

# TECHNOLOGY INTEGRATION IN THE TEACHING OF HUMAN RESOURCE MANAGEMENT BY PRACTICING LECTURERS

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## ABSTRACT

*The study investigated factors affecting technology integration in teaching human resource management by public university lecturers. The authors adopted the descriptive survey design. The study's target population comprised all the one hundred and sixty members who teach human resource management in their respective universities. Data were collected through a questionnaire. It was established that the availability and accessibility of Information and Communication Technology (ICT) facilities significantly affect the integration of ICT facilities in teaching human resource management. Furthermore, ICT facilities were found to be inadequate and the extent of use by lecturers was not encouraging. The authors recommend that the government and management of public universities should not only organize further ICT training programs for lecturers but encourage and motivate them to use ICT facilities in their teaching.*

**Keywords:** *Information and communication technology facilities, Lecturers, Public universities, Human resource management, Teaching.*

## INTRODUCTION

The use of information technology has become indispensable in this 21st century (Ahiatrogah & Barfi, 2016). In education, Information and Communication Technology (ICT) has played an important role in the process of teaching and learning. ICT has transformed how teachers use information in teaching (Waddell, 2015); the integration of technology in teaching makes learning more interesting; and Kohnke (2019) and Ghavifekr and Rosdy (2015) agree that integrating technology into teaching makes teaching and learning more thought-provoking. For example, the Ministry of Education launched a national ICT connectivity project in all public universities to ensure that lecturers reappraise their methodologies to meet the learning needs of their students (Agyei, 2014). Universities under this project have been given

printers, computers, projectors, scanners, and servers under the ICT School Connectivity Project program. Because of this, the Government of Ghana has taken the necessary measures to ensure that lecturers get the requisite skills needed to use ICT as an instructional tool for teaching.

Teaching is a timeless profession, and every country needs dedicated teachers to impart knowledge to their present and future generations (Saavedra & Opfer, 2012). The National ICT in Education Policy (NICTEP, 2004), as well as the National ICT Policy for Development (ICT4D, 2003), were launched to (a) enable graduates from Ghanaian educational institutions to confidently and creatively use ICT tools and resources to develop requisite skills and knowledge needed to be active participants in the global knowledge economy by 2015, and (b) transform Ghana into an information-rich, knowledge-based, technology-driven, high-income economy. In this direction,

most universities in Ghana have benefitted in several ways, including the technology in the ICT facilities, such as computers, projectors, and laptops, to facilitate teaching and learning (Agyei, 2014).

ICT facilities have devices used to support teaching and learning (Fidelis & Onyango, 2021). ICT facilitates not only the delivery of teaching content but also the learning process itself (Tarus et al., 2015). This includes computer-based technologies, digital imaging, the Internet, file servers, data storage devices, network infrastructure, desktops, laptops, and broadcasting technologies, namely radio, television, and telephone, which are used as instructional tools at schools (Ratheeswari, 2018).

Unfortunately, some teachers, including those in Ghana public universities, do not use ICT facilities in their teaching (Edumadze, 2016). Others are of the primitive view that the computer will “take over” the teacher’s job in much the same way a robot computer may take over a welder’s job (Agyei, 2014; Vermeulen et al., 2018). Despite the studies and research on ICT integration in teaching and learning (Agyei, 2014; Barfi et al., 2020; Buabeng-Andoh & Yidana, 2015; Cha et al., 2020; Edumadze, 2016), no attempt has been made to assess the integration of technology in specific subject areas in Ghana universities. The literature has focused on the general application of technology in teaching and learning without considering that ICT requirements for teaching various subjects can differ (Eze et al., 2013; Sulungai et al., 2011; Uslu, 2018). This is the research gap the authors wanted to investigate, including which factors influence the integration of technology in the subject of Human Resource Management (HRM).

The general purpose of this study is to examine the integration of technology in teaching in HRM in Ghanaian public universities. HRM was chosen ahead of all other subjects because employees constitute the most strategic resource of every organization (Fulmer & Ployhart, 2013; Motyka, 2018). They are the active agents that utilize the passive factors of capital and natural resources to produce the core competencies required by all social, economic, and political organizations (Fulmer & Ployhart, 2013). It is for this reason that HRM has drawn the attention of many scholars and practitioners worldwide (Motyka, 2018). For example, according to the International Society for Technology in Education (ISTE) (2000), “Today’s

classroom lecturers must be prepared to provide technology-supported learning opportunities for their students.... Being prepared to use technology and knowing how that technology can support student learning must be integral skills in every teacher’s professional repertoire” (p. 2).

Thus, this study addresses the following questions:

1. What ICT facilities are available for the teaching of HRM in Ghana public universities?
2. Where do HRM lecturers have access to ICT facilities in the public universities?

## RELEVANT LITERATURE AND HYPOTHESES DEVELOPMENT

### *Integrating technology in the teaching of human resource management*

Integrating technology in teaching has become one of the basic building blocks of modern society, influencing all aspects of life, including education (Abdelrahman et al., 2019). Most developed countries such as the US, Germany, Canada, Chile, France, and Finland have embraced the integration of ICT in the teaching of courses in their tertiary institutions (Abdelrahman et al., 2019; Mynaříková & Novotný, 2020). Integrating technology in teaching refers to the extent to which ICT has been adopted into the school environment and the degree of influence on its users. For developing countries such as Ghana, the integration of ICT in teaching is a new domain (Buabeng-Andoh & Yidana, 2015; Edumadze, 2016).

In trying to demonstrate the relevance of integrating technology in teaching at the tertiary level, Ghavifekr et al. (2014) posited that because technology has become the knowledge highway in recent times, universities and other higher education institutions should consider ICT integration in their curriculum. According to Finger and Trinidad (2002), integrating technology into teaching makes the teaching and learning process more fulfilling, engaging, and meaningful by way of using educational videos, stimulation, mind mapping, guided discovery, music, and brainstorming. ICT has proved relevant in building society; installing technology is not easy, especially in developing countries such as Ghana, where infrastructure and other ICT facilities are

difficult to procure (Buabeng-Andoh & Yidana, 2015). Another challenge of integrating technology in teaching human resource management in developing countries is the lack of adequate ICT equipment and Internet access. In some universities in Ghana, the student-computer ratio is high (Edumadze, 2016). Thus, a review of the literature on how technology may be integrated into teaching HRM is relevant.

### *Information and Communication Technology*

Oboegbulem and Ogonnaya (2008) define Information and Communication Technology (ICT) as the application of computers to retrieve, transmit, and manipulate data in education or other systems. Ratheeswari (2018) describes ICT as a scientific, technological, and engineering discipline and management technique used in handling information, its application, and its association with social, economic, and cultural matters. ICT lays the foundation of every industrial and social life in the 21st Century. It is the driving force of all social changes in most countries worldwide (Ratheeswari, 2018). With the advent of ICT, people can work from home and engage in distance learning, e-government, and e-banking with an Internet connection and a computing device. ICT can support and enhance teaching. With access to computers, laptops, mobile devices, and the Internet, lecturers can search for information and acquire knowledge beyond what is available in the traditional library system. ICT can be used for accessing, gathering, manipulating, and presenting or communicating information to users or clients.

ICT facilities can also assist lecturers with new approaches to practice their skills, such as maintaining a personal webpage or online publication, programming computers, teaching and assessing students online, or preparing a multimedia presentation (Ratheeswari, 2018). According to Livingstone (2011), ICT facilities bring together traditionally separated education media (books, writing, audio recordings, video recordings, databases, games, and so forth), thus, using or integrating the range of time and places where teaching and learning can take place. ICT facilitates not only the delivery of teaching content but also the learning process itself (Tarus et al., 2015). This includes computer-based technologies, digital imaging, the Internet, file servers, data storage devices, network infrastructure, desktops, laptops,

and broadcasting technologies, namely radio and television, and telephones used as instructional tools at school (Ratheeswari, 2018).

### *Factors influencing technology integration in education*

The integration of ICT in the teaching of any subject is not an easy process. While this conclusion may not be completely accurate for Western countries, the case is different in most developing countries where there are many barriers to developing and successfully implementing such programs (Runhaar, 2017). Previous studies have identified the factors that influence the integration of ICT in education. A study by Barfi et al. (2021) revealed that most tutors have knowledge of information and communication technologies and integrate them into their teaching and learning process. Furthermore, the tutors' level of knowledge of ICT positively affects their technology integration in the teaching and learning process.

Harrel and Bynum (2018) identified the reasons as poor infrastructure, inadequate ICT facilities, lack of enough technological tools, ineffective professional development, low teacher self-efficacy, and teacher perception. Ahiatrogah and Barfi (2016) reported the lack of confidence, competence, and access to resources as the main barriers to the successful implementation of technology in education. For Pelgrum (2001), these factors may be categorized into material (lack of computers) and non-material (lack of teachers' knowledge and skills). Hew and Brush (2007) found knowledge, skills, institution, attitudes, and culture as the major barriers to the effective integration of technology in education, while Herzig (2004) identified the lack of expertise and inadequate training of teachers.

Following the preceding review, the factors influencing technology integration in teaching were grouped into two for this study: (a) the availability of ICT facilities, and (b) the accessibility of ICT facilities. Nevertheless, the authors are aware that there could be some other barriers, but the availability of ICT facilities and the accessibility of ICT facilities are fundamental in most learning settings (Edumadze, 2016). Access to ICT facilities is one of the factors for the integration of ICT facilities into teaching (Plomp et al., 2009). If lecturers do not have access to ICT facilities such as computers and strong Internet connectivity, obviously, they

cannot use them (Gillwald & Stork, 2008). Access to ICT facilities, therefore, is a crucial requirement for successful integration of technology in teaching (Oriogu et al., 2014), and several studies have confirmed this. A study by Yildirim (2007) revealed that access to ICT facilities is a major factor in the teachers' pedagogical use of ICT in teaching. Oriogu et al. (2014) also found that access to ICT facilities is integral to teacher learning. Similarly, in a study that investigated the effectiveness of ICT integration in schools, Ghavifekr and Rosdy (2015) found that teachers' access to ICT facilities was an inevitable factor in ensuring the success of technology-based teaching and learning.

The availability of ICT facilities, such as teleconferencing, email, audio conferencing, television lessons, radio broadcasts, smart boards interactive notice boards, projectors, laptops and CD ROMs, is the second major factor of interest in this study. The supply and timely delivery of ICT facilities is a major factor influencing technology integration in education. As noted by Sibanda et al. (2016), even when teachers are adequately trained and willing to integrate ICT into their teaching, they cannot do so if they lack ICT facilities. In their study of the availability and utilization of ICT facilities and materials in teaching and learning at the Isaac Jasper Adakar Boro College of Education, Hart et al. (2016) found that the non-availability of ICT facilities for lecturers was one of the major factors inhibiting the integration of technology in the teaching of courses in the college. A study by Agim et al. (2018) also revealed that the inadequate supply of scanning machines, printers, computers, flash drives, land area network (LAN), and inverters were the main challenges to the successful integration of ICT in the teaching of courses at the Federal Polytechnic in Nigeria. Akabogu et al. (2018) also found that the availability of ICT facilities is a significant factor in the teachers' use of ICT in the teaching of Oral English in the Afikpo North Local Government Area of Nigeria.

Following the preceding review, two hypotheses were formulated for this study:

H<sub>1</sub>: There is no significant relationship between availability of ICT facilities and HRM lecturer's use of ICT in teaching.

H<sub>2</sub>: There is no significant relationship between accessibility of ICT facilities and HRM lecturer's use of ICT in teaching.

### Conceptual framework

As summarized, the conceptual framework for this study is built around three variables as presented in Figure 1. Technology integration in teaching HRM is the dependent variable. The independent variables are (a) the availability of ICT facilities and (b) the accessibility of ICT facilities.

Figure 1: Conceptual framework of the study

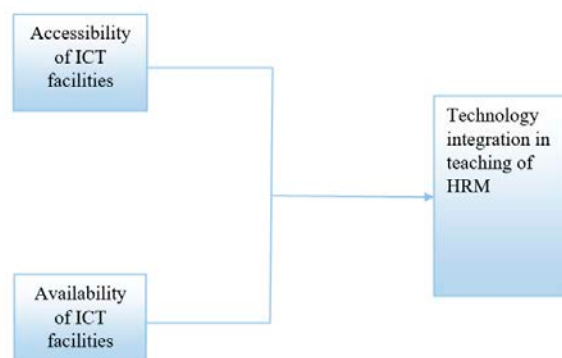


Fig. 1. The theorized relationship between the exogenous and endogenous variables in the study

### Theoretical framework

The study is underpinned by the theory of reasoned action. The theory was spawned by Ajzen and Fishbein in 1980. According to the theory, behavior is determined by the behavioral intention to emit the behavior. The behavioral intention to do something is based on seven causal variables: behavioral intention, attitude, subjective norm, belief strength, evaluation, normative belief, and motivation to comply (Ajzen & Fishbein, 1980). Out of the seven antecedents, attitude and subjective norm are the most influential. Attitudes are determined by beliefs and evaluation, whereas subjective norm is based on normative belief and motivation to comply. The major antecedents – attitude and subjective norm – in turn, influence the intention of the person to indulge in the desired behavior (Ajzen & Fishbein, 1980).

The reasoned action theory is relevant for the current study because irrespective of the availability, accessibility, and ability of lecturers to integrate ICT facilities in their teaching, the behavioral intentions of these lecturers cannot be overlooked. Thus, the theory of reasoned action recognizes that there are factors that limit the user's attitude on behavior. For the purposes of this study, these factors include availability of ICT facilities and accessibility of ICT

facilities.

## RESEARCH CONTEXT AND SAMPLE

As the researchers sought to observe, describe, and analyze the extent of ICT facilities integration in teaching HRM, the descriptive survey design was adopted. The descriptive survey design is a more logical and data-led approach, which provides a measure of what people think from a statistical and numerical point of view (Saunders et al., 2012). It is used for its appropriateness in making reality known through the collection of detailed information that can be easily organized and manipulated into reports for analysis (Vyhmeister, 2001). The research locations were the ten public/government universities in Ghana, namely, University of Ghana (UG), Kwame Nkrumah University of Science and Technology (KNUST), University of Cape Coast (UCC), Ghana Institute of Management and Public Administration (GIMPA), University of Education, Winneba (UEW), University for Development Studies (UDS), University of Energy and Natural Resources (UENR), Ghana Communication and Technology University (GCTU), University of Mines and Technology (UMT), and the University for Professional Studies (UPS). The study population comprised all faculty members who teach HRM in their respective universities, totaling 160. All lecturers in this category participated in the study.

### *Instrument used and their validation*

The structured questionnaire was used to collect data since the study was quantitative and also required a primary data collection. The questionnaire's content was developed after a thorough review of related literature. Reliability and validity are two key components considered when evaluating a particular instrument. Reliability is concerned with the consistency of the instrument (Bless & Higson-Smith, 2000), and an instrument is said to have high reliability if it can be trusted to give an accurate and consistent measurement of an unchanging value. This study used the internal consistency approach as measured by the Cronbach's Alpha value.

Table 1: Reliability statistics

Variable	Cronbach's Alpha
Overall	.915
Availability of ICT facilities	.921
Accessibility of ICT facilities	.829

The validity refers to how well an instrument measures the particular concept it is supposed to measure (Saunders & Lewis, 2012). They further argue that an instrument must be reliable before it can be valid, implying that it must be consistently reproducible and that once this has been achieved, the instrument can then be scrutinized to assess whether it is what it purports to be. Data were collected using a self-constructed, structured questionnaire divided into three sections as shown in Table 2. All the questionnaire were anchored on a four-point Likert scale with score 1 = Strongly Disagree to score 4 = Strongly Agree.

Table 2. Structure of the survey questionnaire for this study

Section One:	elicited information on the respondents' demographics
Section Two:	asked questions relating to availability and accessibility of ICT facilities
Section Three:	elicited information on the integration of technology in teaching of HRM

The respondents were given one week to fill in the questionnaire. Responses from the completed questionnaires were coded and analyzed using descriptive statistics, including frequencies and percentages. The Pearson Product Moment Correlation Technique was used to test the study's hypotheses. The null hypotheses were tested at a 0.05 significance level.

## DATA ANALYSIS

### *Profile of Respondents*

Table 3 shows the demographic distribution of the respondents in the selected universities. Of the 160 questionnaires administered to the respondents, 155 valid responses were retrieved, giving a return rate of 96.87%. The preview of respondents' profiles shows that more males (n = 110, 70.96%) participated in the study than females (n = 45, 29.04%). The highest number of responses was obtained from the University of Education (31 from all satellite campuses), followed by the Kwame Nkrumah University of Science and Technology (29) and the University of Ghana (21). The lowest percentage of responses was from the University of Energy and Natural Resources (6). On academic

designation of the respondents, the highest percentage was “Senior Lecturer” (75, 48.38%) followed by “Lecturer” (70, 45.16%). The lowest percentage was “Professor” (10, 6.46%). A total of 78 (50.32%) respondents were between 25 and 45 years, while the remaining 77 (49.68%) were between 46 and 60 years. The majority (120, 77.42%) of the respondents have worked in the university for 1 to 10 years, while the remaining 35 (22.58%) have worked for more than 10 years.

Table 3. Profile of the lecturers

Factor	Category	Frequency	Percent
Age	25–45	78	50.32
	46–60	77	49.68
Gender	Male	110	70.96
	Female	45	29.04
Length of Service	1–10 years	120	77.42
	Above 10 years	35	22.58
Academic designation	Lecturer	70	45.16
	Senior lecturer	75	48.38
	Professor	10	06.46
University	UG	21	13.55
	KNUST	29	18.71
	UCC	08	05.16
	GIMPA	14	09.03
	UEW	31	20.00
	UDS	11	07.10
	UENR	06	03.87
	GCTU	10	06.45
	UMT	12	07.74
UPS	13	08.39	

#### Availability of ICT facilities for public university lecturers

Table 4 shows the descriptive statistics of lecturers’ views on the perceived availability of ICT facilities on technology integration in teaching HRM in the various public universities in Ghana.

Table 4. Availability of ICT facilities for public university lecturers in Ghana

NO	STATEMENT	SD	D	A	SA	TOTAL
1.	We have adequate computer laboratory	28 18.0%	37 23.9%	35 22.6%	55 35.5%	155 100%
2.	The number of computers in the laboratory are adequate	25 16.1%	40 25.8%	38 24.5%	52 33.6%	155 100%
3.	The number of projectors in the laboratory are adequate	40 25.8%	30 19.4%	36 23.2%	49 31.6%	155 100%
4.	We have adequate number of photocopier machines	32 20.6%	47 30.3%	46 29.7%	30 19.4%	155 100%
5.	The number of Television sets in the laboratory are adequate	30 19.3%	46 29.7%	40 25.8%	39 25.2%	155 100%
6.	We have adequate printers at the university	35 22.6%	40 25.8%	52 33.5%	28 18.1%	155 100%
7.	We have strong internet connection at the university	60 38.7%	30 19.4%	40 25.8%	25 16.1%	155 100%

Table 4 reveals that about 35.5% of the respondents strongly agree that they have adequate computer laboratories on campus. Also, 33.6% and 31.6% of the respondents strongly agree that the number of computers and projectors in the laboratory are adequate. On the contrary, 30.3% and 29.7% of the respondents disagree that they have an adequate number of photocopier machines and television sets in the laboratory. Moreover, 33.5% of the respondents agree that they have adequate printers at the university, while about 38.7% strongly disagree that they have a strong Internet connection at the university. It can be concluded that the ICT facilities for teaching HRM in the public universities include a computer laboratory, computers, projectors, and printers.

#### Accessibility of ICT facilities for public university lecturers

Respondents were asked to rate their access to

ICT facilities in the various locations. The results are presented in Table 5.

Table 5. Accessibility of ICT facilities by lecturers in public universities in Ghana

No.	Accessibility of ICT facilities	SD	D	A	SA	Total
1.	Library	9 5.8%	11 7.1%	65 41.9%	70 45.2%	155 100%
2.	Computer and resource centre	36 23.2%	11 7.1%	26 16.8%	82 52.9%	155 100%
3.	House of residence	110 71.0%	7 4.5%	9 5.8%	29 18.7%	155 100%
4.	Lecture rooms or theatres	43 27.7%	50 32.3%	39 25.2%	23 14.8%	155 100%

The results in Table 5 reveal that 45.2% and 52.9% of the respondents strongly agree that they have access to ICT facilities at the library and computer and resource center, respectively. On the contrary, 71% of the respondents strongly disagree that they have access to ICT facilities at their house of residence. Finally, 32.3% of the respondents disagree that they have access to ICT facilities in the lecture rooms or theatres.

#### Public university lecturers' ability to integrate ICT facilities in teaching HRM

The HRM lecturers were asked to rate their ability in integrating ICT facilities for teaching. The results are shown in Table 6.

The results in Table 6 reveal that some (38.7%) of the respondents are good at using Microsoft Word applications in their teaching. On the contrary, 33.5% and 37.4% of the respondents are poor at using Microsoft excel Application and Microsoft Access Application, respectively. About 32.3% and 38.7% of the respondents are very good at using PowerPoint Presentations and the projector, respectively.

#### Hypotheses testing

Three hypotheses were formulated in this study. As the significant level was set at .05, the p-value would have to be less than .05 to be declared significant, and where the p-value is significant (or less than .05), the null hypothesis is rejected and

vice versa. The first hypothesis sought to assess the relationship between the availability of ICT facilities and HRM lecturers' ability to integrate ICT facilities in teaching. The results obtained in respect of this relationship are presented in Table 7.

Table 6. Human resource management lecturers' ability in integrating ICT facilities for teaching

ICT Tools	Level of ability	Frequency	Percent
Microsoft Word Application	Very Poor	13	8.4%
	Poor	41	26.5%
	Good	60	38.7%
	Very Good	41	26.4%
<b>Total</b>		<b>155</b>	<b>100.0%</b>
Microsoft excel Application	Very Poor	41	26.5%
	Poor	52	33.5%
	Good	32	20.6%
	Very Good	30	19.4%
<b>Total</b>		<b>155</b>	<b>100.0%</b>
PowerPoint Presentation	Very Poor	34	21.9%
	Poor	42	27.1%
	Good	29	18.7%
	Very Good	50	32.3%
Microsoft Access Application	Very Poor	32	20.6%
	Poor	58	37.4%
	Good	38	24.5%
	Very Good	27	17.4%
<b>Total</b>		<b>155</b>	<b>100.0%</b>
Projector	Very Poor	22	14.2%
	Poor	35	22.6%
	Good	38	24.5%
	Very Good	60	38.7%
<b>Total</b>		<b>155</b>	<b>100.0%</b>

Table 7. Correlation between availability of ICT facilities and HRM lecturers' ability to integrate ICT facilities in teaching

	HRM Lecturers' ability to integrate ICT facilities in teaching	Availability of ICT facilities
HRM Lecturers' ability to integrate ICT facilities in teaching	1	0.892
Sig.(2-tailed)		155
N	155	0.000
Availability of ICT facilities	0.892	1
Sig.(2-tailed)	0.000	
N	155	155

\*p < .05 \*\*p < .01 \*\*\*p < .001

The correlation coefficient (r) of perceived availability of ICT facilities and HRM lecturers' ability to integrate ICT facilities in teaching was 0.892, at a significance level of 0.000 where n = 155 (two-tailed). The results show that there is a significant positive correlation between perceived availability of ICT facilities and HRM lecturers' ability to integrate ICT facilities in teaching. The positive coefficient implies that as the scores on perceived availability of ICT facilities increases, HRM lecturers' ability to integrate ICT facilities in teaching also increases in the same direction. The coefficient of determination (r<sup>2</sup>) = 0.79 (0.892 x 0.892), indicating that about 79% of the variation in HRM lecturers' ability to integrate ICT facilities in teaching is explained by variation in the lecturers' perceived availability of ICT facilities. As the p-value (0.000) is less than 0.05, it is declared significant, meaning the null hypothesis

“There is no significant relationship between availability of ICT facilities and HRM lecturers' ability to integrate ICT facilities in teaching” is rejected. Following these findings, it can be concluded that the availability of ICT facilities is a major factor that influences HRM lecturers' ability to integrate ICT facilities in teaching.

The study also sought to examine the effect of lecturers' accessibility of ICT facilities on technology integration in teaching HRM in public universities in Ghana. As in Table 8, the correlation coefficient (r) between accessibility of ICT facilities and technology integration in teaching HRM was 0.759, at a significance level of 0.000 where n = 155 (two-tailed).

These results imply that there is a significant positive correlation between perceived accessibility of ICT facilities and technology integration in teaching HRM. The positive coefficient implies

Table 8. Correlation between accessibility of ICT facilities and technology integration in teaching HRM

	Technology integration in teaching HRM	Accessibility of ICT facilities
Technology integration in teaching HRM	1	0.759
Sig.(2-tailed)		155
N	155	0.000
Accessibility of ICT facilities	0.759	1
Sig.(2-tailed)	0.000	
N	155	155

\*p < .05 \*\*p < .01 \*\*\*p < .001



that as the scores on perceived accessibility of ICT facilities increases, lecturers' integration of technology in teaching HRM also increases in the same direction. The coefficient of determination ( $r^2$ ) = 0.58 (0.759 x 0.759), indicating that about 58% of the variation in technology integration in teaching HRM in Ghanaian public universities is explained by variations in the lecturer's perceived accessibility of ICT facilities. As the p-value (0.000) is less than 0.05, it is declared significant, meaning that the null hypothesis "There is no significant relationship between accessibility of ICT facilities and lecturer's integration of ICT in teaching HRM" is rejected. From these findings, it can be concluded that accessibility of ICT facilities is a key determinant of lecturers' integration of ICT in teaching HRM in the public universities in Ghana.

## DISCUSSION

It can be concluded that the ICT facilities for teaching HRM in the public universities include computer laboratories, computers, projectors, and printers. The results show that there is no complete lack of access to ICT facilities. Moreover, the results show that ICT facilities are rather inadequate and not completely out of stock. In other words, the results show that ICT facilities are somewhat available to support teaching and learning at the various public universities in the Ghanaian context. This supports the study of Ghavifekr and Rosdy (2015), who concluded that availability of ICT makes teaching easier.

The results imply that the HRM lecturers have access to ICT facilities at the library as well as the computer and resource center. The results also show that public university lecturers have adequate access to some ICT facilities, including the computer and resource center. However, a proportion of the respondents have indicated that while HRM lecturers have access to ICT facilities at the library and the computer and resource centers, others do not have access to ICT facilities at the lecture theatres. This finding corroborates Suryani's (2010) submission that the availability of ICT facilities at the computer centers allow lecturers to have easy access.

As shown in Table 6, most of the HRM lecturers are good at using Microsoft Word applications and PowerPoint presentations. At the same time, some do not know how to integrate the Microsoft excel application and Microsoft Access application

into their teaching. This finding supports the submission of Ahiatrogah and Barfi (2016) that most tutors are comfortable using Microsoft Word applications and PowerPoint presentations in their teaching.

It was concluded that the availability of ICT facilities is a major factor that influences lecturers' integration of ICT in teaching HRM. The results support the findings of Sibanda et al. (2016) that even where lecturers are adequately trained in ICT and are willing to integrate ICT in their teaching, they may be handicapped from doing so due to non-availability of ICT facilities such as printers, computers, and projectors. The results also corroborate the previous findings (Agim et al., 2018; Akabogu et al., 2018; Hart et al., 2016) that the non-availability of ICT facilities for lecturers is one of the major factors inhibiting the integration of technology in the teaching of courses in schools.

The study concluded that accessibility of ICT facilities is a key determinant of lecturers' integration of ICT in teaching HRM. The results in Table 8 are in line with previous findings (Gillwald & Stork, 2008; Oriogu et al., 2014; Plomp et al., 2009) that access to ICT resources such as computers, strong Internet connectivity, updated software and hardware devices is a key requirement for successful adoption and integration of technology in teaching.

## CONCLUSION

The use of ICT facilities for teaching and learning has become part of everyday life. Nevertheless, the integration of ICT facilities in teaching has never been an easy process for some lecturers. Several factors, including the accessibility and availability of ICT facilities, have served as barriers to the integration of technology in teaching. The current study examined the factors influencing technology integration in the teaching of HRM in the ten public universities in Ghana. A limited number of ICT facilities was the major hindrance facing the integration of ICT facilities in teaching HRM. The major inhibiting factors were accessibility and availability. While these factors may be expected, especially when the use of ICT facilities is still at its early stage of development in Ghana, the results of this study show that there is no complete lack of access to ICT facilities. The results also show that ICT facilities are rather inadequate and not completely out of stock. In other words, the results show that ICT facilities are somewhat

available and accessible, but the extent of use by lecturers is generally poor.

Based on the review of the literature and the empirical findings of this study, it was established that while universities in Ghana do not have a complete set of ICT facilities, each of the universities have an adequate or sizeable proportion of such ICT facilities for the teaching of HRM.

As shown, most of the HRM lecturers teaching at the public universities are good at using Microsoft Word applications and PowerPoint presentations. At the same time, some do not know how to integrate the Microsoft excel application and Microsoft Access application in their teaching. The researchers compared this study to previous studies and found that practicing lecturers in public universities have embraced the use of technology in teaching. However, in developing countries, certain constraints have made it impossible for practicing lecturers to effectively use ICT facilities, as revealed in the discussion.

The use of the reasoned action theory adopted for this study is relevant for the current study because, irrespective of the availability and accessibility of ICT facilities, lecturers' integration of technology for teaching and their behavioral intentions cannot be overlooked.

## **RECOMMENDATIONS**

This study concludes that to improve the use of ICT facilities in teaching HRM by lecturers, the government and the university management must not only organize further ICT training programs but encourage and motivate lecturers to use ICT facilities in their teaching. Therefore, the following recommendations are made:

1. Measures must be in place to ensure easy accessibility of ICT facilities. Any bottlenecks or barriers that may constrain easy accessibility should be discouraged.
2. The government of Ghana and other non-governmental agencies must financially support the training of lecturers at the beginning of each semester. This training must contain an encouraging package. If possible, best ICT facility users' awards should be initiated to encourage fair competition in the use of ICT facilities by lecturers.

## **LIMITATIONS OF THE STUDY**

Some participants were skeptical about giving information to the researchers even when they were assured that the collected information was purely for academic purposes. Despite this, the researchers were able to manage the situation to get the needed information.

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