to enable them feel comfortable to give independent and accurate information. This study also offered the researcher the opportunity to exhibit social interactive skills required in the conduct of this field work in a professional manner. Within three weeks, the researcher received the completed questionnaires.

### **3.8 Validity and Reliability**

There is a requirement of validity and reliability in a study to make it useful and to be conceptualized (Shadish, 2002). According to Zohrabi (2013), validity is the extent to which an instrument measures what it purports to measure. The extent to which a measure adequately represents the underlying construct that it is supposed to measure (Drost, 2011) is called validity. To ensure validity of the research instrument, the questionnaire was given to a research and publication expert, Mr. Reuben Saah, the Acting Librarian of Abetifi Presbyterian College of Education, who is the Chairperson of the Research and Publication Committee to review in terms of its content and construct. The questionnaire was also reviewed by the supervisor of this dissertation.

Reliability on the other hand is defined as “the extent to which test scores are free from measurement error’ (Muijs, 2011). Reliability can also be defined as “the extent to which measurements are repeatable when different people perform the measurement on different occasion, under different condition, supposedly with alternative instruments which measure the construct”.

It can also be defined as the degree to which the measure of a construct is consistent or dependable (Drost, 2011). It is a test of internal consistency and frequently used to calculate the correlation values among the answers on the assessment tool.

A higher reliability estimate should be as close to 1 as possible (Bland & Altman, 1997). Nunnally (1978), recommends 0.7 as the accepted benchmark for Cronbach's alpha and it was indicated that, if the coefficient alpha is too low, the indication is that the items measuring the scale have very little in common.

A Chronbach's alpha of 0.825 and 0.752 was achieved for the independent variables (digital workplace continuance intention and technology integration) respectively, 0.927 for the dependent variable (organizational effectiveness) and 0.791 for the moderator (computer literacy). This was done by running a Chronbach analysis test using the item and responses on the data instrument. The process was aided by IBM SPSS (version 25).

### **3.9 Data Analysis Procedure**

Data analysis involves synthesizing the information obtained from various sources into a coherent description of what has been discovered (Fraenkel & Wallen, 2009). The quantitative data (completed questionnaires) was analyzed using the Statistical Package for Social Sciences (SPSS) software, descriptive statistics was employed in presenting the findings.

Pearson correlation coefficients was calculated to examine the strength and direction of the relationships between computer literacy, technology integration, digital workplace continuance intention, and organizational effectiveness. Also, multiple regression analysis was conducted to assess the predictive power of the variables. The regression analysis was estimated using Ordinary Least Squares technique in Statistical Package for Social Sciences.

### **3.10 Ethical Considerations**

Ethical considerations must be adhered to when collecting data, particularly quantitative data for research. According to Daymond and Holloway (2001), to ensure this, there is the need for trust-based relationship between the researcher and participants and an obligation on the part of the researcher to interact with participants in humane and non-exploitative way.

As much as feasible, this study has assured and complied with all ethical standards. All participants' confidentiality, privacy, and anonymity were respected and guaranteed. This was mainly accomplished by not soliciting participant identities, not disclosing private or secret topics or documents that the researcher overheard or accidentally came across during the study, and not recording anything other than research-related input from participants.

## **CHAPTER FOUR**

### **DATA ANALYSIS AND PRESENTATION OF RESULTS**

#### **4.0 Introduction**

This study aims to assess the relationship between computer literacy of administrators, technological integration and digital workplace continuance intentions and organisational effectiveness of college administration. This chapter presents the results obtained from the data analysis. The chapter also discusses the results to provide meaning to the statistics acquired. Discussion of respondents' characteristics and descriptive analysis of the variables including computer literacy, technological integration, digital workplace continuance intentions, and organisational effectiveness are also presented. The data was analysed using frequencies, percentages, mean scores, and Ordinary Least Square techniques.

#### **4.1 Respondents Characteristics**

It could be found from Table 4.1 that, 51.1% of the respondents are males with the remaining 48.9% being females. This indicates that majority of the respondents were males. Distribution on the age of the respondents indicates that 5.0% of the respondents are below 20 years, 10.8% were aged between 21-30 years, 29.9% were aged between 31-40 years, 36.7% were aged between 41-50 years and 17.6% were above 50 years. Majority of the respondents has ages between 41-50 years. It is reveals from Table 4.1 that, 28.8% of the respondents had Diploma/HND, 63.3% had First Degree and 7.9% had Masters. This shows that majority of the respondents had First Degree educational qualification.

The results on the experience of the respondents indicates that 7.9% of the respondents had worked below 1 year, 13.7% had worked between 1-5 years, 27.7% had worked between 5-10 years, 31.7% had worked between 10-15 years, 13.3% had worked between 16-20 years, and 5.8% had worked above 20 years. This indicates that majority of the respondents had worked between 10-15 years.

**Table 4.1 Respondents' Demographics**

<b>Variable</b>	<b>Responses</b>	<b>Frequency (N)</b>	<b>Percentages (%)</b>
Gender	Male	142	51.1
	Female	136	48.9
<b>Totals</b>		<b>278</b>	<b>100.0</b>
Age	Below 20 years	14	5.0
	21-30 years	30	10.8
	31-40 years	83	29.9
	41-50 years	102	36.7
	Above 50 years	49	17.6
<b>Totals</b>		<b>278</b>	<b>100.0</b>
Education	Diploma	80	28.8
	First Degree	176	63.3
	Masters	22	7.9
<b>Totals</b>		<b>278</b>	<b>100.0</b>
Experience	Below 1 year	22	7.9
	1-5 years	38	13.7
	5-10 years	77	27.7

10-15 years	88	31.7
16-20 years	37	13.3
Above 20 years	16	5.8
<b><i>Totals</i></b>	<b><i>278</i></b>	<b><i>100.0</i></b>

**Source: Field Work (2023)**

## **4.2 Descriptive Analysis**

### **4.2.1 Computer Literacy**

Table 4.2 presents the descriptive analysis. Responses to the measurement items ranged from *1-strongly disagree, 2-disagree, 3-neutral, 4-agree and 5-strongly agree*, a Likert scale format. Mean scores above 3 were selected as because it falls within the ‘agree’ range and means scores of less than 3 were also selected because it falls within the ‘disagree’ range. The overall mean score for computer literacy was 3.532 (above 3), which concludes that, the respondents have agree that they are computer literates. It was further identified that all the 7 individual measurement items under this construct had mean scores greater than 3. This means that the respondents agreed that they have many years of experience in computer usage, have undertaken/completed ICT course previously, use computer to perform administrative tasks, feel comfortable using software applications such as word processors, spreadsheet, and presentation software, familiar with basic computer terminologies and concepts, able to use the internet to find information and resources, and able to use social media and other online platforms.

**Table 4.2 Computer Literacy**

Variables	Mean	Std. Deviation
I have many years of experience in computer usage	3.741	1.138
I have undertaken/completed ICT course previously	3.493	1.294
I use computer to perform administrative tasks	3.554	1.478
I feel comfortable using software applications such as word processors, spreadsheet, and presentation software	3.507	1.369
I am familiar with basic computer terminologies and concepts	3.385	1.498
I am able to use the internet to find information and resources	3.493	1.294
I am able to use social media and other online platforms	3.554	1.478
<b>Total</b>	<b>3.532</b>	<b>1.267</b>

**Source: Field Work (2023)**

#### **4.2.2 Technological Integration**

The Table 4.3 presents the descriptive analysis. The measurement items were responded with a Likert scale of *1-strongly disagree to 5-strongly agree*. Mean scores above 3 were designated as falling within the ‘agree’ range and means scores of less than 3 were also designated as falling within the ‘disagree’ range. The overall mean score for technological integration was 3.513 (above 3), which concludes the respondents agreed that they integrate technology in carrying out their tasks. It was further noticed that all variables observed in relation to technology integration had mean scores greater than 3. This mean majority of the respondents agreed that they use technology tools frequently to perform administrative tasks, technology integration has improved the effectiveness of administrative processes, technology integration has enhanced communication between college administration, students, departments and stakeholders, have participated in technology-related training or workshops organized by the College, resistance to change among

staff members affects the successful integration of technology, there is assessments or evaluations on technology integration efforts in the college administration, lack of adequate training hinders effective technology tools, insufficient technical support makes it difficult to troubleshoot technology related issues, and there are adequate policies and procedures in place to protect privacy and organisational data.

**Table 4.3 Technological Integration**

<b>Variables</b>	<b>Mean</b>	<b>Std. Deviation</b>
I use technology tools frequently to perform administrative tasks	3.478	1.591
Technology integration has improved the effectiveness of administrative processes	3.410	1.421
Technology integration has enhanced communication between college administration, students, departments and stakeholders	3.594	1.507
I have participated in technology-related training or workshops organized by the College	3.536	1.461
Resistance to change among staff members affects the successful integration of technology	3.446	1.509
There is assessments or evaluations on technology integration efforts in the college administration	3.594	1.507
Lack of adequate training hinders effective technology tools	3.536	1.461
Insufficient technical support makes it difficult to troubleshoot technology related issues	3.489	1.478
There are adequate policies and procedures in place to protect privacy and organisational data	3.536	1.461
<b>Total</b>	<b>3.513</b>	<b>1.371</b>

**Source: Field Work (2023)**

### **4.2.3 Digital workplace continuance intentions**

Table 4.4 presents the descriptive analysis for this construct. The measurement items were responded on a Likert scale of *1-strongly disagree to 5-strongly agree*. The mean scores above 3 were chosen because it falls within the ‘agree’ range and means scores of less than 3 were also designated as falling within the ‘disagree’ range. The total mean score for digital workplace continuance intentions is 3.490 (above 3), and can be concluded that, respondents agreed that they have intention to create digital workplace for employees to explore. It was further identified that all the seven (7) measurement items had mean scores greater than 3.

This means that majority of the respondents agreed that digital workplace continuance will have positive impact on decision-making within the college administration, digital workplace continuance intention will improve the effectiveness of administrative processes, using digital workplace tools is a valuable investment of my time, they intend to continue using digital workplace tools to perform administrative tasks, using digital workplace tools has enhanced communication and collaboration among college administration members, in the future, they intend to increase their use of e-learning platforms, and they are satisfied with their experience and continuance usage of digital workplace tools.

**Table 4.4 Digital Workplace Continuance Intentions**

<b>Variables</b>	<b>Mean</b>	<b>Std. Deviation</b>
Digital workplace continuance will have positive impact on decision-making within the college administration	3.417	1.268
Digital workplace continuance intention will improve the effectiveness of administrative processes	3.493	1.332
I believe that using digital workplace tools is a valuable investment of my time	3.572	1.272
I intend to continue using digital workplace tools to perform administrative tasks	3.540	1.270
Using digital workplace tools has enhanced communication and collaboration among college administration members	3.500	1.313
In the future, I intend to increase my use of e-learning platforms	3.417	1.268
I am satisfied with my experience and continuance usage of digital workplace tools	3.493	1.332
<b>Total</b>	<b>3.490</b>	<b>1.115</b>

**Source: Field Work (2023)**

#### **4.2.4 Organisational Effectiveness**

The last variable was organisational effectiveness. The measurement items were responded to on a Likert scale of *1-strongly disagree to 5-strongly agree*. Mean scores above 3 were designated as falling within the ‘agree’ range and means scores of less than 3 were also designated as falling within the ‘disagree’ range. The overall mean score for organisational effectiveness was 3.412 (above 3), conclusion can be drawn here that, respondents agreed their organisations are effective in carrying out their activities. It was further identified that all the 7 measurement items under this construct had mean scores greater than 3.

This means that the respondents agreed that the integration of technology in college administration has improved overall organizational effectiveness, digital workplace continuance intention of college administration has improved overall organizational effectiveness. College administration’s digital transformation efforts have positively impacted the quality of services provided to students and departments, lack of proper training in using digital tools inhibits my ability to perform administrative task effectively, technical glitches and system failures disrupt my workflow when using digital tools, the college provides adequate support and resources for addressing technological challenges, and administrators knowledge in computer literacy enhance organizational effectiveness.

**Table 4.5 Organisational Effectiveness**

<b>Variables</b>	<b>Mean</b>	<b>Std. Deviation</b>
The integration of technology in college administration has improved overall organizational effectiveness	3.446	1.635
Digital workplace continuance intention of college administration has improved overall organizational effectiveness	3.342	1.502
College administration’s digital transformation efforts have positively impacted the quality of services provided to students and departments	3.342	1.590
The lack of proper training in using technology tools hinders my ability to perform administrative task effectively	3.496	1.527
Technical glitches and system failures disrupt my workflow when using digital tools	3.468	1.526
The college provides adequate support and resources for addressing technological challenges	3.446	1.635
Administrators knowledge in computer literacy enhance organizational effectiveness	3.342	1.502
<b>Total</b>	<b>3.412</b>	<b>1.427</b>

**Source: Field Work (2023)**

### 4.3 Correlation Analysis

The current study employed the Pearson correlation. The Pearson product correlation of age and gender was found to be positively low but statistically insignificant ( $r = .106, p > 0.05$ ). Hence, there is not enough statistical evidence that a relationship exists between age and gender. This means that when age increases, gender will also increase. Education and gender were found to be negative and statistically insignificant ( $r = -.096, p > 0.05$ ). This shows that an increase in education will lead to a decrease in gender. There was a positive and statistically insignificant relationship between education and age ( $r = -.093, p > 0.05$ ). Therefore, enough statistical evidence does not exist to claim the existence of a relationship between education and age. Experience and gender were found to be significantly positive and low ( $r = .025, p < 0.05$ ). This shows that an increase in gender will result to an increase in experience and vice versa. Additionally, experience was found to negatively correlate with age but statistically insignificant and very low ( $r = -.106, p > 0.05$ ). Hence, there is no statistical evidence that there is a relationship between age and experience. There is an insignificant negative very low relationship between experience and education. ( $r = -.076, p > 0.05$ ). This means that an increase in experience will lead to a decrease in education.

Moreover, a markedly low and negligible significant positive relationship was found between computer literacy and gender ( $r = .009, p < 0.05$ ). Hence, there is enough statistical evidence to establish the relationship between computer literacy and gender. A markedly low and negligibly negative relationship was found between computer literacy and age but statistically significant ( $r = .003, p < 0.05$ ). As such, there is enough statistical evidence to establish the relationship between age and computer literacy. A very low negative relationship was found between computer literacy and education but statistically insignificant ( $r = -.068, p > 0.05$ ).

Hence, there is not enough statistical evidence to establish the relationship between computer literacy and education. The relationship between computer literacy and experience was found to be markedly low and negligibly negative but statistically significant ( $r = .041, p < 0.05$ ). Hence, there is enough statistical evidence that a relationship exists between computer literacy and experience.

The relationship between technology integration and gender was found to be markedly low and negligibly positively correlated and significant ( $r = .024, p < 0.05$ ). Hence, enough statistical evidence exists to claim a relationship between technology integration and gender when digital workplace continuance intention increases, gender will also increase. The relationship between technology integration and age was also found to be markedly low and negligibly negatively correlated but statistically significant ( $r = -.007, p < 0.05$ ). Hence, enough statistical evidence exists to claim a relationship between age and technology integration. The relationship between technology integration and education was found to be very low negatively correlated but significant ( $r = -.010, p > 0.05$ ). As such, enough statistical evidence does not exist to claim a relationship between technology integration and education.

The relationship between technology integration and experience was also found to be markedly low and negligibly negatively correlated but significant ( $r = -.010, p > 0.05$ ). Hence, enough statistical evidence does not exist to claim a relationship between technology integration and experience. Furthermore, the relationship between technology integration and computer literacy was found to be low and positively significant ( $r = .167, p < 0.05$ ). This shows that an increase in technology integration will lead to an increase in computer literacy and vice versa. A very low significant negative relationship was found between digital workplace continuance intention and gender ( $r = -.007, p < 0.05$ ).

Hence, there is enough statistical evidence to establish the relationship between digital workplace continuance intension and gender. A markedly low and negligibly positive relationship was found between digital workplace continuance intension and age but statistically significant ( $r = .178, p < 0.05$ ). Hence, there is enough statistical evidence to establish the relationship between digital workplace continuance intension and age. The relationship between digital workplace continuance intension and education is also markedly low and negligibly positive and statistically significant ( $r = .005, p > 0.05$ ). Hence, enough statistical evidence exists to establish the relationship between digital workplace continuance intension and education. The relationship between digital workplace continuance intension and computer literacy is very moderate positive but statistically insignificant ( $r = .077, p > 0.05$ ). Hence, enough statistical evidence does not exist to establish the relationship between digital workplace continuance intension and computer literacy. The study found a significant moderate positive relationship between digital workplace continuance intension and technology integration ( $r = .056, p < 0.05$ ). This implies that an increase in digital workplace continuance intension will lead to an increase in technology integration and vice versa.

**Table 4.6 Correlation Analysis**

	Gender	Age	Educ	Exp	CLL	TI	DWC	OE
Gender	1							
Age	.106	1						
Educ	-.096	.093	1					
Exp	.025	-.106	-.076	1				
CLL	.009	-.003	-.068	-.043	1			
TI	.024	-.007	-.010	-.010	.167**	1		
DWC	-.007	.178**	.005	-.064	.077	.056	1	
OE	.118*	.057	.069	-.032	.229**	.432**	.119*	1

**Source: Researcher's Calculations (2023)**

#### **4.4 Regression Analysis**

The regression analysis was estimated using Ordinary Least Squares technique in Statistical Package for Social Sciences. Table 4.6 presents the results of the analysis. The study controlled for age, gender, qualification, and experience due to their potential effects on organisational effectiveness in technology use.

The results of the study as presented in Table 4.6 show that, the unstandardized Beta coefficients of age, gender, qualification, and experience are 0.103, 0.047, 0.209, and -0.003 respectively. This implies that, for every unit change in age, gender, qualification, and experience, there will be a corresponding change in organisational effectiveness by .103 (10.3%), 0.047(4.7%), 0.209(20.9%), and -0.003 (-0.3%) respectively. The results pointed out that gender, age, and education had positive but statistically insignificant effect on organisational effectiveness (p-value > 0.05). Moreover, experience had negative but statistically insignificant effect on organisational effectiveness (p-value > 0.05).

##### **4.4.1 Effect of Technology Integration on Organisational Effectiveness**

The effect of technology integration on organisational effectiveness was found to be statistically significantly and positive ( $\beta = 0.394$ ;  $p < 0.01$ ). This suggests that technology integration affects organisational effectiveness by about 39.4%, '*ceteris paribus*'. *H1* was thus, accepted.

#### **4.4.2 Effect of Digital Workplace Continuance Intentions on Organisational Effectiveness**

Moreover, statistically significant positive effect of digital workplace continuance intentions on organisational effectiveness was revealed by this study ( $\beta = 0.326$ ;  $p < 0.05$ ). This implies that a unit increase in digital workplace continuance intentions will result in 32.6% increase in organisational effectiveness, and vice versa. *H2* was thus, accepted.

#### **4.4.3 Moderation role of Computer Literacy in the nexus between Technology Integration, Digital Workplace Continuance Intentions and Organisational Effectiveness**

From the results presented (Table 4.6), the interaction between technology integration and computer literacy (TI\_CLL) had a statistically significant negative effect on organisational effectiveness ( $\beta = -0.195$ ;  $p\text{-value} < 0.01$ ). This shows that the presence of computer literacy in the relationship between technology integration and organisational effectiveness will reduce the direct effect of technology integration on organisational effectiveness by 19.5%.

However, the interaction between digital workplace continuance intentions and computer literacy (DWC\_CLL) had a statistically significant positive effect on organisational effectiveness ( $\beta = 0.412$ ;  $p\text{-value} < 0.01$ ). This indicates that the presence of computer literacy in the relationship between digital workplace continuance intentions and organisational effectiveness will increase the direct effect of digital workplace continuance intentions on organisational effectiveness by 41.2%.

**Table 4.7 Regression Results**

Predictors	Unst Beta	Std Error	T-value	Sig-value	VIF
Gender	.103	.069	1.497	.136	1.045
Age	.047	.073	.647	.518	1.076
Education	.209	.134	1.564	.119	1.034
Experience	-.003	.060	-.057	.955	1.025
CLL	.162	.062	2.607	.010*	1.110
TI	.394	.056	7.016	.000**	1.053
DWC	.326	.152	2.152	.032*	1.026
DWC_CLL	.412	.056	7.395	.000**	1.033
TI_CLL	-.195	.060	-3.242	.001**	1.031
R	.509				
R <sup>2</sup>	.259				
F	10.430**				

Dependent variable: OE

\*Significant at 5%, \*\*Significant at 1%, CLL: Computer Literacy, TI: Technological Integration,

DWC: Digital Workplace Continuance Intentions, OE: Organisational Effectiveness.

**Source: Researcher's Calculations (2023)**

#### **4.5 Discussions of Findings**

The effect of technology integration on organizational effectiveness was found to be statistically significantly positive, accepting H1. Empirically, this confirms Gamage and Fernando (2017) research where there was a positive correlation between technology integration and organizational effectiveness in higher education settings and highlighted that institutions that effectively implement technology to support administrative functions are better equipped to handle challenges and adapt to changes, leading to enhanced organizational performance.

Also, the effect of digital workplace continuance intentions on organizational effectiveness was found to be statistically significantly positive, thus, H2 was accepted. This is in line with Smith and Johnson (2019) where they establish a significantly positive correlation between administrators' intention to continue using technology and overall organizational effectiveness. Therefore, as higher education institutions increasingly adopt digital technologies to streamline administrative processes, it becomes essential to explore how the continued use of digital tools influence administrative staffs' intention to continue using them and how this impacts the overall effectiveness of the organization.

Lastly, the results and findings of the study demonstrated that computer literacy moderates the relationship between technology integration, digital workplace continuance intentions and organizational effectiveness. This shows that the presence of computer literacy in the relationship between digital workplace continuance intentions and organizational effectiveness will increase the direct effect of digital workplace continuance intentions on organizational effectiveness, thus supporting H3.

## **CHAPTER FIVE**

### **SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION**

#### **5.1 Introduction**

This study aims to assess the role of computer literacy in the nexus between technological integration, digital workplace continuance intentions and organisational effectiveness. The chapter concerns itself with summary of the key findings, recommendations, future research and conclusion.

#### **5.2 Summary of Findings**

The fast growing of technology has transformed the way educational institutions work, leading to increased reliance on computer systems and digital tools. In the context of college administration, administrators play a crucial role in integrating technology into their work processes and ensuring the effective functioning of the digital workplace. Based on the results of this research, it can be found that there is a positive relationship between technological integration and organizational effectiveness. The results also showed that digital workplace continuance intention has a positive effect on organizational effectiveness. The study found that computer literacy has a direct impact on the intention to use digital technologies. The results also showed that computer literacy moderate the relationship between technological integration, digital workplace continuance intention and organizational effectiveness.

These findings suggest that computer literacy is an important factor to consider when implementing digital technologies among administrators at CoE in Ghana.

### **5.3 Conclusion**

The aim of the study was to assess the relationship between computer literacy of administrators, technology integration and digital workplace continuance intentions in college administration, and organizational effectiveness. It can be concluded that computer literacy plays a significant increasing role in the relationship between technological integration, digital workplace continuance intention and organizational effectiveness. As technology continues to evolve, fostering a comprehensive understanding and skill among administrators becomes paramount. The seamless integration of technology will not only enhance administrative processes but also influences the sustained commitment to digital workplace practices, which will lead to organizational effectiveness.

### **5.4 Recommendations**

Based on the findings of the research the following recommendations can be made:

1. Colleges Management must look forward to providing computer literacy training for their employees especially administrators. This will help them to use digital technologies more effectively and efficiently.
2. Developing of strategies for implementing digital technologies in the organisation. When colleges develop effective strategies for implementing digital technologies, it will help to ensure that these technologies are used efficiently and effectively.
3. Continuously monitor and evaluate the use of digital technologies in colleges will help to identify areas where improvements can be made and ensure that these technologies are being used effectively.

4. Colleges of Education in Ghana should assess the impact of computer literacy on organizational effectiveness. This will also help identify areas where improvement can be made and ensure that digital technologies are being used effectively.

## **5.5 Future Research**

Based on the findings of the study, the following are some avenues that can be researched on;

Future research can explore or investigate the impact of computer literacy on administrators productivity. This would help to identify the specific skills that are most important for improving productivity.

Examine the impact of digital technologies on administrators well-being, this will help to identify potential negative effects of these technologies and develop strategies to mitigate them.

Investigate the impact of digital technologies on students, staff and stakeholders satisfaction will also help in identifying ways in which colleges can use these technologies to improve their satisfaction.

## REFERENCES

- Afshan, S., Sharif, A., & Sajjad, A. (2021). Antecedents of university students' intentions to continue using e-learning platforms: A developing country perspective. *Education and Information Technologies*, 26(4), 4503-4525.
- Aggarwal, M., & Kaur, H. (2018). Impact of computer literacy on the job performance of college administrators. *International Journal of Research in Humanities, Arts, and Literature*, 6(2), 105-113.
- Al-Adwan, A. S., Smedley, J., & Saklani, L. (2018). Factors influencing students' acceptance of m-learning: An investigation in higher education. *International Review of Research in Open and Distributed Learning*, 19(2), 20-42.
- Alalwan, A. A., Dwivedi, Y. K., & Rana, N. P. (2017). Factors influencing adoption of mobile banking by Jordanian bank customers: Extending UTAUT2 with trust. *International Journal of Information Management*, 37(3), 99-110.
- Al-Fahad, F. (2009). Students' attitude and perception toward the effectiveness of mobile learning in King Saud University, Saudi Arabia. *The Turkish Online Journal of Educational Technology*, 8(2), 111-119.
- Alhassan I., Mavis A. G., Bawa A. K. (2018). Factors Affecting the Adoption of ICT by Administrators in the University for Development Studies Tamale: Empirical Evidence form the UTAUT Model. *International Journal of Sustainability Management and Information Technologies*. Vol. 4, No.1, 2018, pp.1-9. doi: 10.11648/j.ijsmi.20180401.11.
- Al-Kahtani, N. S. (2021). The impact of perceived organizational support on turnover intention among higher education faculty. *Journal of Education and Learning*, 10(1), 181-192.

- Alshammari, F., Alshammari, G., & Shonfeld, M. (2020). Technology adoption barriers and possible solutions in Saudi Arabian higher education. *Education and Information Technologies*, 25(6), 5601-5624.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behaviour and Human Decision Processes*, 50(2), 179-211.
- Anderson, J., Smith, R., & Johnson, L. (2021). Technological integration in college administration and organizational effectiveness. *Journal of Higher Education Management*, 28(2), 45-64.
- Anselm, K. A., Cynthia, F. D., Pearl, A. B., & Patrick, K., (2020). Factors influencing the choice of teaching as a career: an empirical study of students in colleges of education in Ghana, *Contemporary Social Science*, 15:4, 446-460, DOI: 10.1080/21582041.2019.1675092
- Anup, K. D., & Sanjaya, M. (2016). *Technology-Enabled Learning Implementation Handbook*. Commonwealth of Learning.
- Arno, E. (2012). The role of technology in teaching languages for specific purposes courses. *Modern Language Journal*, 95, 88-103.
- Atkinson, M. P., & Kydd, C. T. (2020). The impact of computer literacy on student attitudes and perceptions of higher education technology. *International Journal of Educational Technology in Higher Education*, 17(1), 1-19.
- Baptista, J., Stein, M. K., Klein, S., Watson-Manhein, M. B., & Lee, J. (2020). Digital work and organizational transformation: Emergent digital/human work configurations in modern organizations. *The Journal of Strategic Information Systems*, 29, 1-10.
- Bates, A. W. (2019). Technology in higher education administration: Challenges and opportunities. *Journal of Education Management*, 41(4), 567-582.

- Bates, A. W., & Sangra, A. (2011). *Managing Technology in Higher Education: Strategies for Transforming Teaching and Learning*. John Wiley & Sons.
- Bawa, P., Tovares, A., Pincus, M., & Savvides, P. (2017). Leveraging data analytics for decision making in higher education. *Educause Review*, 52(2), 68-69.
- Beard, L. (2018). Administrative Technology in Higher Education: Knowledge, Skills, and Student Success. *Journal of Research on Technology in Education*, 50(1), 11-33.
- Beard, J. W. (2020). Human resource management and its impact on organizational effectiveness in higher education. *Journal of Human Resources in Hospitality & Tourism*, 19(4), 437-458.
- Bech, R., Lyytinen, K., & Reponen, T. (2017). The impact of technology adoption on production process efficiency in manufacturing: Evidence from longitudinal case studies. *International Journal of Production Economics*, 186, 54-65.
- Becker, K. (2017). The role of the principal in technology integration. *Journal of Research on Technology in Education*, 49(3-4), 250-264.
- Becker, R., & Riel, M. M. (2017). Organizational effectiveness in higher education: Defining the essentials. *Educational Policy*, 31(1), 126-153.
- Bischsel, J. (2018). *The 2018 State of Digital Learning in Higher Education*. EDUCAUSE Center for Analysis and Research.
- Bhattacharya, M., Kumar, S., & Roy, S. (2019). Human resource practices and organizational effectiveness: An empirical study of Indian higher education institutions. *Human Resource Development International*, 22(2), 165-188.
- Bhattacharjee, A. (2001). Understanding information systems continuance: An expectation-Confirmation model. *MIS Quarterly*, 25(3), 351-370.

- Bhattacharjee, S. (2012). Social science research: Principles, methods and practices. *Journal of Educational Technology*, 2(3), 44-68.
- Bingham, T., & Al-Bahrani, A. (2018). Factors affecting faculty members' technology adoption in higher education. *Education and Information Technologies*, 23(5), 2185-2206.
- Bland J. M., & Altman, D. G. (1997). Statistics notes: Cronchbach's alpha. *BMJ* 314:572
- Boateng, R., & Mawusi, C. (2018). Antecedents of User Satisfaction with Mobile Financial Services in Ghana. *Journal of Internet Banking and Commerce*, 23(1), 1-17.
- Bower, M. (2008). Technology Training in Higher Education: Emphasizing the Need for Context. *Australasian Journal of Educational Technology*, 24(1), 92-104.
- Brown, M. (2019). Job satisfaction and college administrator retention. *Community College Journal of Research and Practice*, 43(1), 49-64.
- Bryman, A. (2008). *Social research methods* (3<sup>rd</sup> ed.). Oxford University Press.
- Campeau, D. R., & Higgins, C. A. (1995). Computer self-efficacy: Development of a measure and initial test. *MIS Quarterly*, 19(2), 189-211.
- Cao, J., & Sun, J. (2017). The impact of information technology integration and strategic orientation on firm performance. *Information and Management*, 54(1), 86-100.
- Chang, H. H., & Teng, C. I. (2008). An empirical investigation of healthcare professionals' acceptance of online learning: The case of Taiwan. *International Journal of E-Learning*, 7(4), 707-724.
- Chen, J., & Huang, Z. (2019). The impact of cloud computing on service-oriented organizations' efficiency: The mediating role of technology integration and IS capabilities. *Information & Management*, 56(6), 103152.

- Chen, J. V., Liao, C. Y., & Hwang, M. I. (2021). Exploring the factors influencing administrators continuance intention in the digital workplace. *International Journal of Information Management*, 56, 102269.
- Chen, Y. L. (2017). Organizational Culture and the Use of Management Information Systems in Taiwan's Universities. *International Journal of Educational Management*, 31(3), 243-257.
- Chin, W. W., Marcolin, B. L., & Newsted, P. R. (2016). A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic-mail emotion/adoption study. *Information Systems Research*, 14(2), 189-217.
- Choi, B., & Lee, H. (2018). The impact of information technology on human judgment and decision-making quality. *Information & Management*, 55(6), 757-768.
- Choi, I., & Kim, H. (2019). Understanding employees' continuance intention to use mobile learning: A socio-technical perspective. *Computers & Education*, 141, 103607.
- Clarke, E. Y. (2022). A tracer study on challenges affecting the use of ICT in pre-tertiary school administration in Ghana: Administrators' perspective, *Cogent Education*, 9:1, DOI: [10.1080/2331186X.2022.2062893](https://doi.org/10.1080/2331186X.2022.2062893).
- Coetzee, M. (2019). Thriving in digital workspaces: An introductory chapter. In M. Coetzee (Ed.), *Thriving in digital workspaces* (pp. 1-11). Springer.
- Cohen, A., & Latham, S. (2014). Collaboration and trust in higher education institutions' adoption of cloud-based services. *Journal of Computing in Higher Education*, 26(1), 55-73.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340.

- Daymond, C., & Holloway, I. (2011). Qualitative research methods in public relations and marketing communications. *Journal of Business and Economics*, 5(8), 36-53.
- Dery, K., Sebastian, I. M., & Nick, V. D. M. (2017). The digital workplace is key to digital innovation. *MIS Quarterly Executive* 16(2): 135-152.
- Dramani, I. E., Tang, Z., & Coffie, C. P. K. (2022). Usage intentions of e-learning systems in Ghanaian Tertiary Institutions: A case study of the University of Development Studies. *Sustainability* 2022, 14, 7360. <https://doi.org/10.3390/su14127360>DOI: 10.3390/su14127360.
- Drent, M., & Meelissen, M. (2008). Which factors obstruct or stimulate teacher educators to use ICT innovatively? *Computers & Education*, 51(1), 187-199.
- Drost, E. A. (2011). Validity and reliability in social science research. *Education Research and Perspectives*, 38(1), 105-124.
- Ertmer, P. A., Ottenbreit-Lefwich, A. T., Sadik, O., Sendurur, E., & Sendurur, P. (2012). Teacher beliefs and technology integration practices: A critical relationship. *Computers & Education*, 59(2), 423-435.
- Fathema, N., Shannon, D., & Ross, M. (2015). Expanding the technology acceptance model (TAM) to examine faculty use of learning management systems (LMSs) in higher education institutions. *Journal of Online Learning and Teaching*, 11(2), 210-232.
- Fishbein, M. A., & Ajzen, I. (1975). *Belief, attitude, intention and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Fraenkel, J. K., & Wallen, N. E. (2009). *How to design and evaluate research in education*. New York: McGraw Hill Company, Inc.

- Fullan, M., & Donnelly, K. (2013). *Alive in the Swamp: Assessing Digital Innovations in Education*. Nesta.
- Fullan, M. (2014). *Leading in a Culture of Change*. Jossey-Bass.
- Gamage, A. S., & Fernando, Y. (2017). Technology integration and organizational effectiveness in higher education. *Journal of Higher Education Management*, 25 (3), 312-327.
- Grace, M. (2016). ICT Integration in Student Data Management in the University of Cape Coast.
- Gupta, M. P., & Bostrom, R. P. (2018). Role of readiness and resistance in creating the misalignment between objectives and outcomes in technology integration. *Information & Management*, 42(2), 333-349.
- Haghighinasab, M. (2009). ITIL adoption model based on TAM. *Journal of Technology Review*, 8(4), 13-42.
- Hargittai, E. (2002). Second level digital divide: Differences in people's online skills. *First Monday*, 7 (4).
- Hartmann, A. J. (2020). Effective governance in higher education institutions: A systematic literature review. *Journal of Higher Education Policy and Management*, 42(6), 681-702.
- Hausman, C. (2018). Strategic planning in higher education. A systematic literature review. *Journal of Higher Education Policy and Management*, 40(1), 25-41.
- Hernandez, R. R., Kroeze, R., & Huemer, L. (2018). The effects of collaboration technology use on the effectiveness of interorganizational collaboration. *Journal of Management Information Systems*, 35(1), 122-155.
- Hirtz, M., Smith, J., & Johnson, L. (2018). Technology integration in higher education administration: A case study of implementation benefits. *International Journal of Educational Technology*, 5(2), 134-148.

- Hsu, C. L., & Chang, K. C. (2014). Exploring the moderating effects of computer anxiety on the continuance intention to use e-learning systems: A study of the effect of innovativeness. *Behaviour & Information Technology*, 33(6), 606-621.
- Hsu, M. H., Yen, C. H., Chiu, C. M., & Chang, C. M. (2006). A longitudinal investigation of continued online shopping behavior: An extension of the theory of planned behavior. *International Journal of Human-Computer Studies*, (64), 889-904.
- Hung, S. Y., Chang, C. M., & Yu, T. J. (2006). Determinants of user acceptance of the e-government services: The case of online tax filing and payment system. *Government Information Quarterly*.
- Hussin, N. A., Shah, I. M., Rashid, U., Karmaruddin, S. A., Abdullah, H., & Rasoolimanesh, S. M. (2020). Role of supervisor support and leader-member exchange on employee's intention to stay in higher learning institutions. *Heliyon*, 6(1), 303315.
- Huynh, M. Q., Umesh, U. N., & Ecoff, J. D. (2016). Barriers to faculty adoption of web 2.0 technologies. *Journal of Information Systems Education*, 27(3), 175-186.
- Igbaria, M., & Iivari, J. (1995). The effects of self-efficacy on computer usage. *Omega*, 23(6), 587-605.
- Islam, A. N., & Daim, T. U. (2020). An integrated model for e-learning implementation in higher education institutions. *Computers in Human Behavior*, 22(2), 138-166.
- Jackson, B., & Wang, Y. (2020). How does data analytics impact decision-making effectiveness? The role of decision-making style and decision domain. *Information & Management*, 57(1), 103187.
- Jackson, S. L. (2003). *Research Methods and Statistics, A Critical Thinking Approach*. USA, Thomson Wadsworth.

- Johnson, R. & Onwuegbuzie, A. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Research*, 33(14), 68-79.
- Katz, I. R. (2006). The tower and the cloud. Higher education in the age of cloud computing. *Educause Review*, 41(2), 29 – 49.
- Keengwe, J., & Kidd, T. T. (2010). *Technology Integration in Higher Education: Social and Organizational Aspects*. IGI Global.
- Khan, A., Siddigi, U., & Ahsan, M. (2018). Computer literacy and technology adoption in higher education. *Journal of Educational Technology*, 35(2), 187-202.
- Kim, S. S., & Malhotra, N. K. (2005). A Longitudinal Model of Continued IS Use: An Integrative View of Four Mechanisms Underlying Post adoption Phenomena. *Management Science*, 51(5), 741-755.
- Kim, Y. (2017). Leadership and organizational effectiveness in higher education: A literature review. *Journal of Education Administration*, 55(6), 780-800.
- Knezek, G., & Christensen, R. (2016). Extending the will, skills, tool model of technology integration: Adding pedagogy as a new model construct. *Journal of Computing in Higher Education*, 28(3), 307-325.
- Koffer, S. (2015). Designing the digital workplace of the future: What scholars recommend to practitioners, *Proceedings of International Conference on Information Systems*.
- Kong, S. C. (2014). Developing information literacy and critical thinking skills through domain knowledge learning in digital classrooms: An experience of practicing flipped classroom strategy. *Computers & education*, 78, 160-173.
- Kou, S. (2017). *The Impact of Technology Integration in Higher Education*. EDUCAUSE Review.

- Kumar, N., Rose, R. C., & D'Silva, J. L. (2008). Teachers' readiness to use technology in the classroom: An empirical study. *European Journal of Scientific Research*, 21(4), 603-616.
- Laudon, K. C., & Laudon, J. P. (2016). *Management Information Systems: Managing the Digital Firm* (14<sup>th</sup> ed.) Pearson.
- Li, C. K., & Hung, C. H. (2010). An examination of the mediating role of person-job fit in relations between information literacy and work outcomes. *Journal of Workplace Learning*, 22(5), 306-318.
- Li, X., & Wang, C. (2019). Assessing college administrators' computer literacy and its impact on technology adoption. *Journal of Higher Education Administration*, 28(3), 45-62.
- Liaw, S. S., Huang, H. M., & Chen, G. D. (2007). Surveying instructor and learning attitudes towards e-learning. *Computers & Education*, 49(4), 1066-1080.
- Lim, C. P., Chai, C. S., & Churchill, D. (2019). Technology literacy: Implications for teaching and learning. In *Digital Technologies and Generational Identity* (pp. 135-148). Springer.
- Lipp, G. (2007). A Technological Model for Change: The Role of Knowledge in Higher Education. *Educational Technology Research and Development*, 55(1), 73-82.
- Liu, X., Frankwich, G. L., & Meyer, P. (2018). The mediating role of technology integration in the relationship between computer literacy and organizational effectiveness. *Journal of Educational Administration*, 42(1), 87-102.
- Mensah, J., & Fofie, S. O. (2020). The Role of Government Policies in the Adoption of ICT in Ghana's Higher Education Institutions: The Case of the e-Government Project. *European Journal of Education Studies*, 7(5), 10-23.
- Merriam, S. B. (1998). *Qualitative research and case study applications in education*. San Francisco: Jossey-Bass Publishers.

- Mishra, D. K., Kushal J., Shivangi, G., Arvind, K. U., & Sharma, S. (2022). A Novel Approach in Business Intelligence for Big Data Analytics Using an Unsupervised Technique. *The Electrochemical Society*. Volume 107, Number 1.
- Muijs, D. (2011). *Doing Quantitative Research in Education with SPSS*. London, SAGE Publications Ltd.
- Ngafeeson, M. N. (2015). Barriers to and enablers of ICT adoption in Cameroonian secondary schools: implications for ICT policy. *Education and Information Technologies*, 20(1), 39-62.
- NCTE (2015), *Harmonised Scheme of Service for Staff of Colleges of Education*.
- NCTE (2015), *Harmonised Statutes for Colleges of Education*.
- Noor, N. M., Mohamad, M. H., & Kasim, N. A. (2017). The influence of job satisfaction on employee turnover intention in Malaysian Higher Education Institutions. *International Journal of Academic Research in Business and Social Sciences* 7(11), 702-713.
- Nouri, J., & Shahri, A. M. (2018). Factors influencing the acceptance of e-learning among instructors in higher education institutions based on extended technology acceptance model. *Journal of Educational Computing Research*, 56(2), 151-179.
- Nunnally, J. C. (1978). *Psychometric theory (2nd Edn)*. McGraw-Hill, New York.
- Oblinger, D. G., & Oblinger, J. L. (Eds.). (2005). *Educating the Net Generation*. EDUCAUSE.
- Pardo, A., & Siemens, G. (2014). Ethical and privacy principles for learning analytics. *British Journal of Educational Technology*, 45(3), 438-450.
- Picciano, A. G. (2017). *Technology and Higher Education: Emerging Practice*. Routledge.

- Poon, W. C., & Koehler, M. J. (2016). Teachers' perceptions of barriers to the use of technology for teaching and learning: In search of solutions. *Journal of Digital Learning in Teacher Education*, 32(1), 6-14.
- Pinsonneault, A. & Kraemer, K. (1993). Research methodology in management information systems. *Journal of Management Information Systems*, 10, 75-105.
- Pohl, C. J. (2019). Aligning goals in higher education: A systematic literature review. *Journal of Higher Education Policy and Management*, 41(4), 447-465.
- Pruitt-Adams, R., Belland, B. R., & Glazewski, K. D. (2020). Investigating principal technology leadership: Perspectives from principal supervisors. *Journal of Educational Administration*, 58(4), 465-483.
- Rahman, S. K. (2017). *Turkish online journal of educational technology*. University of Brunei, Turkey.
- Raza, S., Standing, C., & Standing, S. (2019). Continuance intention to use digital workplace technologies: A study of college administrators. *Computers in Human Behavior*, 98, 245-255.
- Rosemary S. B. (2019). The Role and Use of ICT in Administrative Activities in Higher Education Institutions: The Views of Administrators in Higher Educational Institutions in Ghana. *International Journal on Research and Innovative Development*.
- Rosenberg, J. M., & Smith, J. L. (2018). Factors that contribute to technology integration in PK-12 classrooms: Results from a statewide survey of teachers. *Journal of Educational Computing Research*, 56(5), 655-680.

- Sang, G., Valcke, M., van Braak, J., & Tondeur, J. (2019). Predicting Chinese pre-service teachers' computer literacy: The role of demographics, prior experiences, and psychological factors. *Computers & Education*, 133, 31-42.
- Selwyn, N. (2015). Technology and education: why it's crucial to be critical. *Social Epistemology*, 29(4), 417-430.
- Shadish, W. (2002). *Experimental and quasi-experimental designs for generalized casual inference*. Houghton: Mifflin and Company.
- Smith, P. A., & Johnson, L. M. (2019). Digital workplace continuance intention and its impact on organizational effectiveness in higher education. *Journal of Higher Education Administration*, 23(4), 28-43.
- Son, J.-B. (2008). Computer literacy questionnaire. <https://drjbson.com/projects/cl/computer-literacy-questionnaire.pdf>
- Straub, D. W., & Watson R. T. (1995). Transformational Issues in Researching IS Management and Organizational Change. *Information Systems Research*, 6(4), 363-376.
- Suleiman, N. N., & Sohail, M. S. (2019). The effect of organizational commitment on continuance intention to remain in university: The mediating role of job embeddedness. *Journal of Work-Applied Management*, 11(1), 9-21.
- Teo T., Chwee B. L., Ching S. C., & Su, L. W. (2015). Assessing the Intention to Use Technology among Pre-service Teachers in Singapore and Malaysia: A Multigroup Invariance Analysis of the Technology Acceptance Model (TAM). *Computers & Education*, 88, 49-58
- Teo, T., & Noyes, J. (2011). An assessment of the influence of perceived enjoyment and attitude on the intention to use technology among pre-service teachers: A structural equation modeling approach. *Computers and Education* 57(2), 1645-1653.

- Tondeur, J., van Braak, J., Sang, G., Voogt, J., Fisser, P., & Ottenbreit-Leftwich, A. (2017). Preparing pre-service teachers to integrate technology in education: A synthesis of qualitative evidence. *Computers & Education*, 112, 1-15.
- Twomey, C. R., Shamburg, C., & Zieger, L. B. (2006). *Teachers as technology leaders*. Eugene, OR: ISTE Publications.
- Van Braak, J., (2004). An Empirical Validation of the Information Systems Success Model. *Management Information Systems Quarterly*, 28(2), 183-201.
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425-478.
- Wang, M. C., & Lin, Y. S. (2018). The impact of computer literacy on the effectiveness of decision-making performance. The moderating effect of trust. *Telematics and Informatics*, 35(6), 1610-1622.
- Wang, Y. S., & Lee, H. H. (2018). An investigation of the moderating effects of computer literacy on technology acceptance among college administrators. *Computers and Education*, 127, 1-10.
- Wang, Y. S., Lin, H. H. & Tang, T. I. (2003). Determinants of user acceptance of internet banking: An empirical study. *International Journal of Service Industry Management*, 14(5), 501-519.
- Wright, S. (2021). The impact of supportive leadership on employee retention in higher education. *The Journal of Applied Research in Higher Education*, 13(3), 825-839.
- Wu, W. H., Wu Y. C. J., Chen, C. Y., Kao H. Y., Lin, C. H., & Huang S. H. (2012). Review of trends from mobile learning studies: A meta-analysis. *Computers & Education*, 59 (2), 817-827.

- Yildirim, Z., & Kocak, O. (2019). The effect of computer anxiety on technology acceptance. The moderating role of computer literacy. *Hacettepe University Journal of Education*, 34(1), 250 - 267.
- Yu, H. T., Yang, T. C., & Wu, C. J. (2018). A study on the relationship among organizational commitment, job satisfaction and turnover intention in the technology colleges of Taiwan. *Eurasian Journal of Business and Management*, 6(3), 100 - 108.
- Zhao, Y., & Frank, K. A. (2003). Factors affecting technology users in schools: An ecological perspective. *American Educational Research Journal*, 40(4), 807-840.
- Zhang, L., Shen, J., & Xu, Y. (2020). Enhancing college administration through technology integration. *International Journal of Educational Management*, 40(4), 512-523.
- Zheng, B., Warschauer, M., Lin, C. H., & Chang, C. Y. (2020). Principal leadership for technology integration: A case study of Taiwanese elementary schools. *Journal of Educational Computing Research*, 58(1), 89-112.
- Zhu, Z., Akbulut, Y., & Law, R. (2019). Exploring factors influencing college students' continued use of e-learning systems: S structural equation modeling approach. *Computers and Education*, 138, 1-13.
- Zohrabi, M. (2013). Mixed Method Research: Instrument, Validity Reliability and Reporting Findings. *Theory and Practice in Language Studies*, 3(2), 254-262.

## APPENDIX I

### QUESTIONNAIRE

I am grateful for your participation and assistance in answering this questionnaire. I would like to know your responses to enable me assess the relationship between computer literacy of administrators, technology integration and digital workplace continuance intentions in college administration, and organizational effectiveness. Please be assured that any data provided shall be used for academic purposes only and no such information shall be disclosed to others. Please, place a checkmark in the space provided in agreement or disagreement to the question.

#### SECTION A: Demographic Data

##### 1. Age

- a. Below 20 years [ ]    b. 20 – 30 years [ ]    c. 31 – 40 years [ ]    d. 41 – 50 years [ ]  
f. Above 50 years [ ]

##### 2. Gender

- a. Male [ ]                      b. Female [ ]

##### 3. Educational Qualification

- a. Diploma/HND [ ]                      b. Degree [ ]                      c. Others (Please specify) [ ]

##### 4. Working Experience

- a. Below 1 year [ ]                      b. 1 – 5 years [ ]                      c. 5 – 10 years [ ]  
d. 10 – 15 years    e. 16 – 20 years                      f. Above 20 year [ ]

## SECTION B: Computer Literacy Level

Please tick to indicate your level of computer knowledge regarding the following questions using a Likert scale response of: *1 – Strongly disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, 5 – Strongly agree*

CODE	COMPUTER LITERACY LEVEL	1	2	3	4	5
CLL1	I have many years experience in computer usage					
CLL2	I have undertaken/completed ICT course previously					
CLL3	I use computer to perform administrative tasks					
CLL4	I feel comfortable using software applications such as word processors, spreadsheet, and presentation software					
CLL5	I am familiar with basic computer terminologies and concepts					
CLL6	I am able to use the internet to find information and resources					
CLL7	I am able to use social media and other online platforms					

Adapted from Son, (2008)

### SECTION C: Technology Integration in College Administration

Please tick to indicate your knowledge on technology integration in college administration regarding the following questions using a Likert scale response of: *1 – Strongly disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, 5 – Strongly agree*

CODE	TECHNOLOGY INTEGRATION IN COLLEGE ADMINISTRATION	1	2	3	4	5
<b>TI1</b>	I use technology tools frequently to perform administrative tasks.					
<b>TI2</b>	Technology integration has improved the efficiency of administrative processes.					
<b>TI3</b>	Technology integration has enhanced communication between college administration, students, departments and stakeholders.					
<b>TI4</b>	I have participated in technology-related training or workshops organized by the College					
<b>TI5</b>	Resistance to change among staff members affects the successful integration of technology					
<b>TI6</b>	There is assessments or evaluations on technology integration efforts in the college administration					
<b>TI7</b>	Lack of adequate training hinders effective technology tools					
<b>TI8</b>	Insufficient technical support makes it difficult to troubleshoot technology related issues.					
<b>TI9</b>	There are adequate policies and procedures in place to protect privacy and organisational data.					

Adapted from Anup & Sanjaya, (2016) Technology-Enabled Learning Implementation Handbook

#### **SECTION D: Digital Workplace Continuance Intention of College Administration**

Please tick to indicate your knowledge on digital workplace continuance intention of college administration regarding the following questions using a Likert scale response of: *1 – Strongly disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, 5 – Strongly agree*

<b>CODE</b>	<b>Digital Workplace Continuance Intention</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>DWCI1</b>	Digital workplace continuance will have positive impact on decision-making within the college administration					
<b>DWCI2</b>	Digital workplace continuance intention will improve the efficiency of administrative processes.					
<b>DWCI3</b>	I believe that using digital workplace tools is a valuable investment of my time					
<b>DWCI4</b>	I intend to continue using digital workplace tools to perform administrative tasks					
<b>DWCI5</b>	Using digital workplace tools has enhanced communication and collaboration among college administration members					
<b>DWCI6</b>	In the future, I intend to increase my use of e-learning platforms.					
<b>DWCI7</b>	I am satisfied with my experience and continuance usage of digital workplace tools					

Adapted from Dramani et al. (2022)

**SECTION E: Organizational effectiveness in technology usage**

Please tick to indicate the level of organizational effectiveness in technology usage in college administration regarding the following questions using a Likert scale response of: *1 – Strongly disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, 5 – Strongly agree*

<b>CODE</b>	<b>Organizational effectiveness in technology usage</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>OE1</b>	The integration of technology in college administration has improved overall organizational effectiveness					
<b>OE2</b>	Digital workplace continuance intention of college administration has improved overall organizational effectiveness					
<b>OE3</b>	College administration’s digital transformation efforts have positively impacted the quality of services provided to students and departments.					
<b>OE4</b>	The lack of proper training in using technology tools hinders my ability to perform administrative task effectively.					
<b>OE5</b>	Technical glitches and system failures disrupt my workflow when using digital tools.					
<b>OE6</b>	The college provides adequate support and resources for addressing technological challenges.					
<b>OE7</b>	Administrators knowledge in computer literacy enhance organizational effectiveness.					