# Impact of Academic Social Network Engagement on University Lecturers' Research Output and Professional Development

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## Abstract

The impact of quality academic publications and training attended on the productivity of an academic member cannot be overemphasized. Its impacts extend beyond just the growth of an academic member, it radiates to increasing University's ranking among its comity. With the affordances provided by the Internet, academic social network (ASN) emerged as an Internet-based social networking community for academia to seek for research resources and exchange ideas that can assist in developing new knowledge for self-development and community at large. Grounded on the collaborative feature of ASN, researchers' geographical gap can easily be bridged. Thus, the academia assumes that the research output (RO) and professional development (PD) of an academic member would gain greater quality. Consequent on this assumption, this study examined the impact of ASN engagement on university lecturers' RO and PD. It employed a quantitative research design of the survey type and sampled 350 academic members across three universities in Nigeria with a multistage sampling technique. A validated researchers-design questionnaire with a reliability value of 0.88 served as the research instrument. Descriptive statistics was explored as analytical tool. The outcome of the study provided insights into the adoption of ASN among academic members, with heavy emphasis on ASN for research purposes only, rather than on RO and PD respectively. This study recommends that there is a need for awareness and motivation towards the use of some ASN. Hopefully, this will further enhance their RO and PD, which will ultimately reflect on the quality of Nigerian graduate.

**Keywords:** Academic Social Network, Engagement, Research Output, Professional Development, Internet

## Introduction

The Internet has provided a shift from the conventional information and knowledge seeking means to a highly-swift resource sourcing pedestal. In microseconds, information which are physically navailable could be acquired. This technological innovation has aided different walks of life

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especially, educators and researchers to shift to sourcing information from the Internet rather than the library. The effect of the Internet on almost all aspect of human endeavor cannot be quantified. Its consequential impact has attracted the academia, as well as academic institutions to adopt the Internet as the go-to platform for not just information acquisition source, but inclusive of it being an essential medium for academic communication, learning support systems, and a channel to promote open, distance and online education.

The studies conducted by Ventures Africa (2015) and Oladosu *et al*., (2020) provided evidence on the wide use of Internet for one reason or the other. Highly ranked among other purpose of use of Internet is social communication. Ventures Africa (2015) stressed that for social communication purpose, virtually every Nigerian makes use of the Internet through social media to connect to their loved ones. In recent time, the Internet does not only serve as a social communication tool, but has grown to serve as a powerful tool for business and political purposes.

With the affordances provided by the Internet as a social communication tool, particularly, academic social network (ASN). ASN is an academic-focused Internet-based social networking community for academia to seek for academic-related contents, connect with other researchers in diaspora, exchange ideas, collaborate on researches, enroll for courses and develop new knowledge for self-development to benefit their institution and the community at large. ASN is described by Bittner & Mulier (2011) as an online-based social instrument that is modified to meet the needs of researchers such as academic job boards, information on academic conferences, and collaboration tools for academic endeavors. It further allows the creation of groups and open links between users through which researchers inform their communities and other researchers about their research results and interests; and also increase their visibility within the academia.

Olonikawu (2015) asserted that the incorporation process of expanding information transmission media has provided effective means of information dissemination paradigm by facilitating new opportunities. Important to ASN, the capability of reforming the methods of information publication and sharing in the academic environment through interrelations or collaboration platforms, has provided an evolution to influence the structure and dynamic of the research community (Meishar-Tal & Pieterse, 2017). The research geographical gaps are bridged with the supports gained through the features of ASN which are: collaboration, online personal management, research dissemination, documents and publication management, impact measurements and citation counters (Vasquez & Bastidas, 2015).

Nandez & Borrego (2013) explains that the practicality of ASN generally involves the engagement of the academia in an online community which could result into the acquisition of new knowledge, and ideas, collaboration, exchanging of information and many other. Among many other reasons, most scholars join ASN for self and professional development purposes. These include but not limited to accessing resources, exploring information, connecting with researchers, developing their careers, and finding solutions to their academic or professional problems. With greater engagement with ASN, provisions such as universities partnership; resources sharing among university, public and private entities to enrich scholarship and research; addressing critical societal issues and contributing to public good are made easily achievable (Fitzgerald *et al.,* 2012).

Ductor *et al.* (2014) noted that the quality of researches and the productivity of researchers could be improved through access to new knowledge and collaboration networks. With ease, convenience and access to information that can aid research through many research tools that enable researcher to access previous related work; assist researchers to publish; provide open access grant; and aid in globally recognizing researchers whose work is cited and grants them promotion in their professional field (Hoskins, 2016).

Academic social network is not only essential for success in academic. Bonaiuti (2015) expressed that ASN has become a natural component in achieving greater research output for academics. Bonaiuti stressed that ASN is essential for scholars to build national and international contacts with their global peers in order to increase visibility, reputation, and academic ranking. Sheikh (2016) noted that ASN assists researchers to understand the value of their

work by providing a forum where literature can be discussed and evaluated, where the user can access a variety of statistics concerning the use of upload publications, and where researchers' profiles can be viewed.

Collin *et al*. (2011) stated that ASN aids professional developments in fostering the development of literacy and technical skills, developing a sense of aspiration, personal achievement and self-worth, and fostering further creativity and self-expression all of which are key predictors of wellbeing. As regards the academic, with ASN, every individual acquires new skill and knowledge that is relevant to their academic fields in improving individual competency in the discharge of his/her primary duties.

In the academic system, Abbott (2014) refers to professional development as the variety of specialized training, formal education and advanced professional learning channeled towards assisting the academics in improving their professional knowledge, competence, skill and effectiveness. Professional development involves various training programs such as seminars, conference, learning, and professional courses or training which each and every individual engage in for the purpose of acquiring new knowledge and skill that will add values to their quality and productivity as an academic. Hunzicker (2010) noted that effective professional development exposed academics to learning opportunities that are supportive, job-embedded, instructional focus, and collaborative in order to assist strengthen their professional competency.

With the affordances provided by the ASNs, especially the capabilities of providing avenue for the academia to collaborate and exchange ideas that will help in developing new knowledge for self-development to benefit their institution and the community at large, it is assumed that the research output and professional development of an academic member would gain greater quality. Invariably, the situation remains slightly unchanged. Consequent on this assumption and the current situation, this study seeks to examine the impact of academic social network engagement on university lecturers' RO and PD, while providing answers to three research questions:

1. What are the academic social network platforms university lecturers utilizing?
2. What impact does academic social network has on university lecturers' research output?
3. What is the impact of academic social network on university lecturers' professional development?

**Methodology**

This study adopted a quantitative research design of the survey type. The target population included all university lecturers in Kwara State. To select the sample size, a multistage sampling technique was employed: firstly, stratified sampling technique was employed to select three universities according to ownership (federal, state and private universities); secondly, a proportional sampling technique with the use of Research Advisor's model was employed to select 350 academic members in the three schools; and lastly cluster sampling technique was employed in administering the research instrument in each school as shown in Table 1.

The research instrument included a 3 Sections (A, B, and C) validated researchers-design questionnaire with a reliability value of 0.88 (Cronbach-alpha tested): Section A solicited for the demographic data of the respondents; Section B was interested in the ASN platforms utilized by the lecturers; Section C elicited information on the impact of ASN on respondents' research output; and Section D sought for information on impact of ASN on lecturers' professional development. Sections B, C and D were rated on a modified Likert mode scale of Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD) with weighted value of 4 to 1 in terms of scoring.

With considerations for the ethical concerns of participants in this study, the researchers sought consent of the respondents and subsequently informed them about the study procedure and the importance of the study. The respondents were not compelled to respond to the instrument and voluntary participation was ensured. All the respondents were given a sense of autonomy, and anonymity, confidentiality and privacy of the respondents were maintained and considered. Data collected were treated with utmost confidentiality and anonymity.

The data collected was analyzed using descriptive statistics such as statistical mean and rank ordering.

**Table 1: Sampling Frame of Lecturers in Selected Universities using Research Advisor's Model**

| Institution | Estimated Population | Sample Size |
|---|---|---|
| Federal | 800 | 194 |
| State | 400 | 96 |
| Private | 256 | 62 |
| **Total** | **1,456** | **350** |

**Source:** Human Resource Center of the Universities

### Results

Due to the nature of this study, a descriptive approach and statistics were employed in analysing the collected data.

**Research Question One:** What are the academic social networks platform university lecturers utilize?

Table 2 shows the ASN platforms university lecturers utilize for research and professional development. As shown, Google Scholar (99.3%), Researchgate.net (88.1%) and Academia.edu (81.2%) were widely used for research, while only LinkedIn (67.7%) was identified as the only ASN used for professional development. Other platforms such as Pen profile (3.2%) was used lesser compare to Mendeley (22.7%) for research purpose. As regards ASN for professional development purpose, LinkedIn (67.7%) was the only ASN platform that is widely utilized among the respondents compare to other platforms such as Teach thought (14.8%); Teacher vision (12.2%); Edutopia (3.5%); and Commonsense media (CMS) (2.6%). The percentage cumulative sum of 60.5% which is greater than the average benchmark (50%) indicated that, lecturers do use ASN, but not as much as expected. They explore ASN platforms for research more than the platforms for professional development.

**Research Question Two:** What impact does academic social networks have on university lecturers' research output?

In examining the impact of ASN on university lecturers' research output, a four-point Likert scale of a decision scale of 2.50 was adopted. Data collected were analyzed using statistical mean and rank ordering. As indicated in Table 3, all the Items have a mean value higher than the benchmark of 2.50, except Item 4 where the lecturers claimed that ASN does not impact on sharing their research findings by blogging (2.40).

**Table 2: Academic Social Network Platforms Utilized among University Lecturers**

| Purpose | S/N | Items | Yes Freq. (%) | No Freq. (%) |
|---|---|---|---|---|
| **Research Output** | 1. | Researchgate.net | 308 (88.1) | 42 (11.9) |
| | 2. | Academia.edu | 284 (81.2) | 66 (18.8) |
| | 3. | Mendeley | 80 (22.7) | 270 (77.3) |
| | 4. | Google Scholar | 347 (99.3) | 3 (0.7) |
| | 5. | Penprofile | 11 (3.2) | 339 (96.8) |
| **Professional Development** | 6. | LinkedIn | 237 (67.7) | 113 (32.3) |
| | 7. | Edutopia | 12 (3.5) | 338 (96.5) |
| | 8. | Teachthought | 52 (14.8) | 298 (85.2) |
| | 9. | Teachervision | 43 (12.2) | 307 (87.8) |
| | 10. | Commonsense media (CMS) | 9 (2.6) | 341 (97.4) |
| **Cumulative Sum** | | | **1383 (39.5)** | **2117 (60.5)** |

**Table 3: Impact of ASN on Lecturers Research Output**

| S/N | Questionnaire Item<br>Engagement with ASN has helped me: | Mean<br>(X) | Rank<br>Ordering |
|---|---|---|---|
| 1. | to publish more articles | 3.72 | 4th |
| 2. | to improve my citations and impact score | 3.66 | 6th |
| 3. | in social data sharing | 3.58 | 7th |
| 4. | in blogging to share my research findings | 2.40 | 10th |
| 5. | in reference management | 3.76 | 3rd |
| 6. | to rate other researchers' works | 3.84 | 2nd |
| 7. | to review other researchers' works | 2.82 | 8th |
| 8. | to share videos of my presentations with other researchers' | 2.68 | 9th |
| 9. | to view several articles of other researchers to improve my own publication | 3.69 | 5th |
| 10. | to find relevant materials for my research | 3.99 | 1st |
| | **Grand mean (X)** | **3.41** | |

**Research Question Three:** What is the impact of academic social network on university lecturers' professional development?

**Table 4: Impact of lecturers Academic Social Network Engagement on their Professional Development**

| S/N | Questionnaire Item<br>Engagement with ASN has helped me:: | Mean (X) | Rank<br>Ordering |
|---|---|---|---|
| 1. | enhanced my collaboration with other researchers outside my institution. | 2.65 | 5th |
| 2. | exposed me to newer and innovative teaching strategies and skills | 2.59 | 8th |
| 3. | has contributed greatly to my social and communication skills | 2.61 | 6th |
| 4. | enhanced my exposure to current trend and techniques in my area of specialization | 2.72 | 3rd |
| 5. | helped to develop new research skills and knowledge | 2.85 | 1st |
| 6. | connect me to like minds within and outside my research interest | 2.15 | 10th |
| 7. | helped me gain social recommendation and value for my works | 2.29 | 9th |
| 8. | exposed me to global best practices and innovative developments | 2.73 | 2nd |
| 9. | enhanced my confidence in conferences and workshop presentation | 2.54 | 7th |
| 10. | has improved my participation in online professional discussion and current trends in academics | 2.67 | 4th |
| | **Grand mean (X)** | **2.58** | |

In examining the impact of ASN on university lecturers' professional development, a four-point Likert scale of a decision scale of 2.50 was adopted. Data collected were analyzed using statistical mean and rank ordering. As indicated in Table 4, all the Items have a mean value higher than the benchmark of 2.50. Indicatively, the rank ordering reveals the significance of each item to the lecturers. Among others as shown in Table 4, the lecturers claimed that ASN has impacted on their professional development by helping to develop new research skills and knowledge (2.85); exposed them to global best practices and innovative developments (2.73); enhanced their exposure to current trend and techniques in their area of specialization (2.72); improved their participation in online professional discussion and current trends in academics (2.67); and enhanced their collaboration with other researchers outside their institution (2.65). Summarily, the grand mean of 2.58 which is greater than the benchmark of 2.50 implies that ASN has positive impact on university lecturers' professional development.

**Discussion of Findings**

Established in the findings of this study is that most university lecturers used ASNs for research purposes rather than for both research and professional development; and ASN positively impact both lecturers' research output and professional development for those who use it for both endeavors. Generally, as found out in this study, ASNs for research enjoys more subscribers compare to ASN for professional development. Thus, impacting more on research output than professional development ($X_1$=3.41> $X_2$=2.58). These findings are supported by the earlier study of Nandez & Borrego (2013) who reported that most visited ASN among scholars and researchers are Mendeley, LinkedIn, Academia.edu, and Researchgate.

These findings also support the earlier claim of Sheikh (2016) that ASN enjoys more patronage for research reasons compare to other reasons, despite ASN being an online platform targeted towards academic community to fulfill their scholarly needs and to also facilitate professional shaping contacts, dissemination of research resources, and promote scientific collaboration among researchers. These findings are in agreement with Donelan (2016) who noted that frequent engagement of academics and researchers with various ASN can motivate and expose them to a wider range of opportunities that could contribute to their research productivity and career progression, especially when they collaborate and promote their researches on the platforms.

**Implications of the Findings**

This study implies that ASN has the capability to greatly contribute and improve academic members research output and professional development, if ASN can be explored for both reasons rather than patronizing one at the expense of the other. Delightedly, the adoption of online citation counts and impact measurement as one of the criteria for academic promotion by some Nigerian universities could improve the engagement of ASN for research and professional development purposes among university lecturers.

**Conclusions and Recommendation**

Based on the findings of this study, it was concluded that the impact of ASN on the academia cannot be overemphasized. However, there is a need for awareness and motivation towards the use of some ASNs, especially for professional development purpose, and these services should be explored maximally to further enhance lecturers' research output and improve their professional development. It is important to express that blogging capacity that is entrenched with ASN need to be explored too, as this will aid in bridging the professional development activities such as connecting lecturers to like minds within and outside their research interest and helping them to gain social recommendation and value for their works.

Based on this, this study recommends that resources should be provided in various universities to promote and support ASN engagement, as well as adopting ASN as a tool for professional development. Hopefully, this will further enhance their academic productivity and self-development which will ultimately reflect on the quality of Nigerian graduates.

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