



PERSONAL CHARACTERISTICS, COMPUTER LITERACY COMPETENCE, AND USE OF ACADEMIC SOCIAL NETWORKS BY LECTURERS IN PRIVATE UNIVERSITIES IN OSUN STATE, NIGERIA

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Abstract: Academic Social-Networking Sites (ASNS) such as Academia.edu and ResearchGate are becoming very popular among academics. These platforms allow lecturers to upload their academic articles, abstracts, and links to published full-text articles and also track the reading and citation of their published articles among others. Despite this, some studies have reported low use of the academic social networking sites by lecturers. This gap could be a function of their personal characteristics and computer literacy competence. Thus, this paper examined Personal Characteristics (PCs), Computer Literacy Competence (CLC), and use of Academic Social Networks (ASNs) by lecturers in private universities in Osun State, Nigeria. The descriptive survey research design of the correlational type was adopted, and the population consisted of 935 lecturers in eight private universities in Osun State, Nigeria. The single-stage random sampling technique was used to arrive at the sample size of 507, and data were collected with the questionnaire and analyzed with frequencies, mean, standard deviation, Pearson's Product Moment Correlation, and multiple regression. Results showed that computer literacy competence and demographic factors like age, gender, and academic qualifications are significant determinants of the use of academic social networks by lecturers. Thus, management of the universities should ensure that ratings from some of the academic social networks like Google Scholar and ResearchGate contribute a certain percentage to the promotion of lecturers, especially the h-index and i10-index.

Keywords: Personal characteristics, Computer literacy competence, Academic social networks, Lecturers, Private universities.

INTRODUCTION

Universities are academic establishments built to provide instruction, conduct examinations, or both for students in many branches of advanced learning, conferring degrees in various faculties, and often embodying colleges, departments, and similar institutions. The mission of the universities includes: offering transformational education to every student, empowering students to achieve their potentials. Through their core functions which are learning, teaching, and research, universities offer teaching activities that provide the professional training for high-level jobs, as well as the education necessary for critical thinking and development of the personality. This training is carried out by lecturers.

Lecturers are a group of academic staff in higher institutions of learning who participate in research, teaching, learning, evaluation, and community development. Their responsibility is to train students to be up-to-date with their chosen career competencies using appropriate curriculum in order to enable students to acquire the necessary knowledge and abilities needed to earn the degrees they require. To achieve this, they could make use of Academic Social Networks (ASNs). According to Mohammed, Lazim, and Rosle (2018), academic social networks are social networking sites that are more specific to academics in sharing their activities, specializations, publications, and assessing other impacts of scholarly contribution. Academic social networks are online services that focus on supporting online research-oriented activities as well as



building social networks for scholars and researchers. Lecturers use academic social networking sites to do collaborative study, academic or research work.

There are different types of academic social networks, and each academic social network offers its own combination of tools and capabilities to support research activities, communication, collaboration, and networking. Notable among them are; Google Scholar, ResearchGate, Academia.edu, Zotero, LinkedIn, Mendeley, etc. Google Scholar is an accessible search engine that scholars use to find scholarly resources. Anyim (2021) states that LinkedIn is one of the most thriving social networking sites used by academics and professionals. Although it is predominantly, a professional social networking site that connects people from different works of life and facilitates mutual relationships.

Greenhow and Gleason (2014) noted that academic social networking sites have a strength point in the repository of publications. Authors can upload printed papers as well as preprints or other documents to their profile. According to Opesanwo and Mabawonku (2016) various aspects of research output can be enhanced by academic social networks such as publications in learned journals, conference papers or proceedings, peer-reviewed bulletin, ongoing research and seminar papers among others. Academic social networks provide opportunity for a scholar to list his/her publications and highlights major achievements. El-Berry (2015) posits that younger lecturers use academic social networks more than their older counterparts because they are more likely to embrace technology. Another personal characteristic of lecturers that could affect their use of academic social networks is gender. Academic qualification of lecturers could also affect their use of academic social networks. Academic qualification relates to degrees, diplomas, certificates and professional titles that individual employee has acquired whether by full-time, part-time or private studies, whether conferred in the home country or abroad, and whether conferred by educational authorities, special examination bodies or professional bodies.

Kumari and Mallaiah (2017) describe computer literacy competence as the knowledge and capabilities to make use of computers and other technologies in an efficient manner. Computer literacy skills can be described as a set of abilities to use the computer to access the Internet; find, manage and edit digital information; join

in communications; and otherwise engage with an online information and communication network. In simple terms, it is the ability to use the computer properly to use and evaluate digital resources, tools and services and apply them to lifelong learning process. Computer literacy knowledge is the intellectual understanding needed to use computer and technology efficiently.

Use of academic social networks by lecturers:

Rosle, Mohamad, and Lazim (2018) made an attempt to describe ResearchGate, an academic social network. ResearchGate allows researchers to upload their research papers, join discussions and follow other researcher activities. Salahshour, Dahlan Iahad (2016) described the features of another common academic social network, Academia.edu. Academia.edu is an academic social network which provides academic papers that can be shared among researchers. Through Academia, users can create their profiles and upload a list of their research outputs. Adebayo, Augustine, Enejo and Lawal (2019) opine that lecturers use academic social networks for the following purposes; to dissemination their research outputs, find research communities and expose findings to a broader audience, upload and download publication files, follow and be followed by peers.

Personal characteristics and use of academic social networks by lecturers

The personal characteristics of lecturers are those individual-based or quantifiable variables that people possess which make them identifiable. Personal characteristics are personal factors or individual-based variables that include information such as age, sex (gender), income level, educational level, job levels or positions or ranks, job tenure, work experience, marital status, monthly salary, among others. Kapidzic (2019) noted that personal, professional and technological characteristics such as trust, gender, experience, and age affect the intention to use ASNs. Ali and Richardson (2018) conducted a study on usage of academic social networking sites by Karachi social science faculty: Implications for academic libraries. Male lecturers used academic social networks more than females in the study and assistant professors used academic social networks more than their colleagues probably because they are conducting more research in order to attain the rank of a professor. Chaudhuri and Baker (2021) conducted a study on a comparative analysis of faculty usage of academic social networking sites. Survey



research design was adopted for the study. The study found out that professors make up the largest group across the three ASN sites.

Computer literacy competence and use of academic social networks by lecturers

Ogbomo (2013) stated that computer literacy competence can affect the way lecturers access scholarly publications on academic social networks. Aleryani Moflehand Alariki (2017) stated that computer literacy could be one of the factors affecting the use of ASNs by academics because it determines their level of efficacy. The results also show that gender does not influence lecturers' attitudes towards ICT.

Theoretical framework:

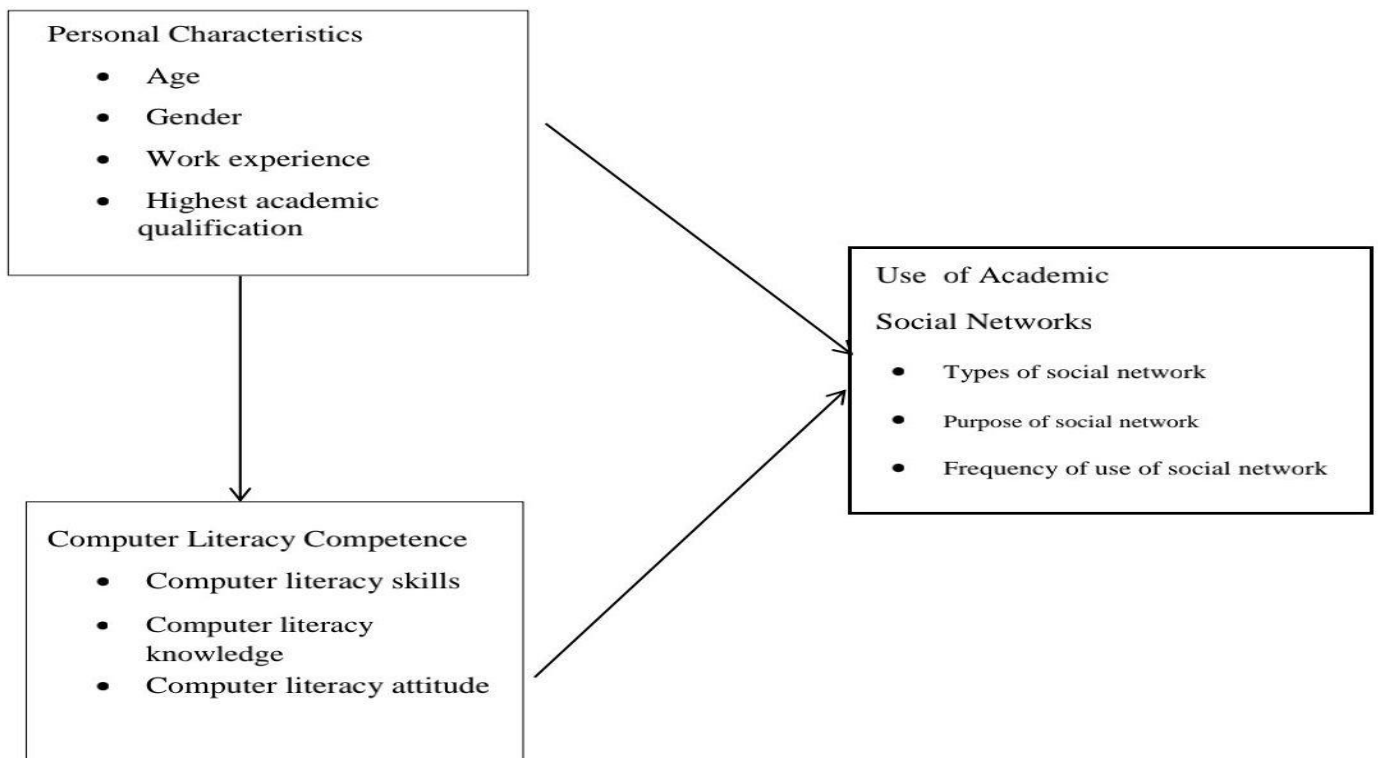


Fig1. Self-Constructed Model on Personal Characteristics, Computer Literacy Competence, and Use of Academic Social Networks by Lecturers.

Despite the benefits of the use of Academic Social-Networking Sites (ASNS) by lecturers, studies have reported that some lecturers seem not to use academic social-networking sites as expected, reflecting in their low use. This could be as a function of their personal characteristics and the level of their computer literacy competence. Reports from studies have showed that age, gender, academic qualifications, and designation

This work is anchored on Uses and Gratifications theory of Jay Blumler and Elihu Katz 1974 and the Self Efficacy Theory of Albert Bandura (1977). The Uses and Gratifications Theory is credited to Jay Blumler and Elihu Katz, 1974. The theory asserts that people use media to gratify specific wants and needs, while Self Efficacy Theory was propounded by the Canadian-American Psychologist, Albert Bandura in 1977. Albert defines self-efficacy as a personal judgment of how well one can execute courses of action required to deal with prospective situations.

Conceptual model

Independent variables Dependent variable

could be important predictors of the use of ASNs. In addition, a lecturer who has a high level of computer literacy competence might be favorably disposed to use academic social networks than one who has a low level of computer literacy competence. Thus, in order to empirically verify these assertions, this study examined personal characteristics, computer literacy competence, and use of academic social networks by lecturers in private universities in Osun State, Nigeria.

Aim and Objectives:



This paper aimed at determining the influence of personal characteristics and computer literacy competence on the use of academic social networks by lecturers in private universities in Osun State, Nigeria, while objectives are to:

- i. Determine the relationship between personal characteristics and use of academic social networks by lecturers in private universities in Osun State, Nigeria.
- ii. Determine the relationship between computer literacy competence and use of academic social networks by lecturers in private universities in Osun State, Nigeria.
- iii. Determine the joint influence of personal characteristics and computer literacy competence on the use of academic social networks by lecturers in private universities in Osun State, Nigeria.

Hypotheses:

The following null hypotheses were tested at 0.05 level of significance:

There is no significant relationship between personal characteristics and use of academic social network by lecturers in private universities in Osun State, Nigeria.

There is no significant relationship between computer literacy competence and use of academic social networks by lecturers in private universities in Osun State, Nigeria.

There is no significant joint influence of personal characteristics and computer literacy competence on use of academic social networks by lecturers in private universities in Osun State, Nigeria.

Methodology:

Table 1: Population of the Study

S/N	University	Nooflecturers
1	RedeemersUniversity,Ede	141
2	BowenUniversity,Iwo	315
3	FountainUniversity,Osogbo	100
4	AdelekeUniversity,Ede	121
5	JosephAyoBabalolaUniversity,Ikeji-Arakeji	120
6	OduduwaUniversity,Ile-Ife	50
7	WestlandUniversity,Iwo	45
8	KingsUniversity,Ode-Omu	43
	Total	935

This work examined the influence of personal characteristics and computer literacy competence on the use of academic social networks by lecturers in private universities. The personal characteristics of interest are age, gender, work experience, and highest academic qualification. The indicators of computer literacy competence are computer literacy knowledge, computer literacy skills, and computer literacy attitude. Use of academic social networks will be measured by types, purpose, frequency, and challenges of academic social networks. The descriptive survey research design of the correlational type was used for this study. The population of the study consists of lecturers in all the eight (8) private universities in Osun State, Nigeria, which are Redeemers University, Ede, Bowen University, Iwo, Fountain University, Osogbo, Joseph Ayo Babalola University, Ikeji-Arakeji, Adeleke University, Ede, Oduduwa University, Ile-Ife, Westland University, Iwo, and Kings University, Ode-Omu. According to the data collected from the registry of these institutions, the total number of the lecturers in the eight (8) private universities is 935 (Table 1). The single-stage random sampling technique was used in the study, the sampling fraction of 60% was used, with the use of this sampling fraction, the sample size is 563 (Table 2). Questionnaire was used as a research instrument for data collection. Descriptive statistics (frequency counts, percentages, mean, and standard deviation) and inferential statistics (correlation and regression analysis) were used to analyze the data.



Source: Author's fieldwork 2023

Table 2. Distribution of questionnaire administration and return rate

University	Distribution	Return
Redeemers University, Ede	85	79
Bowen University, Iwo	189	182
Fountain University, Osogbo	60	56
Adeleke University, Ede	73	68
Joseph Ayo Babalola University, Ikeji-Arakeji	73	64
Oduduwa University, Ile-Ife	30	25
Westland University, Iwo	27	9
Kings University, Ode-Omu	26	24
Total returned	563	507

ANALYSIS OF DATA

Table 3. Personal characteristics of respondents

Personal characteristics	Freq. %
Gender	26351.9
Male	24448.1
Female	
Age	305.9
25-34	5711.2
35-44	23947.2
45-54	14428.2
55-64	377.3
65 and above	
Work experience	8617.0
Less than 5 years	8216.2
5-10 years	17334.1
11-15 years	10220.1
16-20 years	6412.6
Above 20 years	



Highest educational qualification	326.3
Bachelor degree	25650.5
Masters	163.2
Mphil.	173.4
Mphil/PhD	18636.7
PhD	

N=507

Results in Table 3 showed that the male lecturers 263 (51.9%) were slightly higher than their female counterparts 244 (48.1%). Most of the lecturers 239 (47.2%) were between 45-54 years of age, while the least 30 (5.9%) were between 25-34 years of age. Majority of the respondents 173 (34.1%) had a work experience of 11-15 years, while the minority 64 (12.6%) had spent 20 years and above. About half of the lecturers 256 (50.5%) were master degree holders and a few 17 (3.4%) had Mphil/PhD.

Table 4. Computer literacy competence of lecturers in private universities in Osun State, Nigeria

S/N	Computer literacy competence	SA F%	A F%	D F%	SD F%	Mean(S.D)
	Computer literacy knowledge					
1	I know how to install software packages on my computer	33566.1	13426.4	214.1	173.4	3.55(.730)
2	I know how to access the Internet and search engines through the computer	38876.5	10721.1	122.4	--	3.74(.489)
3	I know at least one programming language	29658.4	13426.4	407.9	377.3	3.36(.910)
4	I can troubleshoot my computer	24748.7	20841.0	305.9	224.3	3.34(.778)
5	I am aware of digital threats like malware and viruses and I know how to prevent them from attacking my computer device	30460.0	17133.7	326.3	--	3.54(.613)
6	I know how to copy data into a secondary device	34067.1	14228.0	254.9	--	3.62(.578)
	Computer literacy skills					
7	I can convert word document to PDF format	34568.0	15129.8	112.2	--	3.66(.518)
8	I am proficient in the use of Microsoft Word	32463.9	15029.6	295.7	40.8	3.57(.639)
9	I can connect my computer to a modem of local area network	36672.2	10320.3	316.1	71.4	3.63(.662)
10	I have vast knowledge of editing and adding track changes to my documents	29959.0	17534.5	336.5	--	3.52(.617)
11	I have the ability to code and perform simple computing	26552.3	15330.2	6011.8	295.7	3.29(.887)
12	I am conversant with Power-Point presentations	26852.9	16632.7	6713.2	61.2	3.37(.755)
	Computer literacy attitude					
13	I would feel comfortable working with ICT	30460.0	16131.8	234.5	193.7	3.48(.753)
14	I do not feel comfortable engaging in training on how to use computer effectively	26351.9	9719.1	499.7	9819.3	3.04(1.179)
15	Frequent use of computer makes me feel stressed	15731.0	9719.1	11522.7	13827.2	2.54(1.190)
16	The use of computer makes my work easy and fast	3875.3	10320.3	224.3	--	3.71(.542)
17	I can teach computer literacy skills to my student easily	34267.5	12624.9	203.9	193.7	3.56(.742)
18	I think computer and related devices are difficult to use	12424.5	6212.2	14528.6	17634.3	2.26(1.175)
	Total mean					60.78
	Total average mean (Computer literacy competence)					3.38

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

Test of hypotheses

**Hypothesis one****H0:**

There is no significant relationship between personal characteristics and use of academic social networks by lecturers in private universities in Osun State, Nigeria. Table 5. Relationship between personal characteristics and use of academic social networks

		Age	Gender	Work experience	Highest educational qualification	Use of academic social networks
Age	Pearson Correlation	1				
	Sig.(2-tailed)					
	N	507				
Gender	Pearson Correlation	.023	1			
	Sig.(2-tailed)	.611				
	N	507	507			
Work experience	Pearson Correlation	-.043	-.014	1		
	Sig.(2-tailed)	.334	.754			
	N	507	507	507		
Highest educational qualification	Pearson Correlation	.129	-.006	.025	1	
	Sig.(2-tailed)	.004	.896	.578		
	N	507	507	507	507	
Use of academic social networks	Pearson Correlation	.107	.109	.030	-.048	1
	Sig.(2-tailed)	.016	.014	.495	.279	
	N	507	507	507	507	507

Correlation is significant at the 0.01 level (2-tailed).

Correlation is significant at the 0.05 level (2-tailed).

Results showed that:

a. There is a significant positive relationship between age and use of academic social networks by the lecturers ($r = .107$; $N = 507$; $p < 0.05$)

b. There is a significant positive relationship between gender and use of academic social networks by the lecturers ($r = .109$; $N = 507$; $p < 0.05$).

c. There is a positive but no significant relationship between work experience and use of academic social networks by the lecturers ($r = .030$; $N = 507$; $p > 0.05$).

d. There is a negative and no significant relationship between highest educational qualification and use of

academic social networks by the lecturers ($r = -.048$; $N = 507$; $p > 0.05$).

Thus, from the results of the correlation matrix, only age and gender have a significant positive relationship with use of academic social networks. This implies that age can determine how academic social networks are used by the lecturers. Additionally, gender can also determine how lecturers use academic social networks.

Hypothesis two H0:

There is no significant relationship between computer literacy competence and use of academic social networks by lecturers in private universities in Osun State, Nigeria. Table 6. Relationship between computer literacy competence and use of academic social networks

Variables	Mean	Std. Deviation	N	R	Df	Remarks
Computer literacy competence	60.79	6.721	507	.156**	506	



Use of academic social networks	52.84	16.730				
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Results showed that there is a positive significant relationship between computer literacy competence and use of academic social networks (($r = .156^{\wedge}$; $df = 506$; $p < 0.01$). Thus, the higher the computer literacy skills of the lecturers, the more they are expected to use academic social networks. As a result of this, null hypothesis is rejected and the alternative that states that there is a significant relationship between computer literacy competence and use of academic social networks is hereby accepted.**

Table 7. Joint contribution of personal characteristics and computer literacy competence to use of academic social networks

Model Summary

R	RSquare	AdjustedRSquare		Std.Errorofthe Estimate	
.692	.480	.420		16.373	
		ANOVAa			
Model	Sumof Squares	Df	Mean Square	F	Sig.
Regression	6781.526	3	2260.509	8.432	.000
Residual	134841.886	503	268.075		
Total	141623.412	506			

Table 7 showed a coefficient of multiple correlation ($R = .692$ and Adj. R^2 of 0.42). This means that 42% of the variance was accounted for by personal characteristics and computer literacy competence. The significance of the composite contribution was tested at $P < .05$. Table 7 also showed that the analysis of variance for the regression yielded an F-ratio of 8.432 ($P < 0.05$). The implication of this result is that the joint contribution of personal characteristics and computer literacy competence was significant and the other variables not included in this model may have accounted for the remaining variance. Thus, the null hypothesis is rejected.

CONCLUSION

Lecturers in this Digital Age need to leverage on the opportunities that academic social networks provide to enhance their visibility to the global audience by promoting their research outputs. A lecturer that fails to use these academic social networks might have it very difficult to have a high impact factor which could affect his scholarship and even promotion. Thus, the use of academic social networks is very important to academic fulfillment of the lecturers. However, in order to use the

Hypothesis three Ho:

There is no significant joint influence of personal characteristics and computer literacy competence on use of academic social networks by lecturers in private universities in Osun State, Nigeria. Tables 7 showed the joint contribution of personal characteristics and computer literacy competence to use of academic social networks by lecturers in private universities in Osun State, Nigeria.

academic social networks effectively, the lecturers need to possess a high level of computer literacy competence. It would be very difficult for a lecturer who does not have knowledge of computer use and who does not have the skills and the appropriate attitude towards computer use to effectively use academic social networks. In addition, age, gender, and educational qualifications of the lecturers also impact on how effective the academic social networks will be used by the lecturers. Therefore, computer literacy competence and demographic factors like age, gender, and academic qualifications are significant determinants of use of academic social networks by lecturers.

RECOMMENDATIONS

Based on the findings of this study, the following recommendations are made:

In order to sustain the high level of computer literacy competence of the lecturers, the management of the universities should on a regular basis organize ICT capacity building workshops. This will further strengthen the competence of the lecturers and also



expose them to new trends and skills in the use of computer and related ICT tools and devices.

The use of academic social networks can be promoted if the management of the universities ensure that ratings from some of the academic social networks like Google Scholar and ResearchGate will contribute certain percentage to the promotion of lecturers especially the h-index and i10-index. This will ensure that all the lecturers use these academic social networks.

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