USE OF ACADEMIC SOCIAL NETWORKING SITES AND RESEARCH PRODUCTIVITY OF FEMALE ACADEMICS IN SELECTED PUBLIC UNIVERSITIES IN SOUTH-WEST, NIGERIA

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ABSTRACT

Regardless of gender, research productivity is paramount for career progression and prestige of academic throughout universities in the world, however, observations showed that research productivity of female academic staff in Nigerian universities is undesirably low, which is due to many reasons. This study investigated the use of academic social networking sites and research productivity of female academic staff in public universities in South-West Nigeria.

Survey research design of correlative type was adopted. 1785 female academic staff in the selected universities in South-West, Nigeria comprised the population of the study. Stratified random sampling technique was used to select 536 female academic staff in the selected universities. Out of 536 copies of questionnaire distributed, 413 copies were returned. Data collected were analysed using descriptive statistics of frequency count and percentages, mean and standard deviation, while Pearson Product Moment Correlation was used to test the three hypotheses. It was found that the level of use of academic social networking sites among female academics for research productivity was moderate (= 3.61) while research productivity of female academic staff is low (= 3.15). The major purposes of use of academic social networking sites for research productivity are searching of topics/ideas for thesis, conference papers, articles 371(89.8%) and links to publish their research 344(83.3%). There is a negative relationship between use of academic social network and research productivity ($r = -0.212$; $p = 0.000$).

The study among other things recommended that female academic staff should be trained by the management of the universities to improve research productivity.

Keywords: Academic Social Networking Sites, Research Productivity, Female Academic Staff; Female academic use of Social Networking Sites, Nigeria.

Introduction

Research productivity is a crucial metric of efficiency in any academic institution, including universities around the world. In the academic and scientific communities, research productivity is a vital and complex concept that captures the effectiveness, output, and significance of research activities carried out by individuals, groups, or organisations. The number of publications per researcher is the most widely used definition of research productivity and is regarded as an indicator of academic institution performance. The number of publications per researcher and the fractional scientific strength indicator are two examples of indicators that may be used to quantify it.

Universities across the world serve as effective platforms for supporting fundamental research and acknowledging global expansion. The three primary purposes of universities are teaching, research, and community service, with the overall objective of producing educated talent in fields crucial to societal growth (Okiki, 2013). Universities have become essential national assets as the knowledge society has grown, particularly in richer nations. Universities across the globe have increased the significance of research from being a major role alongside teaching to being a primary function for university status (Musiige, 2014).

Since 1980s, there has been a noticeable difference in the output of male and female academic staff, with males typically producing more articles than female researchers (Ebadi and Schiffauerova, 2016). According to Lariviere et al. (2011) male researchers published an average of 19 publications between 2000 and 2008, compared to an average of 12 articles for female researchers in the same field. Male researchers are often more productive than female researchers, according to Lone and Hussain (2017). Many factors contribute to women's low productivity in research. Age, marriage, having babies, and household chores are some personal factors that negatively affect women's research productivity. Conversely, low academic standing, inadequate money for research, and a lack of acknowledgement of women in higher education are some academic issues that have a detrimental impact on women's productivity in research. To boost research productivity, academic staff must analyse all information sources, whether they are in print or electronic form.

Academic social networks (ASNs) are websites that allow researchers to publicize their work and connect with other researchers in their fields (Ali, 2017). Each article in academic social networks is identified by a collection of metadata elements, such as the title, abstract, author, and the journal or conference it was published in. Moreover, a community of users is linked to these papers, and each user's research interests and biography are accessible to the public (Li et al., 2010).

The term "social network" pertains to "a variety of internet-based applications that leverage the theoretical and technological foundations of web 2.0 and enable the creation and sharing of user-generated content" (Al-Badi, AlHinas, Sharma, and Williams, 2013; Hamid, Wayeott, Kurnia, and Chang, 2014; Calvi and Cassella, 2013; Sechaliao, 2014).

Academic social networking sites are a particular type of Social Network Sites that provide researchers a novel means of disseminating their papers, as well as a creative means of doing research and fostering the mechanics of informal academic communication. In actuality, these websites' main objective is to create professional communities where members may communicate with co-workers, rebuild broken relationships, and create new connections with academics who are pertinent to their field of study. The majority of these social networks also strive to increase user exposure by allowing users to create online profiles and share information pertinent to their jobs (Menendez, De Angeli, and Menestrina, 2012).

Academic Social Networking sites are therefore essential for female academic employees to conduct efficient information searches. Researchers may interact with one another and promote their research through academic social networks. In terms of sharing activities, specialities, publications, and evaluating other effects of scholarly contribution, academic social networks (ASN) are better tailored to academicians.

Academic network sites are online tools that enable research-related tasks online while also building social networks for academics and researchers. Several academic social networking sites have gained popularity during the past 10 years, including Google Scholar, ResearchGate, Academia.edu, Zotero and Mendeley (Ovadia, 2014). Academic social networking sites are primarily geared toward academics, researchers, students, and scholars. The material created by users is what powers these sites. Professors may facilitate their professional interactions, share research discoveries, and foster scientific cooperation with the use of academic social networks.

Users of academic social networking sites can submit their papers, abstracts, link to published publications, and information about how many times their articles have been downloaded. They can also participate in scholarly conversations and ask and answer sessions with other users. Faculty members are encouraged to use academic social networks in order to increase the productivity of their research. Academic social networks include Mendeley, Method-space, Pinterest, Academia.edu, Research-gate, Googlescholar, and ORCID (Tai and Pieterse, 2017) Research publication posting and peer following are made easier by these platforms. However, certain academic social networking sites provide specialised services that differentiate them from others. For instance, platforms like ResearchGate and Academia.edu

enable users to connect to social networking sites (SNSs) outside the academic realm, such as Facebook and Twitter. According to Alheyasat (2015). ResearchGate provides a ranking system for academics based on variables such as publication downloads, citation counts, discussion board involvement, and views, in addition to its job search services. Mendeley simplifies the process of uploading document libraries and allows users to import and export citations to other similar programs like EndNote and Zotero, as highlighted by Vasquez and Bastidas (2015).

Despite the various advantages that academic social networks offer, research indicates that female academic staff have not fully embraced these platforms to enhance their research productivity. Research conducted by Opesanwo and Mabawonku (2016) revealed that although professors at South-West institutions used academic social networks, they were not effectively leveraging these networks to advance their research endeavours.

Academic social networks enable female academic personnel to connect with one another and promote their research output (Bonaiuti, 2015). One of the easiest ways for female academic professionals to share their findings is through social network. Depending on their level of utilization of academic social networks in the information age will vary. In order to boost the productivity of their research, female academic staff members must refresh their findings on academic social networks. This study therefore aims to look into the use of academic social network and research reproductive of female academic staff in the selected university in South-West, Nigeria.

Statement of the Problem

Research productivity is important to academic staff, including female academic staff worldwide for their career prospect and promotion. In spite of its importance, it has established by scholars (Oyeyemi, 2019,2011, Opesade et al. (2017) that research productivity of female lecturers in Nigeria is abysmally low when compared with the male counterparts. Many reasons have been adduced for this undesirable situation and various efforts have been made to reverse this trend, but recent observation still showed that female lecturers have not made desired significant progress in research productivity. Perhaps,this low research output of female lecturers could be attributed to use of academic social networking sites. It is against this background, that this study investigated the relationship between the use of academic social network and research productivity of female academic staff in selected public universities in South-West Nigeria.

Research Questions

The following research questions were used to guide this study:

1. What is the level of use of academic social networking sites for research productivity among female academic staff in selected public universities in South-West, Nigeria?
2. What are the purposes of use of academic social networking sites for research productivity by female academic staff selected in public universities in South-West, Nigeria?
3. What is the level of research productivity of female academic staff in selected public universities in South-West, Nigeria?
4. What is the relationship between use of academic social networking sites and research productivity of female academic staff in in selected public universities in South-West, Nigeria?

Research Hypothesis

The hypothesis formulated for this study is:

H_{01}: There is no significant relationship between the level of use of academic social networking sites and level of research productivity of the female academic staff in public universities in South-West, Nigeria.

Review of Related Literature

Research Productivity of Female Academic Staff

The term "research productivity" (RP) refers to the amount and caliber of publications that an academic has produced during a specific time period. Research productivity may be defined as the typical quantity of publications that each researcher generates over a certain period of time. Productivity in research is a manufacturing process that uses both material and intangible resources. Both physical and intangible products of research production are possible (Iwu-James, Haliso, Soyemi and Madukoma, 2021). The productivity of their research is a good indicator of an academician's success. According to Oyeyemi, Ejakpovi, Oyeyemi and Adeniji (2019), the quantity of academic presentations at conferences and other peer-reviewed events as well as the number of research publications in peer-reviewed journals are important indicators of productivity and standing within the academic field. As research productivity is linked to researcher advancement, tenure, pay, and other factors, it frequently plays a significant part in academic success (Okonedo, 2015).

Lone and Hussain (2017) remarked that from the 1980s to the present, there has been a clear difference in the productivity of research between male and female researchers.On average, men have

published more papers than women (Cole & Zuckerman, 1984; Xie and Shauman, 1998; Nakhaie, 2002; Pudovkin et al., 2012 Frandsen, et al., 2015; Ebadi & Schiffauerova, 2016).

The gender disparity in research productivity has been confirmed by other studies; on average, female academics publish less than their male counterparts (Tower et al. 2007; (Baker, 2012)). Women publish in the sciences at a lesser rate than men, according to a number of studies (Kyvik 1990; Xie and Shauman 1998, Sax et al. 2002). According to a comparable study conducted in six different nations around the world, Aiston and Jung (2015) found that women academics produced less research than their male counterparts in humanities and social sciences.

Academic women's career development is perceived to be significantly impacted by their families, which imposes limitations and expectations on them as they navigate the conflicting narratives of being a successful academic and a good mother, and struggle and sacrifice more than men do for parenting and housework (Raddon, 2010; Beddoes and Pawley 2013)**.** Research has shown that this tradeoff results in decreased funding for research, which has an effect on the productivity of research (Bailyn 2003; Jons 2011; Beddoes and Pawley 2013).

According to Danell & Hjerm (2012), despite measures aimed at increasing the percentage of female professors in Sweden, women continue lag behind men in obtaining professorships, and their circumstances are not getting better over time. In the same vein, Van den Besselaar and Sandstrom (2015) affirmed that women are still under-represented in upper academic jobs and have fewer formal authority positions than men. Female researchers also tend to have slower careers and end up in lower positions.

According to Zulu (2020) some of the barriers or discourses have taken a dominating position in studies of female research output. These include the requirements for earning a degree and a professorship, as well as the difficulties of joining supporting networks, large teaching loads, and lack of time, family obligations, and field of specialization. Women's participation in rigorous teaching assignments, administrative work, and family responsibilities are the main causes of the time being consumed by these activities, which limits their time for research. Similar to this, black female professors at other South African colleges also identified a shortage of time as a hindrance to their research output (Schulze 2005; Mabokela and Mawila, 2004).

Ogbogu (2009) revealed that female academic staff published less than male counterparts, which is responsible for low positions of females in academia. This discrepancy was explained by various factors, including inadequate mentoring, low compensation, women's disinterest in academia, family obligations, extended training periods, and the belief that women should have modest career goals because of their

traditional roles. Female academics generally produced less research, according to Opesade et al. (2017), who found that 59.5% of them published one paper a year, 23.6% published two or more, 1.1% published three, and 15.8% did not publish at all. Even though the majority of female academic employees published once a year, the majority of them wanted to write more often.

Despite the seemingly logical assumption that family responsibilities might constrain women's capacity for research, several studies have yielded contradictory findings. According to Sax et al. (2002), there was no negative effect of family-related factors on research output. However, Hunter and Leahey (2010) discovered a few years later that a woman's research production was indeed impacted by having children early in her academic career. White et al. (2011) acknowledged the significance of establishing a strong research record early in one's career, but for many early-career female academics, this period is often disrupted by childcare responsibilities. It could be argued that women in the early stages of their careers might postpone having children until their professional positions are secure. However, delaying childbirth could lead to challenges where the consequences would clearly be detrimental. The result is that some women put their homes and kids before their jobs. As one lady put it, "My family is my priority; my children are much more important than career advancement"(Zulu 2007**)**.

The investigations showed that financing support for research clearly varies between male and female professors. Compared to males, women get less assistance and guidance (Leta and Lewison 2003; Lariviere et al. 2011). According to Lariviere et al. (2011) female academics in Canada are often given less money for research than their male counterparts. Men are more frequently chosen as the primary investigator for research projects than women, according to Van Dijk, Manor, and Carey's (2014) findings. Cui, Ding, and Zhu (2021) investigated the gender gap in research output during the COVID-19 pandemic. Their results revealed that while overall research production increased by 35% in the ten weeks following the lock down in the United States, female academics' productivity decreased by 13.2% compared to their male counterparts.

Negi (2018) looked at the geographical distributions, author gender productivity, and collaborative efforts in the papers that were published in the Annals of Library and Information Studies between 2008-2017.According to the survey, men authors have made more contributions than female authors. In addition, women are more productive when they work on research projects with men.

Use of Academic Social Networking Sites by Female Academic staff

Literature demonstrates that, similar to other internet technologies, professors' research output may be impacted by their usage of social networks. According to Seman (2014) there is a substantial correlation between social networking site use and employment. There has been a ton of more research on the effect of social networking platforms on employees, and it has been shown that there may be a connection. A University of Melbourne research, for example, found that employees who use social networks at work are approximately 9% more productive than those who do not (Coker, 2009; Benjamin, 2012). Similarly, Anyim (2021; Subaveerapandiyan, and Sumathi (2024) reported that female academic staff use academic social networking sites.

The way scholars disseminate and publish their work could be completely transformed by academic social networks. Academic authors are encouraged by Tai and Piterse (2017) to make their full-text journal papers, conference presentations, and even drafts available to the public using academic social networks. According to Rowan (2011) using academic social networks for research includes talking about the work done, the publications read, and lab activities. Opesanwo and Mabawonka (2016) reported that academic social networks may improve a variety of characteristics of research outputs, including publishing in academic journals, conference papers or proceedings, peer-reviewed bulletin, continuing research, and seminar papers, among others.

Engagement on academic social media offers several significant benefits for female academics, Robinson et al. (2021) found that female academics often use platform like LinkedIn to participate in professional development activities, including webinars and online conferences. This accessibility allows them to stay current in their fields and build essential skills. Similarly, Female lecturers often utilize social media platforms like Twitter, LinkedIn, and ResearchGate for networking and professional growth. A study by Baker et al. (2020) found that 68% of female lecturers reported using Twitter to connect with colleagues, share research findings, and participate in academic discussions. These platforms provide opportunities for mentorship and collaboration, which are particularly crucial for women in academia, where networks can be male-dominated.

Research Method

Survey research design of correlative type was adopted for the study. The total population of the study comprised 2,635 female academic in six selected public universities in South-West Nigeria. A sample size 536 female lecturers which is 30% of the total population was used. This is in line with Creswell

(2014) that affirmed that 30% is sufficient as sample for population of a study. The universities selected for this study were University of Ibadan, University of Lagos, Olabisi Onabanjo, University, Ekiti State, Federal University of Technology Akure, and Obafemi Awolowo. University, Ile-Ife. A stratified random sampling technique was used, to select the 536 female academic staff.

The research instrument used, was a questionnaire which was divided into four sections. The questionnaire measured demographic variables, the level of use of academic social networks for research productivity, purposes of use of academic social networks for research productivity, and level of research productivity of the female academic staff. The questionnaire was tested for reliability using a test-retest procedure, with a Cronbach Alpha coefficient of 0.795. A total of 636 copies of the questionnaire were administered by the researchers and six trained research assistants. Out of the 536 copies of questionnaire, 413 were filled and returned, with a response rate of 77.1%. Descriptive and inferential statistics were used while the hypothesis was tested using Pearson Moment Correlation. Version 22 of the Statistical Package for Social Sciences (SPSS) was used for the analysis.

Results and Discussion

The results and discussion of findings from data analysis are presented in this chapter. It is presented in three parts. This first part answers research questions and hypothesis, while the second part presents discussion of findings.

Analysis of Research Questions

Research Question One: What is the level of use of academic social network for research productivity among female lecturers in public universities in South-West, Nigeria?

Table 1: Level of use of academic social network for research productivity among female academic staff

Academic social network	NU	AN	OC	AE	FU	$\bar{x}$	SD
I use ResearchGate to ask questions of my research productivity	14 (3.4%)	40 (9.7%)	41 (9.9%)	154 (37.3%)	164 (39.7%)	4.00	1.10

I use ResearchGate to answer questions of my research productivity	8 (1.9%)	33 (8.0%)	51 (12.3%)	204 (49.4%)	117 (28.3%)	3.94	0.95
I use LinkedIn to keep in touch with other researchers I know to build my research productivity	52 (12.6%)	15 (3.6%)	53 (12.8%)	162 (39.2%)	131 (31.7%)	3.74	1.29
I use ResearchGate to share my research productivity	27 (6.5%)	28 (6.8%)	82 (19.9%)	193 (46.7%)	83 (20.1%)	3.67	1.07
I use LinkedIn to keep in touch with other researchers I know to share my research productivity	20 (4.8%)	31 (7.5%)	68 (16.5%)	242 (58.6%)	52 (12.6%)	3.67	0.96
I use Zotero to store and manage the books and articles that I consulted in my research productivity	36 (8.7%)	29 (7.0%)	53 (12.8%)	225 (54.5%)	70 (16.9%)	3.64	1.11
I use Zotero to cite bibliographic references, such as books and articles that I consulted in my research productivity	40 (9.7%)	29 (7.0%)	49 (11.9%)	216 (52.3%)	79 (19.1%)	3.64	1.16
I use Figshare to upload all manner of research productivity	28 (6.8%)	52 (12.6%)	33 (8.0%)	249 (60.3%)	51 (12.3%)	3.59	1.07
I use academia.edu to share my research productivity with millions of people across the world for free	59 (14.3%)	34 (8.2%)	41 (9.9%)	168 (40.7%)	111 (26.9%)	3.58	1.34
I use Endnote web to share and organize my research productivity to access them from any computer	54 (13.1%)	45 (10.9%)	53 (12.8%)	130 (31.5%)	131 (31.7%)	3.58	1.37
I use Epernicus to connect researchers and find resources to enhance my research productivity	49 (11.9%)	26 (6.3%)	52 (12.6%)	220 (53.3%)	66 (16.0%)	3.55	1.19
I use Mendeley to organises and sorts my research productivity in PDFs.	74 (17.9%)	46 (11.1%)	38 (9.2%)	139 (33.7%)	116 (28.1%)	3.43	1.45
I use Figshare to discover all manner of research productivity	97 (23.5%)	12 (2.9%)	74 (17.9%)	95 (23.0%)	135 (32.7%)	3.39	1.54
I use Penprofile to connects students, scholars and educational institutions around the world to advance my research productivity	124 (30.0%)	27 (6.5%)	37 (9.0%)	155 (37.5%)	70 (16.9%)	3.05	1.52
Average of the mean = 3.61						**Moderate**	

Key: NU = Never Use, AN= Almost Never, OC = Occasionally Use, AE = Almost Every time, FU = Frequently Use

Degree ***Decision Rule if mean is ≤ 2.99 = Low; 3.00 to 3.99 = Moderate; 4.00 to 4.99 = High;

Table 1 shows that level of use of academic social network for research productivity among female lectures in public universities in South-West, Nigeria was moderate (= 3.61). All fourteen indicators of use of academic social network for research productivity showed moderate mean scores. The highest being (= 4.00) and lowest being (= 3.05). This implies that the level of use of academic social network for research productivity among female lectures in public universities in South-West, Nigeria was moderate.

Research Question Two: What is the level of research productivity of female Lecturers in public universities in South-West, Nigeria?

Table 2: Level of research productivity of female Lecturers

Publications	0-5	6-10	11 and above	Total	Mean	Std.D
Articles in Learned Journal	67(0.7%)	1788(35.7%)	2203(100%)	4058	9.83	4.47
Textbooks	843(8.7%)	869(17.4%)	-	1712	4.15	2.27
Chapters in Books	714(7.4%)	616(12.3%)	-	1330	3.22	2.0
Workshop Papers	747(7.7%)	516(10.3%)	-	1263	3.06	2.18
Scientific Peer-Reviewed Bulletin	702(7.2%)	448(8.9%)	-	1150	2.78	2.26
Technical Report	766(7.9%)	378(7.5%)	-	1144	2.77	1.87
Monographs	877(9.1%)	196(3.9%)	-	1073	2.69	1.67
Patent and Certified Invention	870(9.0%)	112(2.2%)	-	982	2.38	1.44
Edited works	919(9.5%)	-	-	919	2.23	1.31
Working Papers	860(8.9%)	-	-	860	2.08	1.27
Occasional Paper	852(8.8%)	-	-	852	2.06	1.21
Seminar papers	730(7.5%)	84(1.7%)	-	814	1.97	1.17
Conference Papers	736(7.6%)	-	-	736	1.78	1.31
Total	**9683(100%)**	**5007(100%)**	**2203(100%)**	**16893**	**3.15**	**0.08**

Table 2 shows the level of research productivity of female lecturers in public universities in South-West, Nigeria. A total of 16,893 publications were produced by female academic staff in the public universities surveyed. The level of research productivity is revealed when the mean and standard deviation of the research productivity among female lecturers were calculated on the basis various publications produced. The calculated mean are as follows: articles in learned journal (9.83), textbooks (4.15), chapters in books(3.22), workshop papers (3.06), scientific peer-reviewed bulletin (2.78), technical report (2.77), monographs (2.69), patent and certified invention (2.38), edited works (2.23), working papers (2.08), occasional paper (2.06), seminar papers (1.97) and finally, conference papers (1.78). The various means of this research productivity among the female lecturers are low in all the publications measured considering the 10 years covered by this study (2013-2022). This trend is responsible for the low overall (Mean = 3.15) for all the publications of the female lecturers in public universities in South-West, It is therefore concluded

that research productivity of the surveyed is low considering the total number of researchers and the period of years (2013-2022) research productivity was measured.

Research Question Three: What are the purposes of use of academic social network for research productivity by female lecturers in public universities in South-West, Nigeria?

Table 3: Purposes of use of academic social network for research productivity by female Lecturers

Purposes of use	Frequency	Percentage
Searching of topics/ideas for thesis, conference papers, articles etc	371	89.8
Links to publish my research	344	83.3
Downloading of articles to aid my research productivity	343	83.1
Bibliographic citation and referencing of my research productivity	343	83.1
Teaching purpose to enhance my research productivity	331	80.1
To update knowledge	330	79.9
Searching for relevant literature to enhance my research productivity	329	79.7
Searching for Publishing platform for articles	329	79.7
Current awareness for my research productivity	316	76.5
Engage in professional interaction to advance my research productivity	290	70.2
Track demand for published of my research productivity	289	70.0
Uploading academic articles to give feasibility for my research productivity	275	66.6

Table 3 showed that the purposes of use of academic social network for research productivity by female lecturers in public universities in South-West, Nigeria are searching of topics/ideas for thesis, conference papers, articles etc 371(89.8%), links to publish their research 344(83.3%), downloading of articles to aid their research productivity343(83.1%), bibliographic citation and referencing of their research productivity343(83.1%), teaching purpose to enhance their research productivity331(80.1%), to update knowledge 330(79.9%), searching for relevant literature to enhance their research productivity 329(79.7%), searching for publishing platform for articles 329(79.7%), current awareness for their research productivity 316(76.5%), engage in professional interaction to advance their research productivity 290(70.2%), track demand for published of their research productivity 289(70.0%) and finally, uploading academic articles to give feasibility for their research productivity 275(66.6%). It could be concluded that the purposes of use of academic social network for research productivity by female lecturers surveyed are

searching of topics/ideas for thesis, conference papers, articles etc, links to publish their research and downloading of articles to aid their research productivity.

Hypothesis 1

Table 4: Relationship between level of use of academic social network and level of research productivity of the female Lecturers

Correlations

		$\bar{x}$	SD	Academic social network	Research productivity
Academic social network	Pearson Correlation			1	-.212**
	Sig. (2-tailed)	47.16	8.64		.000
	N			413	413
Research productivity	Pearson Correlation			-.212**	1
	Sig. (2-tailed)	38.8491	11.71	.000	
	N			413	413

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

Table 4 revealed that the r value is -0.212 which depicts a negative relationship between use of academic social network and research productivity of the female academic staff in public universities in South-West, Nigeria. The calculated significant probability value of (p-value) 0.000 was subjected to the alpha value of 0.05. Since the significant probability (p-value) of 0.000 is less than the alpha value of 0.05, the null hypothesis is rejected. This implies that there is a negative relationship between use of academic social network and research productivity of the female lecturers in public universities in South-West, Nigeria.

Discussion of the Findings

The finding showed that the level of use of academic social network for research productivity among female lecturers in public universities in South-West, Nigeria was moderate. The findings corroborate those of Ortega (2015), who examined the usage of ASNs by over 11,000 female academic members of the Spanish National Research Council (Google Scholar Citations, ResearchGate, Academia.edu, and Mendeley). The humanities and social sciences, biology and biomedicine, natural resources, agriculture science, physical science and technology (S & T), materials science and technology,

food science and technology, and chemical science and technology are the eight main study areas he compared consumption throughout. Almousa (2011) also looks at how female Jordanian scholars in various roles—including post-doctoral researchers, independent researchers, faculty members, and graduate students—use Academia.edu in their respective fields.

The finding also showed that the research productivity of female lecturers in public universities in South-West, Nigeria was low. This finding agreed with the submissions by (Lone & Hussain 2017; Aiston & Jung, 2015; Opesade, Famurewa & Igwe, 2017) Viglione(2020; Mason,Wolfinger & Goulden , 2013)) reported that research productivity of female academic staff is low due to family responsibilities of women which significantly impact women's academic careers. This often lead to reduced time and energy for research activities. Women with children experienced career interruptions, resulting in fewer publications compared to their male counterparts, who may not face similar pressures.

The finding showed that the major purposes of use of academic social network for research productivity by female lecturers surveyed are searching of topics/ideas for thesis, conference papers, articles etc, links to publish their research and downloading of articles to aid their research productivity. The results in this study concur with those of Cruz and Jamias (2013), who found that collaborative writing, social networking, and sharing of scientific articles are the technologies that are most helpful in the research process while micro-blogging and conferencing are the least helpful. Similarly (Greenhow and Askari, 2015; Manca and Ranieri, 2013). Salami, Chuks-Ibe, and Uzoagba (2020) reported that female faculty members seek out and obtain information from other researchers via academic social networks.

The finding also showed that there is a relationship between use of academic social network and research productivity of the female lecturers in public universities in South-West, Nigeria. This suggests that it is impossible to overstate the value of academic social networks in improving research production. Academic social networks have the potential to revolutionize how female lecturers share and publish their research. The results are in agreement to a study by Tai and Piterse (2017) that underlined how academic social networks promote female faculty members to upload full-text journal papers, conference speeches, and even drafts and make them publicly accessible. Similaly Opesanwo and Mabawonku (2016) submitted that academic social networks can improve a number of elements of research outputs, including publications in scholarly journals, conference papers or proceedings, peer-reviewed bulletins, continuing research, and seminar papers, among others.

Conclusion

The use of academic social networking sites could be of assistance to female academics as extant studies suggest that it gives leverage to academics in terms of research productivity. Results of this study however showed that the level of use of academic social networking sites was moderate. This suggests that some used these academic social networking while others were not, this needs to be addressed so that they can take use the academic social networking sites to improve research productivity. Female academias still need to diversify the purpose for which they used academic social media in order to strengthen their research productivity. In addition, the results of this study showed the level of research productivity of female lecturers in selected public universities in South-West Nigeria was low.

This study concludes that the use of academic social networking sites by female academic staff members in public universities in South-West, Nigeria is negatively correlated with the research productivity. This suggests that, the use of academic social networking sites by female academic staff in public universities in South-West, Nigeria will increase research productivity of the female lecturers.

Recommendations

Based on the findings of the study, the following recommendations were made:

Female academic staff should be encouraged to use academic social networking sites to enhance their research. Female lecturers should be sent for trainings on how they can leverage on academic social networking sites to improve research productivity significantly.

Female lecturers should also be encouraged by the management of the universities to form networks to boost collaborations in order to improve research productivity.

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