



Demographic Factors and Computer Anxiety among Education Officers in Nigeria: Implications for Digital Transformation in Education

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Abstract

This study examined the influence of gender, years of service, and their interaction on computer anxiety among education officers using a cross-sectional survey design with 143 respondents from Ogun State, South-West Nigeria. The instrument employed was the Computer Anxiety Scale (CAS). Cross-tabulation results indicated that most officers (83.9%) reported no computer anxiety, while a minority (16.1%) experienced anxiety. Mean scores suggested slightly higher anxiety among females and lower anxiety among officers with longer service; however, two-way ANOVA revealed no significant main effects of gender ($F(1,135) = 2.515, p = .115, \eta^2_p = .018$), years of service ($F(3,135) = .456, p = .714, \eta^2_p = .010$), or their interaction ($F(1,135) = 3.130, p = .042, \eta^2_p = .003$). These results suggest that demographic variables are becoming less predictive of computer anxiety, possibly reflecting digitalization efforts within Nigeria's education sector. The persistence of anxiety among a minority highlights the need for interventions such as peer mentoring, digital literacy workshops, and confidence-building programmes. The study concludes that computer anxiety among education officers is shaped less by demographic factors while contextual and organizational influences may play a more significant role, with implications for ICT readiness and Nigeria's digital transformation agenda.

Keywords: Computer anxiety, Education officers, Digital literacy, Gender, Years of service.

INTRODUCTION

The presence of digital tools continues to expand, shaping diverse areas of our social interactions, professional activities, and

recreational pursuits. With an increasing number of occupations requiring human-computer interaction, competence in computer skills and knowledge is now strongly connected to success in both career and personal endeavors (Awofala et al., 2019). While most developed countries are rapidly advancing into the digital age, many developing nations, including Nigeria, have experienced a slower pace of technological adoption (Okoye et al., 2023). This lag has

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contributed to limited technological infrastructure, reduced opportunities for computer literacy, and, consequently, heightened challenges in digital competency among government officials. Such challenges may be further influenced by individual characteristics such as gender and years of professional experience which could play a role in shaping attitudes toward the adoption of technology.

In the present day, technology has presented itself as an indispensable tool to enhance all aspects of human endeavor. Not only are tasks and operations performed efficiently, but they are also achieved faster and more easily. Despite these advantages, many individuals remain wary of technology, particularly the use of computers. This reluctance or discomfort is commonly described as computer anxiety. Computer anxiety is generally defined as the emotional fear, apprehension, or phobia experienced by individuals when interacting with computers or even when contemplating their use (Maurer 1994; Chua et al. 1999; Negron, 1995; Marcoulides 1989; Igbaria & Parasuraman, 1989). The APA Dictionary of Psychology (2012) defines it as 'strong apprehension about computers and computer use that is disproportionate to the actual threat posed by these machines. The anxiety may be related to fear of the unknown or fear of the possible outcome of trying to use a computer (e.g., failure, frustration, embarrassment, or disappointment). If the anxiety is sufficient to cause significant distress and impairment, it may be classified as a specific phobia, also called computerphobia or cyberphobia. A person experiencing anxiety might have negative thoughts, sweaty palms, a rapid heartbeat, or a desire to avoid using a computer. (Awofala et al., 2019). In today's world, where an overwhelming presence of technology is often seen as normal, the notion of technophobia, fear of computers and related technologies may seem unusual or out of place yet it remains a prevalent concern affecting many people (Sivakumaran & Lux, 2010). Importantly, studies have highlighted the multifaceted nature of computer anxiety, showing that it does not manifest uniformly across populations; rather, it is shaped by a combination of personal, socioeconomic, cultural, and demographic factors (Chua et al., 1999; Igbaria &

Parasuraman, 1989; McIlroy et al., 2001; Broos, 2005; Reid et al., 2024; Jahan et al., 2025).

RELATED WORKS

Over the years, computer anxiety has been investigated from diverse perspectives, (Arigbabu, 2006a, 2006b; Awofala, et al, 2019). Of particular relevance to the present study are those studies that explored the influence of demographic factors on levels of computer anxiety. These studies have established insights into how demographic and psychological factors influence anxiety levels and technology adoption. However, the majority of research concentrated on students (Chua et al., 1999; Teo, 2007) and teachers (Agbatogun, 2010; Mahdi & Al-Dera, 2013; Gröstenberger & Selinger, 2023), while comparatively little attention has been given to education officers who occupy administrative and policy roles within ministries of education, oversee curriculum implementation, teacher development, and ICT integration. International literature is similarly limited, with the majority of studies focusing on classroom contexts, leaving a gap in understanding how administrators and policymakers experience computer anxiety. This omission is significant because education officers are central to implementing ICT reforms and digital transformation initiatives.

Given the pivotal role education officers play in influencing the course of education in Nigeria, examining their experiences with computer anxiety not only fill a scholarly gap, but also valuable and definitely worthwhile. In the Nigerian context, education officers are professional staffs within the ministry of education or related government education agencies who are responsible for planning, implementing, monitoring and evaluating educational policies and programs. If education officers themselves experience computer anxiety, it could undermine the success of these reforms. Yet, to date, there is little empirical evidence on their experiences with technology-related anxiety, either in Nigeria or internationally. This creates a critical research gap. Accordingly, this study contributes to the literature by being among the first to empirically investigate computer anxiety among education officers. As Nigeria

progresses toward the digitization of its education sector, education officers occupy a pivotal position in facilitating and sustaining this transformation. The Federal Ministry of Education in Nigeria continues to emphasise this need through initiatives like DOTS (Data Repository, Out-of-School Children Education, Teacher Training and Development, and Skills Development and Acquisition). Consequently, all states of the federation are making concerted efforts to digitalize and integrate technology into their respective education systems.

Recent governmental policies demonstrate a deliberate and strategic commitment to integrating information and communication technologies (ICT) into educational practice. Notably, the *Digital Literacy for All* initiative sets an ambitious target of achieving 95% nationwide digital literacy by 2030 (Vanguard News, 2025a), while a collaborative effort between the Federal Ministry of Education and Amazon Web Services is providing free, nationwide training in artificial intelligence, cloud computing, and other critical digital competencies (Vanguard News, 2025b; Nigeria Education News, 2025). Such initiatives reflect the accelerating shift toward digitalization in schools and, more broadly, across the entire education sector, a trend increasingly observed on a global scale, with Nigeria actively aligning itself with these developments.

Guided by the Technology Acceptance Model (TAM; Davis, 1989) and Social Cognitive Theory (SCT; Bandura, 1986), this study employs these frameworks as a conceptual lens to explain how demographic characteristics may influence computer anxiety among education officers. Although gender and years of service are not direct TAM variables, prior research suggests they shape perceptions of ease of use and self-efficacy (Bandura, 1986; Davis, 1989). For example, lower self-efficacy among females may contribute to greater anxiety, while longer years of service may enhance ease of use, thereby lowering anxiety. Thus, TAM and SCT provide a theoretical rationale for why these demographic factors are expected to influence computer anxiety. The Technology Acceptance Model, developed by Fred Davis in 1989, highlights two fundamental perceptions that shape attitudes toward technology: perceived usefulness and perceived ease of use. According to Davis (1989)

perceived usefulness refers to the degree to which an individual believes that using technology will improve their performance and help achieve desired outcomes. Meanwhile, perceived ease of use reflects how effortless an individual expects the technology to be, influencing their attitude toward the likelihood of adopting it. Later extensions of TAM further confirmed that perceived usefulness and perceived ease of use are among the strongest predictors of technology adoption (Venkatesh & Davis, 2000).

The TAM model suggests that perceived usefulness PU and perceived ease of use PEOU heavily influence attitudes and ultimately the decision to engage with technology. However, computer anxiety poses a significant challenge, as it negatively impacts these factors, making technology seem more difficult and less approachable. Computer anxiety can erode both perceived usefulness PU and perceived ease of use PEOU by creating a mental barrier that make technology seem complicated and intimidating. When users perceive technology as difficult their willingness to adopt it decreases, regardless of its benefits and potential.

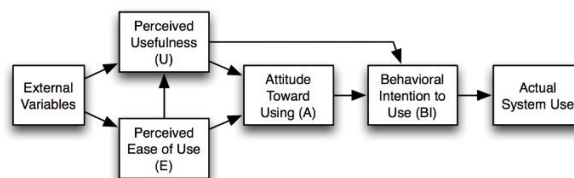


Figure 1. Technology Acceptance Model (Davis, 1989). Adapted from Nippie, 2011, Technology Acceptance Model [Image]. Wikimedia Commons. https://commons.wikimedia.org/wiki/File:Technology_Acceptance_Model.png

The Social Cognitive Theory (SCT) developed by Albert Bandura, which posits that human behavior results from the dynamic interplay among personal factors, behavioural patterns, and environmental influences. SCT also highlight the important role of self-efficacy in shaping behaviour. While self-efficacy is the belief in one's ability to execute specific tasks successfully, computer self-efficacy refers to an individual's confidence in their ability to complete computer-related tasks. Computer self-efficacy plays a pivotal role in shaping

individuals' comfort with technology. Low self-efficacy can heighten computer anxiety, creating avoidance behaviors that further limit technological competence and adoption.

Years of Service - Perceived Usefulness (Pu) & Self-Efficacy:

Years of service can influence TAM constructs and computer anxiety in different complex ways. For instance, longer service officers may develop higher perceived ease of use due to accumulated exposure, experience and familiarity with workplace. Conversely, they may also resist new technological adoption if it disrupts established work routines, negatively affecting perceived usefulness PU and perceived ease of use PEOU. Those with less service may feel pressure to prove competence quickly, while long-serving officers may feel overwhelmed by constant technological change, both contributing to anxiety. While years of service may build self-efficacy through repeated exposure to workplace technologies, the society continue to rapidly evolve technologically and this may put long-serving individuals at a disadvantage as they may find that their once adequate skill has become outdated, potentially lowering self-efficacy, affecting PU and PEOU, also heightening anxiety.

Gender - Perceived Ease of Use (PEOU) & Self-Efficacy

Women, for instance, may report lower PEOU if they have had fewer opportunities for early exposure to technology or if they have experienced stereotype threat in technological settings. In many contexts, societal norms and workplace cultures subtly suggest that technology and computing are more essential to traditionally male-dominated fields. For women, especially education officers in non-technical roles, technology might be viewed as irrelevant. This perception can create a psychological barrier, fostering discomfort about using technology therefore, affecting PEOU. Social Cognitive Theory predicts that differences in learning experiences, encouragement from mentors, and access to training may contribute to gender differences in computer self-efficacy. Research consistently highlights the stereotype that technology is predominantly a male domain.

This restrictive perception may significantly contribute to elevated computer anxiety among female education officers.

Gender and Computer Anxiety

Gender refers to the socially constructed roles, behaviors, expressions, and identities that societies consider appropriate for males and females (Heidari et al., 2016; Cislighi & Heise, 2019). Gender disparities in computer anxiety refer to differences in fear, discomfort, and apprehension toward computer use between males and females. Jahan et al. (2025), in a study conducted in a Bangladesh university, found that female and older students reported higher levels of computer anxiety compared to male and younger students further highlighting that it may stem from gender socialization in a patriarchal society such as Bangladesh. Similarly, research involving Austrian secondary school teachers revealed a significant gender effect, with female teachers exhibiting greater computer anxiety than their male colleagues (Gröstenberger & Selinger, 2023). Evidence from multiple studies indicates that females consistently report higher levels of computer anxiety than males (Awofala et al., 2020; McIlroy et al., 2001; Rekabdarkolaei & Amuei, 2008). Similarly, Broos (2005) reported that females demonstrated more negative attitude toward computer use than males suggesting that confidence and comfort in using technology may be unevenly distributed across genders. In a study of pre-service teachers in Singapore, Teo (2007) reported no significant gender differences in attitudes toward computers. However, contrasting other studies that have shown that females often exhibit higher levels of anxiety, possess less experience, and demonstrate lower confidence in their ICT competence compared to males (Rekabdarkolaei & Amuei, 2008; Sultan & Kanwal, 2017). These differences are frequently linked to factors such as unequal opportunities for early exposure, lower computer self-efficacy, and the persistence of stereotypes that portray computing as a male-oriented domain. In educational and professional contexts, these influences may combine to reduce women's engagement with technology, thereby reinforcing the cycle of anxiety and avoidance.

The purpose of this study is to investigate the differences in computer anxiety among education officers based on gender and years of service, as well as the interaction between these variables. Specifically, this study examined the

general level of computer anxiety, determined whether years of service and gender have significant main effect on computer anxiety, and assessed whether the effect of years of service on computer anxiety depends on gender.

METHODOLOGY

The study adopted a quantitative cross-sectional survey design. The target population consisted of all education officers in Ogun State, South-West Nigeria. A convenience sampling technique was employed to select 143 respondents including officers from the Ministry of Education and staffs from zonal education offices. Participants were recruited based on their availability, accessibility, and willingness to respond via online platforms. This approach allowed for efficient data collection; however, it may introduce voluntary response bias. Participants' ages ranged from 20 years to above 50 years, while their years of service were classified into four categories: less than 10 years ($N = 47$), 11-15 years ($N = 42$), 16-20 years ($N = 33$), and over 20 years ($N = 53$). Of the total sample, 60 participants (42%) were males while 83 participants (58%) were females.

Instrument and Procedure

The instrument used to measure computer anxiety was the Computer Anxiety Scale (CAS) (Marcoulides, 1985, 1989; Marcoulides et al., 1985). Arigbabu (2009) established the suitability of CAS in Nigeria. The study reported a two-factor solution which accounted for 41.6% of the total variance; and an internal consistency reliability of (.89) for the entire scale. This was considered conceptually meaningful and consistent with the result of earlier studies (Marcoulides, 1985, 1989; Marcoulides et al., 1995). For the present study, factor analysis was also computed to establish the instrument's internal consistency. This yielded acceptable reliability, with a reported Cronbach alpha coefficient of .97. However, to determine the dimensions of the questionnaire, the factor structure was examined using Principal Component Analysis (PCA) with Varimax

rotation. Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy of .945 was reported and Bartlett's Test of Sphericity $\chi^2 = 3471.54$, $p < .05$ confirmed that variables are sufficiently correlated. Extraction yielded two components with corresponding eigenvalues of 12.9 and 1.6 (respectively) > 1 . (Component 1 = 64.9%; Component 2 = 8.1%) which together accounted for 73.0% of total variance. Communalities ranged mostly above 0.6, demonstrating that the extracted factors accounted well for the variance in individual items. The two extracted factors showed internal consistency values of .97 and .96, respectively. The instrument was administered to the participants online via Google form link which was sent to emails and WhatsApp groups of education officers. The participants were informed about how their responses would not be judged as either right or wrong and that they had the option not to participate if they so wished. Additionally, participants were made aware that their involvement was voluntary and unrelated to their academic work. Each questionnaire item was rated on a 4-point Likert scale, with response options ranging from 1 (High Anxiety) to 4 (No Anxiety). The instrument also contained a demographic section requesting participants' age, gender, years of service, and place of work. Participants were assured that all information provided would be handled with strict confidentiality. The collected data were analyzed using descriptive statistics, including crosstabulation, means and standard deviations scores. Inferential statistics ANOVA was also employed to test the formulated hypotheses at a 0.05 level of significance.

RESULTS AND DISCUSSION

Research Question One: What are the general levels of computer anxiety among education officers?

Table 1. General levels of computer anxiety among education officers..

Years of service	No Anxiety	Anxiety	Total
< or =10 years	23 (79.3%)	6 (20.7%)	29 (20.3%)
11–15 years	29 (78.4%)	8 (21.6%)	37 (25.9%)
16–20 years	26 (86.7%)	4 (13.3%)	30 (21.0%)
> 20 years	42 (89.4%)	5 (10.6%)	47 (32.9%)
Total	120 (83.9%)	23 (16.1%)	143 (100%)

Note. Values in parentheses are row percentages.

As shown in Table 1, a crosstabulation was conducted to examine the relationship between years of service and anxiety category (no anxiety and anxiety). Across all years of service groups (N = 143), majority of the respondents 83.9% (N = 120) reported no anxiety while 16.1% (N = 23) reported anxiety. Notably, the proportion of the respondents experiencing anxiety decreased as years of service increased from 20.7% (N = 6) in the less or equal to 10years group to 10.6% (N =

5) in the greater than 20 years group, and also it was observed that the highest percentage of anxiety was recorded in 11 – 15 years. However, within the no anxiety category, the largest percentage (35.0%) had more than 20 years of service, while the smallest (19.2%) had less or equal to 10years. These findings suggest that greater work experience may be associated with lower anxiety levels.

Table 2. Analysis of TWO-WAY ANOVA of computer anxiety among education officers..

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	1374.869 ^a	7	196.410	.712	.662	.036
Gender	693.881	1	693.881	2.515	.115	.018
Years of service	377.198	3	125.733	.456	.714	.010
Gender1 * years of service	108.005	3	36.002	.130	.942	.003
Error	37251.019	135	275.933			
Total	618226.000	143				
Corrected Total	38625.888	142				

a. R Squared = .036 (Adjusted R Squared = -.014)

Table 3. Mean and standard deviation scores of computer anxiety among education officers by years of service.

Years of Service	N	Mean	SD
< or =10 years	29	62.55	17.01
11–15 years	37	61.95	17.32
16–20 years	30	63.00	16.96
> 20 years	47	66.13	15.41
Total	143	63.66	16.49

H₀1: There is no significant main effect of years of service on computer anxiety among education officers.

Table 3 presents the mean and standard deviation computer anxiety scores among education officers across different years of service categories. The mean scores were as follows: less than or equal to 10years (N = 29, M = 62.55), 11 – 15 years (N = 37, M = 61.95), 16 – 20 years (N = 30, M = 63.00), greater than 20 years (N = 47, M = 66.13). While it was observed that the mean scores varied slightly across the 4 categories of years of service, the lowest mean score was recorded in the group less than or equal

to 10 years while the group with years of service greater than 20years had the highest mean score. However, these differences were small. The two-way ANOVA results presented in Table 2 revealed no statistically significant main effect of years of experience ($F_{(3,135)} = .456$, $P = .714$, $\eta_p^2 = .010$), $p < .05$. The partial eta squared indicates that years of service accounted for only 1% of the variance in computer anxiety scores. Accordingly, the null hypothesis stating that there is no significant main effect of years of service on computer anxiety among education officers is retained.

Table 4. Mean and standard deviation scores of computer anxiety among education officers by years of experience and gender

Years of Service	Gender	N	Mean	SD
< or =10 years	Male	11	58.36	16.82
	Female	18	65.11	17.08
11–15 years	Male	21	60.24	19.05
	Female	16	64.19	15.05
16–20 years	Male	8	61.63	21.52
	Female	22	63.50	15.55
> 20 years	Male	20	62.50	17.50
	Female	27	68.81	13.38

H₀2: There is no significant main effect of gender on computer anxiety among education officers.

Presented in Table 4 are the mean and standard deviation scores of computer anxiety among male and female education officers. Across the 4 years categories female participants

reported higher mean anxiety scores than the males. Notably, the highest mean score was recorded among the females with more than 20 years of service ($N = 27$, $M = 68.81$) while the lowest mean computer anxiety score was recorded among males with less than or equal to 10 years of service ($N = 11$, $M = 58.36$). However, the Two-Way ANOVA results shown in Table 2 indicated that the main effect of gender was not statistically significant, ($F_{(1,135)} = 2.515$, $p = .115$, $\eta_p^2 = .018$). This suggests that gender explained only 1.8% of the variance in computer anxiety scores. Therefore, we do not reject the null hypothesis which states that there is no significant main effect of gender on computer anxiety among education officers.

H₀₃: There is no significant interaction effect between gender and years of service on computer anxiety among education officers.

As shown in Table 2 the interaction between gender and years of service was found not to be statistically significant ($F_{(3,135)} = 3.130$, $p = .942$, $\eta_p^2 = .003$). This means the pattern of differences in computer anxiety across years of service was similar for both male and female officers, with the interaction accounting for less than 1% of the variance. Therefore, the hypothesis which states that there is no significant interaction effect between gender and years of service on computer anxiety among education officers is retained.

DISCUSSION

The present study examined the influence of years of service and gender on computer anxiety among education officers in South-West, Nigeria, and also determined whether an interaction effect existed between the two demographic factors. Result presented in Table 1 indicated that majority of education officers 83.9% reported no anxiety towards computer use while a smaller proportion 16.1% still experience some level of anxiety. This suggests that most education officers show a positive attitude toward the use of digital technologies, likely reflecting the growing computerization of the Nigerian education sector, and also supporting prior studies highlighting a generally positive orientation toward digital technologies among educators (Ikwuka et al.,

2024; Hamad et al., 2023). From the perspective of the Technology Acceptance Model (TAM; Davis, 1989), computer anxiety functions as a barrier to both perceived ease of use (PEOU) and perceived usefulness (PU). The finding that most education officers reported no anxiety suggests that these officers likely view technology as both manageable and beneficial, which aligns with TAM's assertion that reduced anxiety enhances adoption. However, the persistence of anxiety in a minority group indicates that barriers to PEOU and PU remain for some individuals, underscoring the need for continuous digital literacy initiatives.

In relation to years of service, descriptive results in Table 3 revealed a slight variation in mean anxiety scores where computer anxiety of education officers decreased with increasing years of experience. Table 1 also reported the same pattern from 20.7% among those with less than or equal to 10 years, to 10.6% among those with more than 20 years of service. This trend partially aligns with the notion that familiarity with workplace technologies, exposure and experience accumulated due to longer service could enhance perceived ease of use and self-efficacy, thereby reducing anxiety as postulated by the and Social Cognitive Theory (Bandura, 1986). Although the descriptive pattern is consistent with previous research indicating that increase in computer experience is associated with self-efficacy and lower anxiety (Doyle et al., 2006), the differences across years of service in this present study were not statistically significant with years of service accounting for 1% of the variance in computer anxiety scores. The Two-Way ANOVA result presented in Table 2 implies that computer anxiety among education officers is not influenced by years of service suggesting that other unmeasured factors could be more substantial determinants of computer anxiety. However, this finding corroborates studies (Rahimi & Yadollahi, 2011; Nwagwu & Adebayo, 2016) that found no relationship between teaching experience, years of exposure and computer anxiety. The absence of significance in the present study can be due to the intensified efforts of the Nigeria government to build a tech-savvy system and also digitalize education through improved access to ICT infrastructure, nationwide skill development

initiatives, AI integration and supportive policy framework. These reforms may have reduced disparities among newer and more experienced officers ensuring that all service categories receive relatively equal opportunities to technology exposure and training. In Social Cognitive Theory terms, equal access to technological training may have reduced the variation in self-efficacy that would otherwise emerge from differences in professional experience.

Analysis in Table 2 revealed no statistically significant main effect of gender on computer anxiety. While female teachers reported slightly higher mean levels of computer anxiety compared to males, the differences were not significant. This indicates that, within this context, gender was not a strong determinant of computer anxiety, explaining only 1.8% of the variance. Finding aligns consistently with studies suggesting gender differences in computer anxiety are diminishing (Onah et al., 2023; Teo, 2007; Agbatogun, 2010). However, it contrasts earlier studies (Chua et al. 1999; A. O. Awofala et al., 2019; Arican, 2021) that reported gender differences in computer anxiety, highlighting higher anxiety among females and in some other context, higher anxiety among males. The narrowing gender gap in this study could be due to professional development initiatives that have provided both male and female officers with similar opportunities to develop digital competence. It may also indicate changing cultural narratives in Nigeria, where technology use is becoming increasingly gender-neutral in the public sector. Furthermore, result in Table 2 revealed no significant interaction effect between years of service and gender on computer anxiety among education officers accounting for 1% of the variance. This implies that years of service influences anxiety in about the same way for both male and female officers. In other words, years of service did not differentially influence computer anxiety depending on gender. The findings of this study have several implications for policy and practice in Nigeria's education sector. Since neither gender nor years of service significantly influenced computer anxiety, interventions should be inclusive and designed to benefit all education officers rather than targeting specific demographic groups. Nevertheless, the fact that a

minority of officers still experience anxiety calls for tailored strategies such as digital literacy workshops and also confidence-building programs to support those who remain vulnerable. The slight trend of lower anxiety among more experienced officers also suggests that peer mentoring can serve as a valuable approach, with digitally confident officers supporting colleagues who are less comfortable with technology. Importantly, the results point to the growing influence of organizational and contextual factors over demographic characteristics.

This highlights the need for consistent access to ICT infrastructure, reliable connectivity, and workplace cultures that normalize and encourage the use of digital tools. The absence of strong demographic effects may also be interpreted as evidence that national initiatives such as the Digital Literacy for All policy and ongoing collaborations with technology providers are beginning to reduce inequalities in access and competence. Sustaining and expanding such programs will be vital to ensuring equity in digital readiness across the education workforce. Ultimately, computer anxiety should not be treated as an isolated challenge but as part of the broader agenda of professional development and digital transformation. Embedding ICT training and digital readiness into career development frameworks will help ensure that education officers are not only confident but also prepared to drive Nigeria's digital education reforms forward.

CONCLUSION

This study explored whether gender and years of service influence computer anxiety among education officers in Ogun State. The results revealed no significant effects, underscoring that these demographic variables account for only a minimal share of variance in anxiety levels. Rather than indicating a lack of contribution, this outcome suggests that computer anxiety among education officers is no longer primarily determined by static personal characteristics. Instead, broader contextual factors such as organizational culture, access to ICT infrastructure, and national digital literacy initiatives may play a more decisive role. From a

policy perspective, the findings highlight that training and professional development should be inclusive, not disproportionately targeted at specific demographic groups. The evidence of diminishing gender and tenure effects is encouraging, as it reflects the potential equalizing influence of nationwide reforms such as the “Digital Literacy for All” initiative and government partnerships with technology providers. However, the persistence of anxiety among a minority of officers calls for continued investment in professional support systems, digital mentoring, and interventions aimed at boosting self-efficacy across the workforce.

Future research should expand the scope by incorporating additional predictors such as computer self-efficacy, prior ICT exposure, and organizational readiness, while employing qualitative approaches to capture officers’ lived experiences. By doing so, scholars can more accurately identify the contextual and psychological levers that shape digital competence in education. Ultimately, the findings suggest that the success of Nigeria’s digital transformation agenda depends less on who the officers are and more on the enabling structures that support their engagement with technology. The study contributes to knowledge by providing empirical evidence within the Nigerian context demonstrating that demographic factors such as gender and years of service are becoming less relevant in explaining computer anxiety among education professionals.

This study is not without limitations. The data were collected from education officers in a single Nigerian state, which restricts the generalizability of the findings to the wider national context. In addition, reliance on self-reported survey data may have introduced response biases, particularly social desirability effects. The study also focused only on gender and years of service, excluding other potentially influential variables such as frequency of ICT use, access to digital infrastructure, or organizational support. Future research should address these limitations by expanding the sample across multiple states, incorporating mixed-method approaches, and testing a broader range of predictors to provide a more comprehensive understanding of the factors

influencing computer anxiety among education officers.

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