Full Length Research

Cyberethics compliance and attitude towards plagiarism among postgraduate students in universities in Southwestern Nigeria

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ABSTRACT: Plagiarism poses a significant ethical challenge in higher education, undermining academic integrity and the quality of scholarly contributions. This study investigated cyberethics compliance as a factor influencing postgraduate students' attitudes towards plagiarism in universities in southwestern Nigeria. A correlational survey design was employed, with 346 postgraduate students randomly selected from six universities. Data were collected through a validated questionnaire and analysed using descriptive statistics and Pearson's correlation to test the relationship between variables. Results showed that while students reported high compliance with cyberethics, they also demonstrated a generally negative attitude towards plagiarism, reflecting increasing awareness and rejection of academic dishonesty. However, the analysis found no significant relationship between cyberethics compliance and attitudes towards plagiarism. These findings highlight that factors beyond cyberethics may shape students' perspectives on plagiarism and point to a broader cultural and institutional shift towards valuing originality in academic work. The study contributes to existing scholarship by showing that postgraduate students' rejection of plagiarism is not solely dependent on their level of cyberethics compliance but may be influenced by institutional norms, awareness campaigns, and personal academic values. It recommends that universities strengthen and enforce policies on plagiarism, adopt plagiarism detection tools, and promote mentorship and supervisory guidance to reinforce ethical research practices and foster a culture of academic honesty.

Keywords: Academic attitude, cyberethics, master's students, plagiarism, postgraduate students.

INTRODUCTION

The digital age has transformed higher education, creating unprecedented opportunities for access to information, collaboration, and innovation. Postgraduate students now rely heavily on online platforms for research, communication, and academic productivity. However, this digital integration comes with ethical challenges that can undermine academic integrity and institutional credibility. As universities adopt sophisticated technologies, questions arise about students' adherence to ethical norms in cyberspace and their attitudes toward academic misconduct, particularly plagiarism. Understanding how postgraduate students navigate these digital spaces is crucial for ensuring the responsible and effective use of information resources.

Cyberethics, encompassing the principles of responsible and morally guided use of technology, provides a framework for navigating these challenges (Shivanshu, 2025). It governs behaviours related to accessing, sharing, and producing digital content, emphasising honesty, respect for intellectual property, and responsible engagement with peers and institutions (Baharuddin *et al.*, 2022). For postgraduate students, who are often engaged in complex research and collaborative projects, cyberethics is essential to prevent misconduct, protect privacy, and maintain professional standards. Adherence to these principles directly influences attitudes toward

plagiarism, which remains a pressing concern in academic settings (Adetimirin, 2020; Ebiefung and Adetimirin, 2021).

The rapid adoption of technology has transformed research, publication, and teaching methods in universities (Dunmade et al., 2023). Yet, the speed of technological change has outpaced the understanding of proper online behaviour, exposing students to ethical dilemmas. Cybercrime, including identity theft, software piracy, and privacy violations, has become a real threat to academic environments (Dennis, 2024). Postgraduate students must, therefore, balance the benefits of digital tools with ethical responsibility, ensuring that their conduct upholds academic integrity. The principles of cyberethics; respect for intellectual property, avoidance of plagiarism, responsible use of digital communication, and cybersecurity awareness, provide guidance for navigating these challenges.

In the Nigerian postgraduate context, students are expected to demonstrate responsibility, respect, and engagement within their academic communities. However, pressures to excel academically, limited access to digital resources, and evolving institutional infrastructures may tempt some students toward unethical behaviour. Cyberbullying, cyberstalking, software piracy, and hacking are increasingly reported, and such behaviours not only violate ethical norms but also create environments conducive to plagiarism. Exploring these practices within the Nigerian postgraduate context helps illuminate how systemic and individual factors interact to influence students' attitudes and behaviours in cyberspace.

Cyberbullying and cyberstalking are particularly significant in online academic settings. Digital harassment, intimidation, and persistent monitoring of peers or lecturers compromise trust and create hostile environments. Postgraduate students may engage in these behaviours to gain unfair academic advantage or assert power over peers, demonstrating a disconnect between technological proficiency and ethical awareness (Campbell, 2021; Media Defence, 2024; eSafety Commissioner, 2024). Similarly, software piracy and hacking highlight how access limitations and academic pressures can lead students to bypass security measures, illegally reproduce software, or manipulate digital systems (Sadiku et al., 2018; Hamid et al., 2020). These actions threaten both institutional credibility and students' professional development.

The ethical challenges posed by technology in postgraduate education are further framed by the four issues of the information age: privacy, accessibility, property, and accuracy (PAPA). Respect for privacy protects personal data, accessibility ensures equitable access to information, property emphasises intellectual ownership, and accuracy safeguards the integrity of information use. Together, these principles form the foundation for cyberethics compliance, fostering honesty, accountability, and responsible digital engagement among postgraduate students.

Given the increasing reliance on digital resources in Nigerian universities, neglect of cyberethics may compromise research quality, academic standards, and institutional reputation. Postgraduate students' engagement with cyberspace must therefore balance technological capability with ethical responsibility. This study aims to examine cyberethics compliance and postgraduate students' attitudes toward plagiarism, offering insights into how ethical conduct in digital environments can be promoted to strengthen academic integrity and enhance the quality of postgraduate education in Southwestern Nigeria.

Statement of the problem

Postgraduate students are to undertake serious educational activities; as such, postgraduate students are expected to make use of resources that are frequently updated and are available in all disciplines. This category of students also requires information that can be accessed at a go and from any location of choice. A typical example of such information is online information; however, while using online information, postgraduate students are expected to avoid plagiarism and to observe every ethical requirement concerning these online resources. Plagiarism, which is the act of using someone else's words or ideas as your own, either with or without the original author's permission, by incorporating them into your work without giving proper credit, is rampant among postgraduate students. Many postgraduate students who are expected to avoid plagiarism still exhibit a positive attitude towards plagiarism. A possible reason for the positive attitude displayed toward plagiarism is non-compliance with cyberethics among postgraduate students. Many of these students may not understand what constitutes cyberethics compliance; as such, they are involved in plagiarism, cyberbullying, cyberharassment, cyberstalking, and software piracy and hacking, due to the level of unethical behaviour among postgraduate students is high when interacting with online resources and other users. This could lower the academic standard of the postgraduate students and defeat the general aim of the postgraduate education. It is on this note that the current study investigates cyberethics compliance and attitude towards plagiarism among postgraduate students in universities in South-western Nigeria.

Aim and objectives of the study

The study aims to investigate cyberethics compliance and attitude towards plagiarism among postgraduate students in universities in South-western Nigeria. The specific objectives are to:

1. ascertain the attitude of postgraduate students towards plagiarism in the selected universities in South-western Nigeria.

2. determine the level of cyberethics compliance among postgraduate students in the selected universities in southwestern Nigeria.
3. establish a relationship between cyberethics compliance and attitude to plagiarism among postgraduate students in the selected universities.

Research questions

The research questions derived from the specific objectives are:

1. What is the attitude towards plagiarism among postgraduate students in universities in southwestern Nigeria?
2. What is the level of cyberethics compliance among postgraduate students in universities in southwestern Nigeria?
3. What is the relationship between cyberethics compliance and attitude towards plagiarism among the postgraduate students?

Hypotheses

There is no significant relationship between cyberethics compliance and attitude towards plagiarism among postgraduate students in the selected universities.

LITERATURE REVIEW

The rapid expansion of digital technologies has transformed how students access, share, and produce information, making cyberethics a critical area of concern in higher education. Cyberethics, a subfield of applied ethics, provides a framework for responsible conduct in digital environments, encompassing issues such as intellectual property rights, privacy, cyberbullying, software piracy, and plagiarism (Blanchette and Ellington, 2018). Postgraduate students, who often rely heavily on online platforms for research, collaboration, and academic communication, are particularly affected. Understanding the factors influencing cyberethics compliance and attitudes toward academic misconduct is essential for maintaining academic integrity and ensuring global competitiveness.

Studies in African universities suggest that awareness and compliance with cyberethics remain inconsistent. Aderibigbe and Ocholla (2020) examined cyberethical practices in two African universities and reported persistent violations, including plagiarism, hacking, software piracy, online harassment, and copyright infringement. Although institutional mechanisms exist to mitigate such behaviours, students often act without understanding the consequences, highlighting gaps in ethical education.

These findings underscore that despite increasing access to digital resources, African postgraduate students, including Nigerians, may be particularly vulnerable to unethical online practices due to limited awareness, resource constraints, and weak enforcement frameworks.

In contrast, Western higher education systems demonstrate both similarities and differences in students' engagement with cyberethics. Kokkinaki *et al.* (2015) investigated postgraduate students in Cyprus and found that 68% admitted to plagiarism because copying content was easy, while 57% would plagiarise if undetected. Time pressures and insufficient writing skills were additional contributing factors. Similarly, Tapp and Jaksa (2020) observed that US secondary students' perception of online anonymity encouraged misbehaviour, illustrating that perceived invisibility can erode ethical compliance even when monitoring tools exist. These studies suggest that while Western institutions often provide resources, guidance, and detection mechanisms, individual behavioural drivers such as convenience, academic stress, and anonymity continue to pose challenges.

Asian studies reveal that cultural attitudes and institutional guidance significantly influence cyberethics compliance. Rodzalan and Saat (2016) explored undergraduate moral awareness in six Malaysian universities, finding that 71% of respondents maintained a negative stance toward plagiarism, demonstrating a strong ethical avoidance posture. In Pakistan, Yousaf *et al.* (2019) reported that PhD students demonstrated higher awareness of plagiarism than MPhil students, while Qaisar *et al.* (2016) found that 78% of undergraduates in public and private institutions opposed plagiarism. These findings indicate that structured institutional programs and policy enforcement can mitigate misconduct even under academic pressures, highlighting the role of proactive guidance in fostering ethical digital behaviour.

Comparing African, Asian, and Western contexts reveals common and divergent patterns. Across all regions, time constraints, perceived anonymity, and accessibility of digital resources consistently influence ethical decisions. However, African postgraduate students appear more susceptible to unethical behaviour due to limited awareness, weak institutional support, and inconsistent enforcement (Aderibigbe and Ocholla, 2020). By contrast, Asian and Western students benefit from structured awareness programs and monitoring, which enhance compliance despite similar pressures (Rodzalan and Saat, 2016; Kokkinaki *et al.*, 2015; Yousaf et al., 2019). These comparative insights provide a lens to situate Nigerian postgraduate students within global trends, identifying both shared challenges and local vulnerabilities.

Critical cyberethical issues for postgraduate students include cyberbullying, cyberstalking, software piracy, and hacking. Cyberbullying and cyberstalking compromise trust and create hostile academic environments, while software piracy and hacking violate intellectual property rights and undermine academic integrity (Campbell, 2021;

Table 1. The population of the study.

S/N	University	Ownership	Year of establishment	Number of postgraduate students
1	University of Ibadan, Ibadan, Oyo State	Federal	1948	7,004
2	Obafemi Awolowo University, Ile-Ife, Osun State	Federal	1961	7,500
3	Ekiti State University, Ado-Ekiti, Ekiti State	State	1982	2000
4	Adekunle Ajasin University, Akungba-Akoko, Ondo State	State	1982	180
5	Babcock University, Ilisan Remo, Ogun State	Private	1959	414
6	Bowen University, Iwo, Osun State	Private	2001	200
	Total			**17,298**

Table 2. Sample size.

S/N	University	Number of postgraduate students	Sample size (2% of target population)
1	University of Ibadan	7,004	140
2	Obafemi Awolowo University, Ile-Ife, Osun State	7,500	150
3	Ekiti State University, Ado-Ekiti, Ekiti State	2000	40
4	Adekunle Ajasin Unversity, Akungba-Akoko, Ondo State	180	3
5	Babcock University, Ilisan Remo, Ogun State	414	8
6	Bowen University, Iwo, Osun State	200	4
	Total	**17,298**	**346**

Media Defence, 2024; eSafety Commissioner, 2024; Sadiku *et al*., 2018; Hamid *et al*., 2020). Research indicates that students' engagement in these behaviours is often driven by systemic factors such as resource limitations, technological pressures, and the desire for academic advantage. Consequently, ensuring postgraduate students' compliance with cyberethics is critical to sustaining institutional credibility and academic standards.

METHODOLOGY

The study adopted a descriptive survey research design of the correlational type, which facilitates systematic and scientific collection of data from the sample population while allowing the investigation of relationships between variables. The population of the study comprised 17,298 postgraduate students enrolled in six selected universities in South-western Nigeria. Population data were obtained from the records unit of each university and pertain to students undertaking master's degree programmes. The selection of these universities was guided by two criteria: (1) they are first-generation universities representing the three categories in Nigeria (Federal, State, and Private), and (2) they currently offer postgraduate programmes.

Table 1 presents the distribution of the postgraduate student population across the selected universities. To ensure representative coverage, a two-stage sampling procedure was employed. At the first stage, stratified random sampling was used to select at least one university from each state in South-west Nigeria (Lagos, Oyo, Ondo, Ogun, Osun, and Ekiti), with each state serving as a stratum. At the second stage, convenience sampling was applied to select the main sample of postgraduate students.

A sample size of 346 postgraduate students was determined, representing approximately 2% of the total population. This sample size was justified using the Yamane (1967) formula for finite populations:

$$n = \frac{N}{1 + N(e)2}$$

Where n is the sample size, *N* is the population, and e is the margin of error (0.05 for a 95% confidence level).

The calculated sample size was further validated using Raosoft® Sample Size Calculator, which confirmed that 346 respondents provided adequate statistical power for the study. Table 2 displays the allocation of the sample across universities.

Table 3 shows the distribution of questionnaires and response rates. Out of the 346 questionnaires distributed, 336 (97%) were returned and deemed usable, indicating a high level of engagement from the respondents. Table 4 presents the demographic characteristics of the respondents. The data indicate that 172 (51.2%) were in the second year of their master's programme, while 164 (48.8%) were in the first year. Female postgraduate students (222; 66.1%) outnumbered males, and the majority of respondents were aged 20–29 years, with only 10 (3%) aged 40 and above.

Table 3. Questionnaire administration and return rate.

S/N	University	Distributed	Returned
1.	University of Ibadan, Ibadan, Oyo State.	140	137
2.	Obafemi Awolowo University, Ile-Ife, Osun State.	150	146
3.	Ekiti State University, Ado-Ekiti, Ekiti State.	40	38
4.	Adekunle Ajasin University, Akungba-Akoko, Ondo State	3	3
5.	Babcock University, Ilisan Remo, Ogun State.	8	8
6.	Bowen University, Iwo Osun State.	4	4
	Total	**346**	**336**

Table 4. Demographic information of the respondents (**N= 336**).

Variables	Frequency	Percentage (%)
Year of study		
Year one	164	48.8
Year two	172	51.2
Gender		
Male	114	33.9
Female	222	66.1
Age		
20-29	254	75.6
30-39	72	21.4
40 and above	10	3

Despite the rigorous design, the study has some limitations. First, the sample size, although statistically justified, represents only a small fraction of the total population, which may limit generalisability to all postgraduate students in Nigeria. Second, data were collected via self-reported questionnaires, which may be subject to social desirability bias, with respondents potentially providing responses that reflect perceived ethical expectations rather than actual behaviour. Finally, reliance on convenience sampling at the student level could introduce selection bias, although stratification by state mitigated this to some extent.

The data were analysed using a descriptive survey design of the correlational type, which enabled both the description of the phenomenon and the determination of the degree of association among the variables. The hypotheses were tested at the 0.05 level of significance.

RESULTS AND DISCUSSION

Research question one: What is the attitude towards plagiarism among postgraduate students in universities in Southwestern Nigeria?

Research question one sought to identify the attitude of postgraduate students towards plagiarism in universities in Southwestern Nigeria. In order to provide answers to this research question, respondents were asked to indicate their attitude towards plagiarism in their respective universities from a list of library services itemised. The results of their responses are presented in Table 5. A high proportion of respondents (85.7%) agree that the burden of assignments makes using AI generative tools inevitable ($\bar{x}$ = 3.23), suggesting that the students may be turning to AI to cope with academic workload, potentially leading to issues of academic integrity. Equally, there were 50% of respondents (SA+A) who acknowledged that purchasing already completed term papers and projects due to time constraints ($\bar{x}$ = 2.46) is right. Similarly, 52% agreed that they reuse past submitted works for current assignments ($\bar{x}$ = 2.46), showing that a level of normalisation of self-plagiarism and the purchase of academic materials could significantly be associated to the perspective of the students regarding plagiarism.

Table 5 also showed that a significant proportion (64.5%) disagreed or strongly disagreed that using other people's work without permission is acceptable ($\bar{x}$ = 2.25). Likewise, 75% of respondents disagreed that there should be no punishment for using another person's work ($\bar{x}$ = 2.00). It, therefore, could be interpreted that some students engage in plagiarism even when they recognise it as an unethical practice. There were 52.6% of the respondents who believed that copying a few sentences word-for-word for creativity is acceptable ($\bar{x}$ = 2.71), while 73.5% agreed that there are circumstances where using another person's work is permissible ($\bar{x}$ = 2.83). This is an indication that the postgraduate students may justify certain forms of plagiarism based on context.

As far as institutional deterrence is concerned, 83.1% of respondents disagreed that they engage in plagiarism due to the absence of punishment from their university ($\bar{x}$ = 1.93), which means that there is institutional deterrence. However, 52.7% agreed that paraphrasing using paraphrasing tools does not constitute plagiarism ($\bar{x}$ = 2.73), which translates to the fact that some students believed that modifying text sufficiently removes ethical concerns related to plagiarism. The overall weighted mean of 2.41 suggested a moderate tendency toward justifying or rationalising plagiarism. Thus, many postgraduate students in southwestern Nigerian universities recognise plagiarism as unethical, though an appreciable number still engage in it.

The study found that the postgraduate students had a

Table 5. Presents the attitude towards plagiarism among postgraduate students in universities in South-western Nigeria.

S/N	Statements	SA [F (%)]	A [F (%)]	D [F (%)]	SD [F (%)]	Mean	Std. Dev
1	There are too much assignments to contend with and using artificial intelligence generative tools is inevitable	134 (39.9)	154 (45.8)	40 (11.9)	8 (2.4)	3.23	0.74
2	At times, purchasing already completed term papers and completed projects cannot be ignored as there is little time given for submission.	32 (9.5)	136 (40.5)	125 (37.2)	43 (12.8)	2.46	0.83
3	Some of the assignments and term paper topics are similar and I could use my past submitted works for the current assignments	23 (6.8)	152 (45.2)	118 (35.1)	43 (12.8)	2.46	0.8
4	I do not think if I use other peoples' work, I have committed any infraction since the works still belongs to them.	35 (10.4)	84 (25.0)	150 (44.6)	67 (19.9)	2.25	0.89
5	I have used my friends' work before for my own assignment because I was given permission by my friend.	29 (8.6)	120 (35.7)	112 (33.3)	75 (22.3)	2.03	0.91
6	Sometimes, one can copy one or two sentences from other people's original work word for word just to get creativity for further writing	70 (20.8)	134 (39.9)	97 (28.9)	35 (10.4)	2.71	0.91
7	There are some circumstances when using another person's work is permissible.	57 (17.0)	190 (56.5)	64 (19.0)	25 (7.4)	2.83	0.79
8	I see no reason why anyone should be punished for using another person's work without permission because you are even helping them propagating the work	23 (6.8)	61 (18.2)	145 (43.2)	107 (31.8)	2	0.88
9	I might use another person's work for my assignments and project since my university does not have any punishment on ground.	19 (5.7)	38 (11.3)	180 (53.6)	99 (29.5)	1.93	0.79
10	I do not regard using another person's work as bad as stealing	20 (6.0)	60 (17.9)	157 (46.7)	99 (29.5)	2	0.84
11	Even in some cases when people are scolded for using another person's work, the punishment is bearable to me.	15 (4.5)	67 (19.9)	159 (47.3)	95 (28.3)	2	0.81
12	People who use other people's work do so not because they are lazy but because they are too busy.	26 (7.7)	96 (28.6)	161 (47.9)	53 (15.8)	2.28	0.82
13	Once I mention the name of the person, I used his/her work in my write up, I do not regard it as plagiarism even if I do not change the wordings.	75 (22.3)	145 (43.2)	73 (21.7)	43 (12.8)	2.75	0.94
14	People who think using other person's work as my won as an ethical value are missing things up.	45 (13.4)	104 (31.0)	142 (42.3)	45 (13.4)	2.44	0.88
15	Once I paraphrase the original work using paraphrasing tools, I do not regard the outcome as plagiarism.	53 (15.8)	169 (50.3)	85 (25.3)	29 (8.6)	2.73	0.82
	Weighted mean					2.41	

negative attitude toward plagiarism. This is evident in their recognition of plagiarism as unethical, though an appreciable number still demonstrate some kinds of inclinations towards a positive attitude towards plagiarism.

Some students justified actions such as reusing previous work or using others' content under specific conditions, indicating varied attitudes towards plagiarism. These findings agree with Fatimah and Wulandari (2018) whose

Table 6. Level of cyberethics compliance among postgraduate students.

S/N	Level of cyberethics compliance	SA (%)	A (%)	D (%)	SD (%)	Mean	Std. Dev
	Cyberbullying						
1	I do not like it when someone is deliberately excluded from an online group	108 (32.1)	184 (54.8)	39 (11.6)	5 (1.5)	2.17	0.68
2	I do not engage in sending links, videos or taking pictures using cell phones while someone hits or hurts another person	130 (38.7)	154 (45.8)	47 (14.0)	5 (1.5)	3.21	0.73
3	Sending threatening or insulting messages by electronic means such as e-mail, Facebook or WhatsApp is a bad habit, I do not involve in it	238 (70.8)	85 (25.3)	7 (2.1)	6 (1.8)	3.65	0.614
4	Writing or sending links of embarrassing jokes, rumours, and gossip among others about a colleague so that others can read about them is humiliating, I do not do it.	233 (69.3)	92 (27.4)	11 (3.3)		3.66	0.539
	Weighted Mean					3.17	
	Cyberstalking						
5	Following and watching someone online illegally over some time in order to harm them is not good behaviour, I do not do it	243 (72.3)	85 (25.3)	8 (2.4)	-	3.69	0.5
6	I do not engage in tracking down or harassing colleagues online through various techniques such as account hacking, gaslighting, unsolicited, correspondence, among others.	245 (72.9)	85 (25.3)	6 (1.8)	-	3.71	0.49
7	I do not send e-mail messages that could make trouble for other colleagues	240 (71.4)	96 (28.6)	-	-	3.71	0.45
8	I do not involve in recording a video or taking cell phone pictures of others performing some kind of behaviour of a sexual nature to pass my exams	246 (73.2)	88 (26.2)	2 (0.6)	-	3.72	0.46
	Weighted Mean					3.71	

findings demonstrated the fundamental understanding of plagiarism and students' ability to follow academic regulations about proper citation of other works in order to avoid plagiarism. Nonetheless, students' understanding of self-plagiarism is incomplete. The findings also agree with Babalola (2012) findings which suggested that academic institutions should embark on a value reorientation programmes to encourage honesty, diligence, fairness, and academic integrity among students by adopting strict policies and sanctions against intentional plagiarism in addition to teaching students appropriate techniques for summarizing, paraphrasing, citing and referencing as positive attitude to plagiarism is still evident among students, including postgraduate students.

Research question two: What is the level of cyberethics compliance among postgraduate students in universities in Southwestern Nigeria?

Table 6 presents the results for the level of cyberethics compliance among postgraduate students in universities in South-western Nigeria on four constructs. These are cyberbullying, cyberstalking, software piracy and hacking.

The weighted mean of 3.17 indicates that adherence to the ethics that reduce cyberbullying could be high among postgraduate students in universities in southwestern Nigeria. The majority of respondents expressed disapproval of cyberbullying behaviours such as sending threatening messages (Mean = 3.65) and sharing humiliating content (Mean = 3.66), though there are still some of the respondents who still indulge in including individuals in online groups without their consent (Mean = 2.17) suggesting that although students recognize cyberbullying as unethical, some may not fully adhere to cyberethical standards in all situations.

Table 6 showed that with a mean score of 3.71, the respondents complied with ethics, reducing cyber stalking. This is because the majority of the respondents strongly opposed behaviours such as online harassment, tracking colleagues illegally, and sending troubling emails. Results showed that respondents overwhelmingly rejected activities like recording explicit content of others to gain academic favours (Mean = 3.72). The high mean values across all cyberstalking indicators suggest a strong awareness and adherence to ethical online behaviour in this category.

The mean score of items measuring software piracy is

Table 6. Contd.

S/N	Level of cyberethics compliance	SA (%)	A (%)	D (%)	SD (%)	Mean	Std. Dev
	Software piracy						
9	I do not see anything wrong in pirating software since they are very costly and not freely accessible for my assignments	58 (17.3)	59 (17.6)	121 (36.0)	98 (29.2)	2.22	1.05
10	I have never duplicated or disseminated a software illegally	165 (49.1)	94 (28.0)	56 (16.7)	21 (6.3)	3.19	0.93
11	I do not engage in downloading software from illegal websites	152 (45.2)	96 (28.6)	67 (19.9)	21 (6.3)	3.12	0.94
12	I use original software such as Microsoft Office, IBM SPSS Statistics among others, and do not involve in using software cracking tools.	152 (45.2)	99 (29.5)	54 (16.1)	31 (9.2)	3.1	0.98
	Weighted Mean					2.91	
	Hacking						
13	I do not ask others to share personal information that could lead to the loss of access to their online accounts	216 (64.3)	110 (32.7)	8 (2.4)	2 (0.6)	3.6	0.56
14	I do not log into other people's electronic accounts and pretend to be them	236 (70.2)	84 (25.0)	8 (2.4)	8 (2.4)	3.63	0.65
15	I do not lie about myself while interacting with others online	220 (65.5)	101 (30.1)	7 (2.1)	8 (2.4)	3.58	0.65
16	Hacking a database or online account is morally wrong, I do not involve in it	252 (75.0)	72 (21.4)	8 (2.4)	4 (1.2)	3.7	0.57
	Weighted Mean					3.62	
	Overall Mean					**3.35**	
	Total mean Index					**53.66**	

Key: Strongly Agree (SA), Agree (A), Disagree (D), Strongly Disagree (SD).

the lowest among constructs of cyberethics compliance, with 2.91, though above the threshold of 2.5 set for the scale. A less proportion of respondents admitted to engaging in or justifying software piracy, particularly due to the high cost of original software (Mean = 2.22). While some students adhered to ethical practices, such as not disseminating software illegally (Mean = 3.19) or avoiding downloads from unauthorised sources (Mean = 3.12), the overall compliance level with piracy issues, which is above average, is good but could still be improved upon.

The respondents had a high adherence to factors reducing hacking, with a mean score of 3.62, indicating a relatively high level of compliance. Respondents generally refrained from unethical hacking activities, including unauthorised access to others' accounts (Mean = 3.63) and identity deception online (Mean = 3.58). With a mean score of 3.70, the respondents reject hacking databases or online accounts, reflecting strong moral opposition to such acts among postgraduate students. The overall mean score of 3.35 suggests a generally positive level of cyberethics compliance among postgraduate students. Compliance is highest in cyberstalking and hacking; the lower compliance in software piracy suggests an area requiring intervention through institutional policies and awareness campaigns. In order to determine the level of

cyberethics compliance among postgraduate students in universities in southwestern Nigeria. There are sixteen items in the scale to measure cyberethics compliance and four measures (Strongly Agree, Agree, Disagree and Strongly Disagree). The sixteen items were multiplied by four measures, which gives a score of 64. The division of 64 by 3 gives 21.3 to determine the level. Cyberethics compliance was calibrated at three levels of low, moderate and high. Thus, the scale between 0 -21.3 shows that the level of cyberethics compliance is low, the scale between 21.4 -42.6 indicates that the level of cyberethics compliance is moderate, and the scale between 42.7 – 64.0 shows a high level of cyberethics compliance among postgraduate students.

Table 7 presents a test of norm on cyberethics compliance among postgraduate students. Grand mean = 53.66, Maximum score = 64.0, Interval = 64.0/3=21.3, Classification = High, Moderate and Low. Findings show that the total mean index for cyberethics compliance of the respondents is 53.66, which falls between the scale of 42.7 – 64.0, indicating that the level of cyberethics compliance of postgraduate students in the selected universities in South-western Nigeria is high.

Findings reveal positive cyberethics compliance among postgraduate students in the selected universities in

Table 7. Test of norm table on the level of cyberethics compliance among postgraduate students.

Interval	Range	Level
0 -21.3	-	Low
21.4 – 42.6	-	Moderate
42.7 – 64.0	53.66	High

southwestern Nigeria, with strong adherence observed in areas like cyberbullying and cyberstalking. The findings also demonstrate a high level of consensus among students in avoiding harmful online behaviours such as exclusion, harassment, and the dissemination of harmful content. This suggests a strong understanding and internalisation of ethical guidelines regarding online interactions within this student population. Software piracy emerged as a grey area, with a less consistent response from students. While a majority opposed software piracy, a significant minority disagreed with this view, suggesting a more nuanced understanding of the ethical implications of software usage within this group. This variation could be attributed to factors such as the cost and accessibility of legitimate software, potentially influencing student perceptions and behaviours. Overall, the study found that the level of cyberethics compliance among postgraduate students in southwestern Nigeria is high, and this is in line with Adetimirin (2017) research on students' level of cyberethics awareness, which was found to be high. It was against the research by Wiafe *et al.* (2020), which found that computer crime, cyber piracy, cyber plagiarism, and cyber privacy infringement were far more common in public universities.

Research question 3: What is the relationship between cyberethics compliance and attitude towards plagiarism among postgraduate students in the selected universities?

Table 8 presents the correlation analysis between cyberethics compliance and attitude towards plagiarism. The positive correlation (r = 0.022) indicates a very weak direct relationship, while the p-value of 0.685 exceeds the conventional significance level of 0.05. This demonstrates that the relationship is not statistically significant, supporting the null hypothesis that cyberethics compliance does not significantly influence postgraduate students' attitudes toward plagiarism.

Although a weak positive trend exists, it suggests that higher cyberethics compliance may slightly correspond to more negative attitudes toward plagiarism. However, the effect is minimal and statistically insignificant. This implies that adherence to cyberethics rules alone does not strongly shape students' perceptions or behaviours regarding plagiarism. One explanation is that compliance is often procedural rather than reflective; students may follow

rules superficially to avoid detection or sanctions without internalising the underlying ethical principles. For instance, a postgraduate student in a Nigerian university may strictly adhere to software licensing regulations and avoid cyberbullying, yet still copy text from an online journal without proper citation due to time pressures or perceived academic necessity. This example illustrates the need to examine institutional and cultural factors that may influence the weak relationship.

Institutional and cultural contexts in Nigerian universities can weaken the impact of cyberethics compliance on plagiarism attitudes. Enforcement of academic misconduct policies is often inconsistent, and students may perceive the likelihood of detection or sanctions for plagiarism as low. Limited supervision of research activities, coupled with large class sizes, reduces accountability. Consequently, students may comply with visible cyberethics norms but continue to plagiarise, viewing the behaviour as low-risk. Aderibigbe and Ocholla (2020) similarly reported that students in African universities often understand ethical rules but fail to apply them consistently due to weak institutional oversight and limited practical guidance. Such institutional shortcomings are reinforced by structural and resource-related pressures.

Many Nigerian postgraduate students face restricted access to up-to-date journals, subscription-based databases, and licensed research software. High costs of software or inadequate library resources may prompt students to rely on free or unlicensed materials, increasing opportunities for plagiarism. Even when students comply with certain aspects of cyberethics, such as avoiding hacking or cyber harassment. They may still plagiarise as a coping mechanism to meet deadlines, complete theses, or publish research outputs in highly competitive academic environments. This contextual pressure highlights that cyberethics compliance alone may be insufficient to foster negative attitudes toward plagiarism without addressing practical barriers.

The manner in which cyberethics is taught may further contribute to the weak relationship. Universities in Nigeria often provide workshops or awareness campaigns emphasising rules and penalties rather than fostering ethical reasoning, critical thinking, and reflection on moral responsibility. Without embedding these principles into academic practice, compliance remains formalistic. Comparative evidence from Malaysia and Cyprus indicates that structured ethical guidance, ongoing mentorship, and practical support are more effective in shaping attitudes and reducing plagiarism (Rodzalan and Saat, 2016; Kokkinaki *et al.,* 2015). These findings suggest that the quality of ethics education, rather than mere rule-following, is a critical determinant of students' academic integrity.

Attitudinal and motivational factors also influence the weak correlation observed. Academic pressures, competition, and insufficient writing skills often drive unethical practices independently of cyberethics awareness. For example, a postgraduate student may understand the consequences

Table 8. shows the relationship between cyberethics compliance and attitude towards plagiarism among postgraduate students in the selected universities.

Variables	Mean	Std. Deviation	N	r	p-value	Remarks
Cyberethics compliance	54.7470	5.61222	336	0.022	0.685	Not Sig.
Attitude towards plagiarism	36.4167	7.27081				

*Correlation is significant at 0.05 (2-tailed).

of plagiarism yet prioritise timely completion of a thesis over ethical adherence due to scholarship obligations, supervisor expectations, or publication requirements. In this sense, plagiarism may be viewed pragmatically as a tool to navigate structural and temporal constraints, rather than a violation of ethical norms.

The lack of significant influence observed in this study aligns with broader evidence from African contexts. Studies have shown that knowledge of cyberethics alone does not guarantee ethical behaviour in academic practice (Aderibigbe and Ocholla, 2020). Similarly, findings from Asia and Western contexts reveal that while compliance with digital rules can reduce some forms of misconduct, it often fails to change attitudes toward plagiarism unless complemented by mentoring, skills development, and institutional support (Rodzalan and Saat, 2016; Kokkinaki *et al.,* 2015). For instance, Malaysian undergraduates exposed to structured ethical guidance demonstrated more consistent avoidance of plagiarism, highlighting that awareness without reinforcement or practical support may be ineffective. In Cyprus, postgraduate students reported copying content from online sources primarily due to time pressure or perceived low detection risk, despite understanding plagiarism as unethical (Kokkinaki *et al.,* 2015). These examples situate Nigerian postgraduate students within a global trend: cyberethics awareness alone does not guarantee ethical behaviour.

This study further underscores that compliance with cyberethics rules is often superficial. Students may follow visible regulations, such as licensing software correctly or avoiding overt cyberbullying, yet still engage in plagiarism. The divergence between procedural compliance and moral internalisation suggests that ethical behaviour requires more than knowledge of rules; it necessitates a combination of practical, institutional, and motivational interventions. Comparative studies indicate that embedding ethics into research supervision, providing accessible resources, and cultivating a culture of integrity are essential for reducing academic misconduct (Rodzalan and Saat, 2016; Kokkinaki *et al.*, 2015).

Overall, these findings indicate that cyberethics compliance, while necessary, is not sufficient to significantly influence attitudes toward plagiarism among Nigerian postgraduate students. Institutional, structural, and motivational factors mediate the relationship between rule adherence and ethical behaviour. Therefore, addressing plagiarism effectively requires multifaceted strategies, including enhanced supervision, access to

licensed materials, skills development, and mentoring, rather than relying solely on cyberethics education or compliance monitoring.

The weak and non-significant relationship between cyberethics compliance and plagiarism attitudes highlights the study's objectives: to ascertain postgraduate students' attitudes toward plagiarism, evaluate their level of cyberethics compliance, and examine the relationship between these variables. By situating these behaviours within local institutional, cultural, and resource constraints, the study provides a foundation for targeted interventions aimed at promoting ethical conduct, reducing academic dishonesty, and enhancing the quality of postgraduate education in South-western Nigeria.

Summary of the findings

The findings revealed that:

1. Postgraduate students in south-western Nigeria exhibit negative attitudes towards plagiarism. While acknowledging its ethical implications, significant portions justify certain actions like reusing previous work or using others' content under specific conditions.
2. There is a high level of cyberethics compliance among postgraduate students in universities in southwestern Nigeria. It showed that the students demonstrate a strong disagreement with cyberbullying, cyberstalking and software piracy.
3. Cyberethics compliance does not influence attitudes toward plagiarism, meaning that when students comply with cyberethics, they will portend negative attitude toward plagiarism.

Conclusion

This study concludes that postgraduate students in southwestern Nigeria exhibit a generally negative attitude towards plagiarism, reflecting a growing orientation toward academic integrity and original scholarship. The findings further indicate that while students demonstrate high levels of cyberethics compliance, such compliance does not significantly influence their attitudes towards plagiarism. This suggests that students' rejection of plagiarism is shaped more by broader institutional, cultural, and educa-

tional factors than by cyberethics alone. The study contributes to knowledge by highlighting that cyberethics compliance, although important for promoting responsible digital behaviour, is not a decisive predictor of attitudes toward plagiarism among postgraduate students. Instead, gaps in knowledge and inconsistencies in practices, particularly in areas such as plagiarism awareness and software piracy which underscore the need for targeted educational interventions. These insights provide a clearer understanding of the dynamics shaping academic honesty in the Nigerian postgraduate context and reinforce the call for stronger institutional measures to foster a culture of ethical scholarship.

Recommendations

Based on the findings of this study, the following recommendations are made to address the weak, non-significant relationship between cyberethics compliance and postgraduate students' attitudes toward plagiarism:

1. Universities should embed compulsory modules on digital ethics, plagiarism awareness, and responsible authorship within postgraduate programmes to strengthen ethical reasoning and reduce tolerance for plagiarism
2. Universities should conduct regular workshops and mentorship sessions focusing on citation, paraphrasing and ethical decision-making in research to bridge the gap between knowledge and practice.
3. Universities should adopt clear plagiarism policies supported by the use of detection software such as Turnitin or iThenticate, ensuring both preventive education and consistent enforcement of academic integrity standards.

CONFLICT OF INTEREST

The authors declare that they have no conflict of interest.

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