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Computer and ICT Skills Level of Small-Scale Business Organization Employees: Basis for Company Intervention Program

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ABSTRACT

An increasing number of businesses now rely on computer technology to complete tasks. For this reason, possessing computer skills has become increasingly crucial This study aimed to assess the computer and ICT skills of employees in small-scale business organizations. The researcher administered a survey questionnaire to a purposive sample of 28 employees from small-scale business organizations, and the quantitative data gathered was organized and processed using SPSS version 17.0. The explanatory design employed unstructured interviews with non-probability sampled respondents to collect qualitative data. Thematic analysis was used to establish themes arising from the qualitative responses. Findings revealed that employees in these organizations have a low level of competence in performing office tasks, such as basic computer operations, file management, word processing, database use, and network use. There are no significant differences in computer and ICT skill levels among employees in small-scale business organizations when grouped by educational attainment, length of service, and gender. Based on the interviewees' responses, common themes emerged, such as poor internet connectivity, an unreliable power supply, a lack of funds to purchase gadgets that can access the internet, a lack of knowledge and interest in learning, and a lack of time to attend a short program related to computers and ICT are the reasons for low levels of computer and ICT skills. Tutorials and self-study are common strategies employees use to accomplish assigned tasks in the office.

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1. Introduction

A small business is one that is privately held, and the owner makes all of the choices. Computerization-related changes to job design, including increased job complexity, on-the-job training, and collaboration, (Moriones et al., 2021). Small companies are vital to an economy since they usually employ a limited number of people and are not founded with a large workforce (Rahman, 2022). Small businesses are partnerships, limited liability companies, or sole proprietorships that are smaller than regular-sized enterprises or corporations in terms of employees and/or annual income. Small company owners should manage expectations and stay in touch with their employees (Engidaw, 2020). Due to the number of employees, computer literacy, which can range from basic skills such as turning a computer on and off and using basic word processing or email programs to advanced programming and software development knowledge, is a basic need of a company.

Computer abilities are becoming increasingly necessary in today's employment environment for many positions (Mor et al., 2016). In a small-scale business with a limited number of employees, computer literacy is in demand to make the accomplishment of tasks easier. As information technology permeates every aspect of business, computer skills are becoming increasingly valuable in today's businesses. Few studies have looked at the possible impact computer skills may have on worker employment, despite the fact that studies have shown that computer skills may increase productivity, solve complex issues, launch new enterprises, and earn salary premiums. Computer skills are more conducive to managerial and professional jobs compared to other types of jobs (Peng, 2017).

Although higher education institutions offer computer-related courses, there are still factors to consider for a company to be successful in its business. In fact, a study showed that respondents' usage of ICT resources for studying business subjects needed to be improved, and doing so would increase their comprehension of the subject. The reasons given by respondents for their inadequate ICT abilities in ICT teaching and learning were sluggish internet access, unstable power supplies, and poor internet connectivity (Hamaluba, 2022).

Employees must adjust to changes in the workplace brought about by technological advancements. To expedite the process of performing their jobs effectively, workers must be able to use computers in their daily lives (Hamid et al., 2023). Both the workplace and society at large have changed due to computers. Computers are now necessary for connecting individuals and businesses to information, vendors, consumers, and coworkers.

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Schedules are kept track of, information is streamlined, and necessary data is provided by computers. Despite the fact that computers have given workers a plethora of business tools and made it simpler for them to access information locally or globally, there are drawbacks. These go beyond the widely known and feared cybercrimes and system breakdowns. Hence, this study aims to determine the level of competency in the use of computers among small-scale business organizations.

2. Literature Review

1.1 Computer Competency

Employees' computer proficiency, knowledge, and experience levels were modest, but there was no discernible difference in computer skills between male and female employees (Hamid et al., 2023). Employee capabilities in dynamic online work settings, such as the ability to send and receive emails, upload documents, and conduct searches. When one views competencies in this way, the focus switches from "what" to "how" an employee has to perform the allocated tasks to keep things organized from the employer's point of view. As scores, knowledge, and abilities in computing increase, digital literacy improves (Okeji et al., 2019). The study's findings suggest that there are only a few significant correlations between a student's knowledge of particular computer topics and their gender, but not between knowledge and age, employment status at the time, technology use or knowledge, or ownership of technology (Ciampa, 2013).

Werber et al. (2015) found out that the use of the internet, e-business, and the number of business software contributes to an enterprise's success. It can be confirmed that micro-enterprise informatization can be the basis for healthy economic growth if adequate knowledge and skills are present. According to Hamaluba (2022), respondents were aware of the fundamental operations of computers and needed better resources to use ICT for learning business courses. Doing so would also improve their comprehension of the subject matter. The respondents reported sluggish internet access, erratic power supplies, and poor internet connectivity as reasons for their inadequate ICT proficiency in ICT instruction and learning. ICT skills and entrepreneurial skills influence the establishment of Small Scale Business (Okon & Njoku, 2016). ICT skills compliance is a crucial skill set needed for online businesses and entrepreneurship development, and most Business Education students in Rivers State are weak in these skill sets. The mean responses of FCE(T) Omoku and RSU regarding the subject do not differ significantly (Anireh & Amadi, 2020).

1.2 Computer Experience

Nowadays, young people are exposed to computers through online games. According to Schindler et al.'s (2017) research, digital games have the greatest overall impact on all forms of student engagement. Job satisfaction among workers who use computers and the internet was high. Workers' self-efficacy with computers and the internet can impact their job happiness. Abun et al. (2022), only computer use can predict workers' job happiness. Put differently, having simultaneous access to computers and the internet can impact workers' job happiness. In their ability to complete tasks.

It is not clear how these technologies could appear in workers' comprehensive digital work experiences beyond specific information and communication technologies (ICTs), nor is there a clear understanding of the objective requirements of the technology to which these impacts are linked (Marsh et al., 2022).

3. Objectives:

This study aims to determine the computer and ICT skills level of small-Scale Business Company Employees. Specifically, it provides details of the following objectives:

- Identify the computer and ICT skills level among small-scale business organizations' employees, such as basic computer operation, file management, word processing, database use, and network use.
- Determine the significant difference in computer and ICT skill levels when data are grouped according to educational qualifications, length of service, and gender
- Determine the problems that contribute to a low or high level of computer and ICT skills based on the quantitative results.
- Identify the strategies employed by the employees to acquire the skills needed to operate the computer for the accomplishment of the Office Tasks

4. Data and Methods:

This study employed a mixed methods research design to collect, analyze, and integrate both quantitative and qualitative data within a research or program of inquiry to generate conclusions that are more credible or convincing (Tashakkori & Creswell, 2007). The study used an adopted instrument, the Assessment of Computer and ICT Skills of Hamaluba (2022), to purposively sample 28 small-scale business institutions. The survey questionnaire consisted of two parts. Part 1 collected demographic information, such as educational qualifications, years of service, and gender. Part 2 assessed the respondents' computer and ICT skills. The researcher personally distributed the questionnaire to the participants during a meeting arranged by the establishment's manager. After the meeting, the filled-in questionnaire was returned to the researcher, who tallied and submitted it to the statistician for data analysis. Descriptive statistics were used to analyze quantitative data using SPSS version 17.0.

To obtain qualitative data to support the quantitative results, the explanatory design was employed through unstructured interviews. The interviews aimed to determine whether respondents had a low or high level of computer and ICT skills and the strategies employed by employees to acquire the necessary skills to operate computers for the accomplishment of office tasks. According to Creswell (2013), the explanatory design begins with quantitative data collection and analysis, followed by qualitative data collection and analysis after obtaining quantitative results. Qualitative data is used to explain quantitative results. The thematic analysis method was used to examine respondents' responses to the question related to the problems that contributed to their low or high computer and ICT skills. This analysis approach aims to identify, describe, analyze, and report on themes in the data. This method was chosen because it is a versatile technique that can be used for analysis, and it is reasonably quick and straightforward to master (Braun and Clarke, 2006). The reduction process was the subject of this study's thematic analysis. Qualitative data reduction sharpens, focuses, discards, and organizes data so that conclusions may be reached and validated while keeping the data's context (Onwuegbuzie and Teddlie, 2003; Combs et al, 2010). The results were confirmed through a series of tests, including consulting an expert and the interviewees themselves.

Non-probability sampling, specifically convenience sampling, was employed, which involves using the most readily and conveniently available respondents as a sample for the study. A convenience sample includes the individuals who are most accessible to the researcher (McCombes, 2022) for the interview.

5. Results

Table 1. Computer and ICT skills levels among small-Scale Business Organizations Employees

Computer and ICT skills.	Mean	SD	Description
Basic Computer Operation (Hardware and software)	2.38	.56	Low Level of Competence
File Management	2.27	.51	Low Level of Competence
Word Processing (business software)	2.25	.53	Low Level of Competence
Data Base Use	2.24	.53	Low Level of Competence
Network use (internet, e-business)	2.19	.48	Low Level of Competence
Grand Mean	**2.27**	**.43**	**Low Level of Competence**

Legend: 4.21-5.00 (High Level of Competence); 3.41-4.20 (Moderately high level of competence) 2.61-3.40 (Average level of competence); 1.81-2.60 (Low level of competence); 1.0-1.80 (No level of competence).

Table 1 shows the computer and ICT skill levels among small-scale business organizations. The overall mean score in all areas is 2.27, indicating that employees in these organizations have a low level of competence in performing office tasks, such as basic computer operations, file management, word processing, database use, and network use. This result is consistent with Hamaluba's (2022) research findings that respondents were aware of computer operations but required improved resources to utilize ICT for learning business courses. Youths are exposed to the use of computers because of online games.According to Schindler et al.(2017), digital games have the greatest overall impact on all forms of student engagement.

ICT skills and entrepreneurial skills influence the establishment of small-scale businesses (Okon & Njoku, 2016). Job satisfaction among workers who use computers and the internet was high. Workers' self-efficacy with computers and the internet can impact their job happiness. Abun et al. (2022), only computer use can predict workers' job happiness. Put differently, having simultaneous access to computers and the internet can impact workers' job happiness. In their ability to complete tasks.

It is not clear how these technologies could appear in workers' comprehensive digital work experiences beyond specific information and communication technologies (ICTs), nor is there a clear understanding of the objective requirements of the technology to which these impacts are linked (Marsh et al., 2022). ICT skills and entrepreneurial skills influence the establishment of Small Scale Business (Okon & Njoku, 2016).

ICT skills are a crucial skill set needed for online businesses and entrepreneurship development, and most Business Education students are weak in these skill sets (Anireh & Amadi, 2020).

Table 2. Test of significant difference in computer and ICT skills level of the small-Scale Business Oraganizations Employees when data were analyzed according to Educational Attainment

Computer and ICT skills	Pearson Chi-square Value	$\rho - value$	Interpretation
Basic Computer Operation (Hardware and software)	39.152[a]	.330	Not Significant
File Management	16.792[a]	.724	Not Significant
Word Processing (business software)	41.089[a]	.257	Not Significant
Data Base Use	26.172[a]	.509	Not Significant
Network use (internet, e-business)	35.994[a]	.208	Not Significant
Overall	**76.500[a]**	**.336**	**Not Significant**

Table 2 presents the test for significant differences in computer and ICT skills levels of the small-scale business organizations' employees when data were analyzed according to educational attainment. Since the overall p-value of 0.336 is greater than 0.05, there is no significant difference in the computer and ICT skills level of the small-scale business organization's employees when grouped according to educational attainment. It further indicates that whether elementary, secondary, college level, or among college graduates, individuals have the same level of performing office tasks that involve basic computer operations, file management, word processing, database use, and network use.

The results conform to the research findings of Paciente (2020), that there were significant differences in the level of ICT teachers' skills when classified according to gender and length of service, while no significant differences existed in age, civil status, and educational attainment. Meanwhile, these results contradict the research findings of Malafe et al. (2017), where there was no significant difference in the mean scores of ICT and empowerment components among the respondents in terms of their education.

Table 3. Test of Significant Difference in Computer and ICT Skills Level of Small-Scale Business Organization Employees when Data were analyzed according to Length of Service

Computer and ICT skills	Pearson Chi-square Value	$\rho - value$	Interpretation
Basic Computer Operation (Hardware and software)	55.067a	.225	Not Significant
File Management	33.420a	.221	Not Significant
Word Processing (business software)	50.937a	.359	Not Significant
Data Base Use	43.575a	.180	Not Significant
Network use (internet, e-business)	41.308a	.413	Not Significant
Overall	97.300a	.444	Not Significant

Table 3 presents the test for significant differences in the computer and ICT skill levels of employees in small-scale business organizations when data were analyzed according to years of service. As the overall p-value is 0.444, which is greater

than 0.05, there is no significant difference in the computer and ICT skill levels of the respondents when grouped according to their length of service. It further explains that the number of years in service does not make a difference in performing office tasks, applying basic computer operations, managing files, processing words, using databases, and utilizing networks.

The results contradict the research findings of Paciente (2020), that there were significant differences in the level of ICT teachers' skills when classified according to sex and length of service. Malafe et al. (2017) opine that there was no significant difference between the means of the ICT and empowerment components among the respondents in terms of work experience.

Table 4. Test of significant difference in computer and ICT skills levels of the small-Scale Business Company Employees when data were analyzed according to Gender

Computer and ICT skills	Pearson Chi-square Value	$\rho - value$	Interpretation
Basic Computer Operation (Hardware and software)	10.531[a]	.569	Not Significant
File Management	3.344[a]	.851	Not Significant
Word Processing (business software)	10.391[a]	.582	Not Significant
Data Base Use	7.596[a]	.575	Not Significant
Network use (internet, e-business)	11.380[a]	.329	Not Significant
Overall	**23.807[a]**	**.473**	**Not Significant**

Table 4 presents the test for significant differences in computer and ICT skill levels of small-scale business company employees when data were analyzed according to gender. As the overall p-value is 0.473, which is greater than 0.05, there is no significant difference in the computer and ICT skill levels of the respondents when grouped by gender. This implies that gender does not vary in the respondents' computer and ICT skill levels. This means that regardless of gender, all individuals accomplish tasks by applying basic computer operations, managing files, processing words, using databases, and utilizing networks.

These results contradict Paciente's (2020) research findings that there were significant differences in the level of ICT teachers' skills when classified according to gender. According to Akman et al., (2010), gender has a positive impact on the average daily time spent on using the internet for communication, emailing, chatting, information downloading, and entertainment. Malafe et al. (2017) added that there were no significant differences between the means of ICT and empowerment components among the respondents based on their gender.

TABLE 5. Problems that contribute to a low level of computer and ICT skills among small-scale business company employees based on the quantitative results of this study.

Interview Extract	Themes
"Our internet at home is very poor due to poor signal." "The signal of the internet provider is very slow." "I have to go to other places just to access internet connectivity." "I need to go to my friend's house just to access internet connectivity."	Poor internet connectivity.
"I am living away from the city, and power supply is a problem." "I cannot afford to buy a generator just to have a power supply." "Sometimes, I can't open my laptop due to power interruptions."	Unreliable power supply.
"Money is not enough to purchase or acquire gadgets." "Gadgets are so expensive that I have to save money for the gadgets." "Our salary is not even enough to buy gadgets."	Lack of money to purchase gadgets that can access the internet
"When I was in college, I did not concentrate on learning computer and ICT-related subjects." "The importance of learning computer science and ICT was not emphasized by my professor. As a result, I don't have enough knowledge in operating computers." "It was difficult for me to understand the operation of the computer because I have no interest in learning about it."	Lack of knowledge and interest in learning.
"I am interested in attending formal training and lectures related to computer operations and ICT, I don't have enough time because we always have overtime tasks here." "In our area, there is an agency offering free training for computer operations, but I don't have time to attend."	Lack of time to attend a short program related to computer and ICT

Table 5 is the interviewees' responses that contribute to the overall quantitative results of this study, which is 'low level of computer and ICT skills among employees of small-scale business organizations." Based on the interviewees' responses, common themes emerged, such as poor internet connectivity, unreliable power supply, lack of funds to purchase gadgets that can access the internet, lack of knowledge and interest in learning, and lack of time to attend a short program related to computer and ICT. These extracted themes from the interviewees' responses conform to the research findings of Hamaluba (2022), where respondents reported sluggish internet access, erratic power supplies, and poor internet connectivity as reasons for their inadequate ICT proficiency in ICT instruction and learning.

TABLE 6. Strategies employed by employees to acquire the skills needed to operate the computer for the accomplishment of the Office Tasks

Interview Extract	Themes
"I always ask for help from officemates who have little knowledge in operating the computer." "Sometimes, I call my friends who are experts in computer operations and ICT."	Tutorial
"I follow the operation manual for the gadgets or computer." "I open YouTube to listen to accomplish the demonstration video related to the basic operation of the computer."	Self - study

Table 6 presents the interviewees' responses on the strategies employed by employees to acquire the skills needed to operate the computer for the accomplishment of the Office Tasks. The respondents sort to tutorial and self -study to accomplish the tasks assigned to them in the office.

6. Conclusions

Respondents have the same level of computer and ICT skills to perform office tasks that involve basic computer operations, file management, word processing, database usage, and network usage. Educational attainment, length of service, and gender do not make a difference in performing office tasks, applying basic computer operations, managing files, processing words, using databases, or utilizing networks. Poor internet connectivity, unreliable power supply, lack of funds to purchase gadgets that can access the internet, lack of knowledge and interest in learning, and lack of time to attend a short-term program related to computer and ICT are the reasons for the low levels of computer and ICT skills. Employees resort to tutorials and self-study to accomplish the tasks assigned to them in the office.

7. Recommendations

Managers should develop an intervention program that focuses on improving employees' computer and ICT skills, strategies, and networking to help them accomplish their office tasks.

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