Evaluating University Students Skills in Microsoft Office for Competitive Advantage: Implication for Educational Administration

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Abstract

In today's world that is technology driven, there is need for university graduates to possess certain office and ICT skills in order to prepare them for opportunities after graduation. In this regard, students are expected to possess both theoretical and practical skills to properly fit for job and surmount emerging challenges in the business world. This study therefore assesses students' skills to determine their proficiency in the areas of Microsoft office skills and further identify areas where they need further training and improvement. The study adopted the descriptive research of the survey type with focus on undergraduate students of Universities in Kwara State. A total of 382 students were drawn from the population using a convenience sampling technique. A structured questionnaire was designed to elicit information from the respondents. The data generated was analyzed using the descriptive statistics of frequency count and percentage. Findings of the study revealed that students demonstrate a commendable level of proficiency in word processing and presentation skills. However, there is a significant gap in spreadsheet application skills among undergraduates as a substantial percentage of undergraduates revealed that they were faced with challenges like limited access to training and resources/materials, difficulties in comprehending complex features and lack of instructor/support from their school. The study therefore recommends that tertiary institutions in Kwara State should focus on developing strategies to improve students' proficiency in spreadsheet application, give time for skill development and further strengthen entrepreneurial skills within the institutions to enhance students' soft skills beyond their academic pursuit.

Keywords: Microsoft Office, Powerpoint, Microsoft Word, Microsoft Excel, University, Education Administration

Introduction

In today's fast-paced and technologically driven world, university students face an increasingly competitive job market where employers demand a range of skills to stay ahead, hence, the need to possess a range of skills to gain a competitive advantage in the labour market. The global development of the twenty-first century as further characterized the need for information and communication technology which has altered every sector, including health care, energy production, construction and most significantly, education. Employers of labour demand

and prefer graduates who are prepared to leverage on technology towards advancing the organization's strategies and operations. In other to respond to the demand for technologically savvy graduates, technology-enriched pedagogy founded on technology-equipped facilities and new curricula becomes imperative to keep the pace and requirements for the work force of today and future (Stovers, 2019; McCoy, 2021).

One essential skill that has become a fundamental requirement is proficiency in Microsoft Office, a suitable productivity software widely used in various industries and professions which are highly treasured by employers, as they enable individuals to work efficiently, effectively, and collaboratively. As a result, employer highly value individuals who possess advanced Microsoft office skills, particularly in application of Word processing, spreadsheet, Presentation in writing professional reports for work, taking notes on conversations in seminars and meetings, creating presentations and analyzing data have significant advantage on productivity, data analysis and problem-solving that enable them work efficiently and effectively. In spite of the importance of this skills to all and sundry, many university undergraduate students lack the necessary proficiency as they have limited exposure to the knowledge and use of this application in the academic curriculum while some have limited access to resources and tools, hindering their ability to develop and practice their skills.

Numerous studies (Rebman Jr et. Al, 2023; Marquardson & Elnoshokaty, 2020; Lantushenko, 2018) have highlighted the importance of Microsoft Office skills in the workplace. Employers consistently rank proficiency in programs like Word, Excel, and PowerPoint as a top priority when hiring recent college graduates (Litecky et al., 2010; Panko, 2008). Students who demonstrate strong Microsoft Office skills are often viewed as more employable and able to contribute to an organization's productivity and efficiency from the outset (Ullah et al., 2016). In a highly competitive job market, universities that can effectively cultivate these skills in their students may gain a distinct advantage in preparing their graduates for success.

However, the need for competence of graduates in the highlighted skills cannot be over emphasized. A study of first year university students in the United States found that only 50% felt confident in their abilities to use Microsoft word, excel and PowerPoint effectively (Smith et al., 2018) while research study at a University in the United Kingdom reported that no fewer than 30% of first-year students demonstrated advanced skills in Microsoft office applications (Thompson et al., 2020) However, research studies in Nigeria have suggested the need for tertiary institutions to

reexamine their curriculum design to include Microsoft office courses as part of its core curriculum or provide opportunities for students to take elective course in Microsoft Office (Benedict et.al, 2024; Oluchi & Pyiki, 2019). Ernest (2013) reported that University graduates who are not trained with new technologies could not have performed as expected in modern office and would stand the risks of losing jobs. This stimulated the researcher to recommend that greater emphasis is to be placed on teaching the skills in Microsoft office.

In today's technological era, acquisition of Microsoft office skills is essential for employability and productivity in the work place, particularly among university graduates. There is need for graduates to possess ICT skills both in theory and practice in order to fit into any computerized organization and competently perform their functions. Research studies have examined the office skills required by management graduates for effective job performance and supervisor rating of desktop publishing competence possessed by university graduates in some States in Nigeria (Zubair et.al, 2024; Oyinloye et.al, 2021; Gude, 2020, Ezenwafor & Justina, 2020; Egbenefu et.al, 2018, Ernest, 2015). The findings of these studies summarize that graduates who are not trained with new technologies could not have performed as expected in modern office and would stand the risk of losing jobs. These stimulates the need to assess the proficiency of graduates in Microsoft office skills to recommend the greater emphasis that is needed to be placed on teaching the computer-based courses so that graduates can become more proficient and competent in their use. computer-based courses to students so that they become proficient in their use.

Word processing is one of the vital elements of an office information system that enables one to carry out highly professional legal documents, such as letter heads, invoices, charts, newsletters, meeting agendas, business plans, sales flyers and many others. Ndinechi and Ememta (2015) explained that words processing functions are associated with standard editing facilities, which involves inserting, deleting and amending text. The skills serve as important tool for employee in achieving increased productivity in the office due to its provision of efficient knowledge on how to regulate font size, adjust margins on all sides to suit users' needs.

In the same vein, PowerPoint is a ubiquitous tool used in a wide range of professional settings, from corporate boardrooms to academic conferences. Employers consistently rank PowerPoint proficiency as a critical skill for recent college graduates (Litecky et al., 2010; Panko, 2008). Students who demonstrate strong PowerPoint skills are often viewed as more capable of

effectively communicating complex information, delivering engaging presentations, and contributing to an organization's productivity (Ullah et al., 2016). In a highly competitive job market, universities that can effectively cultivate these skills in their students may gain a distinct advantage in preparing their graduates for success. Accurately evaluating university students' PowerPoint skills is crucial for identifying areas of strength and weakness. Several assessment approaches have been explored, including self-reported surveys, performance-based exams, and industry-recognized certification programs (Alnajjar & Maldonado, 2021; Mentz & Mentz, 2019). These assessments can provide valuable data to help educational administrators understand the PowerPoint proficiency levels of their student population and tailor educational interventions accordingly.

Nevertheless, despite the widespread recognition of the importance of Microsoft Excel skills in the workplace, there is a lack of understanding of the specific Excel competencies that are most critical for university students to develop in order to enhance their employability and career success. Existing research has primarily focused on the general importance of Excel proficiency, but has not comprehensively examined the specific Excel skills that employers value the most, nor has it investigated the effectiveness of current approaches to Excel skill development in higher education. Employers across a wide range of industries expect entry-level employees to possess strong excel skills, yet many university undergraduate struggle to demonstrate the necessary competencies (Litecky et.al, 2010; Ullah, et.a., 2016). Proficiency in Excel has been shown to be a significant factor in career advancement and job performance. Employers often view strong Excel skills as an indicator of an employee's analytical abilities, attention to detail, and problem-solving skills (Laker & Powell, 2011; Smith et al., 2018). Studies have found that individuals with advanced Excel skills are more likely to be promoted, earn higher salaries, and assume leadership roles within their organizations (Alnajjar & Maldonado, 2021; Mentz & Mentz, 2019).

However, given the importance of Excel in the workplace; universities have recognized the need to incorporate Excel skill development into their curricula. Many academic programs, particularly in business, finance, and STEM fields, have integrated Excel-based assignments, projects, and coursework to help students build proficiency (Ullah et al., 2016; Mentz & Mentz, 2019). Some institutions have also implemented Excel certification programs or workshops to further enhance students' Excel competencies (Alnajjar & Maldonado, 2021). So far, in the contemporary academic landscape, the mastery of productivity software, particularly Microsoft

Office, has become a crucial skill for university students to develop. As technology continues to transform the workplace, employers increasingly seek graduates who possess proficient abilities in utilizing Microsoft Office applications such as Word, Excel, PowerPoint, and Outlook. This technological competence not only enhances students' academic performance but also provides a competitive advantage in the job market. Technology Acceptance Model (TAM), which was developed by Davis (1989) provides a structure for assessing the knowledge, skills and competence required for university undergraduates.

TAM is an established model that explains and predicts user acceptance and adoption of new technologies (Alshammari, & Rosli, 2020). The model posits that two primary factors influence an individual's intention to use a technology: perceived usefulness and perceived ease of use. Perceived Usefulness (PU) which refers to the degree to which a person believes that using the technology will enhance their performance or productivity. In the context of university students' use of Microsoft Office, perceived usefulness can be understood as the students' belief that proficient skills in these applications will improve their academic performance, productivity, and future employability. On the other hand, Perceived Ease of Use (PEOU) refers to the degree to which a person believes that using the technology will be free of effort. For university students, perceived ease of use of Microsoft Office applications can influence their willingness to invest time and effort in developing these skills. According to TAM, these two factors (PU and PEOU) determine an individual's attitude towards using the technology, which, in turn, influences their behavioral intention to use it. This intention then ultimately leads to the actual use of the technology (Liu, Liao & Peng, 2005).

TAM framework provided an insight in addressing the factors influencing the acceptance and utilization of Microsoft office tools by university undergraduates. It evaluates the specific competencies required and assess their proficiency levels, providing a comprehensive understanding that will prepare university undergraduate students for modern technology-driven workplace and help them gain a competitive edge in the job market. This study therefore aimed at assessing the level of Microsoft Office Skills possessed by undergraduate students in tertiary institutions in Kwara State and identify gaps in knowledge in the skill acquisition. Specifically, the following questions were raised to guide the study;

1. To what extent does university undergraduate students in Kwara State are able to demonstrate basic knowledge in Microsoft office (word processing, presentation and spreadsheet) application skills?

2. What are the challenges faced by university undergraduate students in Kwara State in acquiring Microsoft office skills?

Methodology

The suitable design for this study is a descriptive research of the survey type. This is found suitable as it helps to find out the situations, events, attitudes or opinions of the individual characteristics and to address the research objectives. It involves collecting data and analyzing data from selected group of individuals who are representative of the larger population and further allowing the generalization of findings on the entire population. Population of this study comprise of students of University of Ilorin (46,657) and Kwara State University (10,650) and Al-Hikmah University (4,095). The total number of undergraduate students in these institutions are 61,402. A convenience sampling technique was used in selecting 382 undergraduate students for the study. This technique is considered appropriate and unbiased as it gives all respondents equal opportunity for selection. Twenty-six items Microsoft Office Skills Questionnaire (MOSQ) divided into two sections was used to assess proficiency level of respondents in Microsoft office and challenges faced by respondents in acquiring these skills. The contents of the questionnaire are directly relevant in providing answers to the research questions raised in this study. All items were allotted with the ratings of agreement and effectiveness. They are: Very Ineffective (VI); Ineffective (I), Neutral (N); Effective (E); Very Effective (VE). The face and content validity of the research instrument were ensured through a critical appraisal by experts in educational management and IT. The relevance, phrasing and suitability of the items and familiarity of the question items were all put together as the criteria for the instrument validation. Their comments, criticism, suggestions, views and recommendations were used and properly implemented to finalize the instrument for data collection. Upon the administration of thirty instruments to students outside the scope of this study, Cronbach alpha coefficient value of 0.72 obtained was considered suitable for the study. The researcher with the help of two research assistance were involved in the data collection for a period of ten days in the university surveyed. The instruments were personally shared to respondents after necessary permissions have been gotten from the necessary individuals, thereby

assuring the respondents that the data collected is for academic purpose and confidentiality is assured. Participants were required to tick appropriately based on their opinions and thereafter the completed questionnaires were retrieved from the respondents and transferred into excel sheet and analyzed in the SPSS software. Descriptive statistics of frequency count, mean and standard deviation was used to answer the research questions raised while the decision point for mean acceptance was 2.50 for this study.

Results

Research Question 1: To what extent does university undergraduate students in Kwara State are able to demonstrate basic knowledge in Microsoft office (word processing, presentation and spreadsheet) application skills?

Table 1: Mean rating on the extent to which undergraduates from tertiary institutions in Kwara State are able to demonstrate basic knowledge in Microsoft Office Skills

S/N	ITEMS	N	Mean	SD	Decision
	Microsoft Words				
1.	Creating and formatting documents (e.g., font styles, paragraph formatting, page layout)	382	3.43	1.384	High Extent
2.	Using headers, footers, and page numbering	382	3.05	1.379	High Extent
3.	Creating tables and adjusting table properties	382	2.94	1.422	Moderate Extent
4.	Inserting and formatting images	382	2.94	1.400	Moderate Extent
5.	Using mail merge and creating templates	382	2.90	1.398	Moderate Extent
	Aggregate Mean		**3.052**		
	Microsoft Power point				
6.	Creating slides and applying themes	382	2.85	1.393	Moderate Extent
7.	Adding and formatting text content	382	2.89	1.308	Moderate Extent
8.	Inserting images, videos, and audio	382	2.72	1.289	Moderate Extent
9.	Using transitions and animations	382	2.66	1.286	Moderate Extent
10.	Using the Presenter Tools and Slide Show Features	382	2.54	1.288	Moderate Extent
	Aggregate Mean		**2.732**		
	Microsoft Excel				
11.	Creating and formatting spreadsheets	382	2.44	1.352	Low Extent
12.	Entering and manipulating data	382	2.46	1.253	Low Extent
13.	Using formulas and functions	382	2.33	1.226	Low Extent
14.	Creating charts and graphs to visualize data	382	2.30	1.209	Low Extent
15.	Using conditional formatting	382	2.24	1.226	Low Extent
	Aggregate Mean		2.354		

NB: Very High extent = 3.50-4.00; High Extent = 3.00-3.49; Moderate Extent = 2.50-2.99; Low Extent = 0.00-2.49

Table 1 revealed the mean ratings on the extent to which undergraduates from different tertiary institutions in Kwara State are able to demonstrate basic knowledge in Microsoft Office. The results showed that undergraduate students can, to a high extent, demonstrate basic knowledge in

the following word processing skills: Creating and formatting documents (e.g., font styles, paragraph formatting, page layout) and Using headers, footers, and page numbering. The results also showed that undergraduates can, to a moderate extent, carry out the following word processing activities: Creating tables and adjusting table properties, Inserting and formatting images, and Using mail merge and creating templates. The mean ratings on the extent to which undergraduates from tertiary institutions in Kwara State are able to demonstrate basic knowledge in presentation skills showed that students can demonstrate basic knowledge to a moderate extent in creating slides and applying themes, adding and formatting text content, inserting images, videos, and audio, using transitions and animations, and using the presenter tools and slide show features. Similarly, participants in this study demonstrate basic knowledge in spreadsheet application skills. The results showed that undergraduates can demonstrate basic knowledge in spreadsheet application skills to a low extent in creating and formatting spreadsheets, entering and manipulating data, using formulas and functions, creating charts and graphs to visualize data, and using conditional formatting.

Research Question Two: Identify the challenges faced by university students in Kwara State in acquiring Microsoft office skills

Table 2: challenges faced by undergraduates in Kwara State in the process of acquiring Microsoft Office skills

S/N	ITEMS	Y	N	Mean	SD
1.	Lack of access to training resources and materials	187 (49%)	195 (51%)	1.49	0.501
2.	Limited or insufficient training opportunities	210 (55%)	172 (45%)	1.55	0.499
3.	Difficulty in understanding complex features and functions	176 (46%)	206 (54%)	1.46	0.500
4.	Insufficient time allocated for Microsoft Office training	199 (52%)	183 (48%)	1.52	0.501
5.	Insufficient support or guidance from instructors	107 (28%)	275 (72%)	1.28	0.452
	Aggregate Mean			**1.46**	

Table 2 showed mean and frequency rating of the challenges faced by undergraduate students in tertiary institutions in the process of acquiring Microsoft Office skills. The table revealed that 48.8% of the sampled population faced the challenge of Lack of access to training resources and materials, 54.7% faced the problem of limited or insufficient training opportunities, 46.3% faced

the problem of Difficulty in understanding complex features and functions, 51.7% faced the problem of insufficient time allocated for Microsoft Office training, and finally, 28.4% faced the problem of Insufficient support or guidance from instructors.

Discussion of findings

Findings from research question one revealed that the undergraduate students could perform almost all the tasks presented in word processing section such as creating and formatting documents (e.g., font styles, paragraph formatting, page layout), using headers, footers, and page numbering, creating tables and adjusting table properties, inserting and formatting images, and using mail merge and creating templates. Ndinechi and Ementa (2013) explained that word processing functions are associated with standard editing facilities, which involve inserting, deleting and amending text. It has text enhancement functions such as centering, bolding, italicizing, underlining and alignment of text. The authors maintained that the application possesses text manipulation function of search and replace, word count and auto referencing, text formatting capabilities such as tabs, margin, page layout and mail merge. All these features make word processing very relevant for undergraduate students by enhancing their effectiveness and efficiency in duty performance, hence the need for relevant competencies. Okoye (2014) affirmed that with word processing, a clean, accurate and quality document can be produced by secretaries. The application serves as an important tool for undergraduate students in achieving increased productivity in the office due to its ability to regulate the font size, adjust margins on all sides and adjust line space to suit users' needs. Oborah and Eze (2013) noted that one major skill for effective utilization of Microsoft word in processing office information is keyboarding skills which enables a business educator to use touch rather than hint and peck while typing text into application. Undergraduate students' competency in the used of word processor will enable the achieve the following: producing neat, accurate and original document with speed. Findings further showed that the undergraduate students could perform all the tasks presented in the presentation skills section such as creating slides and applying themes, adding and formatting text content, inserting images, videos, and audio, using transitions and animations, and using the presenter tools and slide show features. Similarly, enhancing presentation skills improves communication through nurturing people's personalities. Graduates of universities are expected to possess some certain level of presentation skills because presentations are the foundation of most businesses and

presenting skills are crucial for success in the business world and as an educator, presentation skills allow you to be creative, let you compile learning into slides and allow for learning to be staged.

Furthermore, it was revealed that the undergraduate students could only perform all the tasks presented in the spreadsheet application skills sections such as creating and formatting spreadsheets, entering and manipulating data, using formulas and functions, creating charts and graphs to visualize data, and using conditional formatting, to a low extent. Eheseienmen (2014) explained that spreadsheet is a programmable application with gird of rows and columns forming cells into which data are usually entered using the keyboard. Supporting Azih (2013) and Ehesienmen (2014) on the features of spreadsheets, Roy (2013) observed that easy calculation, tabulation and programming with the application enables users to achieve desired objectives. Additionally, Dan (2014) regarded spreadsheet as a powerful application that handles much larger set of numerical data at greater speed. Spreadsheet competencies are invaluable assets to the undergraduate students; hence, it is recommended that tertiary institutions in Kwara state focus on developing strategies that will help students understand spreadsheet application skills better as this will consequently help in their effective and efficient office duty performance. This will help improve efficiency and accuracy, enable availability of professional quality document templates, enable ease reading, allow file sharing and saving, make it convenient and easy to correct mistakes, ensure higher reliability, help save time and make it easy to correct mistakes e.t.c.

Results from this research question also revealed that 20.8% of the sampled population believes that the Microsoft Office skills training they received is ineffective, 25.0% believed the training they received is Neutral, 54.2% believed they received an Effective Microsoft Office skills training. This means that a larger percentage of undergraduates in tertiary institutions in Kwara state believed that they received effective Microsoft Office skills training from their institutions. IDC, October (2013), reported that the top 60 job growth occupations of the economy were oral and written communication and Microsoft office skills. These jobs require significant business understanding, but with the added emphasis on skills to apply quantitative business intelligence to decision making. However, the conclusion was clear, more advanced excel skills are desired of both student interns and graduates. Therefore, adequate Microsoft Office skills trainings should be included and properly taught in the business education in tertiary institutions in Kwara state as this is a very important prerequisite for business education graduates in order to get a good job, establish personal businesses. Findings from research question five revealed that in the process of

acquiring Microsoft Office skills, 48.8% of undergraduates in tertiary institutions in Kwara state faced the challenge of Lack of access to training resources and materials, 54.7% faced the problem Limited or insufficient training opportunities, 46.3% faced the problem of Difficulty in understanding complex features and functions, 51.7% faced the problem of insufficient time allocated for Microsoft Office training, and finally, 28.4% faced the problem of Insufficient support or guidance from instructors. managerial skills needed to carry out office functions for effective job performance include communication skills, time management, analytic thinking skills, leadership skills, monitoring skills, supervision skills, problem solving skills, collaboration skills and so on. Internships are also another way to receive this type of education. University education which prepares young people for work should provide not only the skills required for operating machines or doing any specific job, but also provide such knowledge and skill required for technological development. Thus, if the needs are adequately catered for by providing programmes that will enable the students acquire appropriate skills, the students on graduation will be prepared to serve productively in tomorrow's business environment and also become self-employed.

Conclusion

In the highly competitive job market, university students' proficiency in Microsoft Office can be a significant factor in their employability and the overall competitiveness of the institution. By effectively evaluating and addressing these skills, educational administrators can leverage this knowledge to enhance their academic programs, better align with employer needs, and ultimately improve the career outcomes of their graduate. The alignment of academic programmes with industry demands has become paramount towards strengthening the overall competitiveness and employability of university graduates.

Recommendations

Base on the findings of this study, the following recommendations are made to help university students develop proficient skills in Microsoft Office and gain a competitive advantage in the job market, with implications for educational administration:

1. University administrators should effectively prepare students to excel in modern, technology-driven workplace by incorporating the development of Microsoft office skills, including word, excel, PowerPoint and others into the core curriculum across various

academic programmes and ensure students have equal access and opportunity to acquire and practice the essential skills throughout their academic journey.

2. University administrators should navigate the challenges to accessing Microsoft office resources utilization by providing comprehensive training and support to help faculty members integrate these skills into their teaching practices, and also leverage on technology-enabled learning platforms that allow for personalized learning experiences and self-paced skill development. The Universities should also consider implementing assessment mechanisms and certification programmes to evaluate and recognize students' Microsoft office skills to enhance the competitiveness of graduates in job market.

3. Practical assignments that require students to apply Microsoft office skills should be encouraged to promote hands-on learning and assessment.

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