

DETERMINANTS OF ARTIFICIAL INTELLIGENCE ANXIETY : IMPACT OF SOME PSYCHOLOGICAL AND ORGANISATIONAL CHARACTERISTICS AMONG STAFF OF FEDERAL POLYTECHNIC NASARAWA, NIGERIA

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ABSTRACT

Over the years, both psychological and organisational factors has assumed great importance in determining attitude towards new technology. This study investigates the impact of psychological and organisational factors as predictors of artificial intelligence (AI) anxiety among staff of Federal Polytechnic Nasarawa. The study adopted cross-sectional survey design. Eighty-four (84) workers were sample randomly from among the workers in the tertiary institution. Four standardized instruments were used to measure both the independent and dependent variables. Three hypotheses were formulated and tested using multiple regression analysis. Result showed that 15.5% of the participants showed high AI anxiety. The researchers found that resilience, resistance to change and organizational ethical climate jointly predicted artificial intelligence anxiety. Result, further indicates a significant independent prediction of predictors variables on criterion variable, while ethical climate did not predict on artificial intelligence anxiety among staff. Based these results, the study recommend that human resources managers should consider enrollment of workers that shows high resilience and low resistance to change during recruitment, Moreover, management should organize interventions to improve resilience and encourage positive attitude towards change should be carried out before introducing AI to the organisation

INTRODUCTION

The diverse industrial changes resulting from scientific advancement mean that nowadays industries face increasing competition to accept and integrate new technology to meet organizational goals. Current circumstances require a dynamic approach, and this implies that a firm's decisions on adopting modern technology like artificial intelligence plays an important role in its relevance in the 21st century. Artificial intelligence, (AI) which is defined as a s a computer or a robot with the ability to perform task that require human intelligence (Başer et al ,2021) is one of such modern technology whose recent advancement has stunned even technology expert. AI is incorporated in computers, smartphones, cars, and in various machines and robots in factories and is utilized in knowledge management, process automation, conversational agents and assistants, predictive analytics, fraud and threat detection, resource allocation, and supporting expert tasks (Neumann et al,2022)

In view of this. It is important to explore the likely barriers to AI adoption in organization. One barrier that might affect AI adoption is the concern about transformative effect that AI will have on the workforce. For instance, there are concerns that automation technologies such as AI will have a particularly disruptive effect on the workforce. This fear is evident in recent research which shows that 25%of adults feel anxious about AI. (Ayrshare, 2023). One common fear with regard to AI is that it will destroy jobs/job opportunities and privacy (Sindermann · et al,2022] and may get out of control and disrupt society (Future of Life Institute, 2015) . These unpleasant attitudes towards artificial intelligence technological enhancement, and bewilderment about autonomy, is called AI anxiety.

In other words, "'AI anxiety (AIA)" refers to a state of panic and tension caused by not knowing the direction of AI development. (Johnson & Verdicchio, 2017). According to the authors, the phrase "AI anxiety" includes to feelings of fear or agitation about artificial intelligence being out-

of-control. These fears may result from inaccurate perceptions of artificial intelligence technological development, confusion about autonomy, and sociotechnical blindness (Johnson & Verdicchio, 2017). Meanwhile, Wang and Wang, (2019) defines AIA as an overall, affective response of anxiety or fear that inhibits an individual from interacting with artificial intelligence.

Employees who have stronger negative feelings toward technology use report decreased productivity caused by decreased employee happiness, decreased satisfaction, lack of engagement, and potential burnout and fatigue. (Salanova, 2020). In addition, leaders with high AI anxiety may create regulations that might stifle AI adoption and innovation. From this viewpoint, knowing the AI anxiety of industrial workers is very important for the successful adoption of AI technology.

On one hand, resilience which is the process of adapting well in the face of adversity (Hsieh,2020) is considered as a potential predictor of AI anxiety. Resilience is more likely to change over time and varies across domain. That is, one might show resilience in work environment but fail to adapt well in their marital relationship. Workers have been described as an occupational group that experience uncertain, stressful and dynamic environments facing challenges, setbacks, failures or high expectation. (Human capital hub, nd). In the work setting, employee resilience is stable trajectory of healthy functioning experienced by a worker after a highly adverse event such as in the face of adversity, trauma, tragedy, threat or even significant source of stress(Bonanno,2004). By, trajectory, Bonanno (2004), implies a relatively brief period of disequilibrium, but otherwise continued health. Resilient people are dogged people and can thrive and grow through setbacks and difficulties Various studies have proposed that resilience has a protector role aimed at improving and maintaining professional effectiveness (Román et al., 2020). In this way, resilient people do not perceive technological innovation including artificial intelligence demands as threatening, but instead, feel they have high levels of control, are prepared to face challenges, use appropriate coping strategies, and do not give up when their jobs are demanding.

On the other hand, dispositional resistant to change is another variable of this research. Every organization including educational ones has to experience a transition or change in order to survive amidst pressure of the environment they are in. Thus, worker's dispositional resistance to change is defined as a personal negative orientation toward the idea of change (Anggreini, et al 2020).Oreg (2006) came to the further conclusion that resistance is a tridimensional, unfavorable attitude toward change that consists of affective, behavioral, and cognitive elements. However, these dimensions are not mutually exclusive. Fear of the unknown, a lack of knowledge about change, the threat to core competencies and social standing, a lack of trust in the organizational climate, strained relationships, the desire to avoid appearing uninformed, and a resistance to innovation are the causes of resistance to change. (Alanoglu et, al 2021).Resistance to change prevents progress because it can lead to bad behavioral intentions like withdrawal, quitting, or attempts to undermine the change being made. Resistance to change prevents change from happening. (Vrabcova, 2015)

Asides resilience and resistance to change, organizational ethical climate is also consider in this current study to impact, AIA, organizational ethical climate is often important because as Kaspersky(2018) reported that ethical issues surrounding technology usage such as, data breaches cyber-attacks or misuse of employee data can create phobia and stress in order to counter ethical-related anxiety, employees need assurance that the organization would use the technology in a way that will not interfere with privacy. Thus, Ethical Climate has been described by Olson (1998) as the perceived environment within an organization that promotes ethical

reflection, allows for inquiry, debate, and expression of differing viewpoints, while promoting each individual's values and mutual trust. Olson, (1998). The ethical standard of an organization can determine how well the organization is able to mitigate technological risks and breaches. Furthermore, a lack of ethical guideline and standard can lead to confusion and uncertainty among employees. this influences the level of trust and confidence an employee has in the technology which can affect the level of techno-anxiety.

Statement of the Problem

Africa is witnessing a gradual implementation of Artificial intelligence For instance, . Ghana has deployed an AI-powered chatbot called MamaBot to addresses concerns related to pregnancy, childbirth, and childcare (Balogun, et al, 2023). Nigeria has also implemented an AI-powered surveillance system called SIRA to identify potential disease outbreaks (Chatterjee, and Saxena, 2023). However, a bulk of these AI application are in the health sector.

Previous studies have shown technological innovation can be applied in academia including academic administration (Wang et al., 2018), course attendance and enrollment (Ofelia et al., 2017), along with learning management systems (Barana et al., 2016). Even though previous studies has examined the the negative effects of technology related anxiety on academia. such as fatigue, infects worker relationships, mistake in job execution, trigger anxiety, and initiates deep psychological and physiological changes (Gardner, 2009), studies specifically examining AI anxiety is lacking.

Artificial intelligence is a unique technological innovation that can serve as tutors and mentors guiding students through personalized assistance. Among the artificial intelligence technology making waves in the academic landscape is Chat-GPT. (Generative pretrained transformer. ChatGPT is designed to understand and generate human-like text based on the input it receives. Students can now pose questions and receive prompt feedback through interactive conversation. level of engagement could foster active participation in learning process without lecturers' involvement. This ability of AI to adept and personalize learning experience for each student and tailoring responses to suit specific needs of the learner made some tertiary institution in western countries to employ AI powered teacher in computer science course(Garg, 2023).

One research showed that. 64% of respondents think chatbot, robot and AI can replace teachers in the future (Rajnerowicz (2023). This could mean an end to traditional classroom learning style and create artificial intelligence anxiety. Thus, identifying the level of AI anxiety in academia, is likely to help understand barriers to the adoption of AI technology and foster solutions or coping strategies.

Even though few studies had investigated both organisational and psychological characteristics of the workers on job satisfaction in Nigeria, (Uzoigwe & Kenku 2022), none of the reviewed studies has investigated combined prediction of psychological and organisational factors on artificial intelligence anxiety in academic organizations in Nigeria. There is therefore the need to further investigate the relevance of these psychological and organisational factors to workers' techno-anxiety in order to bridge the gap created in research endeavor in Nigeria. It is against this background, the present study investigated the prediction of some psychological (resistance to change and resilience) and organisational factors (organizational ethical climate) on artificial intelligence anxiety among staff of Federal Polytechnic Nasarawa in State, Nigeria.

The following research questions were raised for the study

1. What is the prevalence of artificial intelligence anxiety among staff of Federal Polytechnic Nasarawa,
2. What is the significant independent and joint prediction of both psychological and organisational characteristics (resilience, resistance to change and organizational ethical climate) on artificial intelligence anxiety among staff of Federal Polytechnic Nasarawa,
3. What is the influence of demographic variables on artificial intelligence anxiety among staff of Federal Polytechnic Nasarawa,

Hypotheses for the Study

The following alternative hypotheses were generated and tested for the purpose of the study:

1. There will be a high prevalence of artificial intelligence anxiety among staff of Federal Polytechnic Nasarawa,
2. There will be significant joint prediction of both psychological and organisational characteristics (resilience, resistance to change and organizational ethical climate) on artificial intelligence anxiety among staff of Federal Polytechnic Nasarawa.
3. There will be significant demographic difference on What is the prevalence of artificial intelligence anxiety among staff of Federal Polytechnic Nasarawa,

Literature review

Resilience

Resilience in current literature has several different definitions. Resilience can be broadly defined as the dynamic process encompassing managing, adapting, and negotiating adversity (Goodman et al, (2020) Resilience is defined slightly differently as an individual's trait-like ability to demonstrate stable level of functioning despite exposure to adverse life events (Poole et al,2017). These authors' definitions involve adversity (i.e., potential negative effects of stressors) and positive adaptation (behavior promoting personal assets, coping processes, and symptoms related to internal wellbeing) however, this study will define resilience as the ability to 'bounce back' from adversity (Colpitts & Gahagan, 2016)

Resilience And Artificial Intelligence Anxiety

There are individuals who are skeptical to use the latest technologies because of the technological failure faced by them earlier (Magotra et al,2016). This previous technological failure could create anxiety or stress whenever a new technology is introduced. In this way, resilient people do not perceive technological demands as threatening, but are better able to deal with technological stressors and overcome challenges (Okolo D, 2018) Thus, they may tend to bounce-back from any kind of technological set back. As a result, such individuals tend to try new and improved technologies even if they have faced some kind of technology failure earlier

Resistance To Change

Resistance to change is defined as a personal negative orientation toward the idea of change. (Anggreini, et al,2022) . In other words, It is defined as an individual's tendency to resist or avoid making changes, to devalue change generally, and to find change aversive across diverse contexts and types of change (Oreg, 2006). Employees' resistance to change is the habit of vehemently refusing, denying, and opposing the implementation of new ideas, according to Folger

and his colleagues. (1999, as cited by Al-ma'aitah ,2022). In line with De Jager (2001), Resistance to change from members of the organization appear in different forms, some are overt and clearly visible, but some are implied where members of the organization slowly lose their work motivation, the increasing absence from work to increased errors in work. Resistance to change isn't always negative as reveal the downside of change so as to improve the process of change itself. Therefore, resistance arising from concerns about change can be a useful control parameter in the change process by providing valuable feedback to organizations (Anggreini, et al,2022)

Resistance to change and AI anxiety

Typically, the implementation of new technological applications like artificial intelligence necessitates adjustments to the way work is performed. Artificial intelligence propels such need for change and when the need for change is imposed, people have to give up their old habits and routines and face challenges. New situations imply a different way of thinking or acting, and people may perceive them as unstructured, unfamiliar, and threatening. Some employees naturally resist such changes and seek to maintain the status quo despite the benefits of great technology design (Cooper, 2018 as cited by Al-ma'aitah, 2022). Workers are resistant to change since it requires them to learn something new. In many cases, there are fear of the unknown future as a result of AI and about the ability to adapt to it. As the shift involves fresh technology, employees will fear that their skills will become obsolete (Al-ma'aitah 2022). Meanwhile, Elgohary, and Abdelaziz,(2020) examined the role of employees' resistance to change in adopting e-government in Egypt. The findings indicated that employees' fears of losing control and increased workload significantly impact the functioning of e-government in Egypt . in a related study, Nov & Schecter (2012) studied Dispositional resistance to change was negatively related to perceived ease of use of mobile banking.

Organization ethical climate

Victor and Cullen (1988) ethical climate as shared perceptions of what is an ethically-correct behavior and how issues of deviations from those expected behaviors are handled . The ethical climate is a type of work environment that reflects the guidelines and regulations and their connection with ethical outcomes (Martin & Cullen, 2006). Ethical Climate has been described by Olson (2004 as cited by Fogel, 2005) as the perceived environment within an organization that promotes ethical reflection, allows for inquiry, debate, and expression of differing viewpoints, while promoting each individual's values and mutual trust. The ethical climate determines the extent to which decisions correspond to ethical criteria and how the employees approach ethical questions (Ozturk,2003).

Organization ethical climate and AI anxiety

The relationship between ethical climate and AI anxiety is scarce in the literature. However, research in this field seems to be promising. Malik et al,(2021) establish prominent adverse impacts of ethical concern namely, information security, data privacy, from digital transformations and job risk and insecurity brewing in the employee psyche as a result of the adoption of AI. The majority of the findings were centered on problem areas and issues encountered by employees, integration of organizational functions with technology results in a potential risk of data leaks and security breaches (Malik et al, 2021). This implies that implementing clear ethical guideline and policies around the responsible use of AI demonstrates an organization commitment to ethics mitigating fears of potential misuse of the technology. Transparency and consistency are important because people who are impacted by the decisions made by AI have reported needing to know how the algorithms work before, they can trust the decisions they make

(Robert et al.,2020). Knowing that the organizational ethical climate addresses this concern can help ease the worries and promote innovative behavior. This was the result of a study by Tomak (2020), who discovered a strong and favorable association between healthcare professionals' perceptions of the ethical climate and their levels of innovative working behavior. Among the ethical climate perception sub-dimensions, benevolence and independence dimensions were found to be positively connected to innovative work behavior among the ethical climate perception sub-dimensions. However, Juijn(2023) discovered that the " organization that encourages open communication channels on any ethical issue fosters a supporting environment where employees feel comfortable expressing any question or anxiety that may be about technology impact on their wellbeing.

METHODOLOGY

Research Design

In this study, the researcher examined the prediction of resilience, resistance to change and organizational ethical climate on artificial intelligence anxiety among staff of Federal Polytechnic Nasarawa, Nigeria. Therefore, the study is a quantitative in nature. Therefore, the study adopted cross-sectional design using ex post facto method in data collection. The study independent variables are of resilience, resistance to change and organizational ethical climate. While, artificial intelligence anxiety is the study dependent variable.

Population and Sampling technique

The target population of the research consists of employees of Federal Polytechnic Nasarawa, located in, Nigeria. Eighty-four (84) employees were drawn from the population of employees in the tertiary institution haphazardly. The participants included all staff; both teaching and non teaching staff. Visitors and students were excluded from the study. The sampling design used was convenient sampling method. convenience sampling has been noticed as one of the most popular and frequently used sampling techniques applied to the studies of organisations and consumers (Bryman and Bell, 2007). The sample size of the study was determined using the following equation. Yemane's formular: $n = N / 1 + Ne^2$

where:

N = Sample Size

N = Population Size; and

E = level of significance (Yemane)

There are over 1000 workers in federal polytechnic Nasarawa.

From the target sample, 400 questionnaires were distributed but 88 workers responded and returned the questionnaire. From all the collected questionnaires there were 4 questionnaires which had to be considered as incomplete questionnaires. After eliminating incomplete questionnaires, 84 samples were obtained. In terms of demographic characteristics, 47 (55.9%) males and 37 (44%) females; majority of the participants' age ranged between 25 and 44 years, (77.3%). The duration of service of the participants ranged from 1 to 35 years with a mean of 14.5 years and the standard deviation was 4.02. Also, 66 (78.6%) of the respondents had attained tertiary education while 18 (22.4%) of them had not.

Data collection procedure

The researchers administered the measuring scales, which guarantee confidentiality and anonymity of the respondents, personally. However, it took the researchers a period of one weeks

to administer and retrieve the distributed measuring scales due to geographical location. Meanwhile, only 84 completely filled copies of the questionnaire were utilized for the purpose of the study

Instruments

The second section assessed artificial intelligence anxiety using Fear of autonomous robots and artificial intelligence scale (FARAI). Participants were asked ten questions in the form of a 5-point Likert scale ranging from Strongly disagree (1) to Strongly agree (5). One of the questions was: "I am afraid that all jobs performed by humans will be replaced by autonomous robots or artificial intelligence. FARAI score was calculated by taking the sum of answers to the ten questions giving a value between 10 and 50, where a higher score indicates a higher level of artificial intelligence anxiety. The computed scores were categorized into three levels of perceived anxiety: low (10–23), moderate (24–36) and high (37–50). Other scholars have used similar methods in categorizing scores (Olajubu et al, 2021). FARAI has strong internal consistency reliability according to the developers (Cronbach alpha =0.85). 0.79 reliability coefficient of was reported in this study

The Resistance to Change Scale (RTC-21; Oreg, 2003) was made to determine how adaptable a person is to change. The 11- item scale Which showed one factor structure was adapted for this study. They were formatted as 5-point Likert scales ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). *Cronbach's α value is .83*. Evidence of validity was proven valid by Boada-et al, 2018) . Cronbach's Alpha of 0.78 was reported in this study for this scale.

The Brief Resilience Scale (BRS). Smith and his colleagues (2008) designed the instrument. to have a specific focus on bouncing back from stress. Items 2, 4, and 6 are reverse scored. The responses to the items are (1) Strongly disagree, (2) disagree, (3) Neutral, (4) Agree, (5) Strongly Agree. Cronbach's alpha of .72 was reported in Nigeria (Ugwu, et al,2019)

The Schwepker (2001) seven-item Ethical Climate (EC) Scale, which was initially created by Qualls & Puto (1989), was used for evaluation. A five-point Likert scale with responses ranging from (1) strongly disagree to (5) strongly agree was used. The instrument was created to assess how people perceive the procedures, approaches, standards, and principles that affect ethical decisions in organizations. In Nigeria, a Cronbach alpha of 0.92 was recorded in Cyprus (Olayiwola, 2016). For the current study, 0.851 Cronbach's alpha was obtained.

Statistical analysis

In order to analyze the data, SPSS version 20 was used. The results were summarized with frequencies and percentages for categorical variables, and means with standard deviations for quantitative variables. Using inferential statistics, hypothesis 2 was analysed using regression while hypothesis 3 was analysed using ANOVA..

RESULT

Table 1 contains the descriptive statistics and inter-correlations among the study variables. As shown in the table, artificial intelligence anxiety correlated negatively with resilience ($r = -0.294$; $P < 0.05$) and positively with resistance to change ($r = 0.295$, $P < 0.05$). A positive insignificant relationship was found between ethical climate and artificial intelligence anxiety ($r=.129$. $p> 0.05$).

Table 1: Descriptive Statistic and Correlations among the Variables

Variable	N	Mean	S.D	Resilience	Resistance To Change	Ethical Climate	Artificial Intelligence Anxiety
resilience	84	21.01	3.56	1			
Resistance to change	84	31.2	7.25	-.204	1		
Ethical climate	84	25.62	5.72	-.140	.220	1	
Artificial intelligence anxiety	84	28.70	7.34	-.294*	.295*	.129	1

Note: = $P < 0.05$ (2 – tailed)

Hypothesis 1: Which posited that there will be a high prevalence of artificial intelligence anxiety among staff of Federal Polytechnic Nasarawa

Table 2
Artificial Intelligence

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid high	13	15.5	15.5	15.5
low	24	28.6	28.6	44.0
Moderate	47	56.0	56.0	100.0
Total	84	100.0	100.0	

(Applying a cut-off point of 10-23.33 on the AI Anxiety Rating Scale, for low AI anxiety, 23.34-36.66 for moderate anxiety and > 33.67 or high anxiety)

About thirteen persons (15.5%) had showed high AI anxiety. 47 persons (56%) showed moderate level of AI anxiety while 24(28.6%) had low level of anxiety.

Hypothesis 2: Which posited that There will be significant joint and independent prediction of both psychological and organisational characteristics (resilience, resistance to change and organizational ethical climate) on artificial intelligence anxiety among staff of Federal Polytechnic Nasarawa.

Table 3: Summary Table of Multiple Regression Analysis showing joint prediction of both psychological and organisational characteristics (resilience, resistance to change and organizational ethical climate on artificial intelligence anxiety among staff of Federal Polytechnic Nasarawa.

Source of Variance	Sum of Squares	df	Mean square	F	Sig
Regression	650.474	3	216.825	4.555	0.005
Residual	3808.193	80	47.602		
Total	4458.667	83			

Significant @ 0.05

R = .382

R-Square = .146

Adjusted R-square = .114

Standard Error = 6.899

Table 3 shows that there is positive relationship between the predictor variables (resilience, resistance to change and organizational ethical climate on artificial intelligence anxiety) and criterion variable (artificial intelligence anxiety). The result shows that resilience, resistance to change and organizational ethical climate made 14.6% prediction of AI anxiety. The standard

error of 6.899 indicates that on the average, workers deviated from true value by 6.899 limits of that measure. The analysis of variance for the multiple regression data yielded an F-ratio of 4.555 which was significant at $P < 0.5$. The implication of this result is that the combination of the three predictor variables resilience, resistance to change and organizational ethical climate significantly predicted AI anxiety of workers.

Table 4: Summary table of Multiple Regression Analysis showing independent prediction of both psychological and organisational characteristics (resilience, resistance to change and organizational ethical climate on artificial intelligence anxiety among staff of Federal Polytechnic Nasarawa.

Predictor Variables	Unstandardized Coefficient		Standard Coefficient	t	P
	α	SED	β		
Constant	30.108	7.143		4.215	.000
Resilience	-.510	.226	-.239	-2.257	.027
Resistance to change	.235	.107	.237	2.198	.031
Ethical climate	.058	.140	.044	.412	.681

a. Dependent Variable: artificial intelligence anxiety

Table 4 above shows that staff resilience and resistance to change had significant contributions to the prediction of AI anxiety. Only resilience had negative effect ($R^2 = -0.239$, $t = -2.257$; $P < 0.05$). Resistance to change also had a significant effect ($R^2 = 0.237$, $t = 2.198$; $P < 0.05$). Meanwhile, Ethical climate did not significantly predict artificial intelligence anxiety ($R^2 = 0.044$, $t = 0.412$; $P > 0.05$).

Hypothesis 3 : There will be significant demographic difference on artificial intelligence anxiety among staff of Federal Polytechnic Nasarawa

Table 5

Variable	Types	N	Mean	S.D	F	P	Significance
Gender	male	47	26.4894	6.78192	7.264	.009	Significant
	female	37	30.6757	7.4164			
Age	25-34	21	28.2875	7.39516	2.56	.061	Insignificant
	35-44	44	26.9318	6.1584			
	45-54	12	27.5833	7.87930			
	>55	7	27.2857	6.10230			
education	SSCE	18	30.6667	7.14555	.859	.466	Insignificant
	First degree	40	28.0000	8.00320			
	Msc/M.A	23	27.3913	5.97525			
	P.hD	3	26.0000	9.16515			
Designation	Academic Staff	49	28.5714	6.68643	.123	.727	Insignificant
	Non Academic Staff	35	28.0000	8.23550			

In the context of demographic characteristics, the mean of AI anxiety scores was higher across gender, ($p = 0.009$). female ($M = 30.6757$, $S.D = 7.4164$) showed higher anxiety than male ($M = 26.4894$, $S.D = 6.78192$) On the contrary, there was no significant difference in artificial intelligence anxiety across age, education and designation .

DISCUSSION

Previous studies have indicated that personality traits predict attitudes toward new technology and autonomous robots and researchers have called for more research on the dispositional basis of AI anxiety. This study responds to this call and adds to the growing body of literature on AI

anxiety. Even though it was not stated in the objectives, 15.5 percent showed high level of AI anxiety. This is in total agreement with a study that found that 13.6% of Medical Doctors believe that AI abilities will surpass clinical abilities of clinical anaestheologist in future. (Ejikem et al (2022)

Our findings indicate that ethical climate resilience and resistant to change jointly contribute significant incremental variance to explaining individuals' anxiety toward AI. This is in agreement with previous finding that showed that personality traits and organizational traits influence workers' performance, effectiveness and efficiency in the management of organizational resources across culture in isolation(Uzoigwe & Kenku,2022).

Individuals who are highly resistant to change but also highly resilient may experience anxiety when faced with the introduction to AI yet have the ability to adept and overcome these challenges. This finding is consistent with Park & Woo (2022) who found that "a large part of the worker's artificial anxiety can be attributed to personality traits". individually, resistance to change played a crucial role in shaping an individual anxiety level regarding AI. Individuals who tend to resist changes in their environment are also more likely to perceive AI as a threat rather than an opportunity for growth. This perception can lead to higher level of anxiety towards AI system. Result also in agreement with those of Samsor, (2021) who said that employees' aversion to change is a key impediment to implementing innovative applications. The finding also agrees with Al-ma'aitah (2022) who noted that personnel with greater resistance to change are more averse to commencing technological growth and prefer to stick to well-established practices, notwithstanding the benefits of change

Additionally, result shows a significant relationship between resilience and AI anxiety. individual with high level of resilience tend to exhibit lower level of AI anxiety, the probable reason could be that resilient individuals characterized by their ability to adept positively and navigate changes effectively were less prone to experiencing anxiety specifically to AI as they view AI as an opportunity for growth.

. Another reason could be due to the fact that resilient individuals possess the ability to adapt and bounce back from challenges which can help them navigate the uncertainties that come from artificial intelligence anxiety. Thus, this is in line with many previous findings (. Olashore1, et al, 2021) who reported an inverse correlation between resilience and anxiety in the face of covid-19 pandemic

On the contrary, organizational ethical climate did not significantly influence Artificial anxiety in our sample. This was different from the finding by (Tomak,2020) They discovered a statistically significant and favorable correlation between healthcare employees' levels of innovative working behavior and their sense of the ethical climate. One probable reason for this could be that, individuals within the organization may not fully understand the ethical concerns surrounding artificial intelligence because its full utilisation is still distant in Nigeria and developing countries. without a clear understanding of its potential ethical risk, individuals may not anticipate feeling anxious about it.

Demographic analysis showed that there was significant gender difference on AI anxiety with female showing more anxiety. This could be because female tend to rely more on intuitive reasoning and less on statistical data when evaluating potential risks which could contribute to heightened anxiety. This agrees with several studies that indicate that males have more positive attitudes toward AI technologies than females (Schepman & Rodway,2022; Sindermann et al., 2022 ; Zhang & Dafoe, 2019)

Age did not significantly influence AI anxiety. Even though elderly staff seems to experience less anxiety, the difference was not significant at 0.05. Our data collaborates with similar findings that revealed that age did not predict attitudes toward AI, replicating some previous research, e.g., Chocarro et al. (2021). The difference in mean scores on the level of AI anxiety between academic and non academic staff was marginal; hence the result is not statistically significant. Even though highly educated persons recorded less AI anxiety, the difference was insignificant at $p < 0.05$. this was similar to findings from previous research that showed that education did not predict AI anxiety (Soentjens 2021)

Research Contribution

This study has significantly contributed to the knowledge and literature in Nigeria by focusing more on artificial intelligence as a more novel technology which, so far, has not been well evaluated in the Nigerian context. From a statistical point of view, the empirical results highly support the adequacy of the social cognitive theory, to predict the employees' feeling towards AI. Hence, aspects relating to these factors must be the focus of attention of any tertiary organization in their endeavour to prevent fears regarding the use of AI.

Limitations and Future Directions

Despite the contributions that our study brings to the literature, we should also note some limitations and directions for future research. The first limitation of our study is the relatively homogeneous nature and composition of the participants. We encourage future research that involves more diversity in the demographic and cultural characteristics of individuals to examine why such differences occur. Though this study is limited to academic environment, hence the study could be replicated on other professions

Furthermore, we should note that the effect sizes about the sample is relatively small. A handful of the population declined participating in the study for having insufficient knowledge about artificial intelligence. Thus findings of this study should be interpreted with caution. The weak relationship may be due in part to the relatively small number of participants in this study. Based on the findings of this study, future research could consider larger sample.

AI education may be beneficial and opportunities for feedback should be made to employees before management invest in AI system. Though the use of AI technology increases job productivity, yet it has been observed that its negative effects have high risk. Therefore, staff should be educated on the various risk in using technology.

AI technology could be introduced to staff. Such honest and open communication could help relieve anxiety. The knowledge and experience gained may lead to more positive attitudes toward AI, and anxieties may be replaced by a greater understanding of AI. Because AI anxieties may form inhibitory factors for potential users, policymakers should reassure the public that these technologies are controlled for their safety. This may lead to more positive public opinions of AI and may reduce phobia surrounding AI usage. To increase general knowledge in wider society, Third, government support is needed. Support for researchers investigating factors behind the potential reluctance to accept AI would also be beneficial. Governments also need to safeguard against potential violations of rights by AI-powered applications and their potential predatory use in society.

Conclusion

This study revealed that there are factors that affect AI anxiety in tertiary organization such as resilience, resistance to change and gender. Finally the study identify some ways to manage AI anxiety such as educating staff about AI, ensuring privacy and other ethical concerns are dealt with. AI anxiety has negative effects on AI adoption and managing AI anxiety serves as the approach to enable adopting AI technologies in academic institution

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