

# Use of Smart Phone among Para-Professional Librarians in Olabisi Onabanjo University Library, Nigeria

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## Abstract

This study attempted to investigate how para-professional librarians (Library Officers cadre and only Assistant Library Officers) in Olabisi Onabanjo University (O.O.U) Library, Nigeria used smart phone to embrace academic library services. A questionnaire and an interview schedule were used to collect data for the study. The data were analysed using descriptive statistics and Analysis of Variance (ANOVA). The study revealed that all the library paraprofessional staff had and used smart phones for personal, official and library services, but the use for library services and routines (across the items for library services) were on a lower side. The study further revealed that gender of para-professional librarians does not influence smart phone use amongst other findings. The study thus recommended provision of good telecommunication facilities, integration of full mobile library applications and services into academic library functions and services and training of library staff for effective deployment of phone use for library services amongst others.

**Keywords:** Library Services, Mobile Phones Use, Nigerian Para-Professional Librarians, Smart Phone Use, Smart Phone Use for Library Services, New Media.

## 1. Introduction

The patterns of communication and work activities nowadays are changing as new technologies emerge and are thus influencing the ways and manner individuals now communicate, organize, use and disseminate information. The emergence of these technologies have also brought in newer forms of media which are now being used to aid communication, organization, use and dissemination of information and knowledge among individuals and organizations. Mobile phones, especially, smart phones are one example of such newer media technologies that have influenced the daily activities and lives of individuals - students (at all levels), government and non-government workers, self-employed, literates, non-literates, aged and even the young ones. Mobile phones work with radio waves which make them to be easily carried about and used anywhere in the world. These phones especially, smart phones, have found much usage and application in librarianship, particularly, in the advanced countries. For instance, they have been used as valuable tools that enabled library users tapped into library services (Starkweather and Stowers, 2009; Jensen, 2010; Little, 2011). Smart phones have also been used to embrace text-a-librarian initiative which has been an effective means of meeting users' needs and requests quickly (Caperon, 2015).

The Global System for Mobile Communication (GSM) technology acceptance and penetration among the Nigerian populace, especially, the university user communities has great potentials for enhancing services of academic libraries as well as other libraries and information centers in the country. As a result of these, Nigerian academic librarianship must adopt mobile technologies, applications and services in order to adapt to technological changes that will bring about significant improvement in the delivery of library and information services. This paper therefore seeks to examine smart phone use among para-professional librarians, being one category of library professionals in the Olabisi Onabanjo University (O.O.U.), Nigeria. It also intends to identify ownership of smart phones, purpose(s) of use and years of experience in smart phone use among the para-professionals. In addition to the above, the study will investigate if years of work experience, work departments and gender of library professionals will influence smart phone use for library services.

## 2. Brief Information about O.O.U Library

The Olabisi Onabanjo University was established in November, 1982 with the University Library coming to existence in a year later. The University is operating multi-campus system. The University and the Library have an impressive history of existence since inception. Currently, the university library operates at its Main Campus at Ago-Iwoye, with its Law Library and four faculty libraries (Arts, Education, Sciences and social and management sciences). The other campuses branch libraries located at the campuses of the university serving staff and students in faculties of Basic medical sciences (Ikenne); Pharmacy and Medical Sciences (Shagamu), Agricultural-Sciences (Ayetoro) and Engineering and Environmental Sciences (Ibogun).

The Library is partially automated using the ALICE for Windows Automation Software and deployed the Online Public Access Catalogues (OPAC) to the various campus libraries. Airtel Nigeria is the current GSM service providers since 2013. The University Library subscribed to sizeable number of scholarly databases and electronic resources, such as, JSTOR, OARES, AGORA, HINARI, Science Direct, APS Physics and Lyell Collection and so on for the use of staffs (academic, non-academic and researchers) and students. These

resources are accessible through a number of electronic media and mobile/handheld devices as long as users have the university password to access whatever resources required. Mobile phones have become part of the university campus life and culture among the students and staffs. They are used by almost every student and staff because the assets have helped to bridge communication gap and have made it possible for the university user communities to locate, access, process, manipulate, use, store and disseminate information. Currently, it is possible for the university user communities to access whatever information so desired on their various mobile devices anywhere they are in the world so far they are registered users of the university library. It is against this backdrop that the current study intends to examine smart phone use for library services among the paraprofessional librarians in the university.

### **3.1 Concept and Penetration of Smart Phones**

Smart phones are new kinds of mobile phones for the 21<sup>st</sup> Century that run on the Android operating system. They are classified as phones having Internet access. Examples are iPhones, Windows phones and Android phones. These types of phones could be used to browse the Internet, electronic mails, play and download games, music and applications as well as perform many other functions that computers and laptops could perform. With smart phones, it is possible to use different applications simultaneously. They also receive notification of short messages services (SMS), electronic mails and other applications and come with application store which enable users to have easy access to a wide variety of applications, such as, PDF Reader, Adobe Reader, WPS Office, Office Suite and so on to download easily and freely. It is possible to have unlimited access to cool functions and features (JUMIA, 2006). Roberts, Yaya and Manolis (2014) noted that as the cost of cell phone use dropped and the functionality expanded, cell phones have ensconced themselves into the everyday lives of consumers across the globe.

Smart phones, ipads and tablets are rapidly proliferating and changing the way information is received, organized, disseminated and used by individuals, even though, digital divides may exist. For instance, Rice and Katz (2003) found that Internet and mobile phone usage were very similar but several digital divides existed with respect to both the Internet and mobile phone usage. In 2011, the International Telecommunication Union (ITU) indicated that there were over 5.9 billion global mobile subscribers. Gartner (2011) also estimated that by 2014, over 1 billion smart phones would have been sold. CISCO (2012) expressed that there would be an estimated 10 billion mobile Internet devices by 2016. Similarly, statistics indicated that 51% of United Kingdom (U.K) adults owned a smart phone and ownership of tablet devices increased significantly while half of owners signified that they could not live their lives without their tablets (OFCOM, 2012). Further, Connaway (2013); Radford and Connaway (2013) revealed that students used their technological devices to access information quickly and efficiently and had instant access to resources 24/7. Bomhold (2013) indicated that majority of undergraduates used smart phones applications to complete academic activities. La Counte (2016) estimated that 1 out of 4 people now owned a smart phone. This proliferation of mobile technologies has created a cultural paradigm shift in the way information is disseminated and knowledge is consumed that patrons are now demanding libraries bring their services to the gadgets they love (La Counte, 2016).

The current day fascination with smart phones highlighted that the technology appeared to be encouraging people to spend relatively more time with technology and less with fellow humans (Griffiths, 2000; Junco and Cole-Avent, 2008; Junco and Cotton, 2012 and Roberts et al, 2014). Kumar (2014) explored students' opinion regarding use and success of mobile technology for providing better services. Similarly, in Nigeria, Ola (2011); Akinbode, Adekunmisi and Olosore (2016) noted that the use of mobile phones has gained much ground just as it had in the developed economies. In addition, Iwhiwhu, Ruteyan and Eghwubare (2010) expressed that a review of cell phone use in libraries revealed efforts to dissuade users from making or receiving calls within libraries. Some other studies explored ways mobile phones could be used to enhance library services and routines (Fatoki, 2005; Ogbomo and Ogbomo, 2008) whereas the wide acceptance and penetration of the technology among the Nigerian populace has great potential for enhancing and promoting collaborative, interactive, multimedia-rich and ubiquitous services in the country. Ola (2011) stressed that GSM handsets have been very popular, has economic benefits, generally useful and adoptable for promotion of library services, but have been seen as noisy gadgets that its use in libraries should be prohibited. Libraries and library and information science (LIS) professionals should fully deploy and exploit the opportunities inherent in mobile technology applications and services, including hand-held devices with a view to providing world class and ubiquitous services to patrons.

### **3.2 Smart Phone Usage and Applications among Libraries and LIS Professionals**

In general terms, smart phones have been used by individuals to make and receive calls; send or receive text messages, send and or receive e-mails; access the Internet for variety of information; download applications; participate in a video chat or call; download and play games/or watch movies and films as well as share information. In Library world, smart phones have been used to handle innovations in mobile services, such as,

mobile applications to administer library records, text messaging services reminding users of books return dates, instant chat services and live lab initiatives involving the rental of mobile devices to users (Caperon, 2015). Advanced libraries have taken full advantage of smart phones and have embarked on innovative library mobile application services, such as, AXIS 360, Jasmine Digital Library, Zinio magazines which have been used to check and read books or magazines on library applications. Some other initiatives were those which have been used to download digital audio books, for example, OneClick Digital and those which have been used to renew books and placed holds using my library online, for instance, 'My Account' access (Pew Research Centre's Internet and American Life Project, 2013 as cited in Caperon, 2015). These library applications have been used to improve library services and routines which library users accessed on their phones and other handheld devices.

Smart phones have become effective resources or assets to access whatever information users need and to access useful library resources provided users have subscription access. Asif and Krogstie (2014) described system for providing relevant information to students on a mobile platform. Burford and Park (2014) explored information behaviors of young adults when they were given unlimited access to mobile tablet devices. The study established potential for constant access to digital information for research activities. With the use of smart phones and other handheld devices, it is possible to read and download e-journals and e-books which are usually controlled by libraries' subscriptions (Imperial College London, 2016). They have also become excellent tools for marketing library and information products as well as programming in libraries (Stillman, 2011). Mobile phones have also been deployed at enquiry desks of libraries to facilitate prompt handling and response to the streams of patrons' queries from within and out of library user community (Terplan, 2000).

In a study of ICT tools used among 170 librarians, Dhanavandan, Esmail and Mani (2008) revealed that e-mails (160) (94.12%) followed by mobile phones (157) (92.35%) and Internet (154) (90.06%) were the most used amongst the e-group followed by voice mail (40) (23.52%), Intranet (26) (15.30%), fax (24) (14.12%) and videoconferencing (20) (11.76%). Bilawar (2015) found that LIS professionals in Maharashtra used mobiles for communication purposes (33) (61.11%), sending messages and Internet access (21) (38.88%) and for educational uses (such as, e-book reading, downloading, assignment, field trips, etc.) (20) (37.03) among several other uses. Further, with regard to preferred places/areas of use of smart phones, 83.33% of respondents preferred home, 46.29% used mobiles during travel, 42.59% used mobile at LIS Departments, 38.88% at institutions/offices and only 27.77% used mobiles at the Library (Bilwar, 2015).

Previous research on gender and technology use suggested that differences may exist in how males and females used smart phones (Leung, 2008; Junco, Merson and Salter, 2010; Hakoama and Hakoyama, 2011; Haverila, 2011 and Roberts et al, 2014). Geser (2006) indicated that men used smart phones as instrumental tools whereas women utilized smart phone as social tools and thus concluded that motivation and goals of smart phone usage reflected rather than conventional gender roles. Junco and Cole-Avent (2008) and Junco et al (2010) revealed that females saw technologies, like smart phones and Internet as tools of communication, especially, for maintaining and nurturing relationships while men saw Internet and related technologies as sources of entertainment. In librarianship, the study of Dhanavandan et al (2008) found that male and female librarians used ICT tools most for interacting with friends and experts [(91.11%) (75.00%)] followed by updating knowledge [(91.11%) (82.5%)] and professional development [(70.00%) (56.25%)] respectively amongst other uses. In each of the items of measurement, male scores were on the high sides. Aharony (2013) in a study of university librarians' attitudes towards mobile services found a significant relationship between gender of librarians and smart phone use for library mobile services. Dhanavandan et al (2008) found a significant gender difference in terms of ICT tools used by librarians where male professionals used mobile phones (87) (51.18%), e-mail (85) (50.00%) and Internet (85) (50.00%) more than females [mobile phones (70) (41.18%), e-mail (75) (44.12%) and Internet (69) (40.59%)]. On the contrary, Akinbode et al (2016) found no significant gender difference among academic librarians' smart phone use for library services.

#### **4. Statement of the Problem**

Smart phones have become ubiquitous assets used by almost every individual in the university system - the undergraduates, post-graduates, lecturers, researchers, and even LIS professionals -to find and manipulate information either for personal, academic, research, social, organizational, and or other endeavors. The need for these categories of patrons to conveniently, comfortably, effortlessly and at little or no cost access the needed and relevant information becomes imperative for library and information science professionals. Library para-professionals as one group of library personnel needed to use smart phones to render and improve library services. They needed to be skillful in the use of the mobile/smart phone applications and services in order to be able to assist and or train library patrons to use the phone services and applications to access library information (news, events, calendars, and so on) and electronic resources, including databases available on libraries mobile websites. If library para-professionals are not skillful in the use of smart phones or cannot teach library patrons how to use smart phones to access library information and services, most especially, the electronic databases that universities have subscribed to, users might go elsewhere to access the needed information thereby jeopardising

the existence and survival of libraries. Literature search indicated that little or no research has been conducted on mobile phone use among para-professional librarians. This was evidenced by a lack or dearth of research in this aspect among this group of library personnel. Majority of studies at national and international levels on smart phone use concentrated on undergraduates, lecturers and professional librarians, leaving out the para-professional staff. It is against this backdrop that this study intends to examine smart phone use for library services among para-professional librarians in the Olabisi Onabanjo University (O.O.U) Library.

### 5. Objectives of the Study

This study intends to examine smart phone use for library services among para-professional librarians in the Olabisi Onabanjo University, Ogun State, Nigeria. In view of this, the study intends to:

- i. identify ownership of smart phone among para-professional librarians in O.O.U.;
- ii. identify para-professional librarians' years of experience in smart phone use;
- iii. investigate purposes of smart phone use among para-professional librarians in O.O.U;
- iv. investigate if years of working experience of para-professional librarians will influence smart phone use for library services;
- v. examine if work department of para-professional librarians will influence smart phone use for library services; and
- vi. identify if gender of para-professional librarians will influence smart phone use for library services.

### 6. Research Hypotheses

This study will test the underlisted research hypotheses:

- i. Years of work experience of para-professional librarians will influence smart phone use for library services.
- ii. Work department of para-professional librarians will influence smart phone use for library services.
- iii. Gender of para-professional librarians will influence smart phone use for library services.

### 7. Methodology

The study adopted the descriptive survey design method. The target respondents of this study were the para-professional librarians from the post of Assistant Library Officer to Chief Library Officer in the O.O.U. Library and they are nineteen (19) in number. The research purposively sampled the opinions of all the Library staff that fell into this category through the use of a questionnaire tagged, 'Para-professional Librarians' Smart Phone Use Scale', designed by the researchers. The thirteen (13) item scale sought information on demographics; ownership of smart phone; years of work experience and years of smart phone use; nature of use of smart phones and constraint factors. An Interview Session was also held with the University Library System Analyst. The Interview sought information on availability, accessibility and challenges of mobile library applications and services. These instruments were given to three senior colleagues for correction and their input were reflected in the final print out. Nineteen (19) copies of the questionnaire were administered to this group of the Library staff. All the copies were retrieved and found useable for analysis of this study. The collated data were analysed using frequency counts and simple percentages.

### 8. Data Analysis and Interpretation

This sub-section presented the results of the analysis in line with the objectives and research hypotheses formulated for the study.

**Table 1: DISTRIBUTION OF RESPONDENTS BY SEX**

| Sex          | Frequency | Percentage    |
|--------------|-----------|---------------|
| Male         | 7         | 36.80         |
| Female       | 12        | 63.20         |
| <b>Total</b> | <b>19</b> | <b>100.00</b> |

Table 1 indicated that 7(36.80%) of the respondents were male and 12 (63.2%) were female. This indicated that majority of the respondents were females.

**Table 2: DISTRIBUTION OF RESPONDENTS BY STATUS**

| Status                     | Frequency | Percentage    |
|----------------------------|-----------|---------------|
| Assistant Library Officers | 6         | 31.58         |
| Library Officers           | 8         | 42.11         |
| Senior Library Officers    | 4         | 21.05         |
| Principal Library Officers | 1         | 5.26          |
| <b>Total</b>               | <b>19</b> | <b>100.00</b> |

Table 2 revealed that 8(42.11%) of the respondents were Library Officers, 4(21.05%) were Senior

Library Officers, 1(5.26%) was a Principal Library Officer and 6 (31.58%) were Assistant Library Officers.

**Table 3: DISTRIBUTION OF RESPONDENTS BY AGE GROUP**

| Age (Years)        | Frequency | Percentage   |
|--------------------|-----------|--------------|
| Less than 30 years | 0         | 0            |
| 31-35 years        | 0         | 0            |
| 36-40 years        | 1         | 5.3          |
| 41-45 years        | 3         | 15.9         |
| 46-50 years        | 8         | 42.1         |
| 51-55 years        | 5         | 26.3         |
| 56-60 years        | 2         | 10.5         |
| <b>Total</b>       | <b>19</b> | <b>100.0</b> |

Table 3 revealed that majority of the respondents (13)(68.4%) were between 46-55 years of age, followed by (3) (15.8%) between 41-45 years and (2) (10.5%) between 56-60 years. Only 1 (5.3%) was between 36-40 years and no respondent was in the age group of 25-35 years. This indicated that all the respondents were matured and experienced staff.

**Table 4: DISTRIBUTION OF RESPONDENTS BY OWNERSHIP (NUMBER) OF SMART PHONE**

| Ownership (Number) of Smart Phone | Frequency | Percentage |
|-----------------------------------|-----------|------------|
| 1                                 | 15        | 78.9       |
| 2                                 | 3         | 15.8       |
| 3                                 | 1         | 5.3        |
| <b>Total</b>                      | <b>19</b> | <b>100</b> |

Table 4 presented respondents' ownership of smart phones. The data however indicated that all the respondents (100%) had smart phones, of which 15 (78.9%) owned 1 smart phone each, 3 (15.8%) owned 2 smart phone each and only 1 (5.3%) respondent owned 3 smart phones. One could adduced that this finding was in line with the data/statistics indicated by OFCOM (2012) that 51% of U.K adults owned a smart phone and that ownership of tablet devices increased significantly.

**Table 5: DISTRIBUTION OF RESPONDENTS BY YEARS OF EXPERIENCE IN SMART PHONE USE**

| Experience in Smart Phone Use (Years) | Frequency | Percentage   |
|---------------------------------------|-----------|--------------|
| Less than 1 year                      | 2         | 10.5         |
| 1 – 2 years                           | 2         | 10.5         |
| 3 – 4 years                           | 1         | 5.3          |
| 5 – 6 years                           | 1         | 5.3          |
| Over 6 years                          | 13        | 68.4         |
| <b>Total</b>                          | <b>19</b> | <b>100.0</b> |

Table 5 indicated respondents' years of experience in smart phone use. While thirteen (13) (68.4%) of the respondents signified over 6 years of experience in smart phone use, 2 (10.5%) signified 1-2 years, another 2 (10.5%) signified less than one year of experience of smart phone use. Further, 1 (5.3%) and another 1 (5.3%) signified 3-4 years and 5-6 years experience in smart phone use respectively. This indicated that 17 (89.47%), a large population of the respondents had over one year of experience in smart phone use.

**Table 6: DISTRIBUTION OF RESPONDENTS BASED ON PURPOSE OF USE OF SMART PHONE**

| Purpose of Smart Phone Use  | Yes  |       | No   |      |
|---|------|-------|------|------|
|   | Freq | %     | Freq | %    |
| Calling, receiving and sending SMS to friends and family            | 19   | 100.0 | -    | -    |
| Calling, receiving and sending SMS to colleagues                    | 19   | 100.0 | -    | -    |
| Searching and downloading information for personal use              | 19   | 100.0 | -    | -    |
| Checking and sending e-mails for personal use                       | 19   | 100.0 | -    | -    |
| Reading e-content   | 17   | 89.5  | 2    | 10.5 |
| Searching and downloading information for official use              | 16   | 84.2  | 3    | 15.8 |
| Study/Research  | 16   | 84.2  | 3    | 15.8 |
| Information/Knowledge sharing among colleagues                      | 16   | 84.2  | 3    | 15.8 |
| Entertainment   | 14   | 73.7  | 5    | 26.3 |
| Getting information on participation in library-related conferences | 14   | 73.7  | 5    | 26.3 |
| Professional networking   | 13   | 68.4  | 6    | 31.6 |
| Uploading library resources   | 13   | 68.4  | 6    | 31.6 |
| Checking and sending e-mails for official use                       | 12   | 63.2  | 7    | 36.8 |
| Playing online games  | 11   | 57.9  | 8    | 42.1 |
| Chatting with colleagues  | 11   | 57.9  | 8    | 42.1 |
| Calling, receiving and sending SMS to library contractors           | 10   | 52.6  | 9    | 47.5 |
| Social networking for library related issues                        | 10   | 52.6  | 9    | 47.5 |
| Electronic banking services   | 9    | 47.4  | 10   | 52.6 |
| Video communication   | 9    | 47.4  | 10   | 52.6 |
| Calling, receiving and sending SMS to library users                 | 8    | 42.1  | 11   | 57.9 |
| Personal shopping   | 7    | 36.8  | 12   | 63.2 |
| Advertising library products and services                           | 5    | 26.3  | 14   | 73.7 |
| Announcing library news   | 5    | 26.3  | 14   | 73.7 |
| Selection, ordering and purchase of library books                   | 2    | 10.5  | 17   | 89.5 |
| Selection, ordering and purchase of serials publications            | 2    | 10.5  | 17   | 89.5 |

Table 6 presented distribution of respondents' purposes of smart phone use. The data revealed that all the respondents (19) (100.00%) used smart phones for calling, receiving and sending SMS to friends and family as well as to colleagues; searching and downloading information for personal use as well as checking and sending e-mail for personal use. Respondents also used smart phones for reading e-content (17) (89.5%); searching and downloading information for official use (16) (84.2%); study/research (16) (84.2%) and information/knowledge sharing among colleagues (16) (84.2%). Entertainment (14)(73.7%), getting information on participation in library conferences (14) (73.7%); professional networking (13) (68.4%); uploading library information and e-resources (13) (68.4%); checking and sending e-mails for official use (12) (63.2%); playing online games and chatting with colleagues (11) (57.9%) were other great uses. Other uses were electronic banking (9) (47.4%); video communications (9) (47.4%) as well as calling, receiving and sending SMS to library users (8) (42.1%). Least uses were personal shopping (7) (36.8%); advertising and announcing library news (5) (26.3%) as well as selection, ordering and purchase of library books (2) (10.5%) and serials publications (2) (10.5%).

Scanning through the data, one could infer that respondents used smart phones greatly for personal uses than for library services. This was because responses for library services, such as, social networking for library related issues (10) (52.6%); calling, receiving and sending SMS to library users (8) (42.1%); advertising library products and services (5) (26.3%) and announcing library news (5) (26.3%) were rather too low when compared to responses for personal uses which were on the high sides. Services, such as, selection, ordering and purchase of library books (2) (10.5%) and of serials publications (2) (10.5%) were expected to be low because the two activities are unit or department specific while the other activities or services are not limited to a particular unit or department. One may be right to conclude that respondents (para-professional librarians) at Olabisi Onabanjo University Library used smart phones greatly for personal or individual purposes, such as, for communicating with friends, family members and colleagues as well as seeking information for personal endeavours than for improving library services. This finding agreed with the findings of Bilawar (2015) that LIS professionals in Maharashtra used mobiles for communication purposes, sending messages and Internet access as well as for educational uses among other purposes, even though, the study was on general usage of mobiles rather than for library services. The study also agreed with the findings of Dhanavandan et al (2008) which indicated that male and female librarians used ICT tools mostly for interacting with friends and experts followed by updating knowledge and professional development amongst other uses.

**TABLE 7: ANOVA TABLE SHOWING WHETHER SIGNIFICANT DIFFERENCES EXIST IN PARA-PROFESSIONALS LIBRARIANS' YEARS OF WORKING EXPERIENCE AND SMART PHONE USE.**

| Working Experience (Years) | N | Mean | F     | P     | REMARKS         |
|----------------------------|---|------|-------|-------|-----------------|
| 1-5 years                  | 1 | 73.0 | 0.718 | 0.621 | Not Significant |
| 6-10 years                 | 3 | 64.3 |       |       |                 |
| 11-15 years                | 4 | 58.0 |       |       |                 |
| 16-20 years                | 2 | 61.0 |       |       |                 |
| 21-25 years                | 2 | 65.5 |       |       |                 |
| 26-30 years                | 7 | 63.7 |       |       |                 |

Table 7 presented an analysis of variance showing whether significant difference exist among para-professional librarians' years of working experience and smart phone use. The result of the analysis implied no significant outcome (i.e,  $F= 0.718$ ;  $P > 0.05$ ) among the respondents. This was not significant which indicated that the years of working experience of para-professional librarians in Olabisi Onabanjo University does not influence their smart phone use for library services.

**Table 8: ANOVA TABLE SHOWING WHETHER SIGNIFICANT DIFFERENCE EXIST AMONG PARA-PROFESSIONAL LIBRARIANS' SMART PHONE USE BASED ON WORK DEPARMENTS**

| Work Department                   | N | Mean  | F     | P     | Remarks         |
|-----------------------------------|---|-------|-------|-------|-----------------|
| Collection Development Department | 5 | 68.00 | 0.813 | 0.561 | Not Significant |
| Technical Services Department     | 3 | 61.00 |       |       |                 |
| Readers' Services Department      | 2 | 63.00 |       |       |                 |
| Multimedia Department             | 3 | 62.00 |       |       |                 |
| Faculty Library                   | 5 | 59.00 |       |       |                 |
| Serials Department                | 1 | 60.00 |       |       |                 |

Table 8 presented an analysis of variance showing whether a significant difference exist among the para-professional librarians in terms of use of smart phones for library services based on their work departments in the library. The result of the analysis implied no significant outcome among the para-professionals ( $F= 0.813$ ;  $P > 0.05$ ). This was not significant which indicated that nature/level of smart phone use for library services among para-professional librarians in Olabisi Onabanjo University was not influenced by their work departments and nature of work in the various departments, branches and Campus Libraries of the University Library.

**Table 9: T-TEST SHOWING SIGNIFICANT GENDER DIFFERENCES IN THE LEVEL OF SMART PHONE USE AMONG PARA-PROFESSIONAL LIBRARIANS**

| Gender | N  | Mean  | STD   | T    |       | Remark          |
|--------|----|-------|-------|------|-------|-----------------|
| Male   | 7  | 60.42 | 10.82 | 0.01 | 0.327 | Not Significant |
| Female | 12 | 64.00 | 4.63  |      |       |                 |

Table 9 presented an independent sample t-test whether significant gender difference exist in the level of smart phone use among the para-professional librarians. The result indicated an insignificant outcome ( $t= 0.327$ ;  $P > 0.05$ ) among the respondents which thus indicated no significant gender difference among the para-professional librarians in their usage of smart phones for library services. It can thus be concluded that smart phones use for library services is not sensitive to gender of para-professional librarians in O.O.U. This finding agreed with the finding of Akinbode et al (2016) that there was no significant gender difference in academic librarians' smart phone use for library services.

## 9. Summary of Findings

The data of this study indicated that:

- i. All the respondents owned a smart phone
- ii. Majority of the respondents 17 (89.47%), a large population had over one year of experience in smart phone use and only 2 (10.5%) had less than one year of smart phone use experience.
- iii. Respondents used smart phones greatly for personal or individual endeavors than for embracing and improving library services and routines.
- iv. The years of work experience of respondents does not influence smart phone use for library services.
- v. Work departments of respondents do not influence their smart phone use for library services.
- vi. Gender of respondents does not influence smart phone use for library services.
- vii. An interview with the University Library System Analyst indicated that the University Library is yet to fully deploy telecommunication services that will support library mobile applications, services and initiatives, even though, the use of mobile phones to access the University Library electronic resources and databases has gained much usage and applications in all the Campuses of the University by both staffs and students.

## 10. Conclusion and Recommendations

Mobile phone technology is highly innovative to make students, academic, non-academic, researchers and other members of the university community's life smarter and easier. Smart phone should therefore be taken as the need of the hour to grab and use the innovative advancement of the technology to offer world class, ubiquitous, interactive and multimedia-rich services to the university library user communities. The data of this study indicated that para-professional librarians had personal smart phones and experience in smart phone use but they used their smart phones largely for personal and official ends rather than for embracing services to library users. This might probably be as a result of lack of skills to use the phone and lack of knowledge on benefits and values the phones could bring to them. Efforts needed to be made to train library professionals in the actual use of ICT tools, most especially the hand-held devices to embrace effective and efficient library services. Studies have documented abundant benefits of smart phones to promote satisfying library service. In view of this, academic libraries should work with respective authorities (Internet and telecommunication service providers, ICT personnel and others) in making mobile (phones) applications and services a reality in Nigerian librarianship. Library para-professionals should see themselves working collaboratively and innovatively with academic librarians to chart, implement and sustain pathways for attainment of mobile library applications and services in Nigerian librarianship. In view of this and based on the findings of this study, the researchers hereby recommended that:

- The University Library management should provide good telecommunication facilities, including telephone and GSM phone lines that will enhance and promote mobile library applications and services and use in the various library services/operations and routines. This will promote collaborative, interactive, user-driven, multimedia-rich library services and products as well as ubiquitous services that will promote cordial library staff-user relationship.
- The University Library management should integrate full mobile applications and services and provide more mobile-based library services to attract more users to the library. Each section and Campus Library of the University Library should be equipped with mobile phones (and its applications) for effective deployment of services and functions.
- The University Library management should also provide mobile phones and devices for the use of library staff to enhance library services and routines and should be trained in the proper handling and use of these devices to enhance durability.
- The University Library management should provide training to aid in the effective deployment, use and management of ICT tools, most especially, mobile devices/applications for the library para-professionals for efficient integration of mobile-based applications and devices into mobile-based library services. While planning or deploying training programmes, efforts should be made to involve and train all the officers at the same time. It should not be sectional or gender biased. All the Library para-professionals should be exposed to training programmes at the same time to allow for interaction, collaboration and effective participation since the result of the study indicated that years of working experience, nature of work and gender of officers do not influence smart phone use for library services.
- Training programmes should also be conducted to other members of the university community to aid in the effective deployment, use and management of mobile devices for efficient use library mobile-based applications and services. Similar to this, is training on proper use of mobiles in the library to prevent abuse.

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