

INFLUENCE OF TECHNOLOGIES ON CAREER CHOICE OF SECONDARY SCHOOL STUDENTS IN GWER-WEST LOCAL GOVERNMENT AREA OF BENUE STATE, NIGERIA

Akaa, C.W¹, Akaa, I.I²

^{1&2}Joseph Sarwuan Tarka University, Makurdi. Benue State

Corresponding Author (Akaa, C.W¹)

Abstract

This study examined the influence of technologies on the career choice of secondary school students in Gwer-West Local Government Area of Benue State, Nigeria. The purpose was to determine students' awareness of career-related technologies, the extent to which technology influences their career decisions, and the challenges they face in accessing and utilizing such technologies. The study population comprised all senior secondary school students in the selected public schools within the LGA. A descriptive survey research design was adopted. A structured questionnaire containing 25 items was used to collect data from a population of 194 students, and sampling was not done. Data collected were analyzed using mean scores with a cut-off point of 2.50 to determine the level of influence. The findings revealed that students had low awareness of career-related technologies, and that technology had little or no influence on their career choices, as most mean values were below the decision benchmark. It was also found that students faced major challenges in accessing and using technology for career decision-making, such as poor internet access, lack of digital devices, inadequate ICT facilities in schools, and insufficient digital skills. The study concluded that technology currently has minimal influence on the career choices of secondary school students in Gwer-West LGA due to infrastructural and educational limitations. It is recommended that government and education stakeholders integrate digital career guidance into the school curriculum, provide necessary ICT infrastructure, and organize digital literacy and career awareness programs to improve student access to technology-driven career information.

KEY WORDS: Technologies, Career Choice and Secondary School Students

1.0 INTRODUCTION

Career choice is one of the most important decisions made by secondary school students, and it has long-term implications for their future success and contribution to national development. The concept of career is multifaceted and has evolved significantly over time, particularly in response to changes in societal structures, technological advancement, and labor market dynamics. According to Super (1957), a career is “the combination and

sequence of roles played by a person during the course of a lifetime.” This perspective emphasizes that career development is a lifelong process influenced by personal choices, environmental factors, and social roles, including student, worker, and retiree.

Career refers to the sequence of occupational roles, positions, and experiences that a person engages in throughout their working life. It encompasses more than just a job or employment it includes personal growth, skill acquisition, and life ambitions related to work. Schneer and Reitman (2002) defined career as a pattern of work-related experiences that span a person's life, including activities within and beyond formal employment. Their views aligns with modern perspectives that consider a career as not only vertical progress within an organization but also lateral movement, transitions, and even breaks or changes across fields. Both authors agreed to the views of Greenhaus, Callanan, and Godshalk (2010) which assert that a career is “the pattern of work-related experiences that span the course of a person's life.

In the modern era, especially with the influence of globalization and technology, careers are becoming less linear and more dynamic, with individuals expected to adapt to multiple roles, industries, and learning environments. According to Hall (2004), we are in an era of “changeable career,” where individuals, rather than organizations, are seen as the primary drivers of career development shaped by personal values, self-direction and technology rather than organizational advancement.

The rapid advancement of technology in the 21st century has significantly transformed various aspects of human life, including the educational landscape and students' career decision-making processes. Technology plays a pivotal role in shaping how students perceive and pursue careers, offering both opportunities and challenges. Ensuring equitable access to career-related technologies, especially in underserved areas, is essential for helping all students make informed and empowering career decisions. In recent years, digital technologies such as the internet, mobile devices, social media platforms, and career guidance applications have increasingly influenced how students explore and choose career

paths. According to Lent, Brown, and Hackett (2002), students' career choices are shaped by a complex interplay of personal interests, social context, and environmental factors, with technology now serving as a major environmental influence. Furthermore, Oyundoyin and Akintola (2021) highlight the increasing importance of technological exposure in shaping career decisions among Nigerian youths, yet few studies have been carried out at the local government level to explore these influences.

Technological tools provide students with vast information about career options, required skills, job market trends, and educational pathways (Akpan, 2019). These resources can shape students' aspirations, perceptions, and readiness to pursue particular careers. In the 21st century, technology plays a pivotal role in shaping how students perceive and pursue careers, offering both opportunities and challenges. Ensuring equitable access to career-related technologies, especially in underserved areas, is essential for helping all students make informed and empowering career decisions. However, access and utilization of these technologies may vary based on location, digital literacy, socioeconomic status, and availability of guidance counselors. In rural settings such as Gwer-West Local Government Area of Benue State, limited access to modern digital infrastructure may further influence how secondary school students interact with career-related technologies that enhance their career choice.

In educational and vocational settings, career choice is the process by which individuals select a path of study, occupation, or professional trajectory that aligns with their interests, skills, and future goals. According to Lent, Brown, and Hackett (2002) in the Social Cognitive Career Theory (SCCT), career choice is influenced by a combination of personal attributes (like self-efficacy), environmental conditions (like support systems), and learning experiences. Career choice has become more complex in a world shaped by technological innovation and agricultural transformation. Technology has introduced new and emerging career paths in agriculture such as precision farming, drone operation, agricultural data analysis, biotechnology, and agro-digital marketing that were previously unavailable or less known to students. Career choices in agriculture are no longer confined

to traditional farming roles. With access to modern tools and information technologies, students can explore diverse opportunities, but the ability to make informed choices depends on their exposure to these technologies, availability of career guidance, and awareness of how digital skills apply in agricultural settings (Akpan, 2019).

Furthermore, Oyundoyin and Akintola (2021) emphasize that in Nigeria, the availability of smartphones, the internet, and career-related content on social media platforms significantly affects how secondary school students form career aspirations. The choice becomes not only a personal decision but one deeply shaped by technological exposure and digital literacy. For students in rural areas like Gwer-West LGA of Benue State, making a career choice in agriculture that incorporates technology requires:

1. Access to ICT tools
2. Awareness of modern agricultural innovations, and
3. Support from educational institutions.

Without these, their choices may be limited, leading to underutilization of the abundant agricultural potential of their environment. Career choice is a critical decision-making stage in the life of secondary school students, as it lays the foundation for their future professional paths, academic focus, and personal fulfillment. According to Super (1990), adolescence is a crucial phase for career development because individuals begin to crystallize their career interests and align them with their abilities, values, and life goals. For secondary school students, this process helps shape their identity, motivation, and academic engagement.

According to Salami, (2008), Nwachukwu and Nwamuo, (2010). Highlighted the importance of career choice at the secondary level to include:

1. Early Goal Setting and Direction: Students with clear career aspirations are more likely to stay focused, make relevant subject choices, and avoid academic confusion

2. Reduction of Unemployment and Mismatches: Proper career guidance helps students align their talents with labor market demands, reducing future unemployment or job dissatisfaction.
3. Self-Awareness and Personal Growth: Choosing a career path encourages students to explore their interests, values, and skills, promoting self-understanding.
4. Better Academic Performance: Students who have career clarity tend to perform better because they see the relevance of their studies to future goals

However, the digital divide especially in rural communities remains a significant barrier. Without adequate internet access, ICT tools, or digital literacy, students in areas like Gwer-West may miss out on the benefits of technology in making informed career choices (Okafor & Onwukwe, 2020). The authors further point out, the low rate of youth engagement in agriculture in Nigeria is partly due to a lack of awareness about technology-driven agricultural careers. If students are not exposed to how technology is transforming agriculture, they may choose careers based on outdated perceptions or peer influence rather than on informed and relevant options.

This study seeks to bridge that gap by investigating how technology affects the career choices of secondary school students in Gwer-West, with a focus on identifying the extent, channels, and limitations of such influence. Despite the recognized potential of technology to broaden career awareness and guide student decision-making, many students in rural areas still make uninformed or externally influenced career choices. In Gwer-West Local Government Area, there is limited empirical data on how technological exposure or the lack thereof affects students' ability to explore viable career opportunities. This is in consonance with Okafor & Onwukwe, (2020) who pointed out that, the low rate of youth engagement in agriculture in Nigeria is partly due to a lack of awareness about technology-driven agricultural careers. If students are not exposed to how technology is transforming agriculture, they may choose careers based on outdated perceptions or peer influence rather than on informed and relevant options. Most students may rely heavily on parents, peers, or teachers for career advice without utilizing modern digital tools that offer a wider range

of perspectives. This situation may lead to poor career alignment, underemployment, or dissatisfaction in future job roles. Therefore, it becomes necessary to assess the extent to which technological tools influence the career choices of secondary school students in the area. Specifically the study seeks to ascertain

1. Awareness of secondary school students in Gwer-West LGA to career-related technologies.
2. The influence of technologies on students' career choices in Gwer West LGA.
3. The challenges students face in accessing and utilizing technology for career decision-making in Gwer West LGA

RESEARCH QUESTIONS

1. Are secondary school students in Gwer-West LGA aware of career-related technologies?
2. Do technology have influence on students' career choices in Gwer-West LGA?
3. What are challenges students face in accessing and utilizing technology for career decision-making in Gwer West LGA?

2.0 METHODOLOGY

2.1 Research design

The study adopts survey research design

2.2 Area of the Study

The study is conducted in Gwer-West Area of Benue State

2.3 Population of the study

The population of the study is 194 comprising of agricultural science students

2.4 Sample and Sampling Technique

There is no sampling because the population is manageable and the researcher can make use of the entire population

2.5 Reliability of the Instrument

Cronbach-alpha reliability method was used and a reliability coefficient of 0.89 was obtained, this indicated that the instrument was reliable and can be used for the study.

2.6 Method of data collection.

The instrument used for data collection for the study was a structured questionnaire. The questionnaire was administered to the respondents using three (3) research assistants guided by the researcher, on the spot collection of the questionnaire was adopted in administering the questionnaire, thus 100% (194) of the instrument were retrieved

2.7 Method of data analysis

Data collected were analyzed using Mean and standard deviation.

2.8 Decision rule

Any item with a mean score above 2.50 was regarded as an influence of technologies on career choice of secondary school students in Gwer-West Local Government area of Benue state, Nigeria

3.0 RESULTS AND DISCUSION

3.1 Results

RESEARCH QUESTION 1: Are secondary school students in Gwer-West LGA aware of career-related technologies?

TABLE 1: Mean value of responses of respondents on Awareness of secondary school students in Gwer-West LGA to career-related technologies.

S/NO	ITEM STATEMENT	X	SD	REMARK
1	I am aware that there are mobile apps and websites that help students choose a suitable career.	2.03	1.01	Not accepted
2	I know how to use the internet to search for information about different career opportunities.	1.91	0.96	Not accepted
3	My school has introduced me to online career guidance tools.	2.01	1.03	Not accepted
4	I have used a smartphone, tablet, or computer to explore different job options or career paths.	1.98	0.98	Not accepted
5	I know at least one website or app (e.g., Jobberman, MyJobMag, and CareerBuilder) that provides career information.	1.08	1.00	Not accepted
6	I have heard about online aptitude or personality tests that help people choose a career.	2.05	1.02	Not accepted
7	. I am aware of how digital skills (e.g., coding, online marketing, data analysis) can influence my career choice.	1.11	0.98	Not accepted
8	I follow career-related pages or professionals on social media (e.g., LinkedIn, YouTube, and Instagram).	2.07	0.96	Not accepted
9	I have been taught how technology can help in choosing a suitable career in school or by a counselor.	2.34	1.01	Not accepted
10	I know that technology is helping to create new career paths in fields like agriculture	2.13	0.99	Not accepted

KEY: X= MEAN, SD= STANDARD DEVIATION.

The data presented in the above table reveal that the influence of technologies on the career choice of secondary school student's agriculture in Gwer-West Local Government Area is generally low. The mean scores of all the items assessed range from 1.09 to 2.34, which are below the benchmark cut-off point of 2.50 on a 4-point Likert scale. This indicates that students in the area have limited awareness, access to, or use of technology-related resources in making career decisions. The low values suggest that technological tools such as career guidance websites, online aptitude tests, mobile apps, and digital learning platforms are not significantly influencing students' career

choices in the region. The findings may be attributed to factors such as lack of digital infrastructure, poor internet access, insufficient ICT training, and the absence of school-based career counseling programs that incorporate technology. These results highlight a pressing need for educational stakeholders to increase technological integration and digital literacy to support informed career decisions among students in Gwer-West LGA.

RESEARCH QUESTION 2: Do technology have influence on students' career choices in Gwer-West LGA?

TABLE 2: Mean value of responses of respondents on influence of technologies on students' career choices in Gwer West LGA.

S/NO	ITEM STATEMENT	X	SD	REMARK
1	Technology has exposed me to career opportunities in agriculture I would not have known about	1.73	1.02	Not accepted
2	Seeing successful people online has motivated me to pursue a particular career path.in agriculture	2.27	0.98	Not accepted
3	I use mobile apps and websites to learn more about different careers before agriculture.	2.41	1.03	Not accepted
4	The availability of online learning platforms has influenced my interest in certain professions in agriculture	2.18	1.01	Not accepted
5	Online career information in agriculture has helped me better understand the type of work I would like to do	2.08	0.99	Not accepted
6	The use of digital tools (e.g., online tests or virtual career fairs) has guided my career choice in agriculture	1.09	0.97	Not accepted
7	I will considered choosing a career I saw on the internet media.	2.21	1.00	Not accepted

KEY: X= MEAN, SD= STANDARD DEVIATION

Table 2 presents the responses of secondary school students in Gwer-West Local Government Area regarding the influence of technology on their career choices. Analysis of the data shows that the mean values of all items range from 1.09 to 2.41, which are below the established cut-off point of 2.50 on the 4 point Likert scale. This suggests that, overall, the respondents disagreed with statements indicating that technology significantly

influences their career decisions. In other words, the findings indicate that technology does not currently play a strong role in shaping the career choices of students in the area. The low mean values could imply limited access to technology, low digital literacy levels, or a lack of structured exposure to online career guidance resources. These findings highlight the need for improved technological infrastructure, awareness, and integration of ICT tools in schools to help students make informed career choices based on modern labor market realities. Thus, based on the data, it is concluded that technology has minimal influence on the career choices of secondary school students in Gwer-West LGA.

RESEARCH QUESTION 3 What are the challenges students face in accessing and utilizing technology for career decision-making in Gwer West LGA

TABLE 3 Mean value of responses of respondents on the challenges students face in accessing and utilizing technology for career decision-making in Gwer West LGA

S/NO	ITEM STATEMENT	X	SD	REMARK
1	I do not have regular access to the internet to search for career-related information.	3.54	0.98	Accepted
2	Lack of smartphones, computers, or digital devices prevents me from using online career tools.	2.57	1.01	Accepted
3	My school does not provide ICT facilities that support career exploration	4.00	0.97	Accepted
4	I find it difficult to use online platforms for career guidance due to limited digital skills.	3.84	0.89	Accepted
5	I am not aware of any websites or apps that can help me choose a career.	3.09	1.00	Accepted
6	The cost of internet data makes it hard for me to use technology for career decision-making.	3.63	0.99	Accepted
	There is no one to guide or teach me how to use technology for career planning.	2.76	0.97	Accepted
8	Poor electricity supply makes it hard to use technology regularly for career-related purposes	4.18	1.01	Accepted

KEY: X= MEAN, SD= STANDARD DEVIATION

The data in Table 3 gathered from the responses of secondary school students in Gwer-West Local Government Area reveal that they face significant challenges in accessing and utilizing technology for career decision-making. The analysis shows that the mean scores for all eight items range from 2.76 to 4.18, which are above the decision cut-off point of 2.50 on the 4-point Likert scale. This indicates that the majority of the respondents agree that the listed items are real and persistent challenges. The high mean values suggest that many students in the area lack access to reliable internet services and digital devices such as smartphones and computers. In addition, schools reportedly lack ICT facilities and programs that could support digital career guidance. Furthermore, most students are not equipped with the necessary digital literacy skills to effectively explore career options online. Other major barriers identified include the high cost of internet data, poor electricity supply, and lack of guidance on how to use technology for career-related purposes. These challenges severely limit students' ability to take advantage of modern technological tools that could help them make informed and future-ready career choices.

In conclusion, the data clearly indicate that students in Gwer-West LGA face multiple technological barriers, which must be addressed through targeted interventions, including the provision of ICT infrastructure, digital training, and school-based career guidance support.

3.2 Discussion

The findings from Table 1 reveal that the majority of secondary school students in Gwer-West LGA have low awareness of career-related technologies, this suggests that students are generally unaware of digital tools such as online career portals, mobile applications, and internet resources that can aid in career exploration and planning. This finding is consistent with Akpan (2019), who reported that many students in rural areas of Nigeria have limited exposure to digital technologies due to poor infrastructure and lack of ICT education. Similarly, Okafor and Onwukwe (2020) emphasized that a lack of awareness

about technology-driven career options contributes significantly to poor career decisions among youths in rural communities.

Findings in Table 2 examined whether technology influences the career choices of students. This implies that despite the growing role of technology in education and workforce development, students in Gwer-West are not significantly using technology to shape or inform their career decisions. This aligns with the work of Lent, Brown, and Hackett (2002), whose Social Cognitive Career Theory (SCCT) highlights environmental factors such as access to technology as key determinants in career self-efficacy and decision-making. In areas with poor access, students may rely more on traditional influences like parents or teachers rather than digital tools. Oyundoyin and Akintola (2021) also observed that without structured school-based interventions and guidance, students are less likely to utilize technology for career exploration.

Findings in Table 3 focuses on the challenges students face in using technology for career decision-making. Key issues include poor internet access, high cost of data, and lack of digital devices, inadequate school ICT facilities, and low digital literacy. These findings are supported by Salami (2008), who emphasized that without the right tools and environment, students are unable to make informed and autonomous career choices. Additionally, Rogers (2003) noted that the diffusion of innovation (including technology use in education) is hindered in regions with infrastructural and knowledge gaps. The situation in Gwer-West mirrors this reality, where technological influence is limited by structural and economic barriers.

4.1 Conclusion

The findings across all three tables clearly demonstrate that while technology has the potential to influence career decision-making among secondary school students, its current impact in Gwer-West LGA is minimal. This is due to low awareness, limited influence, and significant challenges in access and utilization. There is a critical need for policy makers, school authorities, and community stakeholders to invest in digital infrastructure,

career guidance programs, and ICT training to bridge the technological gap and improve student outcomes.

4.2 Recommendations

Base on the findings of the study, it was recommended that

1. Integrate Career and ICT Education into the School Curriculum

Schools in Gwer-West LGA should introduce structured career guidance programs that include the use of technology. ICT teachers and counselors should work together to train students on how to use online career platforms, mobile apps, and digital assessment tools to make informed career decisions

2. Improve Technological Infrastructure and Internet Access in Schools

Government and educational stakeholders should provide secondary schools in the area with computers, internet facilities, and reliable electricity to enhance students' access to career-related technologies. Public-private partnerships can also support the provision of digital resources.

3. Organize Digital Career Awareness Campaigns and Workshops

Periodic career seminars and workshops should be organized within the LGA, with a focus on demonstrating how students can explore careers through technology. These programs should include guest speakers, online tools demonstrations, and student engagement with digital platforms like career websites and virtual job shadowing.

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